Package 'MetaGxOvarian'

June 27, 2024

Type Package

Title Transcriptomic Ovarian Cancer Datasets

Version 1.25.0

Date `` `r Sys.date()` ``

Description A collection of Ovarian Cancer Transcriptomic Datasets that are part of the MetaGxData package compendium.

License Artistic-2.0

Depends Biobase, AnnotationHub, ExperimentHub, SummarizedExperiment, R (>= 3.6.0)

Imports stats, lattice, impute

Suggests testthat, xtable, rmarkdown, knitr, BiocStyle, markdown

Encoding UTF-8

VignetteBuilder knitr

NeedsCompilation no

biocViews ExpressionData, ExperimentHub, CancerData, Homo_sapiens_Data, ArrayExpress, GEO, NCI, MicroarrayData, ExperimentData

LazyData yes

RoxygenNote 7.1.1

git_url https://git.bioconductor.org/packages/MetaGxOvarian

git_branch devel

git_last_commit 2043cd1

git_last_commit_date 2024-04-30

Repository Bioconductor 3.20

Date/Publication 2024-06-27

Author Michael Zon [aut],
Vandana Sandhu [aut],
Christopher Eeles [ctb],
Benjamin Haibe-Kains [aut, cre]

Maintainer Benjamin Haibe-Kains <benjamin.haibe.kains@utoronto.ca>

Contents

---

attention   *days_to_death*

Description

This is a note to inform package users that the days_to_death variable is also valid for living pateints. In this case, the value in days_to_death is the number of days since the last follow-up appointment.

Format

A field included in various data files in the this package.

duplicates	*a list containing the names of patients that are believed to be dulicates across datasets*

Description

The object is a list where each element is a patient ID that is believed to be a duplicate of a patient in another dataset. Patients are designated as duplicated if they have Spearman correlations greater than or equal to 0.98 with other patient expression profiles

Format

A list with 130 elements, each of which is a patient ID.

E.MTAB.386	*Angiogenic mRNA and microRNA gene expression signature predicts a novel subtype of serous ovarian cancer.*

Description

Ovarian cancer is the fifth leading cause of cancer death for women in the U.S. and the seventh most fatal worldwide. Although ovarian cancer is notable for its initial sensitivity to platinum-based therapies, the vast majority of patients eventually develop recurrent cancer and succumb to increasingly platinum-resistant disease. Modern, targeted cancer drugs intervene in cell signaling, and identifying key disease mechanisms and pathways would greatly advance our treatment abilities. In order to shed light on the molecular diversity of ovarian cancer, we performed comprehensive transcriptional profiling on 129 advanced stage, high grade serous ovarian cancers. We implemented a, re-sampling based version of the ISIS class discovery algorithm (rISIS: robust ISIS) and applied it to the entire set of ovarian cancer transcriptional profiles. rISIS identified a previously undescribed patient stratification, further supported by micro-RNA expression profiles, and gene set enrichment analysis found strong biological support for the stratification by extracellular matrix, cell adhesion, and angiogenesis genes. The corresponding "angiogenesis signature" was validated in ten published independent ovarian cancer gene expression datasets and is significantly associated with overall survival. The subtypes we have defined are of potential translational interest as they may be relevant for identifying patients who may benefit from the addition of anti-angiogenic therapies that are now being tested in clinical trials.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Bentink S, Haibe-Kains B, Risch T, Fan J-B, Hirsch MS, Holton
  Laboratory: Bentink, Matulonis 2012
  Contact information:
  Title: Angiogenic mRNA and microRNA gene expression signature predicts a novel su
```

```
  URL:
  PMIDs: 22348002

  Abstract: A 212 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Illumina humanRef-8 v2.0 expression beadchip
   platform_shorttitle:
      Illumina humanRef-8 v2.0
   platform_summary:
      illuminaHumanv2
   platform_manufacturer:
      Illumina
   platform_distribution:
      commercial
   platform_accession:
      GPL6104
   version:
      2015-09-22 19:06:44

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: ILMN_1343291 ILMN_1651228 ... ILMN_1815951 (12449
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 12449 features, 129 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
 129.00   73.00    3.51    2.68    4.13


--------------------------
Available sample meta-data:
--------------------------

unique_patient_ID:
  DFCI.1  DFCI.10 DFCI.100 DFCI.101 DFCI.102 DFCI.103 DFCI.104 DFCI.105
       1       1        1        1        1        1        1        1
DFCI.106 DFCI.107 DFCI.108 DFCI.109  DFCI.11 DFCI.110 DFCI.111 DFCI.112
       1       1        1        1        1        1        1        1
DFCI.113 DFCI.114 DFCI.115 DFCI.116 DFCI.117 DFCI.118 DFCI.119  DFCI.12
```

```
            1          1          1          1          1          1          1          1
 DFCI.120  DFCI.121  DFCI.122  DFCI.123  DFCI.124  DFCI.125  DFCI.126  DFCI.127
            1          1          1          1          1          1          1          1
 DFCI.128  DFCI.129   DFCI.13  DFCI.130  DFCI.131  DFCI.132   DFCI.14   DFCI.15
            1          1          1          1          1          1          1          1
  DFCI.16   DFCI.17   DFCI.18   DFCI.19    DFCI.2   DFCI.20   DFCI.21   DFCI.22
            1          1          1          1          1          1          1          1
  DFCI.23   DFCI.24   DFCI.25   DFCI.26   DFCI.27   DFCI.28   DFCI.29    DFCI.3
            1          1          1          1          1          1          1          1
  DFCI.30   DFCI.31   DFCI.32   DFCI.33   DFCI.34   DFCI.35   DFCI.36   DFCI.37
            1          1          1          1          1          1          1          1
  DFCI.38   DFCI.39    DFCI.4   DFCI.40   DFCI.41   DFCI.42   DFCI.44   DFCI.45
            1          1          1          1          1          1          1          1
  DFCI.46   DFCI.47   DFCI.48   DFCI.49   DFCI.50   DFCI.51   DFCI.52   DFCI.53
            1          1          1          1          1          1          1          1
  DFCI.54   DFCI.55   DFCI.56   DFCI.57   DFCI.58   DFCI.59    DFCI.6   DFCI.60
            1          1          1          1          1          1          1          1
  DFCI.61   DFCI.62   DFCI.63   DFCI.64   DFCI.65   DFCI.66   DFCI.67   DFCI.68
            1          1          1          1          1          1          1          1
  DFCI.69    DFCI.7   DFCI.70   (Other)
            1          1          1         30

sample_type:
tumor
  129

histological_type:
ser
129

primarysite:
 ov
129

summarygrade:
high
 129

summarystage:
early  late
    1   128

tumorstage:
  2   3   4
  1 109  19

substage:
   a    b    c NA's
```

```
     5    12    93    19
```

```
age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  21.00   50.00   66.00   60.71   72.00   95.00
```

```
days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   3.9   516.9   917.1  1007.0  1401.0  2724.0
```

```
vital_status:
deceased   living
     73       56
```

```
debulking:
   optimal suboptimal        NA's
        98          28           3
```

```
uncurated_author_metadata:
```

```
Source.Name: DFCI-100///Ch

    Source.Name: DFCI-

    Source.Name: DFCI-1

  Source.Name: DFCI-103///

 Source.Name: DFCI-104///C

Source.Name: DFCI-105///Ch

 Source.Name: DFCI-106///C

 Source.Name: DFCI-107///C

  Source.Name: DFCI-108///

Source.Name: DFCI-109///Ch

    Source.Name: DFCI-10/

  Source.Name: DFCI-110//

Source.Name: DFCI-111///Ch

  Source.Name: DFCI-112///

  Source.Name: DFCI-113///
```

Source.Name: DFCI-11

Source.Name: DFCI-115///C

Source.Name: DFCI-116///Ch

Source.Name: DFCI-117//

Source.Name: DFCI-118///Characteristics.Age.: Age <has_measurement <Measurement <ha

Source.Name: DFCI-119///

Source.Name: DFCI-11///

Source.Name: DFCI-120///Characteristics.Age.: Age <has_measurement <Measurement

Source.Name: DFCI-121//

Source.Name: DFCI-12

Source.Name: DFCI-123///C

Source.Name: DFCI-124//

Source.Name: DFCI-125/

Source.Name: DFCI-1

Source.Name: DFCI-127///Characteristics.Age.: Age <has_measurement <Measuremer

Source.Name: DFCI-128//

Source.Name: DFCI-129///Characteristics.Age.: Age <has_measurement <Measurement

Source.Name: DFCI-12//

Source.Name: DFCI-130///Characteristics.Age.: Age <has_measurement <Measurement <ha

Source.Name: DFCI-131///Characteristics.Age.: Age <has_measurement <Measureme

Source.Name: DFCI-132///Characteristics.Age.: Age <has_measurement <Measurement <h

Source.Name: DFCI-13//

Source.Name: DFCI-14/

Source.Name: DFCI-

```
                                    Source.Name: DFCI

                        Source.Name: DFCI-17//

                        Source.Name: DFCI-18//

                        Source.Name: DFCI-19//

                              Source.Name: DF

                        Source.Name: DFCI-20//

                              Source.Name: DFCI-

        Source.Name: DFCI-22///Characteristics.Age.: Age <has_measurement <Measurement

                              Source.Name: DFCI-23///

                        Source.Name: DFCI-24///Ch

                        Source.Name: DFCI-25///

                              Source.Name: DFCI-26

                        Source.Name: DFCI-27//

                              Source.Name: DFCI-2

                        Source.Name: DFCI-29//

                              Source.Name: DFCI-2

                              Source.Name: DFCI-30

                        Source.Name: DFCI-31//

                              Source.Name: DFCI-32

                        Source.Name: DFCI-33/

                        Source.Name: DFCI-34/

                        Source.Name: DFCI-35//

                              Source.Name: DFCI-

                        Source.Name: DFCI-37//
```

Source.Name: DFCI-38///

Source.Name: DFCI-39///

Source.Name: DFCI-

Source.Name: DFCI-40//

Source.Name: DFCI-41/

Source.Name: DFCI-42/

Source.Name: DFCI-44/

Source.Name: DFCI-

Source.Name: DFCI-46//

Source.Name: DFCI-47/

Source.Name: DFCI-

Source.Name: DFCI-49

Source.Name: DFCI-

Source.Name: DFCI-50/

Source.Name: DFCI-51///

Source.Name: DFCI-52//

Source.Name: DFCI-53///

Source.Name: DFCI-54///

Source.Name: DFCI-55/

Source.Name: DFCI-56///

Source.Name: DFCI-57//

Source.Name: DFCI-58/

Source.Name: DFCI-59

Source.Name: DFCI-60

```
                                                                  Source.Name: DFCI-6

               Source.Name: DFCI-62///Characteristics.Age.: Age <has_measurement <Measuremen

                                                                  Source.Name: DFCI-6

                                                           Source.Name: DFCI-64

                                                    Source.Name: DFCI-65///

                                                            Source.Name: DFCI-6

                                                            Source.Name: DFCI-

                                                      Source.Name: DFCI-68//

                                                      Source.Name: DFCI-69//

                                                               Source.Name: DFC

                                                Source.Name: DFCI-70/

                                                        Source.Name: DFCI-71
```

Value

An expression set

GSE12418   *Expression analysis of stage III serous ovarian adenocarcinoma dis-*
                                tinguishes a sub-group of survivors.

Description

It is difficult to predict the clinical outcome for patients with ovarian cancer. However, the use
of biomarkers as additional prognostic factors may improve the outcome for these patients. In or-
der to find novel candidate biomarkers, differences in gene expressions were analysed in 54 stage
III serous ovarian adenocarcinomas with oligonucleotide microarrays containing 27,000 unique
probes. The microarray data was verified with quantitative real-time polymerase chain reaction for
the genes TACC1, MUC5B and PRAME. Using hierarchical cluster analysis we detected a sub-
group that included 60% of the survivors. The gene expressions in tumours from patients in this
sub-group of survivors were compared with the remaining tumours, and 204 genes were found to

be differently expressed. We conclude that the sub-group of survivors might represent patients with favourable tumour biology and sensitivity to treatment. A selection of the 204 genes might be used as a predictive model to distinguish patients within and outside of this group. Alternative chemotherapy strategies could then be offered as first-line treatment, which may lead to improvements in the clinical outcome for these patients.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Partheen K, Levan K, Osterberg L, Horvath G.Expression analysi
  Laboratory: Partheen, Horvath 2006
  Contact information:
  Title: Expression analysis of stage III serous ovarian adenocarcinoma distinguish
  URL:
  PMIDs: 16996261

  Abstract: A 177 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      SWEGENE H_v2.1.1_27k
   platform_shorttitle:
      SWEGENE H_v2.1.1_27k
   platform_summary:
      PartheenMetaData
   platform_manufacturer:
      other
   platform_distribution:
      non-commercial
   platform_accession:
      GPL5886
   version:
      2015-09-22 19:07:14

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 28 29 ... 29999 (11304 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 11304 features, 54 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------
```

```
alt_sample_name:
1035LA0   1047LB  1059LB0   1177DB 1178LB0   1180DB 1186DB0    123DC 1242LC0  1274LC
      1        1        1        1        1        1        1        1        1        1
   134LC   1426LB   1487DB   1528DC   1538DC   1567DB   1568DC 1574LC0    164DC  1658DC
      1        1        1        1        1        1        1        1        1        1
  1760LB   1805DB    193DC    198DC    202DC    211DC     26DC    272DC    405LB    436DC
      1        1        1        1        1        1        1        1        1        1
   452DC    454LC    45LA0    462DB    46LB0     47DC    480DC0    489DC    505DB    541DC
      1        1        1        1        1        1        1        1        1        1
   559DC    563LA    626DC    662DC    719DC   742LC0    755LC    759DC     76DC    789DC
      1        1        1        1        1        1        1        1        1        1
    83LC   918DB0   988LC0    99LC0
      1        1        1        1

sample_type:
tumor
   54

histological_type:
ser
 54

primarysite:
ov
54

summarystage:
late
   54

tumorstage:
 3
54

substage:
 b   c
19  35

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  35.00   51.25   59.50   59.56   69.75   84.00

pltx:
 y
54

os_binary:
```

```
 long short
   20    34
```

debulking:
```
   optimal suboptimal
        13         41
```

uncurated_author_metadata:
title: 1035LA0///geo_accession: GSM311973///status: Public on Aug 12 2008///submiss

    title: 1047LB///geo_accession: GSM311974///status: Public on Aug 12 2008///subm

title: 1059LB0///geo_accession: GSM311975///status: Public on Aug 12 2008///submiss

       title: 1177DB///geo_accession: GSM311976///status: Public on Aug 12 2008

title: 1178LB0///geo_accession: GSM311977///status: Public on Aug 12 2008///submiss

       title: 1180DB///geo_accession: GSM311978///status: Public on Aug 12 2008

     title: 1186DB0///geo_accession: GSM311979///status: Public on Aug 12 2008///

        title: 123DC///geo_accession: GSM311945///status: Public on Aug 12 200

 title: 1242LC0///geo_accession: GSM311980///status: Public on Aug 12 2008///submis

    title: 1274LC///geo_accession: GSM311981///status: Public on Aug 12 2008///sub

     title: 134LC///geo_accession: GSM311946///status: Public on Aug 12 2008///sub

   title: 1426LB///geo_accession: GSM311982///status: Public on Aug 12 2008///subm

       title: 1487DB///geo_accession: GSM311983///status: Public on Aug 12 2008

       title: 1528DC///geo_accession: GSM311984///status: Public on Aug 12 200

       title: 1538DC///geo_accession: GSM311985///status: Public on Aug 12 200

       title: 1567DB///geo_accession: GSM311986///status: Public on Aug 12 2008

       title: 1568DC///geo_accession: GSM311987///status: Public on Aug 12 200

 title: 1574LC0///geo_accession: GSM311988///status: Public on Aug 12 2008///submis

        title: 164DC///geo_accession: GSM311947///status: Public on Aug 12 200

       title: 1658DC///geo_accession: GSM311989///status: Public on Aug 12 200

title: 1760LB///geo_accession: GSM311990///status: Public on Aug 12 2008///subm

title: 1805DB///geo_accession: GSM311991///status: Public on Aug 12 2008

title: 193DC///geo_accession: GSM311948///status: Public on Aug 12 200

title: 198DC///geo_accession: GSM311949///status: Public on Aug 12 200

title: 202DC///geo_accession: GSM311950///status: Public on Aug 12 200

title: 211DC///geo_accession: GSM311951///status: Public on Aug 12 200

title: 26DC///geo_accession: GSM311938///status: Public on Aug 12 200

title: 272DC///geo_accession: GSM311952///status: Public on Aug 12 200

title: 405LB///geo_accession: GSM311953///status: Public on Aug 12 2008///subm

title: 436DC///geo_accession: GSM311954///status: Public on Aug 12 200

title: 452DC///geo_accession: GSM311955///status: Public on Aug 12 200

title: 454LC///geo_accession: GSM311956///status: Public on Aug 12 2008///sub

title: 45LA0///geo_accession: GSM311939///status: Public on Aug 12 2008///submiss

title: 462DB///geo_accession: GSM311957///status: Public on Aug 12 2008

title: 46LB0///geo_accession: GSM311940///status: Public on Aug 12 2008///submiss

title: 47DC///geo_accession: GSM311941///status: Public on Aug 12 200

title: 480DC0///geo_accession: GSM311958///status: Public on Aug 12 2008//

title: 489DC///geo_accession: GSM311959///status: Public on Aug 12 200

title: 505DB///geo_accession: GSM311960///status: Public on Aug 12 2008

title: 541DC///geo_accession: GSM311961///status: Public on Aug 12 200

title: 559DC///geo_accession: GSM311962///status: Public on Aug 12 200

title: 563LA///geo_accession: GSM311963///status: Public on Aug 12 2008///subm

title: 626DC///geo_accession: GSM311964///status: Public on Aug 12 200

title: 662DC///geo_accession: GSM311965///status: Public on Aug 12 200

title: 719DC///geo_accession: GSM311966///status: Public on Aug 12 200

title: 742LC0///geo_accession: GSM311967///status: Public on Aug 12 2008///submis

title: 755LC///geo_accession: GSM311968///status: Public on Aug 12 2008///sub

title: 759DC///geo_accession: GSM311969///status: Public on Aug 12 200

title: 76DC///geo_accession: GSM311942///status: Public on Aug 12 200

title: 789DC///geo_accession: GSM311970///status: Public on Aug 12 200

title: 83LC///geo_accession: GSM311943///status: Public on Aug 12 2008///sub

title: 918DB0///geo_accession: GSM311971///status: Public on Aug 12 2008///

title: 988LC0///geo_accession: GSM311972///status: Public on Aug 12 2008///submis

title: 99LC0///geo_accession: GSM311944///status: Public on Aug 12 2008///submis

Value

An expression set

GSE12470   *Gene expression profiling of advanced-stage serous ovarian cancers distinguishes novel subclasses and implicates ZEB2 in tumor progression and prognosis.*

Description

To elucidate the mechanisms of rapid progression of serous ovarian cancer, gene expression profiles from 43 ovarian cancer tissues comprising eight early stage and 35 advanced stage tissues were carried out using oligonucleotide microarrays of 18,716 genes. By non-negative matrix factorization analysis using 178 genes, which were extracted as stage-specific genes, 35 advanced stage cases were classified into two subclasses with superior (n = 17) and poor (n = 18) outcome evaluated by progression-free survival (log rank test, P = 0.03). Of the 178 stage-specific genes, 112 genes were identified as showing different expression between the two subclasses. Of the 48 genes selected for biological function by gene ontology analysis or Ingenuity Pathway Analysis, five genes (ZEB2, CDH1, LTBP2, COL16A1, and ACTA2) were extracted as candidates for prognostic factors associated with progression-free survival. The relationship between high ZEB2 or low CDH1 expression and shorter progression-free survival was validated by real-time RT-PCR experiments of 37 independent advanced stage cancer samples. ZEB2 expression was negatively correlated with CDH1 expression in advanced stage samples, whereas ZEB2 knockdown in ovarian adenocarcinoma SKOV3 cells resulted in an increase in CDH1 expression. Multivariate analysis showed that

high ZEB2 expression was independently associated with poor prognosis. Furthermore, the prognostic effect of E-cadherin encoded by CDH1 was verified using immunohistochemical analysis of an independent advanced stage cancer samples set (n = 74). These findings suggest that the expression of epithelial-mesenchymal transition-related genes such as ZEB2 and CDH1 may play important roles in the invasion process of advanced stage serous ovarian cancer.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Yoshihara K, Tajima A, Komata D, Yamamoto T, Kodama S, Fujiwar
  Laboratory: Yoshihara, Tanaka 2009
  Contact information:
  Title: Gene expression profiling of advanced-stage serous ovarian cancers disting
  URL:
  PMIDs: 19486012

  Abstract: A 253 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Agilent-012097 Human 1A Microarray (V2) G4110B (Feature Number version)
   platform_shorttitle:
      Agilent G4110B
   platform_summary:
      hgug4110b
   platform_manufacturer:
      Agilent
   platform_distribution:
      commercial
   platform_accession:
      GPL887
   version:
      2015-09-22 19:08:17

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 3 5 ... 22571 (15999 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 15999 features, 53 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------
```

```
alt_sample_name:
Advanced serous ovarian cancer 10 Advanced serous ovarian cancer 11
                                1                                1
Advanced serous ovarian cancer 15 Advanced serous ovarian cancer 17
                                1                                1
Advanced serous ovarian cancer 18  Advanced serous ovarian cancer 2
                                1                                1
Advanced serous ovarian cancer 20 Advanced serous ovarian cancer 23
                                1                                1
Advanced serous ovarian cancer 24 Advanced serous ovarian cancer 25
                                1                                1
Advanced serous ovarian cancer 27 Advanced serous ovarian cancer 36
                                1                                1
Advanced serous ovarian cancer 37 Advanced serous ovarian cancer 38
                                1                                1
Advanced serous ovarian cancer 39 Advanced serous ovarian cancer 42
                                1                                1
Advanced serous ovarian cancer 43 Advanced serous ovarian cancer 45
                                1                                1
Advanced serous ovarian cancer 46 Advanced serous ovarian cancer 49
                                1                                1
Advanced serous ovarian cancer 50 Advanced serous ovarian cancer 51
                                1                                1
Advanced serous ovarian cancer 52 Advanced serous ovarian cancer 53
                                1                                1
Advanced serous ovarian cancer 54 Advanced serous ovarian cancer 55
                                1                                1
Advanced serous ovarian cancer 56 Advanced serous ovarian cancer 57
                                1                                1
Advanced serous ovarian cancer 58  Advanced serous ovarian cancer 6
                                1                                1
Advanced serous ovarian cancer 60 Advanced serous ovarian cancer 61
                                1                                1
Advanced serous ovarian cancer 62 Advanced serous ovarian cancer 64
                                1                                1
 Advanced serous ovarian cancer 7     Early serous ovarian cancer 28
                                1                                1
    Early serous ovarian cancer 32     Early serous ovarian cancer 33
                                1                                1
    Early serous ovarian cancer 35      Early serous ovarian cancer 5
                                1                                1
    Early serous ovarian cancer 65      Early serous ovarian cancer 8
                                1                                1
     Early serous ovarian cancer 9              Peritoneum normal 12
                                1                                1
             Peritoneum normal 15              Peritoneum normal 16
                                1                                1
```

```
              Peritoneum normal 18              Peritoneum normal 21
                              1                                 1
              Peritoneum normal 23               Peritoneum normal 3
                              1                                 1
              Peritoneum normal 30               Peritoneum normal 4
                              1                                 1
               Peritoneum normal 7
                              1
```

```
sample_type:
healthy    tumor
     10       43
```

```
histological_type:
 ser NA's
  43    10
```

```
primarysite:
ov
53
```

```
summarystage:
early   late   NA's
    8     35     10
```

```
tumorstage:
   1 NA's
   8    45
```

```
uncurated_author_metadata:
  title: Advanced serous ovarian cancer 10///geo_accession: GSM312155///status: Pub
  
  title: Advanced serous ovarian cancer 11///geo_accession: GSM312141///status: Pub
  
  title: Advanced serous ovarian cancer 15///geo_accession: GSM312156///status: Pub
  
  title: Advanced serous ovarian cancer 17///geo_accession: GSM312142///status: Pub
  
  title: Advanced serous ovarian cancer 18///geo_accession: GSM312143///status: Pub
  
  title: Advanced serous ovarian cancer 20///geo_accession: GSM312144///status: Pub
  
  title: Advanced serous ovarian cancer 23///geo_accession: GSM312157///status: Pub
  
  title: Advanced serous ovarian cancer 24///geo_accession: GSM312145///status: Pub
  
  title: Advanced serous ovarian cancer 25///geo_accession: GSM312146///status: Pub
```

```
title: Advanced serous ovarian cancer 27///geo_accession: GSM312158///status: Pub
          title: Advanced serous ovarian cancer 2///geo_accession: GSM312138///st
   title: Advanced serous ovarian cancer 36///geo_accession: GSM312147///status: Pub
   title: Advanced serous ovarian cancer 37///geo_accession: GSM312148///status: Pub
   title: Advanced serous ovarian cancer 38///geo_accession: GSM312149///status: Pub
   title: Advanced serous ovarian cancer 39///geo_accession: GSM312159///status: Pub
   title: Advanced serous ovarian cancer 42///geo_accession: GSM312160///status: Pub
   title: Advanced serous ovarian cancer 43///geo_accession: GSM312150///status: Pub
   title: Advanced serous ovarian cancer 45///geo_accession: GSM312161///status: Pub
   title: Advanced serous ovarian cancer 46///geo_accession: GSM312162///status: Pub
   title: Advanced serous ovarian cancer 49///geo_accession: GSM312151///status: Pub
   title: Advanced serous ovarian cancer 50///geo_accession: GSM312163///status: Pub
   title: Advanced serous ovarian cancer 51///geo_accession: GSM312165///status: Pub
   title: Advanced serous ovarian cancer 52///geo_accession: GSM312167///status: Pub
   title: Advanced serous ovarian cancer 53///geo_accession: GSM312168///status: Pub
   title: Advanced serous ovarian cancer 54///geo_accession: GSM312152///status: Pub
 title: Advanced serous ovarian cancer 55///geo_accession: GSM312170///status: Publi
   title: Advanced serous ovarian cancer 56///geo_accession: GSM312171///status: Pub
   title: Advanced serous ovarian cancer 57///geo_accession: GSM312153///status: Pub
   title: Advanced serous ovarian cancer 58///geo_accession: GSM312172///status: Pub
   title: Advanced serous ovarian cancer 60///geo_accession: GSM312173///status: Pub
   title: Advanced serous ovarian cancer 61///geo_accession: GSM312154///status: Pub
   title: Advanced serous ovarian cancer 62///geo_accession: GSM312174///status: Pub
   title: Advanced serous ovarian cancer 64///geo_accession: GSM312175///status: Pub
```

```
        title: Advanced serous ovarian cancer 6///geo_accession: GSM312139///status: F

        title: Advanced serous ovarian cancer 7///geo_accession: GSM312140///status: F

          title: Early serous ovarian cancer 28///geo_accession: GSM312180///status:

          title: Early serous ovarian cancer 32///geo_accession: GSM312181///status:

          title: Early serous ovarian cancer 33///geo_accession: GSM312182///status:

          title: Early serous ovarian cancer 35///geo_accession: GSM312183///status:

            title: Early serous ovarian cancer 5///geo_accession: GSM312176///status

          title: Early serous ovarian cancer 65///geo_accession: GSM312185///status:

            title: Early serous ovarian cancer 8///geo_accession: GSM312178///status

            title: Early serous ovarian cancer 9///geo_accession: GSM312179///status

                                    title: Peritoneum normal 12///geo_accessic

                                    title: Peritoneum normal 15///geo_accessic

                                    title: Peritoneum normal 16///geo_accessic

                                    title: Peritoneum normal 18///geo_accessic

                                    title: Peritoneum normal 21///geo_accessic

                                  title: Peritoneum normal 23///geo_accession:

                                    title: Peritoneum normal 30///geo_accessic

                                      title: Peritoneum normal 3///geo_access

                                      title: Peritoneum normal 4///geo_access

                                      title: Peritoneum normal 7///geo_access


    duplicates:
    GSE12470.GSE12470_GSM312135 GSE12470.GSE12470_GSM312136
                              1                           1
    GSE12470.GSE12470_GSM312145 GSE12470.GSE12470_GSM312146
                              1                           1
                            NA's
                             49
```

Value

An expression set

GSE13876   *Survival-related profile, pathways, and transcription factors in ovar-*
                            ian cancer.

Description

Ovarian cancer has a poor prognosis due to advanced stage at presentation and either intrinsic or acquired resistance to classic cytotoxic drugs such as platinum and taxoids. Recent large clinical trials with different combinations and sequences of classic cytotoxic drugs indicate that further significant improvement in prognosis by this type of drugs is not to be expected. Currently a large number of drugs, targeting dysregulated molecular pathways in cancer cells have been developed and are introduced in the clinic. A major challenge is to identify those patients who will benefit from drugs targeting these specific dysregulated pathways.The aims of our study were (1) to develop a gene expression profile associated with overall survival in advanced stage serous ovarian cancer, (2) to assess the association of pathways and transcription factors with overall survival, and (3) to validate our identified profile and pathways/transcription factors in an independent set of ovarian cancers.According to a randomized design, profiling of 157 advanced stage serous ovarian cancers was performed in duplicate using approximately 35,000 70-mer oligonucleotide microarrays. A continuous predictor of overall survival was built taking into account well-known issues in microarray analysis, such as multiple testing and overfitting. A functional class scoring analysis was utilized to assess pathways/transcription factors for their association with overall survival. The prognostic value of genes that constitute our overall survival profile was validated on a fully independent, publicly available dataset of 118 well-defined primary serous ovarian cancers. Furthermore, functional class scoring analysis was also performed on this independent dataset to assess the similarities with results from our own dataset. An 86-gene overall survival profile discriminated between patients with unfavorable and favorable prognosis (median survival, 19 versus 41 mo, respectively; permutation p-value of log-rank statistic = 0.015) and maintained its independent prognostic value in multivariate analysis. Genes that composed the overall survival profile were also able to discriminate between the two risk groups in the independent dataset. In our dataset 17/167 pathways and 13/111 transcription factors were associated with overall survival, of which 16 and 12, respectively, were confirmed in the independent dataset.Our study provides new clues to genes, pathways, and transcription factors that contribute to the clinical outcome of serous ovarian cancer and might be exploited in designing new treatment strategies.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Crijns AP, Fehrmann RS, de Jong S, Gerbens F, Meersma GJ, Klip
  Laboratory: Crijns, van der Zee 2009
  Contact information:
```

```
   Title: Survival-related profile, pathways, and transcription factors in ovarian c
   URL:
   PMIDs: 19192944

   Abstract: A 371 word abstract is available. Use 'abstract' method.
   Information is available on: preprocessing
   notes:
    platform_title:
       Operon human v3 ~35K 70-mer two-color oligonucleotide microarrays
    platform_shorttitle:
       Operon v3 two-color
    platform_summary:
       OperonHumanV3
    platform_manufacturer:
       other
    platform_distribution:
       non-commercial
    platform_accession:
       GPL7759
    version:
       2015-09-22 19:11:43

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1 2 ... 37629 (20939 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20939 features, 157 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
 157.00  113.00    2.05    1.56    2.71


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
 151 NA's
   1  156

unique_patient_ID:
   Min. 1st Qu.  Median   Mean 3rd Qu.   Max.
```

```
          1        40        79        79       118       157
```

```
sample_type:
tumor
  157

histological_type:
ser
157

primarysite:
 ov
157

summarygrade:
high   low NA's
  85    59   13

summarystage:
late
 157

grade:
   1     2     3     4 NA's
  14    45    82     3    13

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
 21.00   50.00   60.00   57.95   67.00   84.00

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     30     360     630    1100    1470    7020

vital_status:
deceased   living
     113       44

uncurated_author_metadata:
```

```
      title: Ovarian tumor sample 105 / Ovarian tumor sample 106///geo_accession:
```

```
      title: Ovarian tumor sample 10 / Ovarian tumor sample 11///geo_accession:
```

title: Ovarian tumor sample 111 / Ovarian tumor sample 112///geo_accession:

title: Ovarian tumor sample 115 / Ovarian tumor sample 117///geo_accession:

title: Ovarian tumor sample 126 / Ovarian tumor sample 127///geo_accession:

title: Ovarian tumor sample 13 / Ovarian tumor sample 14///geo_accession:

title: Ovarian tumor sample 165 / Ovarian tumor sample 166///geo_accession:

title: Ovarian tumor sample 193 / Ovarian tumor sample 194///geo_accession:

title: Ovarian tumor sample 230 / Ovarian tumor sample 231///geo_accession:

title: Ovarian tumor sample 237 / Ovarian tumor sample 238///geo_accession:

title: Ovarian tumor sample 250 / Ovarian tumor sample 251///geo_accession: GSM4058

title: Ovarian tumor sample 258 / Ovarian tumor sample 259///geo_accession:

title: Ovarian tumor sample 273 / Ovarian tumor sample 274///geo_accession: G
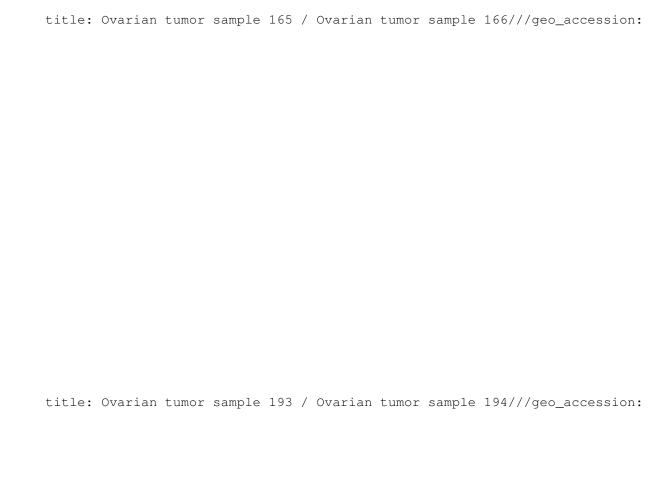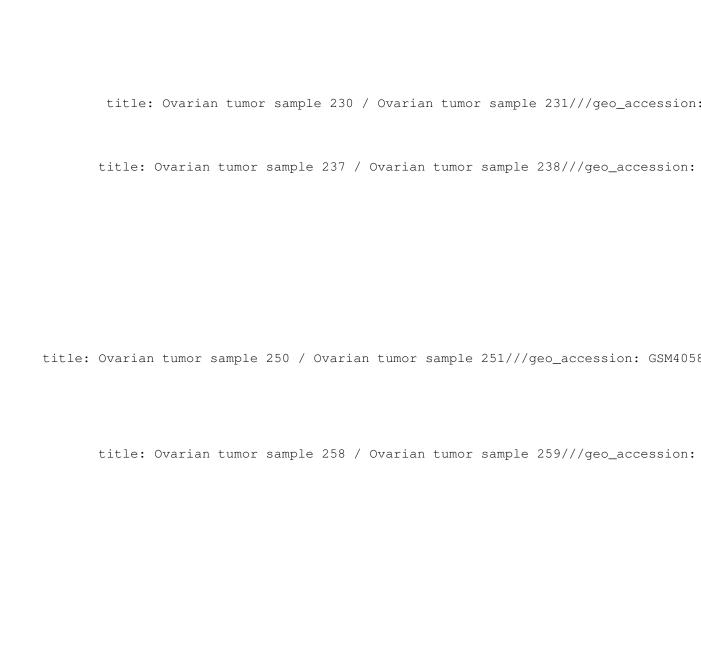
title: Ovarian tumor sample 284 / Ovarian tumor sample 285///geo_accession: G

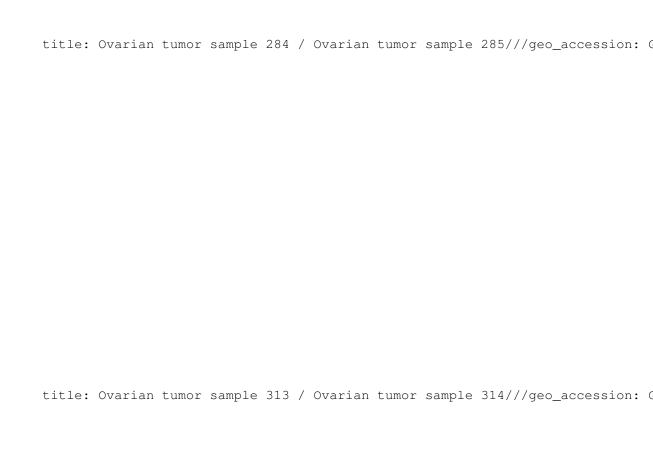title: Ovarian tumor sample 313 / Ovarian tumor sample 314///geo_accession: G

Value

An expression set

GSE14764   *A prognostic gene expression index in ovarian cancer - validation*
                              across different independent data sets.

Description

Ovarian carcinoma has the highest mortality rate among gynaecological malignancies. In this
project, we investigated the hypothesis that molecular markers are able to predict outcome of ovar-
ian cancer independently of classical clinical predictors, and that these molecular markers can be
validated using independent data sets. We applied a semi-supervised method for prediction of pa-
tient survival. Microarrays from a cohort of 80 ovarian carcinomas (TOC cohort) were used for
the development of a predictive model, which was then evaluated in an entirely independent cohort
of 118 carcinomas (Duke cohort). A 300-gene ovarian prognostic index (OPI) was generated and
validated in a leave-one-out approach in the TOC cohort (Kaplan-Meier analysis, p = 0.0087). In a
second validation step, the prognostic power of the OPI was confirmed in an independent data set
(Duke cohort, p = 0.0063). In multivariate analysis, the OPI was independent of the post-operative
residual tumour, the main clinico-pathological prognostic parameter with an adjusted hazard ratio
of 6.4 (TOC cohort, CI 1.8-23.5, p = 0.0049) and 1.9 (Duke cohort, CI 1.2-3.0, p = 0.0068). We con-
structed a combined score of molecular data (OPI) and clinical parameters (residual tumour), which
was able to define patient groups with highly significant differences in survival. The integrated
analysis of gene expression data as well as residual tumour can be used for optimized assessment of
the prognosis of platinum-taxol-treated ovarian cancer. As traditional treatment options are limited,
this analysis may be able to optimize clinical management and to identify those patients who would
be candidates for new therapeutic strategies.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Denkert C, Budczies J, Darb-Esfahani S, Gy??rffy B et al. A pr
  Laboratory: Denkert, Lage 2009
  Contact information:
  Title: A prognostic gene expression index in ovarian cancer - validation across d
  URL:
  PMIDs: 19294737

  Abstract: A 254 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
```

```
    platform_summary:
       hgu133a
    platform_manufacturer:
       Affymetrix
    platform_distribution:
       commercial
    platform_accession:
       GPL96
    version:
       2015-09-22 19:13:08

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 80 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events  median 0.95LCL 0.95UCL
  80.00   21.00    4.52    4.19      NA


-------------------------
Available sample meta-data:
-------------------------

alt_sample_name:
   Min. 1st Qu.  Median   Mean 3rd Qu.    Max.
   1.00   20.75   40.50   40.50   60.25   80.00

sample_type:
tumor
   80

histological_type:
      clearcell              endo            mix           other
            2                 6              1               2
          ser undifferentiated
           68                 1

primarysite:
ov
```

```
80

summarygrade:
high  low
  54   26

summarystage:
early  late
    9    71

tumorstage:
 1  2  3  4
 8  1 69  2

substage:
   a    b    c NA's
   4    6   32   38

grade:
 1  2  3
 3 23 54

recurrence_status:
norecurrence    recurrence           NA's
          50            26              4

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    210     660    1050    1011    1328    2190

vital_status:
deceased   living
      21       59

batch:
2004-09-29 2004-09-30 2004-10-01 2005-01-21 2005-01-25 2005-01-26 2005-01-28
         1          2          6          4          7          8         10
2005-03-02 2006-07-26 2006-07-27 2006-07-28 2006-08-11 2006-08-18 2006-08-19
         6          4          6          4         10          3          4
2006-08-21
         5

uncurated_author_metadata:
            title: ovarian cancer: O10///geo_accession: GSM368670///status: Publi

            title: ovarian cancer: O11///geo_accession: GSM368671///status: Publi

          title: ovarian cancer: O12///geo_accession: GSM368672///status: Public
```

title: ovarian cancer: O13///geo_accession: GSM368673///status: Publi

title: ovarian cancer: O14///geo_accession: GSM368674///status: Publ

title: ovarian cancer: O15///geo_accession: GSM368675///status: Public

title: ovarian cancer: O16///geo_accession: GSM368676///status: Public o

title: ovarian cancer: O17///geo_accession: GSM368677///status: Publi

title: ovarian cancer: O18///geo_accession: GSM368678///status: Publi

title: ovarian cancer: O19///geo_accession: GSM368679///status: Publi

title: ovarian cancer: O1///geo_accession: GSM368661///status: Publ

title: ovarian cancer: O20///geo_accession: GSM368680///status: Publ

title: ovarian cancer: O21///geo_accession: GSM368681///status: Publi

title: ovarian cancer: O22///geo_accession: GSM368682///status: Publi

title: ovarian cancer: O23///geo_accession: GSM368683///status: Publi

title: ovarian cancer: O24///geo_accession: GSM368684///status: Public or

title: ovarian cancer: O25///geo_accession: GSM368685///status: Publi

title: ovarian cancer: O26///geo_accession: GSM368686///status: Public on Feb 09 20

title: ovarian cancer: O27///geo_accession: GSM368687///status: Public

title: ovarian cancer: O28///geo_accession: GSM368688///status: Public

title: ovarian cancer: O29///geo_accession: GSM368689///status: Public

title: ovarian cancer: O2///geo_accession: GSM368662///status: Publi

title: ovarian cancer: O30///geo_accession: GSM368690///status: Publi

title: ovarian cancer: O31///geo_accession: GSM368691///status: Publi

title: ovarian cancer: O32///geo_accession: GSM368692///status: Publi

title: ovarian cancer: O33///geo_accession: GSM368693///status: Publ

title: ovarian cancer: O34///geo_accession: GSM368694///status: Publi

title: ovarian cancer: O35///geo_accession: GSM368695///status: Publi

title: ovarian cancer: O36///geo_accession: GSM368696///status: Publ

title: ovarian cancer: O37///geo_accession: GSM368697///status: Publ

title: ovarian cancer: O38///geo_accession: GSM368698///status: Public

title: ovarian cancer: O39///geo_accession: GSM368699///status: Publi

title: ovarian cancer: O3///geo_accession: GSM368663///status: Public on Feb

title: ovarian cancer: O40///geo_accession: GSM368700///status: Publi

title: ovarian cancer: O41///geo_accession: GSM368701///status: Publ

title: ovarian cancer: O42///geo_accession: GSM368702///status: Public

title: ovarian cancer: O43///geo_accession: GSM368703///status: Publi

title: ovarian cancer: O44///geo_accession: GSM368704///status: Publ

title: ovarian cancer: O45///geo_accession: GSM368705///status: Pub

title: ovarian cancer: O46///geo_accession: GSM368706///status: Pu

title: ovarian cancer: O47///geo_accession: GSM368707///status: Publ

title: ovarian cancer: O48///geo_accession: GSM368708///status: Pu

title: ovarian cancer: O49///geo_accession: GSM368709///status: Publ

title: ovarian cancer: O4///geo_accession: GSM368664///status: Publi

title: ovarian cancer: O50///geo_accession: GSM368710///status: Publ

title: ovarian cancer: O51///geo_accession: GSM368711///status: Pub

title: ovarian cancer: O52///geo_accession: GSM368712///status: Publi

title: ovarian cancer: O53///geo_accession: GSM368713///status: Pub

title: ovarian cancer: O54///geo_accession: GSM368714///status: Publ

title: ovarian cancer: O55///geo_accession: GSM368715///status: Publ

title: ovarian cancer: O56///geo_accession: GSM368716///status: Pub

title: ovarian cancer: O57///geo_accession: GSM368717///status: Pub

title: ovarian cancer: O58///geo_accession: GSM368718///status: Publ

title: ovarian cancer: O59///geo_accession: GSM368719///status: Pub

title: ovarian cancer: O5///geo_accession: GSM368665///status: Publi

title: ovarian cancer: O60///geo_accession: GSM368720///status: Publ

title: ovarian cancer: O61///geo_accession: GSM368721///status: Publ

title: ovarian cancer: O62///geo_accession: GSM368722///status: Publ

title: ovarian cancer: O63///geo_accession: GSM368723///status: Publ

title: ovarian cancer: O64///geo_accession: GSM368724///status: Publ

title: ovarian cancer: O65///geo_accession: GSM368725///status: Publ

title: ovarian cancer: O66///geo_accession: GSM368726///status: Pub

title: ovarian cancer: O67///geo_accession: GSM368727///status: Pub

title: ovarian cancer: O68///geo_accession: GSM368728///status: Publ

title: ovarian cancer: O69///geo_accession: GSM368729///status: Pub

title: ovarian cancer: O6///geo_accession: GSM368666///status: Publ

title: ovarian cancer: O70///geo_accession: GSM368730///status: Pub

title: ovarian cancer: O71///geo_accession: GSM368731///status: Pub

title: ovarian cancer: O72///geo_accession: GSM368732///status: Publ

title: ovarian cancer: O73///geo_accession: GSM368733///status: Public on Feb

title: ovarian cancer: O74///geo_accession: GSM368734///status: Publ

title: ovarian cancer: O75///geo_accession: GSM368735///status: Pub

title: ovarian cancer: O76///geo_accession: GSM368736///status: Publ

title: ovarian cancer: O77///geo_accession: GSM368737///status: Publ

title: ovarian cancer: O78///geo_accession: GSM368738///status: Pub

```
              title: ovarian cancer: O79///geo_accession: GSM368739///status: Pub

            title: ovarian cancer: O7///geo_accession: GSM368667///status: Publi

             title: ovarian cancer: O80///geo_accession: GSM368740///status: Pub

            title: ovarian cancer: O8///geo_accession: GSM368668///status: Publi

            title: ovarian cancer: O9///geo_accession: GSM368669///status: Publi


   duplicates:
   GSE14764.GSE14764_GSM368667 GSE14764.GSE14764_GSM368668
                            1                            1
                       NA's
                         78
```

Value

An expression set

GSE17260   *Gene expression profile for predicting survival in advanced-stage*
                            serous ovarian cancer across two independent datasets.

Description

Advanced-stage ovarian cancer patients are generally treated with platinum/taxane-based chemother-
apy after primary debulking surgery. However, there is a wide range of outcomes for individual
patients. Therefore, the clinicopathological factors alone are insufficient for predicting prognosis.
Our aim is to identify a progression-free survival (PFS)-related molecular profile for predicting
survival of patients with advanced-stage serous ovarian cancer.Advanced-stage serous ovarian can-
cer tissues from 110 Japanese patients who underwent primary surgery and platinum/taxane-based
chemotherapy were profiled using oligonucleotide microarrays. We selected 88 PFS-related genes
by a univariate Cox model (p<0.01) and generated the prognostic index based on 88 PFS-related
genes after adjustment of regression coefficients of the respective genes by ridge regression Cox
model using 10-fold cross-validation. The prognostic index was independently associated with PFS
time compared to other clinical factors in multivariate analysis [hazard ratio (HR), 3.72; 95% con-
fidence interval (CI), 2.66-5.43; p<0.0001]. In an external dataset, multivariate analysis revealed
that this prognostic index was significantly correlated with PFS time (HR, 1.54; 95% CI, 1.20-1.98;
p = 0.0008). Furthermore, the correlation between the prognostic index and overall survival time
was confirmed in the two independent external datasets (log rank test, p = 0.0010 and 0.0008).The
prognostic ability of our index based on the 88-gene expression profile in ridge regression Cox
hazard model was shown to be independent of other clinical factors in predicting cancer prognosis
across two distinct datasets. Further study will be necessary to improve predictive accuracy of the

prognostic index toward clinical application for evaluation of the risk of recurrence in patients with advanced-stage serous ovarian cancer.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Yoshihara K, Tajima A, Yahata T, Kodama S, Fujiwara H, Suzuki
  Laboratory: Yoshihara, Tanaka 2010
  Contact information:
  Title: Gene expression profile for predicting survival in advanced-stage serous o
  URL:
  PMIDs: 20300634

  Abstract: A 257 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Agilent-012391 Whole Human Genome Oligo Microarray G4112A
   platform_shorttitle:
      Agilent G4112A
   platform_summary:
      hgug4112a
   platform_manufacturer:
      Agilent
   platform_distribution:
      commercial
   platform_accession:
      GPL6848
   version:
      2015-09-22 19:16:49

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: A_23_P100001 A_23_P100011 ... A_32_P99902 (30936 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 30936 features, 110 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median 0.95LCL 0.95UCL
 110.00   46.00    4.44    4.03      NA
```

```
--------------------------
Available sample meta-data:
--------------------------
```

alt_sample_name:
```
 Serous ovarian cancer 10 Serous ovarian cancer 100 Serous ovarian cancer 104
                        1                         1                          1
Serous ovarian cancer 106 Serous ovarian cancer 107 Serous ovarian cancer 108
                        1                         1                          1
Serous ovarian cancer 109  Serous ovarian cancer 11 Serous ovarian cancer 110
                        1                         1                          1
Serous ovarian cancer 111 Serous ovarian cancer 112 Serous ovarian cancer 113
                        1                         1                          1
Serous ovarian cancer 114 Serous ovarian cancer 115 Serous ovarian cancer 116
                        1                         1                          1
Serous ovarian cancer 117 Serous ovarian cancer 118 Serous ovarian cancer 119
                        1                         1                          1
 Serous ovarian cancer 12 Serous ovarian cancer 120 Serous ovarian cancer 122
                        1                         1                          1
Serous ovarian cancer 123 Serous ovarian cancer 127 Serous ovarian cancer 129
                        1                         1                          1
Serous ovarian cancer 130 Serous ovarian cancer 131 Serous ovarian cancer 132
                        1                         1                          1
Serous ovarian cancer 134 Serous ovarian cancer 136 Serous ovarian cancer 137
                        1                         1                          1
Serous ovarian cancer 139 Serous ovarian cancer 140 Serous ovarian cancer 143
                        1                         1                          1
Serous ovarian cancer 144 Serous ovarian cancer 145 Serous ovarian cancer 146
                        1                         1                          1
Serous ovarian cancer 148 Serous ovarian cancer 149  Serous ovarian cancer 15
                        1                         1                          1
Serous ovarian cancer 150 Serous ovarian cancer 151 Serous ovarian cancer 154
                        1                         1                          1
Serous ovarian cancer 156 Serous ovarian cancer 157  Serous ovarian cancer 16
                        1                         1                          1
Serous ovarian cancer 160  Serous ovarian cancer 17 Serous ovarian cancer 171
                        1                         1                          1
Serous ovarian cancer 172 Serous ovarian cancer 173 Serous ovarian cancer 174
                        1                         1                          1
Serous ovarian cancer 176 Serous ovarian cancer 178  Serous ovarian cancer 18
                        1                         1                          1
Serous ovarian cancer 182 Serous ovarian cancer 183 Serous ovarian cancer 184
                        1                         1                          1
Serous ovarian cancer 185 Serous ovarian cancer 186   Serous ovarian cancer 2
                        1                         1                          1
 Serous ovarian cancer 20  Serous ovarian cancer 22  Serous ovarian cancer 23
                        1                         1                          1
 Serous ovarian cancer 25  Serous ovarian cancer 27  Serous ovarian cancer 31
```

```
                       1                          1                          1
   Serous ovarian cancer 36  Serous ovarian cancer 37  Serous ovarian cancer 38
                       1                          1                          1
    Serous ovarian cancer 4  Serous ovarian cancer 41  Serous ovarian cancer 42
                       1                          1                          1
   Serous ovarian cancer 43  Serous ovarian cancer 44  Serous ovarian cancer 45
                       1                          1                          1
   Serous ovarian cancer 49  Serous ovarian cancer 50  Serous ovarian cancer 51
                       1                          1                          1
   Serous ovarian cancer 52  Serous ovarian cancer 53  Serous ovarian cancer 54
                       1                          1                          1
   Serous ovarian cancer 55  Serous ovarian cancer 56  Serous ovarian cancer 57
                       1                          1                          1
   Serous ovarian cancer 58   Serous ovarian cancer 6  Serous ovarian cancer 60
                       1                          1                          1
   Serous ovarian cancer 61  Serous ovarian cancer 62  Serous ovarian cancer 64
                       1                          1                          1
   Serous ovarian cancer 66  Serous ovarian cancer 67  Serous ovarian cancer 68
                       1                          1                          1
   Serous ovarian cancer 69   Serous ovarian cancer 7  Serous ovarian cancer 72
                       1                          1                          1
   Serous ovarian cancer 77  Serous ovarian cancer 79  Serous ovarian cancer 80
                       1                          1                          1
                 (Other)
                      11

sample_type:
tumor
  110

histological_type:
ser
110

primarysite:
 ov
110

summarygrade:
high  low
  43   67

summarystage:
late
 110

tumorstage:
 3   4
```

```
93 17

substage:
   a    b    c NA's
   6   18   69   17

grade:
 1  2  3
26 41 43

pltx:
  y
110

tax:
  y
110

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   30.0   285.0   510.0   673.9   870.0  2250.0

recurrence_status:
norecurrence    recurrence
          34            76

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     30     660     915    1086    1530    2430

vital_status:
deceased   living
      46       64

debulking:
   optimal suboptimal
        57         53

uncurated_author_metadata:
                              title: Serous ovarian cancer 100///geo_accession: GSM43

                       title: Serous ovarian cancer 104///geo_accession: GSM432222

   title: Serous ovarian cancer 106///geo_accession: GSM432223///status: Public on Mar

                       title: Serous ovarian cancer 107///geo_accession: GSM432224

     title: Serous ovarian cancer 108///geo_accession: GSM432225///status: Public on
```

title: Serous ovarian cancer 109///geo_accession: GSM432226///status: Public on Ma

title: Serous ovarian cancer 10///geo_accession: GSM43

title: Serous ovarian cancer 110///geo_accession: GSM432228///status: Public on Mar

title: Serous ovarian cancer 111///geo_accession: GSM432229///status: Public on Mar

title: Serous ovarian cancer 112///geo_accession: GSM43

title: Serous ovarian cancer 113///geo_accession: GSM432231

title: Serous ovarian cancer 114///geo_accession: GSM43223

title: Serous ovarian cancer 115///geo_accession: GSM432233

title: Serous ovarian cancer 116///geo_accession: GSM432234

title: Serous ovarian cancer 117///geo_accession: GSM43

title: Serous ovarian cancer 118///geo_accession: GSM43223

title: Serous ovarian cancer 119///geo_accession: GSM43

title: Serous ovarian cancer 11///geo_accession: GSM43

title: Serous ovarian cancer 120///geo_accession: GSM432

title: Serous ovarian cancer 122///geo_accession: GSM43224

title: Serous ovarian cancer 123///geo_accession: GSM432242

title: Serous ovarian cancer 127///geo_accession: GSM432243

title: Serous ovarian cancer 129///geo_accession: GSM43

title: Serous ovarian cancer 12///geo_accession: GSM4

title: Serous ovarian cancer 130///geo_accession: GSM432245

title: Serous ovarian cancer 131///geo_accession: GSM43

title: Serous ovarian cancer 132///geo_accession: GSM43

title: Serous ovarian cancer 134///geo_accession: GSM43

title: Serous ovarian cancer 136///geo_accession: GSM43

title: Serous ovarian cancer 137///geo_accession: GSM43

title: Serous ovarian cancer 139///geo_accession: GSM43

title: Serous ovarian cancer 140///geo_accession: GSM4322

title: Serous ovarian cancer 143///geo_accession: GSM43225

title: Serous ovarian cancer 144///geo_accession: GSM4322

title: Serous ovarian cancer 145///geo_accession: GSM432255

title: Serous ovarian cancer 146///geo_accession: GSM432256

title: Serous ovarian cancer 148///geo_accession: GSM43

title: Serous ovarian cancer 149///geo_accession: GSM43

title: Serous ovarian cancer 150///geo_accession: GSM432260

title: Serous ovarian cancer 151///geo_accession: GSM43

title: Serous ovarian cancer 154///geo_accession: GSM

title: Serous ovarian cancer 156///geo_accession: GSM43

title: Serous ovarian cancer 157///geo_accession: GSM43

title: Serous ovarian cancer 15///geo_accession: GSM43

title: Serous ovarian cancer 160///geo_accession: GSM432266

title: Serous ovarian cancer 16///geo_accession: GSM43

title: Serous ovarian cancer 171///geo_accession: GSM43226

title: Serous ovarian cancer 172///geo_accession: GSM43226

title: Serous ovarian cancer 173///geo_accession: GSM43227

title: Serous ovarian cancer 174///geo_accession: GSM

title: Serous ovarian cancer 176///geo_accession: GSM432

title: Serous ovarian cancer 178///geo_accession: GSM

title: Serous ovarian cancer 17///geo_accession: GSM43

title: Serous ovarian cancer 182///geo_accession: GSM4322

title: Serous ovarian cancer 183///geo_accession: GSM432276

title: Serous ovarian cancer 184///geo_accession: GSM43

title: Serous ovarian cancer 185///geo_accession: GSM43

title: Serous ovarian cancer 186///geo_accession: GSM43

title: Serous ovarian cancer 18///geo_accession: GSM43

title: Serous ovarian cancer 20///geo_accession: GSM43

title: Serous ovarian cancer 22///geo_accession: GSM432282

title: Serous ovarian cancer 23///geo_accession: GSM4322

title: Serous ovarian cancer 25///geo_accession: GSM43

title: Serous ovarian cancer 27///geo_accession: GSM43228

title: Serous ovarian cancer 2///geo_accession: GSM432280

title: Serous ovarian cancer 31///geo_accession: GSM

title: Serous ovarian cancer 36///geo_accession: GSM

title: Serous ovarian cancer 37///geo_accession: GSM43

title: Serous ovarian cancer 38///geo_accession: GSM43

title: Serous ovarian cancer 41///geo_accession: GSM43

title: Serous ovarian cancer 42///geo_accession: GSM432292

title: Serous ovarian cancer 43///geo_accession: GSM43229

title: Serous ovarian cancer 44///geo_accession: GSM43229

title: Serous ovarian cancer 45///geo_accession: GSM43

title: Serous ovarian cancer 49///geo_accession: GSM432296

title: Serous ovarian cancer 4///geo_accession: GSM43229

title: Serous ovarian cancer 50///geo_accession: GSM4

```
title: Serous ovarian cancer 51///geo_accession: GSM432298

    title: Serous ovarian cancer 52///geo_accession: GSM432

    title: Serous ovarian cancer 53///geo_accession: GSM432

    title: Serous ovarian cancer 54///geo_accession: GSM43

    title: Serous ovarian cancer 55///geo_accession: GSM43

title: Serous ovarian cancer 56///geo_accession: GSM432303

    title: Serous ovarian cancer 57///geo_accession: GSM43

    title: Serous ovarian cancer 58///geo_accession: GSM43

  title: Serous ovarian cancer 60///geo_accession: GSM4323

title: Serous ovarian cancer 61///geo_accession: GSM432308

title: Serous ovarian cancer 62///geo_accession: GSM432309

    title: Serous ovarian cancer 64///geo_accession: GSM43

    title: Serous ovarian cancer 66///geo_accession: GSM43

    title: Serous ovarian cancer 67///geo_accession: GSM43

    title: Serous ovarian cancer 68///geo_accession: GSM43

    title: Serous ovarian cancer 69///geo_accession: GSM43

     title: Serous ovarian cancer 6///geo_accession: GSM43

    title: Serous ovarian cancer 72///geo_accession: GSM43

   title: Serous ovarian cancer 77///geo_accession: GSM4323

    title: Serous ovarian cancer 79///geo_accession: GSM43

     title: Serous ovarian cancer 7///geo_accession: GSM43

title: Serous ovarian cancer 80///geo_accession: GSM432319
```

Value

An expression set

***

| GSE18520 | *A gene signature predictive for outcome in advanced ovarian cancer identifies a survival factor: microfibril-associated glycoprotein 2.* |

***

Description

Advanced stage papillary serous tumors of the ovary are responsible for the majority of ovarian cancer deaths, yet the molecular determinants modulating patient survival are poorly characterized. Here, we identify and validate a prognostic gene expression signature correlating with survival in a series of microdissected serous ovarian tumors. Independent evaluation confirmed the association of a prognostic gene microfibril-associated glycoprotein 2 (MAGP2) with poor prognosis, whereas in vitro mechanistic analyses demonstrated its ability to prolong tumor cell survival and stimulate endothelial cell motility and survival via the alpha(V)beta(3) integrin receptor. Increased MAGP2 expression correlated with microvessel density suggesting a proangiogenic role in vivo. Thus, MAGP2 may serve as a survival-associated target.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Mok SC, Bonome T, Vathipadiekal V, Bell A, Johnson ME, Wong KK
  Laboratory: Mok, Birrer 2009
  Contact information:
  Title: A gene signature predictive for outcome in advanced ovarian cancer identif
  URL:
  PMIDs: 19962670

  Abstract: A 110 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
   platform_manufacturer:
      Affymetrix|Operon
   platform_distribution:
      commercial|non-commercial
   platform_accession:
      GPL570|GPL9216
   version:
```

```
        2015-09-22 19:21:25

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 63 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   10 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
  53.00   41.00    2.05    1.48    3.70

----------------------------
Available sample meta-data:
----------------------------

alt_sample_name:
   Min. 1st Qu.  Median   Mean 3rd Qu.    Max.
  312.0   395.0   694.0  893.3  1040.0  2237.0

sample_type:
healthy   tumor
     10      53

histological_type:
 ser NA's
  53   10

primarysite:
ov
63

summarygrade:
high NA's
  53   10

summarystage:
late NA's
  53   10
```

```
tumorstage:
   3 NA's
  53   10

grade:
   3 NA's
  53   10

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    150    450     630    1212    1440    4500      10

vital_status:
deceased   living     NA's
      41       12       10

debulking:
optimal
     63

percent_normal_cells:
 0
63

percent_stromal_cells:
 0
63

percent_tumor_cells:
100
 63

batch:
2004-03-12 2004-04-08 2004-04-09 2004-07-20 2004-08-12 2004-08-13 2004-09-30
        20          6          9         11         10          1          6

uncurated_author_metadata:
                                                title: Normal Ovary, 2008///geo_ac

                                                title: Normal Ovary, 2061///geo_ac

                                                title: Normal Ovary, 2064///geo_ac

                                                title: Normal Ovary, 2085///geo_ac

                                                title: Normal Ovary, 2225///geo_ac

                                                title: Normal Ovary, 2226///geo_ac
```

title: Normal Ovary, 2228///geo_acc

title: Normal Ovary, 2230///geo_acc

title: Normal Ovary, 2234///geo_acc

title: Normal Ovary, 2237///geo_acc

title: Ovarian Tumor, 1109///geo_accession: GSM461390///status: Public on Oct 17 20

title: Ovarian Tumor, 1214///geo_accession: GSM461391///status: Public on Oct 1

title: Ovarian Tumor, 1231///geo_accession: GSM461367///status: Public on Oct 1

title: Ovarian Tumor, 1562///geo_accession: GSM461368///status: Public on Oct 17 20

title: Ovarian Tumor, 1660///geo_accession: GSM461369///status: Public on Oct 17 20

title: Ovarian Tumor, 1993///geo_accession: GSM461400///status: Public on Oct 17 20

title: Ovarian Tumor, 312///geo_accession: GSM461379///status: Public on Oct

title: Ovarian Tumor, 317///geo_accession: GSM461348///status: Public on Oct 17 20

title: Ovarian Tumor, 321///geo_accession: GSM461380///status: Public on Oct

title: Ovarian Tumor, 324///geo_accession: GSM461373///status: Public on Oct

title: Ovarian Tumor, 332///geo_accession: GSM461349///status: Public on Oct

title: Ovarian Tumor, 345///geo_accession: GSM461392///status: Public on Oct

title: Ovarian Tumor, 349///geo_accession: GSM461350///status: Public on Oct 17 20

title: Ovarian Tumor, 351///geo_accession: GSM461351///status: Public on Oct 17 20

title: Ovarian Tumor, 358///geo_accession: GSM461393///status: Public on Oct

title: Ovarian Tumor, 367///geo_accession: GSM461381///status: Public on Oct

title: Ovarian Tumor, 377///geo_accession: GSM461374///status: Public on Oct

title: Ovarian Tumor, 380///geo_accession: GSM461375///status: Public on Oct

title: Ovarian Tumor, 386///geo_accession: GSM461352///status: Public on Oct

title: Ovarian Tumor, 388///geo_accession: GSM461353///status: Public on Oct 17 20

title: Ovarian Tumor, 389///geo_accession: GSM461354///status: Public on Oct

title: Ovarian Tumor, 394///geo_accession: GSM461382///status: Public on Oct

title: Ovarian Tumor, 396///geo_accession: GSM461376///status: Public on Oct

title: Ovarian Tumor, 402///geo_accession: GSM461355///status: Public on Oct

title: Ovarian Tumor, 410///geo_accession: GSM461356///status: Public on Oct 17 20

title: Ovarian Tumor, 412///geo_accession: GSM461357///status: Public on Oct 1

title: Ovarian Tumor, 434///geo_accession: GSM461358///status: Public on Oct

title: Ovarian Tumor, 443///geo_accession: GSM461377///status: Public on Oct 1

title: Ovarian Tumor, 461///geo_accession: GSM461394///status: Public on Oct

title: Ovarian Tumor, 467///geo_accession: GSM461359///status: Public on Oct

title: Ovarian Tumor, 477///geo_accession: GSM461383///status: Public on Oct

title: Ovarian Tumor, 486///geo_accession: GSM461395///status: Public on Oct

title: Ovarian Tumor, 629///geo_accession: GSM461360///status: Public on Oct 17 2

title: Ovarian Tumor, 631///geo_accession: GSM461396///status: Public on Oct

title: Ovarian Tumor, 656///geo_accession: GSM461384///status: Public on Oct

title: Ovarian Tumor, 662///geo_accession: GSM461370///status: Public on Oct

title: Ovarian Tumor, 692///geo_accession: GSM461397///status: Public on Oct

title: Ovarian Tumor, 694///geo_accession: GSM461385///status: Public on Oct

title: Ovarian Tumor, 702///geo_accession: GSM461361///status: Public on Oct

title: Ovarian Tumor, 714///geo_accession: GSM461362///status: Public on Oct

title: Ovarian Tumor, 715///geo_accession: GSM461386///status: Public on Oct

title: Ovarian Tumor, 718///geo_accession: GSM461398///status: Public on Oct

title: Ovarian Tumor, 744///geo_accession: GSM461378///status: Public on Oct

title: Ovarian Tumor, 765///geo_accession: GSM461363///status: Public on Oct

```
      title: Ovarian Tumor, 778///geo_accession: GSM461399///status: Public on Oct

        title: Ovarian Tumor, 780///geo_accession: GSM461364///status: Public on Oct

    title: Ovarian Tumor, 786///geo_accession: GSM461387///status: Public on Oct 17 2

        title: Ovarian Tumor, 794///geo_accession: GSM461388///status: Public on Oct

       title: Ovarian Tumor, 799///geo_accession: GSM461365///status: Public on Oct

        title: Ovarian Tumor, 800///geo_accession: GSM461371///status: Public on Oct

        title: Ovarian Tumor, 872///geo_accession: GSM461366///status: Public on Oct

     title: Ovarian Tumor, 934///geo_accession: GSM461372///status: Public on Oct 17 2

        title: Ovarian Tumor, 970///geo_accession: GSM461389///status: Public on Oct


  duplicates:
                                GSE18520.GSE18520_GSM462649
                                                          1
GSE18520.GSE18520_GSM462649///GSE18520.GSE18520_GSM462650
                                                          1
                                GSE18520.GSE18520_GSM462650
                                                          1
                                                      NA's
                                                         60
```

Value

An expression set

GSE19829   *Gene expression profile of BRCAness that correlates with respon-*
                     siveness to chemotherapy and with outcome in patients with epithelial
                     ovarian cancer.

Description

To define a gene expression profile of BRCAness that correlates with chemotherapy response and outcome in epithelial ovarian cancer (EOC).A publicly available microarray data set including 61 patients with EOC with either sporadic disease or BRCA(1/2) germline mutations was used for development of the BRCAness profile. Correlation with platinum responsiveness was assessed in platinum-sensitive and platinum-resistant tumor biopsy specimens from six patients with BRCA

germline mutations. Association with poly-ADP ribose polymerase (PARP) inhibitor responsiveness and with radiation-induced RAD51 foci formation (a surrogate of homologous recombination) was assessed in Capan-1 cell line clones. The BRCAness profile was validated in 70 patients enriched for sporadic disease to assess its association with outcome.The BRCAness profile accurately predicted platinum responsiveness in eight out of 10 patient-derived tumor specimens, and between PARP-inhibitor sensitivity and resistance in four out of four Capan-1 clones. [corrected] When applied to the 70 patients with sporadic disease, patients with the BRCA-like (BL) profile had improved disease-free survival (34 months v 15 months; log-rank P = .013) and overall survival (72 months v 41 months; log-rank P = .006) compared with patients with a non-BRCA-like (NBL) profile, respectively. The BRCAness profile maintained independent prognostic value in multivariate analysis, which controlled for other known clinical prognostic factors.The BRCAness profile correlates with responsiveness to platinum and PARP inhibitors and identifies a subset of sporadic patients with improved outcome. Additional evaluation of this profile as a predictive tool in patients with sporadic EOC is warranted.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Konstantinopoulos PA, Spentzos D, Karlan BY, Taniguchi T et al
  Laboratory: Konstantinopoulos, Cannistra 2010 hgu95
  Contact information:
  Title: Gene expression profile of BRCAness that correlates with responsiveness to
  URL:
  PMIDs: 20547991

  Abstract: A 241 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG_U95Av2] Affymetrix Human Genome U95 Version 2 Array
   platform_shorttitle:
      Affymetrix HG_U95Av2
   platform_summary:
      hgu95av2
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL570|GPL8300
   version:
      2015-09-22 19:26:29

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-MurIL4_at (54253 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 54253 features, 70 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median  0.95LCL  0.95UCL
  70.00    40.00     3.78     2.96     5.92


--------------------------
Available sample meta-data:
--------------------------


alt_sample_name:
 Ovarian cancer_sample 1 Ovarian cancer_sample 10 Ovarian cancer_sample 11
                       1                        1                        1
Ovarian cancer_sample 12 Ovarian cancer_sample 13 Ovarian cancer_sample 14
                       1                        1                        1
Ovarian cancer_sample 15 Ovarian cancer_sample 16 Ovarian cancer_sample 17
                       1                        1                        1
Ovarian cancer_sample 18 Ovarian cancer_sample 19  Ovarian cancer_sample 2
                       1                        1                        1
Ovarian cancer_sample 20 Ovarian cancer_sample 21 Ovarian cancer_sample 22
                       1                        1                        1
Ovarian cancer_sample 23 Ovarian cancer_sample 24 Ovarian cancer_sample 25
                       1                        1                        1
Ovarian cancer_sample 26 Ovarian cancer_sample 27 Ovarian cancer_sample 28
                       1                        1                        1
Ovarian cancer_sample 29  Ovarian cancer_sample 3 Ovarian cancer_sample 30
                       1                        1                        1
Ovarian cancer_sample 31 Ovarian cancer_sample 32 Ovarian cancer_sample 33
                       1                        1                        1
Ovarian cancer_sample 34 Ovarian cancer_sample 35 Ovarian cancer_sample 36
                       1                        1                        1
Ovarian cancer_sample 37 Ovarian cancer_sample 38 Ovarian cancer_sample 39
                       1                        1                        1
 Ovarian cancer_sample 4 Ovarian cancer_sample 40 Ovarian cancer_sample 41
                       1                        1                        1
Ovarian cancer_sample 42 Ovarian cancer_sample 43 Ovarian cancer_sample 44
                       1                        1                        1
Ovarian cancer_sample 45 Ovarian cancer_sample 46 Ovarian cancer_sample 47
                       1                        1                        1
Ovarian cancer_sample 48 Ovarian cancer_sample 49  Ovarian cancer_sample 5
                       1                        1                        1
Ovarian cancer_sample 50 Ovarian cancer_sample 51 Ovarian cancer_sample 52
                       1                        1                        1
```

```
Ovarian cancer_sample 53 Ovarian cancer_sample 54 Ovarian cancer_sample 55
                      1                       1                       1
Ovarian cancer_sample 56 Ovarian cancer_sample 57 Ovarian cancer_sample 58
                      1                       1                       1
Ovarian cancer_sample 59  Ovarian cancer_sample 6 Ovarian cancer_sample 60
                      1                       1                       1
Ovarian cancer_sample 61 Ovarian cancer_sample 62 Ovarian cancer_sample 63
                      1                       1                       1
Ovarian cancer_sample 64 Ovarian cancer_sample 65 Ovarian cancer_sample 66
                      1                       1                       1
Ovarian cancer_sample 67 Ovarian cancer_sample 68 Ovarian cancer_sample 69
                      1                       1                       1
 Ovarian cancer_sample 7 Ovarian cancer_sample 70  Ovarian cancer_sample 8
                      1                       1                       1
 Ovarian cancer_sample 9
                      1

batch:
2001-09-14 2001-12-14 2002-08-20 2003-09-09 2003-09-18 2009-08-14
        7          4         14         13          4         28

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   30.0   667.5  1125.0  1170.0  1522.0  3450.0

primarysite:
ov
70

sample_type:
tumor
   70

uncurated_author_metadata:
            title: Ovarian cancer_sample 10///geo_accession: GSM495148///status: Pu

            title: Ovarian cancer_sample 11///geo_accession: GSM495149///status: Pu

              title: Ovarian cancer_sample 12///geo_accession: GSM495150///statu

            title: Ovarian cancer_sample 13///geo_accession: GSM495151///status: Pu

            title: Ovarian cancer_sample 14///geo_accession: GSM495152///status: Pu

            title: Ovarian cancer_sample 15///geo_accession: GSM495153///status: Pu

            title: Ovarian cancer_sample 16///geo_accession: GSM495154///status: Pu
```

```
                    title: Ovarian cancer_sample 17///geo_accession: GSM495155///status: Pu
                    title: Ovarian cancer_sample 18///geo_accession: GSM495156///status: Pu
                       title: Ovarian cancer_sample 19///geo_accession: GSM495157///statu
                 title: Ovarian cancer_sample 1///geo_accession: GSM495139///status: Pu
                    title: Ovarian cancer_sample 20///geo_accession: GSM495158///status: Pu
                    title: Ovarian cancer_sample 21///geo_accession: GSM495159///status: Pu
                       title: Ovarian cancer_sample 22///geo_accession: GSM495160///statu
                       title: Ovarian cancer_sample 23///geo_accession: GSM495161///statu
                       title: Ovarian cancer_sample 24///geo_accession: GSM495162///statu
                       title: Ovarian cancer_sample 25///geo_accession: GSM495163///statu
                     title: Ovarian cancer_sample 26///geo_accession: GSM495164///status
                   title: Ovarian cancer_sample 27///geo_accession: GSM495165///status: Pu
                      title: Ovarian cancer_sample 28///geo_accession: GSM495166///stat
     title: Ovarian cancer_sample 29///geo_accession: GSM495167///status: Public on Jul
                   title: Ovarian cancer_sample 2///geo_accession: GSM495140///status: Pu
            title: Ovarian cancer_sample 30///geo_accession: GSM495168///status: Public o
            title: Ovarian cancer_sample 31///geo_accession: GSM495169///status: Public o
        title: Ovarian cancer_sample 32///geo_accession: GSM495170///status: Public on Ju
      title: Ovarian cancer_sample 33///geo_accession: GSM495171///status: Public on Jul
            title: Ovarian cancer_sample 34///geo_accession: GSM495172///status: Public o
    title: Ovarian cancer_sample 35///geo_accession: GSM495173///status: Public on Jul
    title: Ovarian cancer_sample 36///geo_accession: GSM495174///status: Public on Jul
    title: Ovarian cancer_sample 37///geo_accession: GSM495175///status: Public on Jul
    title: Ovarian cancer_sample 38///geo_accession: GSM495176///status: Public on Jul
```

title: Ovarian cancer_sample 39///geo_accession: GSM495177///status: Public on Jul

title: Ovarian cancer_sample 3///geo_accession: GSM495141///status

title: Ovarian cancer_sample 40///geo_accession: GSM495178///status: Public o

title: Ovarian cancer_sample 41///geo_accession: GSM495179///status: Public on Jul

title: Ovarian cancer_sample 42///geo_accession: GSM495180///status: Public o

title: Ovarian cancer_sample 43///geo_accession: GSM495181///status: Public on Jul

title: Ovarian cancer_sample 44///geo_accession: GSM495182///status: Public on

title: Ovarian cancer_sample 45///geo_accession: GSM495183///status: Public on

title: Ovarian cancer_sample 46///geo_accession: GSM495184///status: Public on Jul

title: Ovarian cancer_sample 47///geo_accession: GSM495185///status: Public on

title: Ovarian cancer_sample 48///geo_accession: GSM495186///status: Public on Jul

title: Ovarian cancer_sample 49///geo_accession: GSM495187///status: Public on

title: Ovarian cancer_sample 4///geo_accession: GSM495142///status

title: Ovarian cancer_sample 50///geo_accession: GSM495188///status: Public on Jul

title: Ovarian cancer_sample 51///geo_accession: GSM495189///status: Public on

title: Ovarian cancer_sample 52///geo_accession: GSM495190///status: Public on

title: Ovarian cancer_sample 53///geo_accession: GSM495191///status: Public on

title: Ovarian cancer_sample 54///geo_accession: GSM495192///status: Public on

title: Ovarian cancer_sample 55///geo_accession: GSM495193///status: Public on Jul

title: Ovarian cancer_sample 56///geo_accession: GSM495194///status: Public on J

title: Ovarian cancer_sample 57///geo_accession: GSM495195///status: Public on J

title: Ovarian cancer_sample 58///geo_accession: GSM495196///status: Public on Ju

title: Ovarian cancer_sample 59///geo_accession: GSM495197///status: Public

title: Ovarian cancer_sample 5///geo_accession: GSM495143///status: Pu

```
        title: Ovarian cancer_sample 60///geo_accession: GSM495198///status: Public on Ju

           title: Ovarian cancer_sample 61///geo_accession: GSM495199///status: Public

        title: Ovarian cancer_sample 62///geo_accession: GSM495200///status: Public on Ju

          title: Ovarian cancer_sample 63///geo_accession: GSM495201///status: Public o

     title: Ovarian cancer_sample 64///geo_accession: GSM495202///status: Public on Jul

          title: Ovarian cancer_sample 65///geo_accession: GSM495203///status: Public o

          title: Ovarian cancer_sample 66///geo_accession: GSM495204///status: Public o

      title: Ovarian cancer_sample 67///geo_accession: GSM495205///status: Public on Ju

      title: Ovarian cancer_sample 68///geo_accession: GSM495206///status: Public on Ju

      title: Ovarian cancer_sample 69///geo_accession: GSM495207///status: Public on Ju

             title: Ovarian cancer_sample 6///geo_accession: GSM495144///status: Pu

       title: Ovarian cancer_sample 70///geo_accession: GSM495208///status: Public

              title: Ovarian cancer_sample 7///geo_accession: GSM495145///statu

           title: Ovarian cancer_sample 8///geo_accession: GSM495146///status: Pu

            title: Ovarian cancer_sample 9///geo_accession: GSM495147///status: P
```

```
  vital_status:
  deceased   living
       40        30
```

Value

An expression set

GSE20565   *A genomic and transcriptomic approach for a differential diagnosis*
                            between primary and secondary ovarian carcinomas in patients with
                            a previous history of breast cancer.

Description

The distinction between primary and secondary ovarian tumors may be challenging for patholo-
gists. The purpose of the present work was to develop genomic and transcriptomic tools to further
refine the pathological diagnosis of ovarian tumors after a previous history of breast cancer.Sixteen
paired breast-ovary tumors from patients with a former diagnosis of breast cancer were collected.
The genomic profiles of paired tumors were analyzed using the Affymetrix GeneChip Mapping 50
K Xba Array or Genome-Wide Human SNP Array 6.0 (for one pair), and the data were normalized
with ITALICS (ITerative and Alternative normaLIzation and Copy number calling for affymetrix
Snp arrays) algorithm or Partek Genomic Suite, respectively. The transcriptome of paired samples
was analyzed using Affymetrix GeneChip Human Genome U133 Plus 2.0 Arrays, and the data were
normalized with gc-Robust Multi-array Average (gcRMA) algorithm. A hierarchical clustering of
these samples was performed, combined with a dataset of well-identified primary and secondary
ovarian tumors.In 12 of the 16 paired tumors analyzed, the comparison of genomic profiles con-
firmed the pathological diagnosis of primary ovarian tumor (n = 5) or metastasis of breast cancer
(n = 7). Among four cases with uncertain pathological diagnosis, genomic profiles were clearly
distinct between the ovarian and breast tumors in two pairs, thus indicating primary ovarian carci-
nomas, and showed common patterns in the two others, indicating metastases from breast cancer.
In all pairs, the result of the transcriptomic analysis was concordant with that of the genomic anal-
ysis.In patients with ovarian carcinoma and a previous history of breast cancer, SNP array analysis
can be used to distinguish primary and secondary ovarian tumors. Transcriptomic analysis may be
used when primary breast tissue specimen is not available.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Meyniel JP, Cottu PH, Decraene C, Stern MH, Couturier J, Lebig
  Laboratory: Meyniel, Sastre-Garau 2010
  Contact information:
  Title: A genomic and transcriptomic approach for a differential diagnosis betweer
  URL:
  PMIDs: 20492709

  Abstract: A 277 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL570|GPL2005|GPL6801
```

```
    version:
        2015-09-22 19:33:01

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 140 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
Breast metastasis in the ovary_OC01_ARN0016 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0017 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0020 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0029 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0035 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0046 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0051 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0053 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0055 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0060 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0069 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0073 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0077 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0079 [HG-U133_Plus_2]
                                                            1
    Breast metastasis in the ovary_OC01_ARN0081 [HG-U133_Plus_2]
```

```
                                                            1
      Breast metastasis in the ovary_OC01_ARN0083 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0092 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0097 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0098 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0099 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0102 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0104 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0112 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0120 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0121 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0123 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0126 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0141 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0142 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0143 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0145 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0146 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0153 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0162 [HG-U133_Plus_2]
                                                            1
      Breast metastasis in the ovary_OC01_ARN0201 [HG-U133_Plus_2]
                                                            1
                   Ovarian carcinoma_OC01_ARN0001 [HG-U133_Plus_2]
                                                            1
                   Ovarian carcinoma_OC01_ARN0002 [HG-U133_Plus_2]
                                                            1
                   Ovarian carcinoma_OC01_ARN0004 [HG-U133_Plus_2]
                                                            1
                   Ovarian carcinoma_OC01_ARN0005 [HG-U133_Plus_2]
```

<pre>
                                                             1
                Ovarian carcinoma_OC01_ARN0007 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0008 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0009 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0010 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0011 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0012 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0013 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0015 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0022 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0023 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0025 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0028 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0030 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0032 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0034 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0036 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0037 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0038 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0039 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0041 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0042 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0045 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0049 [HG-U133_Plus_2]
                                                             1
                Ovarian carcinoma_OC01_ARN0057 [HG-U133_Plus_2]
</pre>

1

Ovarian carcinoma_OC01_ARN0058 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0061 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0062 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0063 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0064 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0066 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0067 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0070 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0072 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0075 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0076 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0080 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0084 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0085 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0089 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0091 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0093 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0095 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0096 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0100 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0101 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0103 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0105 [HG-U133_Plus_2]

1

Ovarian carcinoma_OC01_ARN0106 [HG-U133_Plus_2]

```
                                                                    1
                Ovarian carcinoma_OC01_ARN0107 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0108 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0109 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0111 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0113 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0114 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0115 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0116 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0118 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0119 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0124 [HG-U133_Plus_2]
                                                                    1
                Ovarian carcinoma_OC01_ARN0125 [HG-U133_Plus_2]
                                                                    1
                                                           (Other)
                                                                   41

  sample_type:
  tumor
    140

  histological_type:
  clearcell        endo  mucinous       other        ser       NA's
         6           6         7           6         71         44

  primarysite:
  other     ov
     44     96

  summarygrade:
  high   low NA's
    63    33   44

  summarystage:
  early  late  NA's
     27    67    46
```

```
tumorstage:
   1    2    3    4 NA's
  18    9   52   15   46

substage:
   a    b    c NA's
  14   10   55   61

grade:
   1    2    3 NA's
   6   27   63   44

batch:
2006-06-01 2006-06-27 2006-06-28 2006-06-29 2006-06-30 2006-07-20 2008-03-06
        21         18         37         20         36          7          1

uncurated_author_metadata:
title: Breast metastasis in the ovary_OC01_ARN0016 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0017 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0020 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0029 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0035 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0046 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0051 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0053 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0055 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0060 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0069 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0073 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0077 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0079 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0081 [HG-U133_Plus_2]///geo_accession

title: Breast metastasis in the ovary_OC01_ARN0083 [HG-U133_Plus_2]///geo_accession
```

```
title: Breast metastasis in the ovary_OC01_ARN0092 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0097 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0098 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0099 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0102 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0104 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0112 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0120 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0121 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0123 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0126 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0141 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0142 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0143 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0145 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0146 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0153 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0162 [HG-U133_Plus_2]///geo_accession
title: Breast metastasis in the ovary_OC01_ARN0201 [HG-U133_Plus_2]///geo_accession
                                              title: Ovarian carcinoma_OC01_A
                                        title: Ovarian carcinoma_OC01_ARN0002
                                          title: Ovarian carcinoma_OC01_ARN
                                            title: Ovarian carcinoma_OC01_A
                                          title: Ovarian carcinoma_OC01_ARN
```

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_AF

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_ARN0(

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_ARN0030 |

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN0041

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN0045 |

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN005

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_A

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_AF

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN0076 [H

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN008

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN0091 [H

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN0

title: Ovarian carcinoma_OC01_AF

title: Ovarian carcinoma_OC01_ARN010

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

title: Ovarian carcinoma_OC01_ARN

```
                                              title: Ovarian carcinoma_OC01_ARN
                                       title: Ovarian carcinoma_OC01_ARN0109
                                             title: Ovarian carcinoma_OC01_ARN
                                    title: Ovarian carcinoma_OC01_ARN0113
                                 title: Ovarian carcinoma_OC01_ARN0114 [HG
                                       title: Ovarian carcinoma_OC01_ARN0115
                                          title: Ovarian carcinoma_OC01_A
                                          title: Ovarian carcinoma_OC01_ARN
                                          title: Ovarian carcinoma_OC01_ARN
                                          title: Ovarian carcinoma_OC01_ARN
                                          title: Ovarian carcinoma_OC01_ARN
```

```
    duplicates:
    GSE20565.GSE20565_GSM516722 GSE20565.GSE20565_GSM516741
                              1                           1
                          NA's
                           138
```

Value

An expression set

GSE2109   *IGC EXpression Project for Oncology*

Description

EXpression Project for Oncology, International Genomics Consortium, www.intgen.org

Format

```
experimentData(eset):
Experiment data
  Experimenter name: EXpression Project for Oncology, International Genomics Conso
  Laboratory: expO, IGC 2005
  Contact information:
  Title: IGC EXpression Project for Oncology
  URL:
  PMIDs: PMID unknown

  Abstract: A 8 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL570
   version:
      2015-09-22 19:40:35

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 204 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
Abdominal wall mass - 8176              Omentum - 1006
                       1                         1
           Omentum - 8174              Omentum - 8186
```

1	1
Omentum – 8240	Ovary – 101094
1	1
Ovary – 101109	Ovary – 101120
1	1
Ovary – 101150	Ovary – 1018
1	1
Ovary – 1040	Ovary – 1057
1	1
Ovary – 112866	Ovary – 112867
1	1
Ovary – 118662	Ovary – 118671
1	1
Ovary – 1241	Ovary – 1270
1	1
Ovary – 129660	Ovary – 129669
1	1
Ovary – 1311	Ovary – 1313
1	1
Ovary – 1323	Ovary – 133643
1	1
Ovary – 133651	Ovary – 1351
1	1
Ovary – 151614	Ovary – 151622
1	1
Ovary – 161465	Ovary – 161524
1	1
Ovary – 161525	Ovary – 161534
1	1
Ovary – 1636	Ovary – 1639
1	1
Ovary – 1643	Ovary – 170809
1	1
Ovary – 174931	Ovary – 174936
1	1
Ovary – 180953	Ovary – 184837
1	1
Ovary – 187243	Ovary – 187246
1	1
Ovary – 187251	Ovary – 187253
1	1
Ovary – 191413	Ovary – 191424
1	1
Ovary – 195198	Ovary – 199399
1	1
Ovary – 199400	Ovary – 202030
1	1
Ovary – 202041	Ovary – 20284

	1		1
Ovary – 20285	1	Ovary – 20296	1
Ovary – 20307	1	Ovary – 20315	1
Ovary – 20323	1	Ovary – 20325	1
Ovary – 20326	1	Ovary – 20329	1
Ovary – 207532	1	Ovary – 209699	1
Ovary – 209709	1	Ovary – 209714	1
Ovary – 209718	1	Ovary – 211371	1
Ovary – 211372	1	Ovary – 211395	1
Ovary – 211409	1	Ovary – 21758	1
Ovary – 219571	1	Ovary – 219581	1
Ovary – 219590	1	Ovary – 219604	1
Ovary – 21981	1	Ovary – 22218	1
Ovary – 226414	1	Ovary – 226423	1
Ovary – 228537	1	Ovary – 228549	1
Ovary – 231863	1	Ovary – 234328	1
Ovary – 234329	1	Ovary – 235691	1
Ovary – 235692	1	Ovary – 235695	1
Ovary – 23862	1	Ovary – 23884	1
Ovary – 23904	1	Ovary – 23930	1
Ovary – 23934	1	Ovary – 23936	1
Ovary – 23938	1	Ovary – 241181	1
Ovary – 241187	1	Ovary – 241196	1
Ovary – 241198	1	Ovary – 241199	1
Ovary – 242929		(Other)	

```
                               1                                    105

   sample_type:
   tumor
     204

   histological_type:
        clearcell               endo         mucinous               other
               9                 28               11                   59
             ser undifferentiated               NA's
              85                  2               10

   primarysite:
   other    ov NA's
      23   178     3

   summarygrade:
   high  low NA's
     91   31   82

   summarystage:
   early  late  NA's
      37    87    80

   tumorstage:
      1     2     3     4 NA's
     20    14    58    18    94

   substage:
      a     b     c NA's
     17    22    79    86

   grade:
      1     2     3     4 NA's
     11    20    83     8    82

   age_at_initial_pathologic_diagnosis:
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    25.00   45.00   55.00   58.82   65.00   85.00

   batch:
   2004-12-03 2004-12-04 2004-12-07 2005-02-11 2005-03-03 2005-03-10 2005-03-11
           3          3          1          1          1          1          1
   2005-03-15 2005-03-16 2005-03-17 2005-03-19 2005-03-22 2005-04-13 2005-04-26
           3          1          2          4          2          1          5
   2005-04-29 2005-05-10 2005-06-01 2005-06-03 2005-06-08 2005-06-17 2005-08-05
           2          2          5          3          3          6          3
   2005-08-09 2005-08-11 2005-09-07 2005-09-09 2005-09-13 2005-11-02 2005-11-04
```

```
         1           6           1           3           3           6           3
2005-11-15 2005-11-18 2005-12-02 2006-01-24 2006-01-26 2006-02-07 2006-02-28
         3           1           4           2           1           1           1
2006-03-06 2006-03-14 2006-04-18 2006-04-20 2006-05-16 2006-06-08 2006-07-26
         2           2           1           2           3           1           2
2006-07-28 2006-09-12 2006-09-14 2006-10-10 2006-10-24 2006-10-31 2006-11-09
         1           2           1           1           9           5          10
2006-11-21 2006-11-30 2006-12-07 2007-01-12 2007-02-09 2007-03-07 2007-03-09
         1           6           3           1           1           8           1
2007-03-15 2007-05-01 2007-05-03 2007-05-15 2007-05-18 2007-05-30 2007-06-12
         4           2           3           4           2           2           1
2007-07-27 2007-09-05 2007-09-07 2007-09-11 2007-09-12 2008-02-15 2008-02-21
         2           3           1           4           4           1           3
2008-02-27 2008-03-04 2008-05-13 2008-05-16 2008-05-23
         2           1           4           4           5
```

uncurated_author_metadata:

title: Omentum -

title: Ovary - 170809///geo_accession: GSM137917///status: Public on Sep 28 2006///

```
duplicates:
GSE2109.GSE2109_GSM76554 GSE2109.GSE2109_GSM76567                              NA's
                        1                        1                              202
```

Value

An expression set

GSE26193   *miR-141 and miR-200a act on ovarian tumorigenesis by controlling*
                            oxidative stress response.

Description

Although there is evidence that redox regulation has an essential role in malignancies, its impact on tumor prognosis remains unclear. Here we show crosstalk between oxidative stress and the miR-200 family of microRNAs that affects tumorigenesis and chemosensitivity. miR-141 and miR-200a target p38?? and modulate the oxidative stress response. Enhanced expression of these microR-NAs mimics p38?? deficiency and increases tumor growth in mouse models, but it also improves

the response to chemotherapeutic agents. High-grade human ovarian adenocarcinomas that accumulate miR-200a have low concentrations of p38?? and an associated oxidative stress signature. The miR200a-dependent stress signature correlates with improved survival of patients in response to treatment. Therefore, the role of miR-200a in stress could be a predictive marker for clinical outcome in ovarian cancer. In addition, although oxidative stress promotes tumor growth, it also sensitizes tumors to treatment, which could account for the limited success of antioxidants in clinical trials.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Mateescu B, Batista L, Mariani O, Meyniel J, Cottu PH, Sastre-
  Laboratory: Mateescu, Mechta-Grigoriou 2011
  Contact information:
  Title: miR-141 and miR-200a act on ovarian tumorigenesis by controlling oxidative
  URL:
  PMIDs: 22101765

  Abstract: A 149 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL570
   platform_technology:
      in situ oligonucleotide
   version:
      2015-09-22 19:44:56

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 107 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median  0.95LCL  0.95UCL
 107.00    76.00     3.05     2.50     4.56


--------------------------
Available sample meta-data:
--------------------------


alt_sample_name:
  Ovarian carcinoma 1   Ovarian carcinoma 10 Ovarian carcinoma 100
                    1                      1                     1
Ovarian carcinoma 101 Ovarian carcinoma 102 Ovarian carcinoma 103
                    1                      1                     1
Ovarian carcinoma 104 Ovarian carcinoma 105 Ovarian carcinoma 106
                    1                      1                     1
Ovarian carcinoma 107  Ovarian carcinoma 11  Ovarian carcinoma 12
                    1                      1                     1
 Ovarian carcinoma 13  Ovarian carcinoma 14  Ovarian carcinoma 15
                    1                      1                     1
 Ovarian carcinoma 16  Ovarian carcinoma 17  Ovarian carcinoma 18
                    1                      1                     1
 Ovarian carcinoma 19   Ovarian carcinoma 2  Ovarian carcinoma 20
                    1                      1                     1
 Ovarian carcinoma 21  Ovarian carcinoma 22  Ovarian carcinoma 23
                    1                      1                     1
 Ovarian carcinoma 24  Ovarian carcinoma 25  Ovarian carcinoma 26
                    1                      1                     1
 Ovarian carcinoma 27  Ovarian carcinoma 28  Ovarian carcinoma 29
                    1                      1                     1
  Ovarian carcinoma 3  Ovarian carcinoma 30  Ovarian carcinoma 31
                    1                      1                     1
 Ovarian carcinoma 32  Ovarian carcinoma 33  Ovarian carcinoma 34
                    1                      1                     1
 Ovarian carcinoma 35  Ovarian carcinoma 36  Ovarian carcinoma 37
                    1                      1                     1
 Ovarian carcinoma 38  Ovarian carcinoma 39   Ovarian carcinoma 4
                    1                      1                     1
 Ovarian carcinoma 40  Ovarian carcinoma 41  Ovarian carcinoma 42
                    1                      1                     1
 Ovarian carcinoma 43  Ovarian carcinoma 44  Ovarian carcinoma 45
                    1                      1                     1
 Ovarian carcinoma 46  Ovarian carcinoma 47  Ovarian carcinoma 48
                    1                      1                     1
```

```
   Ovarian carcinoma 49   Ovarian carcinoma 5  Ovarian carcinoma 50
                      1                      1                      1
   Ovarian carcinoma 51  Ovarian carcinoma 52  Ovarian carcinoma 53
                      1                      1                      1
   Ovarian carcinoma 54  Ovarian carcinoma 55  Ovarian carcinoma 56
                      1                      1                      1
   Ovarian carcinoma 57  Ovarian carcinoma 58  Ovarian carcinoma 59
                      1                      1                      1
    Ovarian carcinoma 6  Ovarian carcinoma 60  Ovarian carcinoma 61
                      1                      1                      1
   Ovarian carcinoma 62  Ovarian carcinoma 63  Ovarian carcinoma 64
                      1                      1                      1
   Ovarian carcinoma 65  Ovarian carcinoma 66  Ovarian carcinoma 67
                      1                      1                      1
   Ovarian carcinoma 68  Ovarian carcinoma 69   Ovarian carcinoma 7
                      1                      1                      1
   Ovarian carcinoma 70  Ovarian carcinoma 71  Ovarian carcinoma 72
                      1                      1                      1
   Ovarian carcinoma 73  Ovarian carcinoma 74  Ovarian carcinoma 75
                      1                      1                      1
   Ovarian carcinoma 76  Ovarian carcinoma 77  Ovarian carcinoma 78
                      1                      1                      1
   Ovarian carcinoma 79   Ovarian carcinoma 8  Ovarian carcinoma 80
                      1                      1                      1
   Ovarian carcinoma 81  Ovarian carcinoma 82  Ovarian carcinoma 83
                      1                      1                      1
   Ovarian carcinoma 84  Ovarian carcinoma 85  Ovarian carcinoma 86
                      1                      1                      1
   Ovarian carcinoma 87  Ovarian carcinoma 88  Ovarian carcinoma 89
                      1                      1                      1
    Ovarian carcinoma 9  Ovarian carcinoma 90  Ovarian carcinoma 91
                      1                      1                      1
                (Other)
                      8

sample_type:
tumor
  107

histological_type:
clearcell      endo  mucinous      other       ser
       6         8         8          6        79

summarygrade:
high  low
  67   40

summarystage:
```

```
early   late
  31     76


tumorstage:
 1   2   3   4
20  11  59  17


substage:
   a    b    c NA's
  16   12   62   17


grade:
 1   2   3
 7  33  67


days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    3.0   340.5   584.0  1108.0  1525.0  7386.0


recurrence_status:
norecurrence    recurrence
         27            80


days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      3     668    1096    1520    2220    7386


vital_status:
deceased   living
      76       31


batch:
2006-06-01 2006-06-27 2006-06-28 2006-06-29 2006-06-30 2006-07-20 2008-03-06
        15         14         23         16         21          3          1
2009-03-18 2009-03-19
         4         10


uncurated_author_metadata:
      title: Ovarian carcinoma 100///geo_accession: GSM643032///status: Public on N

          title: Ovarian carcinoma 101///geo_accession: GSM643033///status: Publi

      title: Ovarian carcinoma 102///geo_accession: GSM643034///status: Public on N

        title: Ovarian carcinoma 103///geo_accession: GSM643035///status: Public

        title: Ovarian carcinoma 104///geo_accession: GSM643036///status: Public
```

title: Ovarian carcinoma 105///geo_accession: GSM643037///status: Public

title: Ovarian carcinoma 106///geo_accession: GSM643038///status: Public or

title: Ovarian carcinoma 107///geo_accession: GSM643039///status: Public on Nov 01

title: Ovarian carcinoma 10///geo_accession: GSM642942///status: Public on

title: Ovarian carcinoma 11///geo_accession: GSM642943///status: Public

title: Ovarian carcinoma 12///geo_accession: GSM642944///status: Public

title: Ovarian carcinoma 13///geo_accession: GSM642945///status: Publi

title: Ovarian carcinoma 14///geo_accession: GSM642946///status: Public

title: Ovarian carcinoma 15///geo_accession: GSM642947///status: Public

title: Ovarian carcinoma 16///geo_accession: GSM642948///status: Public

title: Ovarian carcinoma 17///geo_accession: GSM642949///status: Public c

title: Ovarian carcinoma 18///geo_accession: GSM642950///status: Public on Nc

title: Ovarian carcinoma 19///geo_accession: GSM642951///status: Public

title: Ovarian carcinoma 1///geo_accession: GSM642933///status: Pub

title: Ovarian carcinoma 20///geo_accession: GSM642952///status: Public on Nov (

title: Ovarian carcinoma 21///geo_accession: GSM642953///status: Public

title: Ovarian carcinoma 22///geo_accession: GSM642954///status: Public

title: Ovarian carcinoma 23///geo_accession: GSM642955///status: Public

title: Ovarian carcinoma 24///geo_accession: GSM642956///status: Public c

title: Ovarian carcinoma 25///geo_accession: GSM642957///status: Public c

title: Ovarian carcinoma 26///geo_accession: GSM642958///status: Public c

title: Ovarian carcinoma 27///geo_accession: GSM642959///status: Public

title: Ovarian carcinoma 28///geo_accession: GSM642960///status: Public c

title: Ovarian carcinoma 29///geo_accession: GSM642961///status: Public c

title: Ovarian carcinoma 2///geo_accession: GSM642934///status: Public on

title: Ovarian carcinoma 30///geo_accession: GSM642962///status: Public on No

title: Ovarian carcinoma 31///geo_accession: GSM642963///status: Public

title: Ovarian carcinoma 32///geo_accession: GSM642964///status: Public o

title: Ovarian carcinoma 33///geo_accession: GSM642965///status: Public on Nov

title: Ovarian carcinoma 34///geo_accession: GSM642966///status: Public

title: Ovarian carcinoma 35///geo_accession: GSM642967///status: Publ

title: Ovarian carcinoma 36///geo_accession: GSM642968///status: Public

title: Ovarian carcinoma 37///geo_accession: GSM642969///status: Public

title: Ovarian carcinoma 38///geo_accession: GSM642970///status: Public

title: Ovarian carcinoma 39///geo_accession: GSM642971///status: Public or

title: Ovarian carcinoma 3///geo_accession: GSM642935///status: Public

title: Ovarian carcinoma 40///geo_accession: GSM642972///status: Public

title: Ovarian carcinoma 41///geo_accession: GSM642973///status: Public

title: Ovarian carcinoma 42///geo_accession: GSM642974///status: Public o

title: Ovarian carcinoma 43///geo_accession: GSM642975///status: Public or

title: Ovarian carcinoma 44///geo_accession: GSM642976///status: Public

title: Ovarian carcinoma 45///geo_accession: GSM642977///status: Public

title: Ovarian carcinoma 46///geo_accession: GSM642978///status: Public

title: Ovarian carcinoma 47///geo_accession: GSM642979///status: Public

title: Ovarian carcinoma 48///geo_accession: GSM642980///status: Publ

title: Ovarian carcinoma 49///geo_accession: GSM642981///status: Public

title: Ovarian carcinoma 4///geo_accession: GSM642936///status: Pub

title: Ovarian carcinoma 50///geo_accession: GSM642982///status: Public on Nov

title: Ovarian carcinoma 51///geo_accession: GSM642983///status: Public o

title: Ovarian carcinoma 52///geo_accession: GSM642984///status: Publ

title: Ovarian carcinoma 53///geo_accession: GSM642985///status: Public

title: Ovarian carcinoma 54///geo_accession: GSM642986///status: Public on N

title: Ovarian carcinoma 55///geo_accession: GSM642987///status: Public

title: Ovarian carcinoma 56///geo_accession: GSM642988///status: Public

title: Ovarian carcinoma 57///geo_accession: GSM642989///status: Public

title: Ovarian carcinoma 58///geo_accession: GSM642990///status: Public on Nov

title: Ovarian carcinoma 59///geo_accession: GSM642991///status: Public o

title: Ovarian carcinoma 5///geo_accession: GSM642937///status: Public

title: Ovarian carcinoma 60///geo_accession: GSM642992///status: Public

title: Ovarian carcinoma 61///geo_accession: GSM642993///status: Public on N

title: Ovarian carcinoma 62///geo_accession: GSM642994///status: Publi

title: Ovarian carcinoma 63///geo_accession: GSM642995///status: Public o

title: Ovarian carcinoma 64///geo_accession: GSM642996///status: Public on

title: Ovarian carcinoma 65///geo_accession: GSM642997///status: Public on

title: Ovarian carcinoma 66///geo_accession: GSM642998///status: Public o

title: Ovarian carcinoma 67///geo_accession: GSM642999///status: Public

title: Ovarian carcinoma 68///geo_accession: GSM643000///status: Public

title: Ovarian carcinoma 69///geo_accession: GSM643001///status: Public on No

title: Ovarian carcinoma 6///geo_accession: GSM642938///status: Public

title: Ovarian carcinoma 70///geo_accession: GSM643002///status: Public

title: Ovarian carcinoma 71///geo_accession: GSM643003///status: Public on Nov

title: Ovarian carcinoma 72///geo_accession: GSM643004///status: Public on Nov 01 2

title: Ovarian carcinoma 73///geo_accession: GSM643005///status: Public on No

title: Ovarian carcinoma 74///geo_accession: GSM643006///status: Public

title: Ovarian carcinoma 75///geo_accession: GSM643007///status: Public

title: Ovarian carcinoma 76///geo_accession: GSM643008///status: Public o

title: Ovarian carcinoma 77///geo_accession: GSM643009///status: Public o

title: Ovarian carcinoma 78///geo_accession: GSM643010///status: Public on

title: Ovarian carcinoma 79///geo_accession: GSM643011///status: Public on No

title: Ovarian carcinoma 7///geo_accession: GSM642939///status: Public

title: Ovarian carcinoma 80///geo_accession: GSM643012///status: Publ

title: Ovarian carcinoma 81///geo_accession: GSM643013///status: Public on No

title: Ovarian carcinoma 82///geo_accession: GSM643014///status: Public

title: Ovarian carcinoma 83///geo_accession: GSM643015///status: Public o

title: Ovarian carcinoma 84///geo_accession: GSM643016///status: Public o

title: Ovarian carcinoma 85///geo_accession: GSM643017///status: Public o

title: Ovarian carcinoma 86///geo_accession: GSM643018///status: Public on

title: Ovarian carcinoma 87///geo_accession: GSM643019///status: Public

title: Ovarian carcinoma 88///geo_accession: GSM643020///status: Public o

title: Ovarian carcinoma 89///geo_accession: GSM643021///status: Public on

title: Ovarian carcinoma 8///geo_accession: GSM642940///status: Pub

title: Ovarian carcinoma 90///geo_accession: GSM643022///status: Pub

title: Ovarian carcinoma 91///geo_accession: GSM643023///status: Public on Nov

title: Ovarian carcinoma 92///geo_accession: GSM643024///status: Public o

Value

An expression set

GSE26712	*A gene signature predicting for survival in suboptimally debulked patients with ovarian cancer.*

Description

Despite the existence of morphologically indistinguishable disease, patients with advanced ovarian tumors display a broad range of survival end points. We hypothesize that gene expression profiling can identify a prognostic signature accounting for these distinct clinical outcomes. To resolve survival-associated loci, gene expression profiling was completed for an extensive set of 185 (90 optimal/95 suboptimal) primary ovarian tumors using the Affymetrix human U133A microarray. Cox regression analysis identified probe sets associated with survival in optimally and suboptimally debulked tumor sets at a P value of <0.01. Leave-one-out cross-validation was applied to each tumor cohort and confirmed by a permutation test. External validation was conducted by applying the gene signature to a publicly available array database of expression profiles of advanced stage suboptimally debulked tumors. The prognostic signature successfully classified the tumors according to survival for suboptimally (P = 0.0179) but not optimally debulked (P = 0.144) patients. The suboptimal gene signature was validated using the independent set of tumors (odds ratio, 8.75; P = 0.0146). To elucidate signaling events amenable to therapeutic intervention in suboptimally debulked patients, pathway analysis was completed for the top 57 survival-associated probe sets. For suboptimally debulked patients, confirmation of the predictive gene signature supports the existence of a clinically relevant predictor, as well as the possibility of novel therapeutic opportunities. Ultimately, the prognostic classifier defined for suboptimally debulked tumors may aid in the classification and enhancement of patient outcome for this high-risk population.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Bonome T, Levine DA, Shih J, Randonovich M, Pise-Masison CA, B
  Laboratory: Bonome, Birrer 2008
  Contact information:
  Title: A gene signature predicting for survival in suboptimally debulked patients
  URL:
  PMIDs: 18593951

  Abstract: A 238 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
   platform_summary:
```

```
      hgu133a
    platform_manufacturer:
       Affymetrix
    platform_distribution:
       commercial
    platform_accession:
       GPL96
    version:
       2015-09-22 19:46:24


featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 195 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   10 observations deleted due to missingness
      n   events   median 0.95LCL 0.95UCL
 185.00  129.00    3.83    3.24    4.83


-------------------------
Available sample meta-data:
-------------------------


alt_sample_name:
     Normal HOSE2008       Normal HOSE2061       Normal HOSE2064
                 1                     1                     1
     Normal HOSE2085       Normal HOSE2225       Normal HOSE2226
                 1                     1                     1
     Normal HOSE2228       Normal HOSE2230       Normal HOSE2234
                 1                     1                     1
     Normal HOSE2237  Ovarian Cancer SO10 Ovarian Cancer SO100
                 1                     1                     1
Ovarian Cancer SO103 Ovarian Cancer SO106 Ovarian Cancer SO108
                 1                     1                     1
 Ovarian Cancer SO11 Ovarian Cancer SO113 Ovarian Cancer SO115
                 1                     1                     1
Ovarian Cancer SO116 Ovarian Cancer SO117 Ovarian Cancer SO118
                 1                     1                     1
 Ovarian Cancer SO12 Ovarian Cancer SO121 Ovarian Cancer SO122
```

```
                        1                     1                     1
   Ovarian Cancer SO124 Ovarian Cancer SO129  Ovarian Cancer SO13
                        1                     1                     1
   Ovarian Cancer SO131 Ovarian Cancer SO134 Ovarian Cancer SO135
                        1                     1                     1
   Ovarian Cancer SO137 Ovarian Cancer SO141 Ovarian Cancer SO143
                        1                     1                     1
   Ovarian Cancer SO148 Ovarian Cancer SO154  Ovarian Cancer SO16
                        1                     1                     1
   Ovarian Cancer SO166  Ovarian Cancer SO17 Ovarian Cancer SO173
                        1                     1                     1
   Ovarian Cancer SO174  Ovarian Cancer SO18 Ovarian Cancer SO181
                        1                     1                     1
   Ovarian Cancer SO184 Ovarian Cancer SO185 Ovarian Cancer SO187
                        1                     1                     1
   Ovarian Cancer SO189 Ovarian Cancer SO190 Ovarian Cancer SO193
                        1                     1                     1
   Ovarian Cancer SO194 Ovarian Cancer SO196 Ovarian Cancer SO197
                        1                     1                     1
     Ovarian Cancer SO2 Ovarian Cancer SO200 Ovarian Cancer SO201
                        1                     1                     1
   Ovarian Cancer SO203 Ovarian Cancer SO205  Ovarian Cancer SO21
                        1                     1                     1
   Ovarian Cancer SO211 Ovarian Cancer SO214 Ovarian Cancer SO216
                        1                     1                     1
   Ovarian Cancer SO217 Ovarian Cancer SO218 Ovarian Cancer SO224
                        1                     1                     1
   Ovarian Cancer SO225 Ovarian Cancer SO227 Ovarian Cancer SO228
                        1                     1                     1
   Ovarian Cancer SO229  Ovarian Cancer SO23 Ovarian Cancer SO230
                        1                     1                     1
   Ovarian Cancer SO231 Ovarian Cancer SO235 Ovarian Cancer SO236
                        1                     1                     1
   Ovarian Cancer SO237 Ovarian Cancer SO241 Ovarian Cancer SO242
                        1                     1                     1
   Ovarian Cancer SO243 Ovarian Cancer SO244 Ovarian Cancer SO246
                        1                     1                     1
   Ovarian Cancer SO247 Ovarian Cancer SO249  Ovarian Cancer SO25
                        1                     1                     1
   Ovarian Cancer SO250 Ovarian Cancer SO256 Ovarian Cancer SO257
                        1                     1                     1
   Ovarian Cancer SO258 Ovarian Cancer SO261 Ovarian Cancer SO262
                        1                     1                     1
   Ovarian Cancer SO263 Ovarian Cancer SO265 Ovarian Cancer SO267
                        1                     1                     1
   Ovarian Cancer SO268 Ovarian Cancer SO272 Ovarian Cancer SO273
                        1                     1                     1
   Ovarian Cancer SO278 Ovarian Cancer SO279 Ovarian Cancer SO282
```

```
                        1                       1                       1
Ovarian Cancer SO283 Ovarian Cancer SO285 Ovarian Cancer SO290
                        1                       1                       1
              (Other)
                  96
```

sample_type:
```
healthy    tumor
     10      185
```

histological_type:
```
 ser NA's
 185    10
```

primarysite:
```
 ov
195
```

summarygrade:
```
high NA's
 185    10
```

summarystage:
```
late NA's
 185    10
```

tumorstage:
```
   3     4 NA's
 146    36    13
```

substage:
```
   b     c NA's
   9   137    49
```

age_at_initial_pathologic_diagnosis:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  26.00   52.00   63.00   61.54   70.00   84.00      13
```

recurrence_status:
```
norecurrence    recurrence
          42           153
```

days_to_death:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
   21.9   660.6  1164.0  1429.0  1880.0  4982.0      10
```

vital_status:
```
deceased    living     NA's
```

```
    129        56        10
```

```
debulking:
  optimal suboptimal      NA's
       90         95        10
```

```
percent_normal_cells:
20-
195
```

```
percent_stromal_cells:
20-
195
```

```
percent_tumor_cells:
80+
195
```

```
batch:
2003-11-04 2003-11-05 2003-11-06 2003-11-07 2003-11-20 2003-11-21 2003-12-16
        14         16          9          6         10         15         17
2003-12-23 2003-12-24 2004-04-20 2004-04-21 2004-04-27 2004-09-28 2005-07-27
        12         11         20         17          9         14         15
2006-11-09
        10
```

```
uncurated_author_metadata:
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
                                                          title: Norma
   title: Ovarian Cancer SO100///geo_accession: GSM657530///status: Public on Jan 20
```

title: Ovarian Cancer SO103///geo_accession: GSM657531///status: Public on Jan 20

title: Ovarian Cancer SO106///geo_accession: GSM657532///status: Public on

title: Ovarian Cancer SO108///geo_accession: GSM657533///status: Public on Jar

title: Ovarian Cancer SO10///geo_accession: GSM657529///status: Public on Ja

title: Ovarian Cancer SO113///geo_accession: GSM657535///status: Public on Jan 20

title: Ovarian Cancer SO115///geo_accession: GSM657536///status: Public on

title: Ovarian Cancer SO116///geo_accession: GSM657537///status: Public on Jar

title: Ovarian Cancer SO117///geo_accession: GSM657538///status: Public on Jar

title: Ovarian Cancer SO118///geo_accession: GSM657539///status: Public on Jan 20

title: Ovarian Cancer SO11///geo_accession: GSM657534///status: Public on

title: Ovarian Cancer SO121///geo_accession: GSM657541///status: Public on Jan 20

title: Ovarian Cancer SO122///geo_accession: GSM657542///status: Public on

title: Ovarian Cancer SO124///geo_accession: GSM657543///status: Public on Jan 20

title: Ovarian Cancer SO129///geo_accession: GSM657544///status: Public on Jan 20

title: Ovarian Cancer SO12///geo_accession: GSM657540///status: Public on

title: Ovarian Cancer SO131///geo_accession: GSM657546///status: Public on Jan 20

title: Ovarian Cancer SO134///geo_accession: GSM657547///status: Public on

title: Ovarian Cancer SO135///geo_accession: GSM657548///status: Public on

title: Ovarian Cancer SO137///geo_accession: GSM657549///status: Public on Jar

title: Ovarian Cancer SO13///geo_accession: GSM657545///status: Public on Jan 20 20

title: Ovarian Cancer SO141///geo_accession: GSM657550///status: Public on Jar

title: Ovarian Cancer SO143///geo_accession: GSM657551///status: Public on Jar

title: Ovarian Cancer SO148///geo_accession: GSM657552///status: Public on Jar

title: Ovarian Cancer SO154///geo_accession: GSM657553///status: Public on Jan 2

title: Ovarian Cancer SO166///geo_accession: GSM657555///status: Public on Jan 20

title: Ovarian Cancer SO16///geo_accession: GSM657554///status: Public on Ja

title: Ovarian Cancer SO173///geo_accession: GSM657557///status: Public on Jar

title: Ovarian Cancer SO174///geo_accession: GSM657558///status: Public on Jar

title: Ovarian Cancer SO17///geo_accession: GSM657556///status: Public on Ja

title: Ovarian Cancer SO181///geo_accession: GSM657560///status: Public on Jan 20

title: Ovarian Cancer SO184///geo_accession: GSM657561///status: Public on Jan 20

title: Ovarian Cancer SO185///geo_accession: GSM657562///status: Public on Jan 20

title: Ovarian Cancer SO187///geo_accession: GSM657563///status: Public on Jar

title: Ovarian Cancer SO189///geo_accession: GSM657564///status: Public on Jan 20

title: Ovarian Cancer SO18///geo_accession: GSM657559///status: Public c

title: Ovarian Cancer SO190///geo_accession: GSM657565///status: Public on

title: Ovarian Cancer SO193///geo_accession: GSM657566///status: Public on Jar

title: Ovarian Cancer SO194///geo_accession: GSM657567///status: Public on Jar

title: Ovarian Cancer SO196///geo_accession: GSM657568///status: Public on

title: Ovarian Cancer SO197///geo_accession: GSM657569///status: Public on Jar

title: Ovarian Cancer SO200///geo_accession: GSM657571///status: Public on Jar

title: Ovarian Cancer SO201///geo_accession: GSM657572///status: Public on Jar

title: Ovarian Cancer SO203///geo_accession: GSM657573///status: Public on

title: Ovarian Cancer SO205///geo_accession: GSM657574///status: Public on Jan 20

title: Ovarian Cancer SO211///geo_accession: GSM657576///status: Public on Jar

title: Ovarian Cancer SO214///geo_accession: GSM657577///status: Public on Jar

title: Ovarian Cancer SO216///geo_accession: GSM657578///status: Public on Jar

title: Ovarian Cancer SO217///geo_accession: GSM657579///status: Public on Jar

```
title: Ovarian Cancer SO218///geo_accession: GSM657580///status: Public on
title: Ovarian Cancer SO21///geo_accession: GSM657575///status: Public on
title: Ovarian Cancer SO224///geo_accession: GSM657581///status: Public on Jar
title: Ovarian Cancer SO225///geo_accession: GSM657582///status: Public on
title: Ovarian Cancer SO227///geo_accession: GSM657583///status: Public on Jar
title: Ovarian Cancer SO228///geo_accession: GSM657584///status: Public on
title: Ovarian Cancer SO229///geo_accession: GSM657585///status: Public on Jar
title: Ovarian Cancer SO230///geo_accession: GSM657587///status: Public on
title: Ovarian Cancer SO231///geo_accession: GSM657588///status: Public on
title: Ovarian Cancer SO235///geo_accession: GSM657589///status: Public on Jar
title: Ovarian Cancer SO236///geo_accession: GSM657590///status: Public on Jan 20
title: Ovarian Cancer SO237///geo_accession: GSM657591///status: Public on Jar
title: Ovarian Cancer SO23///geo_accession: GSM657586///status: Public on Jan 20
title: Ovarian Cancer SO241///geo_accession: GSM657592///status: Public on Jar
title: Ovarian Cancer SO242///geo_accession: GSM657593///status: Public on Jar
title: Ovarian Cancer SO243///geo_accession: GSM657594///status: Public on Jan 20
title: Ovarian Cancer SO244///geo_accession: GSM657595///status: Public on Jar
title: Ovarian Cancer SO246///geo_accession: GSM657596///status: Public on
title: Ovarian Cancer SO247///geo_accession: GSM657597///status: Public on Jar
title: Ovarian Cancer SO249///geo_accession: GSM657598///status: Public on Jar
title: Ovarian Cancer SO250///geo_accession: GSM657600///status: Public on Jar
title: Ovarian Cancer SO256///geo_accession: GSM657601///status: Public on Jar
title: Ovarian Cancer SO257///geo_accession: GSM657602///status: Public on Ja
title: Ovarian Cancer SO258///geo_accession: GSM657603///status: Public on Jar
```

title: Ovarian Cancer SO25///geo_accession: GSM657599///status: Public o

title: Ovarian Cancer SO261///geo_accession: GSM657604///status: Public on Jar

title: Ovarian Cancer SO262///geo_accession: GSM657605///status: Public on Jar

title: Ovarian Cancer SO263///geo_accession: GSM657606///status: Public on Jar

title: Ovarian Cancer SO265///geo_accession: GSM657607///status: Public on Jar

title: Ovarian Cancer SO267///geo_accession: GSM657608///status: Public on Ja

title: Ovarian Cancer SO268///geo_accession: GSM657609///status: Public on

title: Ovarian Cancer SO272///geo_accession: GSM657610///status: Public on Jar

title: Ovarian Cancer SO273///geo_accession: GSM657611///status: Public on

title: Ovarian Cancer SO278///geo_accession: GSM657612///status: Public on

title: Ovarian Cancer SO279///geo_accession: GSM657613///status: Public on Jar

title: Ovarian Cancer SO282///geo_accession: GSM657614///status: Public on Ja

title: Ovarian Cancer SO283///geo_accession: GSM657615///status: Public on Jar

title: Ovarian Cancer SO285///geo_accession: GSM657616///status: Public on Jar

title: Ovarian Cancer SO290///geo_accession: GSM657617///status: Public or

title: Ovarian Cancer SO295///geo_accession: GSM657618///status: Public on Jar

```
   duplicates:
                                    GSE26712.GSE26712_GSM657526
                                                 1
GSE26712.GSE26712_GSM657526///GSE26712.GSE26712_GSM657527
                                                 1
                                    GSE26712.GSE26712_GSM657527
                                                 1
                                               NA's
                                               192
```

Value

An expression set

GSE30009   *Multidrug resistance-linked gene signature predicts overall survival*
                           of patients with primary ovarian serous carcinoma.

Description

This study assesses the ability of multidrug resistance (MDR)-associated gene expression patterns
to predict survival in patients with newly diagnosed carcinoma of the ovary. The scope of this
research differs substantially from that of previous reports, as a very large set of genes was evaluated
whose expression has been shown to affect response to chemotherapy.We applied a customized
TaqMan low density array, a highly sensitive and specific assay, to study the expression profiles
of 380 MDR-linked genes in 80 tumor specimens collected at initial surgery to debulk primary
serous carcinoma. The RNA expression profiles of these drug resistance genes were correlated with
clinical outcomes.Leave-one-out cross-validation was used to estimate the ability of MDR gene
expression to predict survival. Although gene expression alone does not predict overall survival
(OS; P = 0.06), four covariates (age, stage, CA125 level, and surgical debulking) do (P = 0.03).
When gene expression was added to the covariates, we found an 11-gene signature that provides
a major improvement in OS prediction (log-rank statistic P < 0.003). The predictive power of
this 11-gene signature was confirmed by dividing high- and low-risk patient groups, as defined by
their clinical covariates, into four specific risk groups on the basis of expression levels.This study
reveals an 11-gene signature that allows a more precise prognosis for patients with serous cancer
of the ovary treated with carboplatin- and paclitaxel-based therapy. These 11 new targets offer
opportunities for new therapies to improve clinical outcome in ovarian cancer.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Gillet JP, Calcagno AM, Varma S, Davidson B et al. Multidrug r
  Laboratory: Gillet, Gottesman 2012
  Contact information:
  Title: Multidrug resistance-linked gene signature predicts overall survival of pa
  URL:
  PMIDs: 22492981

  Abstract: A 244 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      TaqMan qRT-PCR Homo sapiens Low-Density Array 380
   platform_shorttitle:
      TaqMan qRT-PCR
   platform_summary:
```

```
      NA
  platform_manufacturer:
     TaqMan
  platform_distribution:
     custom
  platform_accession:
     GPL13728
  version:
     2015-09-22 19:46:26

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 5 6 ... 380 (363 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 363 features, 103 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median  0.95LCL  0.95UCL
 103.00   57.00    3.42     2.92     5.34


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
 Norwegian patient 1  Norwegian patient 10  Norwegian patient 11
                   1                     1                     1
Norwegian patient 12 Norwegian patient 13 Norwegian patient 14
                   1                     1                     1
Norwegian patient 15 Norwegian patient 16 Norwegian patient 17
                   1                     1                     1
Norwegian patient 18 Norwegian patient 19   Norwegian patient 2
                   1                     1                     1
Norwegian patient 20 Norwegian patient 21 Norwegian patient 22
                   1                     1                     1
Norwegian patient 23   Norwegian patient 3   Norwegian patient 4
                   1                     1                     1
 Norwegian patient 5   Norwegian patient 6   Norwegian patient 7
                   1                     1                     1
 Norwegian patient 8   Norwegian patient 9          US Patient 1
                   1                     1                     1
        US Patient 10          US Patient 11          US Patient 12
```

1	1	1
US Patient 13	US Patient 14	US Patient 15
1	1	1
US Patient 16	US Patient 17	US Patient 18
1	1	1
US Patient 19	US Patient 2	US Patient 20
1	1	1
US Patient 21	US Patient 22	US Patient 23
1	1	1
US Patient 24	US Patient 25	US Patient 26
1	1	1
US Patient 27	US Patient 28	US Patient 29
1	1	1
US Patient 3	US Patient 30	US Patient 31
1	1	1
US Patient 32	US Patient 33	US Patient 34
1	1	1
US Patient 35	US Patient 36	US Patient 37
1	1	1
US Patient 38	US Patient 39	US Patient 4
1	1	1
US Patient 40	US Patient 41	US Patient 42
1	1	1
US Patient 43	US Patient 44	US Patient 45
1	1	1
US Patient 46	US Patient 47	US Patient 48
1	1	1
US Patient 49	US Patient 5	US Patient 50
1	1	1
US Patient 51	US Patient 52	US Patient 53
1	1	1
US Patient 54	US Patient 55	US Patient 56
1	1	1
US Patient 57	US Patient 58	US Patient 59
1	1	1
US Patient 6	US Patient 60	US Patient 61
1	1	1
US Patient 62	US Patient 63	US Patient 64
1	1	1
US Patient 65	US Patient 66	US Patient 67
1	1	1
US Patient 68	US Patient 69	US Patient 7
1	1	1
US Patient 70	US Patient 71	US Patient 72
1	1	1
US Patient 73	US Patient 74	US Patient 75
1	1	1
US Patient 76	US Patient 77	US Patient 78

```
                        1                    1                    1
                  (Other)
                        4
```

```
    sample_type:
    tumor
      103
```

```
    histological_type:
    clearcell       ser
            1       102
```

```
    summarygrade:
    high   low NA's
      92     9    2
```

```
    summarystage:
    late
     103
```

```
    tumorstage:
     3   4
    82  21
```

```
    substage:
       b    c NA's
       2   60   41
```

```
    grade:
       1    2    3 NA's
       4    5   92    2
```

```
    age_at_initial_pathologic_diagnosis:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      30.00   56.00   61.00   62.45   71.50   87.00
```

```
    days_to_death:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
         24     598    1053    1156    1568    4748
```

```
    vital_status:
    deceased    living
          57        46
```

```
    debulking:
       optimal suboptimal
            81          22
```

uncurated_author_metadata:

title: US Pati

title: US

title: US Patient 5

title: US Patient 51///geo_accession: GSM742615///status: Public on Apr 19 2012///s

title: US Patient 54///geo_accession: GSM7426

title:

title: US Patient 57///geo_accession: GSM742621///status: Public o

title: US Patient 59///geo_accession: GSM742623///status: Public o

title: US Patient 63///geo_accessio

title: US Patient

title: US Patient 66///geo_accession: GSM742630///status

ti

title: US Patient 70///geo_accession: GSM742634///status: Public on Apr 19 20

t

title: US Patien

title: US Patient 75///geo_accession: GSM7426

title:

title: US Patient 77///geo_ac

title: US Patient 78///

title: US Patient 79///g

Value

An expression set

GSE30161	*Multi-gene expression predictors of single drug responses to adjuvant chemotherapy in ovarian carcinoma: predicting platinum resistance.*

Description

Despite advances in radical surgery and chemotherapy delivery, ovarian cancer is the most lethal gynecologic malignancy. Standard therapy includes treatment with platinum-based combination chemotherapies yet there is no biomarker model to predict their responses to these agents. We here have developed and independently tested our multi-gene molecular predictors for forecasting patients' responses to individual drugs on a cohort of 55 ovarian cancer patients. To independently validate these molecular predictors, we performed microarray profiling on FFPE tumor samples of 55 ovarian cancer patients (UVA-55) treated with platinum-based adjuvant chemotherapy. Genome-wide chemosensitivity biomarkers were initially discovered from the in vitro drug activities and genomic expression data for carboplatin and paclitaxel, respectively. Multivariate predictors were trained with the cell line data and then evaluated with a historical patient cohort. For the UVA-55 cohort, the carboplatin, taxol, and combination predictors significantly stratified responder patients and non-responder patients (p = 0.019, 0.04, 0.014) with sensitivity = 91%, 96%, 93 and NPV = 57%, 67%, 67% in pathologic clinical response. The combination predictor also demonstrated a significant survival difference between predicted responders and non-responders with a median survival of 55.4 months vs. 32.1 months. Thus, COXEN single- and combination-drug predictors successfully stratified platinum resistance and taxane response in an independent cohort of ovarian cancer patients based on their FFPE tumor samples.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Ferriss JS, Kim Y, Duska L, Birrer M, Levine DA, Moskaluk C,Th
  Laboratory: Ferriss, Lee 2012
  Contact information:
  Title: Multi-gene expression predictors of single drug responses to adjuvant chem
```

```
   URL:
   PMIDs: 22348014

   Abstract: A 215 word abstract is available. Use 'abstract' method.
   Information is available on: preprocessing
   notes:
    platform_title:
       [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
    platform_shorttitle:
       Affymetrix HG-U133Plus2
    platform_summary:
       hgu133plus2
    platform_manufacturer:
       Affymetrix
    platform_distribution:
       commercial
    platform_accession:
       GPL570
    version:
       2015-09-22 19:50:24

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 58 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
  58.00   36.00    4.19    2.70    6.17


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
 OV_FFPE_1 OV_FFPE_10 OV_FFPE_11 OV_FFPE_12 OV_FFPE_13 OV_FFPE_14 OV_FFPE_15
         1          1          1          1          1          1          1
OV_FFPE_16 OV_FFPE_17 OV_FFPE_18 OV_FFPE_19  OV_FFPE_2 OV_FFPE_20 OV_FFPE_21
         1          1          1          1          1          1          1
OV_FFPE_22 OV_FFPE_23 OV_FFPE_24 OV_FFPE_25 OV_FFPE_26 OV_FFPE_27 OV_FFPE_28
```

```
          1            1            1            1            1            1            1
  OV_FFPE_29   OV_FFPE_3 OV_FFPE_30 OV_FFPE_31 OV_FFPE_32 OV_FFPE_33 OV_FFPE_34
          1            1            1            1            1            1            1
  OV_FFPE_35 OV_FFPE_36 OV_FFPE_37 OV_FFPE_38 OV_FFPE_39   OV_FFPE_4 OV_FFPE_40
          1            1            1            1            1            1            1
  OV_FFPE_41 OV_FFPE_42 OV_FFPE_43 OV_FFPE_44 OV_FFPE_45 OV_FFPE_46 OV_FFPE_47
          1            1            1            1            1            1            1
  OV_FFPE_48 OV_FFPE_49   OV_FFPE_5 OV_FFPE_50 OV_FFPE_51 OV_FFPE_52 OV_FFPE_53
          1            1            1            1            1            1            1
  OV_FFPE_54 OV_FFPE_55 OV_FFPE_56 OV_FFPE_57 OV_FFPE_58   OV_FFPE_6   OV_FFPE_7
          1            1            1            1            1            1            1
   OV_FFPE_8   OV_FFPE_9
          1            1

sample_type:
tumor
   58

histological_type:
      clearcell              endo        mucinous             other
             5                 1               1                 1
           ser undifferentiated              NA's
            47                 1                 2

summarygrade:
high  low NA's
  33   21    4

summarystage:
late
  58

tumorstage:
 3  4
53  5

substage:
 a  b  c
 9 11 38

grade:
   1    2    3 NA's
   2   19   33    4

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  38.00   53.50   62.00   62.57   72.00   85.00
```

```
pltx:
 y
58

tax:
 n  y
 4 54

neo:
 n
58

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   12.0   255.2   386.0   742.1   768.2  4208.0

recurrence_status:
norecurrence    recurrence          NA's
           6            48             4

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   49.0   585.2  1010.0  1375.0  2131.0  4208.0

vital_status:
deceased   living
      36       22

debulking:
   optimal suboptimal       NA's
        26         30          2

batch:
2009-10-07 2009-10-08 2009-10-09 2009-10-20
        28         18          8          4

uncurated_author_metadata:
            title: OV_FFPE_10///geo_accession: GSM746870///status: Public on Aug 21

  title: OV_FFPE_11///geo_accession: GSM746871///status: Public on Aug 21 2012///su

    title: OV_FFPE_12///geo_accession: GSM746872///status: Public on Aug 21 2012///

    title: OV_FFPE_13///geo_accession: GSM746873///status: Public on Aug 21 2012///

   title: OV_FFPE_14///geo_accession: GSM746874///status: Public on Aug 21 2012///s

                    title: OV_FFPE_15///geo_accession: GSM746875///status: Pu
```

title: OV_FFPE_16///geo_accession: GSM746876///status: Public on Aug 21 2012/

title: OV_FFPE_17///geo_accession: GSM746877///status: Public on Aug 21 2012

title: OV_FFPE_18///geo_accession: GSM746

title: OV_FFPE_19///geo_

title: OV_FFPE_1///geo_accession: GSM746861///status: Public on Aug 21 2012/

title: OV_FFPE_20///geo_accession: GSM746880///status: Public on Aug 21 2012///su

title: OV_FFPE_21///geo_accession: GSM746881///status: Public

title: OV_FFPE_22///geo_accession: GSM7

title: OV_FFPE_23///geo_accession: GSM746883///status: Public on Aug 21 2

title: OV_FFPE_24///geo_accession: GSM746884///status: Public on Aug 21 201

title: OV_FFPE_25///geo_accession: GSM746885///status: Public on Aug 21 2012

title: OV_FFPE_26///geo_accession: GSM746886///status: Public on Aug 21 2012//

title: OV_FFPE_27///geo_accession: GSM746887///status: Public on Aug 21 2012///s

title: OV_FFPE_28///geo_accession: GSM746888///stat

title: OV_FFPE_29///geo_accession: GSM746889///status: Public on Aug 21 2012/

title: OV_FFPE_2///geo_accession: GSM746862///status: Public on Aug 21 2012//

title: OV_FFPE_30///geo_accession: GSM746890///status: Public on Aug 21

title: OV_FFPE_31///geo_accession: GSM746891///status: Public on Aug 21 2012

title: OV_FFPE_32///geo_accession: GSM746892///status: Public on Aug 21 2012///sub

title: OV_FFPE_33///geo_accession: GSM746893///status: Public on Aug 21 2012///subm

title: OV_FFPE_34///geo_accession: GSM746894///status: Public on Aug 21 2

title: OV_FFPE_35///geo_accession: GSM746895///status: Public on Aug 21 2012///su

title: OV_FFPE_36///geo_accession: GSM746896///status: Public on Aug 21 2012/

title: OV_FFPE_37///geo_accession: GSM746897///st

title: OV_FFPE_38///geo_accession: GSM746898///status: Public on Aug 21 2012///sub

title: OV_FFPE_39///geo_accession: GSM746899///status: Public on Aug 21 2012//

title: OV_FFPE_3///geo_accession: GSM746863///status: Public on Aug 21 2012//

title: OV_FFPE_40///geo_accession: GSM746900///status: Public on Aug 21 2012//

title: OV_FFPE_41///geo_accession: GSM74

title: OV_FFPE_42///geo_accession: GSM746902///status: Public on Aug 21 2012///su

title: OV_FFPE_43///geo_accession: GSM746903///statu

title: OV_FFPE_44///geo_accession: GSM746904///status: Public on Aug 21 2012///sub

title: OV_FFPE_45///geo_accession: GSM746905///status: Public on Aug 21 2012///sub

title: OV_FFPE_46///geo_accession: GSM746906///status: Public on Aug 21 2012//

title: OV_FFPE_47///geo_accession: GSM746907///status: Public on Aug 21 2012//

title: OV_FFPE_48///geo_accession: GSM746908///status: Pu

title: OV_FFPE_49///geo_accession: GSM746909///status: Public on Aug 21 2012/

title: OV_FFPE_4///geo_accession: GSM746864///status: Public on Aug 21 2

title: OV_FFPE_50///geo_accession: GSM746910///status: Public on Aug 21 2012/

title: OV_FFPE_51///geo_accession: GSM746911///status: Public on Aug 21 201

title: OV_FFPE_52///geo_accession: GSM746912///status: Public on Aug 21 201

title: OV_FFPE_53///geo_accession: GSM746913///status: Public on Aug 21 2012//

title: OV_FFPE_54///geo_accession: GSM746914///status: Public on Aug 21 2012//

title: OV_FFPE_55///geo_accession: GSM746915///status: Public on Aug 21 2012/

title: OV_FFPE_56///geo_accession: GSM746916///status: Public on Aug 21 2012///su

title: OV_FFPE_57///geo_accession: GSM74

title: OV_FFPE_58///geo_accession: GSM746918///status: Public on Aug 21 2012//

title: OV_FFPE_5///geo_accession: GSM746865///status: Public on Aug 21 2012

```
      title: OV_FFPE_6///geo_accession: GSM746866///status: Public on Aug 21 2012

    title: OV_FFPE_7///geo_accession: GSM746867///status: Public on Aug 21 2012/

      title: OV_FFPE_8///geo_accession: GSM746868///status: Public on Aug 21 2012

    title: OV_FFPE_9///geo_accession: GSM746869///status: Public on Aug 21 2012//
```

Value

An expression set

GSE32062   *High-risk ovarian cancer based on 126-gene expression signature*
                                  is uniquely characterized by downregulation of antigen presentation
                                  pathway.

Description

High-grade serous ovarian cancers are heterogeneous not only in terms of clinical outcome but
also at the molecular level. Our aim was to establish a novel risk classification system based on
a gene expression signature for predicting overall survival, leading to suggesting novel therapeutic
strategies for high-risk patients.In this large-scale cross-platform study of six microarray data sets
consisting of 1,054 ovarian cancer patients, we developed a gene expression signature for predicting
overall survival by applying elastic net and 10-fold cross-validation to a Japanese data set A (n =
260) and evaluated the signature in five other data sets. Subsequently, we investigated differences
in the biological characteristics between high- and low-risk ovarian cancer groups.An elastic net
analysis identified a 126-gene expression signature for predicting overall survival in patients with
ovarian cancer using the Japanese data set A (multivariate analysis, P = 4 ?? 10(-20)). We validated
its predictive ability with five other data sets using multivariate analysis (Tothill's data set, P =
1 ?? 10(-5); Bonome's data set, P = 0.0033; Dressman's data set, P = 0.0016; TCGA data set,
P = 0.0027; Japanese data set B, P = 0.021). Through gene ontology and pathway analyses, we
identified a significant reduction in expression of immune-response-related genes, especially on
the antigen presentation pathway, in high-risk ovarian cancer patients.This risk classification based
on the 126-gene expression signature is an accurate predictor of clinical outcome in patients with
advanced stage high-grade serous ovarian cancer and has the potential to develop new therapeutic
strategies for high-grade serous ovarian cancer patients.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Yoshihara K, Tsunoda T, Shigemizu D, Fujiwara H et al. High-ri
  Laboratory: Yoshihara, Tanaka 2012
```

```
   Contact information:
   Title: High-risk ovarian cancer based on 126-gene expression signature is uniquel
   URL:
   PMIDs: 22241791

   Abstract: A 255 word abstract is available. Use 'abstract' method.
   Information is available on: preprocessing
   notes:
    platform_title:
       Agilent-014850 Whole Human Genome Microarray 4x44K G4112F (Probe Name vers
ion)
    platform_shorttitle:
       Agilent G4112F
    platform_summary:
       hgug4112a
    platform_manufacturer:
       Agilent
    platform_distribution:
       commercial
    platform_accession:
       GPL6480
    version:
       2015-09-22 19:55:29

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: A_23_P100001 A_23_P100011 ... A_32_P99902 (30936 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
   assayData: 30936 features, 260 samples
   Platform type:
   Overall survival time-to-event summary (in years):
   Call: survfit(formula = Surv(time, cens) ~ -1)

        n  events  median 0.95LCL 0.95UCL
    260.00  121.00    4.93    4.11    6.58


   --------------------------
   Available sample meta-data:
   --------------------------

   alt_sample_name:
       10d    115d    116d    117d    119d     11d    120d    122d    123d    125Rd
        1       1       1       1       1       1       1       1       1       1
      129d     12d    130d    132d    134d    139d    140d    143d    144d    145d
```

```
        1           1           1           1           1           1           1           1           1           1
     146d        148d        150d        155d        156d         15d        160d         16d        171d        173d
        1           1           1           1           1           1           1           1           1           1
     174d        178d         17d        183d        184d        185d        186d         18d         20d         22d
        1           1           1           1           1           1           1           1           1           1
      23d        249d        257d         25d        260d        262d        264d        266d        267d        268d
        1           1           1           1           1           1           1           1           1           1
     269d         27d        299d          2d        300d        301d        302d        303d        304d       305d2
        1           1           1           1           1           1           1           1           1           1
     306d        307d        310d        318d        319d       320d2        323d        327d        330d        331d
        1           1           1           1           1           1           1           1           1           1
    333d2        335d        337d        340d        342d        346d        347d       348d2        350d        352d
        1           1           1           1           1           1           1           1           1           1
     353d        355d        356d        357d        358d        360d        362d        363d        365d        366d
        1           1           1           1           1           1           1           1           1           1
     367d       368d2         36d         38d       41d2R         42d         43d         44d        456d     (Other)
        1           1           1           1           1           1           1           1           1         161
```

sample_type:
tumor
  260

histological_type:
ser
260

summarygrade:
high   low
 129   131

summarystage:
late
 260

tumorstage:
   3   4
204   56

substage:
   a   b   c NA's
   4   20 180   56

grade:
   2   3
131 129

pltx:
  y

```
260

tax:
  y
260

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     30     810    1245    1344    1710    3840

vital_status:
deceased   living
     121      139

debulking:
   optimal suboptimal
       103        157

uncurated_author_metadata:
     title: serous ovarian cancer 10d///geo_accession: GSM794865///status: Public o

title: serous ovarian cancer 115d///geo_accession: GSM794867///status: Public on Ma

title: serous ovarian cancer 116d///geo_accession: GSM794868///status: Public on Ma

   title: serous ovarian cancer 117d///geo_accession: GSM794869///status: Public or

   title: serous ovarian cancer 119d///geo_accession: GSM794870///status: Public or

     title: serous ovarian cancer 11d///geo_accession: GSM794866///status: Public o

   title: serous ovarian cancer 120d///geo_accession: GSM794872///status: Public or

 title: serous ovarian cancer 122d///geo_accession: GSM794873///status: Public on M

title: serous ovarian cancer 123d///geo_accession: GSM794874///status: Public on Ma

title: serous ovarian cancer 125Rd///geo_accession: GSM794875///status: Public on M

   title: serous ovarian cancer 129d///geo_accession: GSM794876///status: Public or

     title: serous ovarian cancer 12d///geo_accession: GSM794871///status: Public

title: serous ovarian cancer 130d///geo_accession: GSM794877///status: Public on Ma

   title: serous ovarian cancer 132d///geo_accession: GSM794878///status: Public or

   title: serous ovarian cancer 134d///geo_accession: GSM794879///status: Public or
```

title: serous ovarian cancer 139d///geo_accession: GSM794880///status: Public on

title: serous ovarian cancer 140d///geo_accession: GSM794881///status: Public on

title: serous ovarian cancer 143d///geo_accession: GSM794882///status: Public on M

title: serous ovarian cancer 144d///geo_accession: GSM794883///status: Public on

title: serous ovarian cancer 145d///geo_accession: GSM794884///status: Public on Ma

title: serous ovarian cancer 146d///geo_accession: GSM794885///status: Public on Ma

title: serous ovarian cancer 148d///geo_accession: GSM794886///status: Public on

title: serous ovarian cancer 150d///geo_accession: GSM794888///status: Public on Ma

title: serous ovarian cancer 155d///geo_accession: GSM794889///status: Public on

title: serous ovarian cancer 156d///geo_accession: GSM794890///status: Public on

title: serous ovarian cancer 15d///geo_accession: GSM794887///status: Public o

title: serous ovarian cancer 160d///geo_accession: GSM794892///status: Public on Ma

title: serous ovarian cancer 16d///geo_accession: GSM794891///status: Public o

title: serous ovarian cancer 171d///geo_accession: GSM794894///status: Public on M

title: serous ovarian cancer 173d///geo_accession: GSM794895///status: Public on M

title: serous ovarian cancer 174d///geo_accession: GSM794896///status: Public

title: serous ovarian cancer 178d///geo_accession: GSM794897///status: Public

title: serous ovarian cancer 17d///geo_accession: GSM794893///status: Public o

title: serous ovarian cancer 183d///geo_accession: GSM794899///status: Public on Ma

title: serous ovarian cancer 184d///geo_accession: GSM794900///status: Public on

title: serous ovarian cancer 185d///geo_accession: GSM794901///status: Public on

title: serous ovarian cancer 186d///geo_accession: GSM794902///status: Public on

title: serous ovarian cancer 18d///geo_accession: GSM794898///status: Public o

title: serous ovarian cancer 20d///geo_accession: GSM794904///status: Public on

title: serous ovarian cancer 22d///geo_accession: GSM794905///status: Public on N

title: serous ovarian cancer 23d///geo_accession: GSM794906///status: Public on

title: serous ovarian cancer 249d///geo_accession: GSM794907///status: Public on

title: serous ovarian cancer 257d///geo_accession: GSM794909///status: Public on Ma

title: serous ovarian cancer 25d///geo_accession: GSM794908///status: Public o

title: serous ovarian cancer 260d///geo_accession: GSM794910///status: Public on N

title: serous ovarian cancer 262d///geo_accession: GSM794911///status: Public on Ma

title: serous ovarian cancer 264d///geo_accession: GSM794912///status: Public on Ma

title: serous ovarian cancer 266d///geo_accession: GSM794913///status: Public on Ma

title: serous ovarian cancer 267d///geo_accession: GSM794914///status: Public on

title: serous ovarian cancer 268d///geo_accession: GSM794915///status: Public on

title: serous ovarian cancer 269d///geo_accession: GSM794916///status: Public on Ma

title: serous ovarian cancer 27d///geo_accession: GSM794917///status: Public on

title: serous ovarian cancer 299d///geo_accession: GSM794918///status: Public o

title: serous ovarian cancer 2d///geo_accession: GSM794903///status: Public on

title: serous ovarian cancer 300d///geo_accession: GSM794919///status: Public on

title: serous ovarian cancer 301d///geo_accession: GSM794920///status: Public on Ma

title: serous ovarian cancer 302d///geo_accession: GSM794921///status: Public on

title: serous ovarian cancer 303d///geo_accession: GSM794922///status: Public on

title: serous ovarian cancer 304d///geo_accession: GSM794923///status: Public on Ma

title: serous ovarian cancer 305d2///geo_accession: GSM794924///status: Public on

title: serous ovarian cancer 306d///geo_accession: GSM794925///status: Public on Ma

title: serous ovarian cancer 307d///geo_accession: GSM794926///status: Public on Ma

title: serous ovarian cancer 310d///geo_accession: GSM794927///status: Public

title: serous ovarian cancer 318d///geo_accession: GSM794928///status: Public on M

title: serous ovarian cancer 319d///geo_accession: GSM794929///status: Public on Ma

title: serous ovarian cancer 320d2///geo_accession: GSM794930///status: Public or

title: serous ovarian cancer 323d///geo_accession: GSM794931///status: Public or

title: serous ovarian cancer 327d///geo_accession: GSM794932///status: Public on

title: serous ovarian cancer 330d///geo_accession: GSM794933///status: Public on

title: serous ovarian cancer 331d///geo_accession: GSM794934///status: Public on Ma

title: serous ovarian cancer 333d2///geo_accession: GSM794935///status: Public on

title: serous ovarian cancer 335d///geo_accession: GSM794936///status: Public or

title: serous ovarian cancer 337d///geo_accession: GSM794937///status: Public on

title: serous ovarian cancer 340d///geo_accession: GSM794938///status: Public on

title: serous ovarian cancer 342d///geo_accession: GSM794939///status: Public or

title: serous ovarian cancer 346d///geo_accession: GSM794940///status: Public or

title: serous ovarian cancer 347d///geo_accession: GSM794941///status: Public on Ma

title: serous ovarian cancer 348d2///geo_accession: GSM794942///status: Public on

title: serous ovarian cancer 350d///geo_accession: GSM794943///status: Public on M

title: serous ovarian cancer 352d///geo_accession: GSM794944///status: Public on Ma

title: serous ovarian cancer 353d///geo_accession: GSM794945///status: Public

title: serous ovarian cancer 355d///geo_accession: GSM794946///status: Public or

title: serous ovarian cancer 356d///geo_accession: GSM794947///status: Public

title: serous ovarian cancer 357d///geo_accession: GSM794948///status: Public on Ma

title: serous ovarian cancer 358d///geo_accession: GSM794949///status: Public or

title: serous ovarian cancer 360d///geo_accession: GSM794951///status: Public on Ma

title: serous ovarian cancer 362d///geo_accession: GSM794952///status: Public on Ma

title: serous ovarian cancer 363d///geo_accession: GSM794953///status: Public or

title: serous ovarian cancer 365d///geo_accession: GSM794954///status: Public or

title: serous ovarian cancer 366d///geo_accession: GSM794955///status: Public on

title: serous ovarian cancer 367d///geo_accession: GSM794956///status: Public or

title: serous ovarian cancer 368d2///geo_accession: GSM794957///status: Public on

title: serous ovarian cancer 36d///geo_accession: GSM794950///status: Public

title: serous ovarian cancer 38d///geo_accession: GSM794958///status: Public o

title: serous ovarian cancer 41d2R///geo_accession: GSM794960///status: Public on M

title: serous ovarian cancer 42d///geo_accession: GSM794961///status: Public on M

title: serous ovarian cancer 43d///geo_accession: GSM794962///status: Public on

title: serous ovarian cancer 44d///geo_accession: GSM794963///status: Public on

title: serous ovarian cancer 456d///geo_accession: GSM794965///status: Public or

```
duplicates:
GSE32062.GSE32062.GPL6480_GSM794933 GSE32062.GSE32062.GPL6480_GSM794935
                              1                                          1
                             NA's
                              258
```

Value

An expression set

GSE32063   *High-risk ovarian cancer based on 126-gene expression signature*
                            is uniquely characterized by downregulation of antigen presentation
                            pathway.

Description

High-grade serous ovarian cancers are heterogeneous not only in terms of clinical outcome but
also at the molecular level. Our aim was to establish a novel risk classification system based on

a gene expression signature for predicting overall survival, leading to suggesting novel therapeutic strategies for high-risk patients.In this large-scale cross-platform study of six microarray data sets consisting of 1,054 ovarian cancer patients, we developed a gene expression signature for predicting overall survival by applying elastic net and 10-fold cross-validation to a Japanese data set A (n = 260) and evaluated the signature in five other data sets. Subsequently, we investigated differences in the biological characteristics between high- and low-risk ovarian cancer groups.An elastic net analysis identified a 126-gene expression signature for predicting overall survival in patients with ovarian cancer using the Japanese data set A (multivariate analysis, P = 4 ?? 10(-20)). We validated its predictive ability with five other data sets using multivariate analysis (Tothill's data set, P = 1 ?? 10(-5); Bonome's data set, P = 0.0033; Dressman's data set, P = 0.0016; TCGA data set, P = 0.0027; Japanese data set B, P = 0.021). Through gene ontology and pathway analyses, we identified a significant reduction in expression of immune-response-related genes, especially on the antigen presentation pathway, in high-risk ovarian cancer patients.This risk classification based on the 126-gene expression signature is an accurate predictor of clinical outcome in patients with advanced stage high-grade serous ovarian cancer and has the potential to develop new therapeutic strategies for high-grade serous ovarian cancer patients.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Yoshihara K, Tsunoda T, Shigemizu D, Fujiwara H et al. High-ri
  Laboratory: Yoshihara, Tanaka 2012
  Contact information:
  Title: High-risk ovarian cancer based on 126-gene expression signature is uniquel
  URL:
  PMIDs: 22241791

  Abstract: A 255 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Agilent-014850 Whole Human Genome Microarray 4x44K G4112F (Probe Name vers
ion)
   platform_shorttitle:
      Agilent G4112F
   platform_summary:
      hgug4112a
   platform_manufacturer:
      Agilent
   platform_distribution:
      commercial
   platform_accession:
      GPL6480
   version:
      2015-09-22 19:58:23

featureData(eset):
An object of class 'AnnotatedDataFrame'
```

```
     featureNames: A_23_P100001 A_23_P100011 ... A_32_P99902 (30936 total)
     varLabels: probeset gene EntrezGene.ID best_probe
     varMetadata: labelDescription
```

Details

```
assayData: 30936 features, 40 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median 0.95LCL 0.95UCL
  40.00   22.00     4.44    3.29      NA


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
 106  108 109R  110 111R  192 195R  196  197  198  200  203  205  206  207  213
   1    1    1    1    1    1    1    1    1    1    1    1    1    1    1    1
 222  224  226  229  230  231  274  277  278  280  281  282  283  284  285  286
   1    1    1    1    1    1    1    1    1    1    1    1    1    1    1    1
 287  288  289  291  292  294 297R 298R
   1    1    1    1    1    1    1    1

sample_type:
tumor
   40

histological_type:
ser
 40

summarygrade:
high  low
  17   23

summarystage:
late
  40

tumorstage:
 3  4
31  9

substage:
   b    c NA's
```

```
    3   28    9
```

grade:
```
 2  3
23 17
```

pltx:
```
 y
40
```

tax:
```
 y
40
```

days_to_death:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    210     705    1155    1346    1792    3330
```

vital_status:
```
deceased   living
      22       18
```

debulking:
```
   optimal suboptimal
        19         21
```

uncurated_author_metadata:
  title: serous ovarian cancer 106///geo_accession: GSM795125///status: Public on M

      title: serous ovarian cancer 108///geo_accession: GSM795126///status: Public o

  title: serous ovarian cancer 109R///geo_accession: GSM795127///status: Public on M

   title: serous ovarian cancer 110///geo_accession: GSM795128///status: Public on M

title: serous ovarian cancer 111R///geo_accession: GSM795129///status: Public on Ma

                                title: serous ovarian cancer 192///geo_accession: GSM7

                              title: serous ovarian cancer 195R///geo_accession: GSM79

                                title: serous ovarian cancer 196///geo_accession: GS

                                title: serous ovarian cancer 197///geo_accession: GSM7

                              title: serous ovarian cancer 198///geo_accession: GSM795

                              title: serous ovarian cancer 200///geo_accession: GSM795

title: serous ovarian cancer 203///geo_accession: GSM7951

title: serous ovarian cancer 205///geo_accession: GSM79

title: serous ovarian cancer 206///geo_accession: GSM7

title: serous ovarian cancer 207///geo_accession: GSM7951

title: serous ovarian cancer 213///geo_accession: GSM79

title: serous ovarian cancer 222///geo_accession: GSM7951

title: serous ovarian cancer 224///geo_accession: GSM7951

title: serous ovarian cancer 226///geo_accession: GSM7

title: serous ovarian cancer 229///geo_accession: GS

title: serous ovarian cancer 230///geo_accession:

title: serous ovarian cancer 231///geo_accession: GS

title: serous ovarian cancer 274///geo_accession: GSM79514

title: serous ovarian cancer 277///geo_accession: GSM79

title: serous ovarian cancer 278///geo_accession: GSM79

title: serous ovarian cancer 280///geo_accession: GSM7

title: serous ovarian cancer 281///geo_accession: GSM795

title: serous ovarian cancer 282///geo_accession: GSM7

title: serous ovarian cancer 283///geo_accession: GSM7

title: serous ovarian cancer 284///geo_accession: GSM795154

title: serous ovarian cancer 285///geo_accession: GSM7

title: serous ovarian cancer 286///geo_accession: GSM

title: serous ovarian cancer 287///geo_accession: GSM7

title: serous ovarian cancer 288///geo_accession: GSM7

title: serous ovarian cancer 289///geo_accession: GSM7

title: serous ovarian cancer 291///geo_accession: GSM7951

title: serous ovarian cancer 292///geo_accession: GSM7

title: serous ovarian cancer 294///geo_accession: GSM7

title: serous ovarian cancer 297R///geo_accession: GSM79

title: serous ovarian cancer 298R///geo_accession: GSM795

Value

An expression set

GSE44104   *COL11A1 promotes tumor progression and predicts poor clinical out-*
                         come in ovarian cancer.

Description

Biomarkers that predict disease progression might assist the development of better therapeutic strategies for aggressive cancers, such as ovarian cancer. Here, we investigated the role of collagen type XI alpha 1 (COL11A1) in cell invasiveness and tumor formation and the prognostic impact of COL11A1 expression in ovarian cancer. Microarray analysis suggested that COL11A1 is a disease progression-associated gene that is linked to ovarian cancer recurrence and poor survival. Small interference RNA-mediated specific reduction in COL11A1 protein levels suppressed the invasive ability and oncogenic potential of ovarian cancer cells and decreased tumor formation and lung colonization in mouse xenografts. A combination of experimental approaches, including real-time RT-PCR, casein zymography and chromatin immunoprecipitation (ChIP) assays, showed that COL11A1 knockdown attenuated MMP3 expression and suppressed binding of Ets-1 to its putative MMP3 promoter-binding site, suggesting that the Ets-1-MMP3 axis is upregulated by COL11A1. Transforming growth factor (TGF)-beta (TGF-??1) treatment triggers the activation of smad2 signaling cascades, leading to activation of COL11A1 and MMP3. Pharmacological inhibition of MMP3 abrogated the TGF-??1-triggered, COL11A1-dependent cell invasiveness. Furthermore, the NF-YA-binding site on the COL11A1 promoter was identified as the major determinant of TGF-??1-dependent COL11A1 activation. Analysis of 88 ovarian cancer patients indicated that high COL11A1 mRNA levels are associated with advanced disease stage. The 5-year recurrence-free and overall survival rates were significantly lower (P=0.006 and P=0.018, respectively) among patients with high expression levels of tissue COL11A1 mRNA compared with those with low expression. We conclude that COL11A1 may promote tumor aggressiveness via the TGF-??1-MMP3 axis and that COL11A1 expression can predict clinical outcome in ovarian cancer patients.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Wu Y, Chang T, Huang Y, Huang H, Chou C
  Laboratory: Wu, Chou 2013
  Contact information:
  Title: COL11A1 promotes tumor progression and predicts poor clinical outcome in o
  URL:
  PMIDs: 23934190

  Abstract: A 260 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL570
   platform_technology:
      in situ oligonucleotide
   version:
      2015-09-22 20:02:05

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 60 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
Tc_113  Tc_48  Tc_49  Tc_51  Tc_56  Tc_59  Tc_61  Tc_63  Tc_64  Tc_65  Tc_74
```

```
      1       1       1       1       1       1       1       1       1       1       1
   Tc_94   Te_69   Te_77   Te_78   Te_79   Te_84   Te_87   Te_89   Te_90   Te_91   Te_92
      1       1       1       1       1       1       1       1       1       1       1
   Te_93  Tm_101  Tm_102  Tm_106  Tm_107  Tm_110   Tm_95   Tm_96   Tm_97   Tm_98   Ts_11
      1       1       1       1       1       1       1       1       1       1       1
   Ts_14   Ts_15   Ts_17   Ts_19    Ts_2   Ts_20   Ts_21   Ts_23   Ts_24   Ts_26   Ts_28
      1       1       1       1       1       1       1       1       1       1       1
    Ts_3   Ts_31   Ts_32   Ts_34   Ts_35   Ts_36   Ts_37   Ts_39    Ts_4   Ts_41   Ts_43
      1       1       1       1       1       1       1       1       1       1       1
   Ts_45   Ts_46   Ts_47    Ts_5    Ts_8
      1       1       1       1       1

sample_type:
tumor
   60

histological_type:
clearcell      endo  mucinous         ser
      12         11         9          28

summarystage:
early  late
   25    35

tumorstage:
 1  2  3  4
17  8 30  5

recurrence_status:
norecurrence    recurrence
          40            20

os_binary:
 long short
   44    16

relapse_binary:
 long short
   40    20

batch:
2010-09-07 2010-09-08 2010-10-14 2010-12-10 2010-12-14
        20          2         18         16          4

uncurated_author_metadata:
title: Tc_113///geo_accession: GSM1078972///status: Public on Jan 01 2014///submiss

          title: Tc_48///geo_accession: GSM1078973///status: Public on Jan 01 2014/
```

title: Tc_49///geo_accession: GSM1078974///status: Public on Jan 01 2014///sub

title: Tc_51///geo_accession: GSM1078975///status: Public on Jan 01 2014///submi

title: Tc_56///geo_accession: GSM1078976///status: Public on Jan 01 2014///sub

title: Tc_59///geo_accession: GSM1078977///status: Public on Jan 01 2014///sub

title: Tc_61///geo_accession: GSM1078978///status: Public on Jan 01 2014///submi

title: Tc_63///geo_accession: GSM1078979///status: Public on Jan 01 2014///sub

title: Tc_64///geo_accession: GSM1078980///status: Public on Jan 01 2014///sub

title: Tc_65///geo_accession: GSM1078981///status: Public on Jan 01 2014///

title: Tc_74///geo_accession: GSM1078982///status: Public on Jan 01 2014///

title: Tc_94///geo_accession: GSM1078983///status: Public on Jan 01 2014///s

title: Te_69///geo_accession: GSM1078984///status: Public on Jan 01 2014///su

title: Te_77///geo_accession: GSM1078985///status: Public on Jan 01 2014///sub

title: Te_78///geo_accession: GSM1078986///status: Public on Jan 01 2014///submi

title: Te_79///geo_accession: GSM1078987///status: Public on Jan 01 2014///submi

title: Te_84///geo_accession: GSM1078988///status: Public on Jan 01 2014///submis

title: Te_87///geo_accession: GSM1078989///status: Public on Jan 01 2014///submiss

title: Te_89///geo_accession: GSM1078990///status: Public on Jan 01 2014///submi

title: Te_90///geo_accession: GSM1078991///status: Public on Jan 01 2014///submis

title: Te_91///geo_accession: GSM1078992///status: Public on Jan 01 2014///

title: Te_92///geo_accession: GSM1078993///status: Public on Jan 01 2014///submi

title: Te_93///geo_accession: GSM1078994///status: Public on Jan 01 2014///submis

title: Tm_101///geo_accession: GSM1078995///status: Public on Jan 01 2014///su

title: Tm_102///geo_accession: GSM1078996///status: Public on Jan 01 2014///sub

title: Tm_106///geo_accession: GSM1078997///status: Public on Jan 01 2014///sub

title: Tm_107///geo_accession: GSM1078998///status: Public on Jan 01 2014///submi

title: Tm_110///geo_accession: GSM1078999///status: Public on Jan 01 2014///sub

title: Tm_95///geo_accession: GSM1079000///status: Public on Jan 01 2014///s

title: Tm_96///geo_accession: GSM1079001///status: Public on Jan 01 2014///su

title: Tm_97///geo_accession: GSM1079002///status: Public on Jan 01 2014///s

title: Tm_98///geo_accession: GSM1079003///status: Public on Jan 01 20

title: Ts_11///geo_accession: GSM1079004///status: Public on Jan 01 2014

title: Ts_14///geo_accession: GSM1079005///status: Public on Jan 01 2

title: Ts_15///geo_accession: GSM1079006///status: Public on Jan 01 2014//

title: Ts_17///geo_accession: GSM1079007///status: Public on Jan 01

title: Ts_19///geo_accession: GSM1079008///status: Public on Jan 01 2

title: Ts_20///geo_accession: GSM1079009///status: Public on Jan 01 2014/

title: Ts_21///geo_accession: GSM1079010///status: Public on Jan 01 2014

title: Ts_23///geo_accession: GSM1079011///status: Public on Jan 01 2

title: Ts_24///geo_accession: GSM1079012///status: Public on Jan 01 2014

title: Ts_26///geo_accession: GSM1079013///status: Public on Jan 01 2

title: Ts_28///geo_accession: GSM1079014///status: Public on Jan 01 2014///s

title: Ts_2///geo_accession: GSM1079015///status: Public on Jan 01

title: Ts_31///geo_accession: GSM1079016///status: Public on Jan 01 2014///s

title: Ts_32///geo_accession: GSM1079017///status: Public on Jan 01 2014///s

title: Ts_34///geo_accession: GSM1079018///status: Public on Jan 01 2014///s

title: Ts_35///geo_accession: GSM1079019///status: Public on Jan 01 2014///s

title: Ts_36///geo_accession: GSM1079020///status: Public on Jan 01 2014

title: Ts_37///geo_accession: GSM1079021///status: Public on Jan 01 2014///s

```
          title: Ts_39///geo_accession: GSM1079022///status: Public on Jan 01 2014
             title: Ts_3///geo_accession: GSM1079023///status: Public on Jan 01 20
        title: Ts_41///geo_accession: GSM1079024///status: Public on Jan 01 2014///s
         title: Ts_43///geo_accession: GSM1079025///status: Public on Jan 01 2014///
         title: Ts_45///geo_accession: GSM1079026///status: Public on Jan 01 2014///
         title: Ts_46///geo_accession: GSM1079027///status: Public on Jan 01 2014///
        title: Ts_47///geo_accession: GSM1079028///status: Public on Jan 01 2014///s
              title: Ts_4///geo_accession: GSM1079029///status: Public on Jan 01
               title: Ts_5///geo_accession: GSM1079030///status: Public on Jan 0
            title: Ts_8///geo_accession: GSM1079031///status: Public on Jan 01 20


  duplicates:
     Length    Class     Mode
         60 character character
```

Value

An expression set

GSE49997   *Validating the impact of a molecular subtype in ovarian cancer on*
                  outcomes: a study of the OVCAD Consortium.

Description

Most patients with epithelial ovarian cancer (EOC) are diagnosed at advanced stage and have a poor prognosis. However, a small proportion of these patients will survive, whereas others will die very quickly. Clinicopathological factors do not allow precise identification of these subgroups. Thus, we have validated a molecular subclassification as new prognostic factor in EOC. One hundred and ninety-four patients with Stage II-IV EOC were characterized by whole-genome expression profiling of tumor tissues and were classified using a published 112 gene set, derived from an International Federation of Gynecology and Obstetrics (FIGO) stage-directed supervised classification approach. The 194 tumor samples were classified into two subclasses comprising 95 (Subclass 1) and 99 (Subclass 2) tumors. All nine FIGO II tumors were grouped in Subclass 1 (P = 0.001). Subclass 2 (54% of advanced-stage tumors) was significantly correlated with peritoneal carcinomatosis

and non-optimal debulking. Patients with Subclass 2 tumors had a worse overall survival for both serous and non-serous histological subtypes, as revealed by univariate analysis (hazard ratios [HR] of 3.17 and 17.11, respectively; P ??? 0.001) and in models corrected for relevant clinicopathologic parameters (HR 2.87 and 12.42, respectively; P ??? 0.023). Significance analysis of microarrays revealed 2082 genes that were differentially expressed in advanced-grade serous tumors of both subclasses and the focal adhesion pathway as the most deregulated pathway. In the present validation study, we have shown that, in advanced-stage serous ovarian cancer, two approximately equally large molecular subtypes exist, independent of classical clinocopathological parameters and presenting with highly different whole-genome expression profiles and a markedly different overall survival. Similar results were obtained in a small cohort of patients with non-serous tumors.?? 2012 Japanese Cancer Association.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Pils D1, Hager G, Tong D, Aust S, Heinze G, Kohl M, Schuster E
  Laboratory: Pils, Zeilinger 2012
  Contact information:
  Title: Validating the impact of a molecular subtype in ovarian cancer on outcomes
  URL:
  PMIDs: 22497737

  Abstract: A 276 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      ABI Human Genome Survey Microarray Version 2
   platform_shorttitle:
      ABI Human Genome
   platform_summary:

   platform_manufacturer:
      Applied Biosystems
   platform_distribution:
      commercial
   platform_accession:
      GPL2986
   platform_technology:
      in situ oligonucleotide
   version:
      2015-09-22 20:04:13

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 100027 100036 ... 10715781 (18439 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 18439 features, 204 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   10 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 194.00   57.00      NA    3.67      NA


-------------------------
Available sample meta-data:
-------------------------


alt_sample_name:
EOC P001 EOC P002 EOC P003 EOC P004 EOC P005 EOC P006 EOC P007 EOC P008
       1        1        1        1        1        1        1        1
EOC P009 EOC P010 EOC P011 EOC P012 EOC P013 EOC P014 EOC P015 EOC P016
       1        1        1        1        1        1        1        1
EOC P017 EOC P018 EOC P019 EOC P020 EOC P021 EOC P022 EOC P023 EOC P024
       1        1        1        1        1        1        1        1
EOC P025 EOC P026 EOC P027 EOC P028 EOC P029 EOC P030 EOC P031 EOC P032
       1        1        1        1        1        1        1        1
EOC P033 EOC P034 EOC P035 EOC P036 EOC P037 EOC P038 EOC P039 EOC P040
       1        1        1        1        1        1        1        1
EOC P041 EOC P042 EOC P043 EOC P044 EOC P045 EOC P046 EOC P047 EOC P048
       1        1        1        1        1        1        1        1
EOC P049 EOC P050 EOC P051 EOC P052 EOC P053 EOC P054 EOC P055 EOC P056
       1        1        1        1        1        1        1        1
EOC P057 EOC P058 EOC P059 EOC P060 EOC P061 EOC P062 EOC P063 EOC P064
       1        1        1        1        1        1        1        1
EOC P065 EOC P066 EOC P067 EOC P068 EOC P069 EOC P070 EOC P071 EOC P072
       1        1        1        1        1        1        1        1
EOC P073 EOC P074 EOC P075 EOC P076 EOC P077 EOC P078 EOC P079 EOC P080
       1        1        1        1        1        1        1        1
EOC P081 EOC P082 EOC P083 EOC P084 EOC P085 EOC P086 EOC P087 EOC P088
       1        1        1        1        1        1        1        1
EOC P089 EOC P090 EOC P091 EOC P092 EOC P093 EOC P094 EOC P095 EOC P096
       1        1        1        1        1        1        1        1
EOC P097 EOC P098 EOC P099  (Other)
       1        1        1      105

sample_type:
tumor
  204

histological_type:
other   ser  NA's
```

```
   23    171    10

summarygrade:
high   low NA's
 143    50    11

summarystage:
early   late   NA's
    9    185    10

tumorstage:
   2    3    4 NA's
   9  154   31   10

grade:
   2    3 NA's
  50  143   11

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  26.00   50.00   57.00   57.66   67.00   85.00      10

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  30.0   335.0   487.0   580.1   722.5  1461.0      10

recurrence_status:
norecurrence    recurrence          NA's
         70           124            10

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  30.0   517.0   745.5   782.9  1027.0  1491.0      10

vital_status:
deceased   living    NA's
      57      137      10

debulking:
   optimal suboptimal      NA's
       137         57        10

uncurated_author_metadata:
    title: EOC P001///geo_accession: GSM1211536///status: Public on Jan 01 2014///

      title: EOC P002///geo_accession: GSM1211537///status: Public on Jan 01 2014//

     title: EOC P003///geo_accession: GSM1211538///status: Public on Jan 01 2014///s
```

title: EOC P004///geo_accession: GSM1211539///status: Public on Jan 01 2014///

title: EOC P005///geo_accession: GSM1211540///status: Public on Jan 01 2014//

title: EOC P006///geo_accession: GSM1211541///status: Public on Jan 01 2014///s

title: EOC P008///geo_accession: GSM1211543///status: Public on Jan 01 2014///su

title: EOC P009///geo_accession: GSM1211544///status: Public on Jan 01 2014/

title: EOC P011///geo_accession: GSM1211546///status: Public on Jan 01 2014//

title: EOC P012///geo_accession: GSM1211547///status: Public on Jan 01 2014///

title: EOC P013///geo_accession: GSM1211548///status: Public on Jan 01 2014///submi

title: EOC P014///geo_accession: GSM1211549///status: Public on Jan 01 2014/

title: EOC P015///geo_accession: GSM1211550///status: Public on Jan 01 2014///

title: EOC P016///geo_accession: GSM1211551///status: Public on Jan 01 2014//

title: EOC P017///geo_accession: GSM1211552///status: Public on Jan 01 2014/

title: EOC P018///geo_accession: GSM1211553///status: Public on Jan 01 2014///

title: EOC P019///geo_accession: GSM1211554///status: Public on Jan 01 2014///sub

title: EOC P020///geo_accession: GSM1211555///status: Public on Jan 01 2014///s

title: EOC P021///geo_accession: GSM1211556///status: Public on Jan 01 2014///

title: EOC P022///geo_accession: GSM1211557///status: Public on Jan 01 2014//

title: EOC P023///geo_accession: GSM1211558///status: Public on Jan 01 2014//

title: EOC P024///geo_accession: GSM1211559///status: Public on Jan 01 2014///

title: EOC P025///geo_accession: GSM1211560///status: Public on Jan 01 2014///sub

title: EOC P026///geo_accession: GSM1211561///status: Public on Jan 01 2014//

title: EOC P028///geo_accession: GSM1211563///status: Public on Jan 01 2014/

title: EOC P029///geo_accession: GSM1211564///status: Public on Jan 01 2014///s

title: EOC P030///geo_accession: GSM1211565///status: Public on Jan 01 2014///

title: EOC P031///geo_accession: GSM1211566///status: Public on Jan 01 2014/

title: EOC P032///geo_accession: GSM1211567///status: Public on Jan 01 2014//

title: EOC P034///geo_accession: GSM1211569///status: Public on Jan 01 2014

title: EOC P035///geo_accession: GSM1211570///status: Public on Jan 01 2014/

title: EOC P036///geo_accession: GSM1211571///status: Public on Jan 01 2014///

title: EOC P037///geo_accession: GSM1211572///status: Public on Jan 01 2014///s

title: EOC P038///geo_accession: GSM1211573///status: Public on Jan 01 2014

title: EOC P039///geo_accession: GSM1211574///status: Public on Jan 01 2014///

title: EOC P040///geo_accession: GSM1211575///status: Public on Jan 01 2014//

title: EOC P041///geo_accession: GSM1211576///status: Public on Jan 01 2014///

title: EOC P042///geo_accession: GSM1211577///status: Public on Jan 01 2014///

title: EOC P043///geo_accession: GSM1211578///status: Public on Jan 01 2014//

title: EOC P044///geo_accession: GSM1211579///status: Public on Jan 01 2014///s

title: EOC P045///geo_accession: GSM1211580///status: Public on Jan 01 2014///submi

title: EOC P046///geo_accession: GSM1211581///status: Public on Jan 01 2014//

title: EOC P047///geo_accession: GSM1211582///status: Public on Jan 01 2014///s

title: EOC P048///geo_accession: GSM1211583///status: Public on Jan 01 2014

title: EOC P049///geo_accession: GSM1211584///status: Public on Jan 01 2014///su

title: EOC P050///geo_accession: GSM1211585///status: Public on Jan 01 2014//

title: EOC P051///geo_accession: GSM1211586///status: Public on Jan 01 2014/

title: EOC P052///geo_accession: GSM1211587///status: Public on Jan 01 2014///sub

title: EOC P053///geo_accession: GSM1211588///status: Public on Jan 01 2014///su

title: EOC P054///geo_accession: GSM1211589///status: Public on Jan 01 2014/

title: EOC P055///geo_accession: GSM1211590///status: Public on Jan 01 2014///

title: EOC P056///geo_accession: GSM1211591///status: Public on Jan 01 2014/

title: EOC P057///geo_accession: GSM1211592///status: Public on Jan 01 2014//

title: EOC P058///geo_accession: GSM1211593///status: Public on Jan 01 2014/

title: EOC P059///geo_accession: GSM1211594///status: Public on Jan 01 2014/

title: EOC P060///geo_accession: GSM1211595///status: Public on Jan 01 2014/

title: EOC P061///geo_accession: GSM1211596///status: Public on Jan 01 2014//

title: EOC P062///geo_accession: GSM1211597///status: Public on Jan 01 2014//

title: EOC P063///geo_accession: GSM1211598///status: Public on Jan 01 2014///s

title: EOC P064///geo_accession: GSM1211599///status: Public on Jan 01 2014/

title: EOC P065///geo_accession: GSM1211600///status: Public on Jan 01 2014///s

title: EOC P066///geo_accession: GSM1211601///status: Public on Jan 01 2014///

title: EOC P067///geo_accession: GSM1211602///status: Public on Jan 01 2014///

title: EOC P068///geo_accession: GSM1211603///status: Public on Jan 01 2014/

title: EOC P069///geo_accession: GSM1211604///status: Public on Jan 01 2014//

title: EOC P070///geo_accession: GSM1211605///status: Public on Jan 01 2014/

title: EOC P071///geo_accession: GSM1211606///status: Public on Jan 01 2014///s

title: EOC P072///geo_accession: GSM1211607///status: Public on Jan 01 2014///

title: EOC P073///geo_accession: GSM1211608///status: Public on Jan 01 2014/

title: EOC P074///geo_accession: GSM1211609///status: Public on Jan 01 2014//

title: EOC P075///geo_accession: GSM1211610///status: Public on Jan 01 2014//

title: EOC P076///geo_accession: GSM1211611///status: Public on Jan 01 2014/

title: EOC P077///geo_accession: GSM1211612///status: Public on Jan 01 2014/

title: EOC P078///geo_accession: GSM1211613///status: Public on Jan 01 2014///su

title: EOC P079///geo_accession: GSM1211614///status: Public on Jan 01 2014//

title: EOC P080///geo_accession: GSM1211615///status: Public on Jan 01 2014//

title: EOC P081///geo_accession: GSM1211616///status: Public on Jan 01 2014///s

title: EOC P082///geo_accession: GSM1211617///status: Public on Jan 01 2014///s

title: EOC P083///geo_accession: GSM1211618///status: Public on Jan 01 2014///sub

title: EOC P084///geo_accession: GSM1211619///status: Public on Jan 01 2014//

title: EOC P085///geo_accession: GSM1211620///status: Public on Jan 01 2014//

title: EOC P086///geo_accession: GSM1211621///status: Public on Jan 01 2014//

title: EOC P087///geo_accession: GSM1211622///status: Public on Jan 01 2014///su

title: EOC P088///geo_accession: GSM1211623///status: Public on Jan 01 2014//

title: EOC P089///geo_accession: GSM1211624///status: Public on Jan 01 2014///su

title: EOC P090///geo_accession: GSM1211625///status: Public on Jan 01 2014///s

title: EOC P091///geo_accession: GSM1211626///status: Public on Jan 01 2014///sub

title: EOC P092///geo_accession: GSM1211627///status: Public on Jan 01 2014///su

title: EOC P093///geo_accession: GSM1211628///status: Public on Jan 01 2014///

title: EOC P095///geo_accession: GSM1211630///status: Public on Jan 01 2014//

title: EOC P096///geo_accession: GSM1211631///status: Public on Jan 01 2014///s

title: EOC P097///geo_accession: GSM1211632///status: Public on Jan 01 2014///s

title: EOC P098///geo_accession: GSM1211633///status: Public on Jan 01 2014//

title: EOC P099///geo_accession: GSM1211634///status: Public on Jan 01 2014/

Value

An expression set

GSE51088   *POSTN/TGFBI-associated stromal signature predicts poor prognosis*
in serous epithelial ovarian cancer.

Description

To identify molecular prognosticators and therapeutic targets for high-grade serous epithelial ovarian cancers (EOCs) using genetic analyses driven by biologic features of EOC pathogenesis.Ovarian tissue samples (n = 172; 122 serous EOCs, 30 other EOCs, 20 normal/benign) collected prospectively from sequential patients undergoing gynecologic surgery were analyzed using RNA expression microarrays. Samples were classified based on expression of genes with potential relevance in ovarian cancer. Gene sets were defined using Rosetta Similarity Search Tool (ROAST) and analysis of variance (ANOVA). Gene copy number variations were identified by array comparative genomic hybridization.No distinct subgroups of EOC could be identified by unsupervised clustering, however, analyses based on genes correlated with periostin (POSTN) and estrogen receptor-alpha (ESR1) yielded distinct subgroups. When 95 high-grade serous EOCs were grouped by genes based on ANOVA comparing ESR1/WT1 and POSTN/TGFBI samples, overall survival (OS) was significantly shorter for 43 patients with tumors expressing genes associated with POSTN/TGFBI compared to 52 patients with tumors expressing genes associated with ESR1/WT1 (median 30 versus 49 months, respectively; P = 0.022). Several targets with therapeutic potential were identified within each subgroup. BRCA germline mutations were more frequent in the ESR1/WT1 subgroup. Proliferation-associated genes and TP53 status (mutated or wild-type) did not correlate with survival. Findings were validated using independent ovarian cancer datasets.Two distinct molecular subgroups of high-grade serous EOCs based on POSTN/TGFBI and ESR1/WT1 expressions were identified with significantly different OS. Specific differentially expressed genes between these subgroups provide potential prognostic and therapeutic targets.Copyright ?? 2013 Elsevier Inc. All rights reserved.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Karlan BY, Dering J, Walsh C, Orsulic S, Lester J, Anderson LA
  Laboratory: Karlan, Slamon 2014
  Contact information:
  Title: POSTN/TGFBI-associated stromal signature predicts poor prognosis in serous
  URL:
  PMIDs: 24368280
```

```
  Abstract: A 250 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Agilent-012097 Human 1A Microarray (V2) G4110B (Probe Name version)
   platform_shorttitle:
      Agilent G4110B
   platform_summary:
      hgug4110b
   platform_manufacturer:
      Agilent
   platform_distribution:
      commercial
   platform_accession:
      GPL7264
   platform_technology:
      in situ oligonucleotide
   version:
      2015-09-22 20:05:48

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: A_23_P100001 A_23_P100011 ... A_23_P99996 (18703 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 18703 features, 172 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   20 observations deleted due to missingness
      n   events   median 0.95LCL 0.95UCL
 152.00  112.00     4.13    3.50    4.92


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
Ov_Tumor_Ref_Mix vs. CS-OV-001 Ov_Tumor_Ref_Mix vs. CS-OV-002
                             1                               1
Ov_Tumor_Ref_Mix vs. CS-OV-003 Ov_Tumor_Ref_Mix vs. CS-OV-004
                             1                               1
Ov_Tumor_Ref_Mix vs. CS-OV-005 Ov_Tumor_Ref_Mix vs. CS-OV-006
```

```
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-007 Ov_Tumor_Ref_Mix vs. CS-OV-008
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-009 Ov_Tumor_Ref_Mix vs. CS-OV-010
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-011 Ov_Tumor_Ref_Mix vs. CS-OV-012
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-013 Ov_Tumor_Ref_Mix vs. CS-OV-014
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-015 Ov_Tumor_Ref_Mix vs. CS-OV-016
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-017 Ov_Tumor_Ref_Mix vs. CS-OV-018
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-019 Ov_Tumor_Ref_Mix vs. CS-OV-020
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-021 Ov_Tumor_Ref_Mix vs. CS-OV-022
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-023 Ov_Tumor_Ref_Mix vs. CS-OV-024
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-025 Ov_Tumor_Ref_Mix vs. CS-OV-026
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-027 Ov_Tumor_Ref_Mix vs. CS-OV-028
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-029 Ov_Tumor_Ref_Mix vs. CS-OV-030
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-031 Ov_Tumor_Ref_Mix vs. CS-OV-032
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-033 Ov_Tumor_Ref_Mix vs. CS-OV-034
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-035 Ov_Tumor_Ref_Mix vs. CS-OV-036
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-037 Ov_Tumor_Ref_Mix vs. CS-OV-038
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-039 Ov_Tumor_Ref_Mix vs. CS-OV-040
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-041 Ov_Tumor_Ref_Mix vs. CS-OV-042
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-043 Ov_Tumor_Ref_Mix vs. CS-OV-044
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-045 Ov_Tumor_Ref_Mix vs. CS-OV-046
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-047 Ov_Tumor_Ref_Mix vs. CS-OV-048
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-049 Ov_Tumor_Ref_Mix vs. CS-OV-050
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-051 Ov_Tumor_Ref_Mix vs. CS-OV-052
                          1                                        1
  Ov_Tumor_Ref_Mix vs. CS-OV-053 Ov_Tumor_Ref_Mix vs. CS-OV-054
```

```
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-055 Ov_Tumor_Ref_Mix vs. CS-OV-056
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-057 Ov_Tumor_Ref_Mix vs. CS-OV-058
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-059 Ov_Tumor_Ref_Mix vs. CS-OV-060
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-061 Ov_Tumor_Ref_Mix vs. CS-OV-062
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-063 Ov_Tumor_Ref_Mix vs. CS-OV-064
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-065 Ov_Tumor_Ref_Mix vs. CS-OV-066
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-067 Ov_Tumor_Ref_Mix vs. CS-OV-068
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-069 Ov_Tumor_Ref_Mix vs. CS-OV-070
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-071 Ov_Tumor_Ref_Mix vs. CS-OV-072
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-073 Ov_Tumor_Ref_Mix vs. CS-OV-074
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-075 Ov_Tumor_Ref_Mix vs. CS-OV-076
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-077 Ov_Tumor_Ref_Mix vs. CS-OV-078
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-079 Ov_Tumor_Ref_Mix vs. CS-OV-080
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-081 Ov_Tumor_Ref_Mix vs. CS-OV-082
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-083 Ov_Tumor_Ref_Mix vs. CS-OV-084
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-085 Ov_Tumor_Ref_Mix vs. CS-OV-086
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-087 Ov_Tumor_Ref_Mix vs. CS-OV-088
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-089 Ov_Tumor_Ref_Mix vs. CS-OV-090
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-091 Ov_Tumor_Ref_Mix vs. CS-OV-092
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-093 Ov_Tumor_Ref_Mix vs. CS-OV-094
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-095 Ov_Tumor_Ref_Mix vs. CS-OV-096
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-097 Ov_Tumor_Ref_Mix vs. CS-OV-098
                              1                                       1
   Ov_Tumor_Ref_Mix vs. CS-OV-099                              (Other)
                              1                                      73
```

```
sample_type:
     benign borderline     healthy metastatic        tumor
          5         12          15         17          123

histological_type:
clearcell        endo  mucinous       other        ser       NA's
        3           7         9          11        122         20

summarygrade:
high  low NA's
 119   30   23

summarystage:
early  late  NA's
   31   120    21

tumorstage:
    1    2     3    4 NA's
   22    9  103   17   21

substage:
   a    b    c NA's
  17   22   94   39

grade:
    0    1    2    3 NA's
    8    8   14  119   23

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   26.0    49.0    57.5    58.6    68.0    91.0

neo:
  n
172

recurrence_status:
norecurrence    recurrence          NA's
         36           111            25

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
     30     791    1491    1835    2344    7001      20

vital_status:
deceased   living     NA's
     112       40       20
```

```
percent_normal_cells:
 30- NA's
 140   32

percent_stromal_cells:
 30- NA's
 140   32

percent_tumor_cells:
 70+ NA's
 140   32

uncurated_author_metadata:
                          title: Ov_Tumor_Ref_Mix vs. CS-OV-001///geo_accession: GSM1
                        title: Ov_Tumor_Ref_Mix vs. CS-OV-002///geo_accession: GSM123
                     title: Ov_Tumor_Ref_Mix vs. CS-OV-003///geo_accession: GSM12381
                      title: Ov_Tumor_Ref_Mix vs. CS-OV-004///geo_accession: GSM1238
                      title: Ov_Tumor_Ref_Mix vs. CS-OV-005///geo_accession: GSM123
                  title: Ov_Tumor_Ref_Mix vs. CS-OV-006///geo_accession: GSM1238150///s
                        title: Ov_Tumor_Ref_Mix vs. CS-OV-007///geo_accession: GSM12
                          title: Ov_Tumor_Ref_Mix vs. CS-OV-008///geo_accession: GSM
                       title: Ov_Tumor_Ref_Mix vs. CS-OV-009///geo_accession: GSM123
                         title: Ov_Tumor_Ref_Mix vs. CS-OV-010///geo_accession: GSM
                      title: Ov_Tumor_Ref_Mix vs. CS-OV-011///geo_accession: GSM12
                      title: Ov_Tumor_Ref_Mix vs. CS-OV-012///geo_accession: GSM12
                                                          title: Ov_Tumor_
                      title: Ov_Tumor_Ref_Mix vs. CS-OV-014///geo_accession: GSM12
                     title: Ov_Tumor_Ref_Mix vs. CS-OV-015///geo_accession: GSM123
                  title: Ov_Tumor_Ref_Mix vs. CS-OV-016///geo_accession: GSM123816
        title: Ov_Tumor_Ref_Mix vs. CS-OV-017///geo_accession: GSM1238161///status: Publ
      title: Ov_Tumor_Ref_Mix vs. CS-OV-018///geo_accession: GSM1238162///status: Public
```

title: Ov_Tumor_Ref_Mix vs. CS-OV-019///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-020///geo_accession: GSM1238164

title: Ov_Tumor_Ref_Mix vs. CS-OV-021///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-022///geo_accession: GSM1238166

title: Ov_Tumor_Ref_Mix vs. CS-OV-023///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-024///geo_accession: GSM1238168///status: Public

title: Ov_Tumor_Ref_Mix vs. CS-OV-025///geo_accession: GSM12

title: Ov_Tumor_

title: Ov_Tumor_Ref_Mix vs. CS-OV-027///geo_accession: G

title: Ov_Tumor_Ref_Mix vs. CS-OV-028///geo_accession: GSM12381

title: Ov_Tumor_Ref_Mix vs. CS-OV-029///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-030///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-031///geo_accession: GSM123817

title: Ov_Tumor_Ref_Mix vs. CS-OV-032///geo_accession: GSM

title: Ov_Tumor

title: Ov_Tumor_Ref_Mix vs. CS-OV-034///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-035///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-036///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-037///geo_accession: GSM123818

title: Ov_Tumor_Ref_Mix vs. CS-OV-038///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-039///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-040///geo_accession: GSM1238

title: Ov_Tumor

title: Ov_Tumor_Ref_Mix vs. CS-OV-042///geo_accession: GSM1238186///status: Publi

title: Ov_Tumor_

title: Ov_Tumor_Ref_Mix vs. CS-OV-044///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-045///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-046///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-047///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-048///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-049///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-050///geo_accession: GSM1238194

title: Ov_Tumor_Ref_Mix vs. CS-OV-051///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-052///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-053///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-054///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-055///geo_accession: GSM12381

title: Ov_Tumor_Ref_Mix vs. CS-OV-056///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-057///geo_accession: GSM12382

title: Ov_Tumor_Ref_Mix vs. CS-OV-058///geo_accession: GS

title: Ov_Tumor_Ref_Mix vs. CS-OV-059///geo_accession: GSM12382

title: Ov_Tumor_Ref_Mix vs. CS-OV-060///geo_accession: GSM1238204///st

title: Ov_Tumor_Ref_Mix vs. CS-OV-061///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-062///geo_accession: GSM1238206///status: Publi

title: Ov_Tumor_Ref_Mix vs. CS-OV-063///geo_accession: GSM123820

title: Ov_Tumor_Ref_Mix vs. CS-OV-064///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-065///geo_accession: GSM1238209///status: Publ

title: Ov_Tumor_Ref_Mix vs. CS-OV-066///geo_accession: GSM1238210

title: Ov_Tumor_Ref_Mix vs. CS-OV-067///geo_accession: GSM

title: Ov_Tumor_Ref_Mix vs. CS-O

title: Ov_Tumor_Ref_Mix vs. CS-OV-069///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-070///geo_accession: GSM123821

title: Ov_Tumor_Ref_Mix vs. CS-OV-071///geo_accession: GSM1238215

title: Ov_Tumor_Ref_Mix vs. CS-OV-072///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-073///geo_accession: GSM1238217///status: Public

title: Ov_Tumo

title: Ov_Tumor_Ref_Mix vs. CS-OV-075///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-076///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-077///geo_accession: GSM1238221///status: Public

title: Ov_Tumor_Ref_Mix vs. CS-OV-078///geo_accession: GSM

title: Ov_Tumor_Ref_Mix vs. CS-OV-079///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-080///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-081///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-082///geo_accession: GSM1238226

title: Ov_Tumor_Ref_Mix vs. CS-OV-083///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-084///geo_accession: GSM12

title: Ov_Tumor_Ref_Mix vs. CS-OV-085///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-086///geo_accession: GSM1238

title: Ov_Tumor_Ref_Mix vs. CS-OV-087///geo_accession: GSM123823

title: Ov_Tumor_Ref_Mix vs. CS-OV-088///geo_accession: GSM1238232///status: Public

title: Ov_Tumor_Ref_Mix vs. CS-OV-089///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-090///geo_accession: GSM12382

title: Ov_Tumor_Ref_Mix vs. CS-OV-091///geo_accession: GSM1238235///status: Publ

title: Ov_Tumor_Ref_Mix vs. CS-OV-092///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-093///geo_accession: GSM1238237///status: Public

title: Ov_Tumor_Ref_Mix vs. CS-OV-094///geo_accession: GSM1238238///

title: Ov_Tumor_Ref_Mix vs. CS-OV-095///geo_accession: GSM12382

title: Ov_Tumor_Ref_Mix vs. CS-OV-096///geo_accession: GSM1238240

title: Ov_Tumor_Ref_Mix vs. CS-OV-097///geo_accession: GSM123

title: Ov_Tumor_Ref_Mix vs. CS-OV-098///geo_accession: GSM1

title: Ov_Tumor_Ref_Mix vs. CS-OV-099///geo_accession: GSM123

Value

An expression set

GSE6008   *Lysophosphatidic acid-induced transcriptional profile represents*
                                 serous epithelial ovarian carcinoma and worsened prognosis.

Description

Lysophosphatidic acid (LPA) governs a number of physiologic and pathophysiological processes. Malignant ascites fluid is rich in LPA, and LPA receptors are aberrantly expressed by ovarian cancer cells, implicating LPA in the initiation and progression of ovarian cancer. However, there is an absence of systematic data critically analyzing the transcriptional changes induced by LPA in ovarian cancer.In this study, gene expression profiling was used to examine LPA-mediated transcription by exogenously adding LPA to human epithelial ovarian cancer cells for 24 h to mimic long-term stimulation in the tumor microenvironment. The resultant transcriptional profile comprised a 39-gene signature that closely correlated to serous epithelial ovarian carcinoma. Hierarchical clustering of ovarian cancer patient specimens demonstrated that the signature is associated with worsened prognosis. Patients with LPA-signature-positive ovarian tumors have reduced disease-specific and progression-free survival times. They have a higher frequency of stage IIIc serous carcinoma and a greater proportion is deceased. Among the 39-gene signature, a group of seven genes associated with cell adhesion recapitulated the results. Out of those seven, claudin-1, an adhesion molecule and phenotypic epithelial marker, is the only independent biomarker of serous epithelial ovarian

carcinoma. Knockdown of claudin-1 expression in ovarian cancer cells reduces LPA-mediated cellular adhesion, enhances suspended cells and reduces LPA-mediated migration.The data suggest that transcriptional events mediated by LPA in the tumor microenvironment influence tumor progression through modulation of cell adhesion molecules like claudin-1 and, for the first time, report an LPA-mediated expression signature in ovarian cancer that predicts a worse prognosis.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Murph MM, Liu W, Yu S, Lu Y, Hall H, Hennessy BT, Lahad J, Sch
  Laboratory: Murph, Mills 2009
  Contact information:
  Title: Lysophosphatidic acid-induced transcriptional profile represents serous ep
  URL:
  PMIDs: 19440550

  Abstract: A 247 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
   platform_summary:
      hgu133a
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL96
   version:
      2015-09-22 20:07:11

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 103 samples
Platform type:
--------------------------
Available sample meta-data:
```

```
--------------------------
```

alt_sample_name:
```
   Ovarian_Tumor_ClearCell_CHTN-OC-004   Ovarian_Tumor_ClearCell_CHTN-OC-012
                                       1                                     1
   Ovarian_Tumor_ClearCell_CHTN-OC-028    Ovarian_Tumor_ClearCell_KU-OC-003
                                       1                                     1
     Ovarian_Tumor_ClearCell_KU-OC-004     Ovarian_Tumor_ClearCell_KU-OC-005
                                       1                                     1
     Ovarian_Tumor_ClearCell_KU-OC-006     Ovarian_Tumor_ClearCell_KU-OC-007
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-005 Ovarian_Tumor_Endometrioid_CHTN-OE-011
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-014 Ovarian_Tumor_Endometrioid_CHTN-OE-017
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-018 Ovarian_Tumor_Endometrioid_CHTN-OE-019
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-023 Ovarian_Tumor_Endometrioid_CHTN-OE-029
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-033 Ovarian_Tumor_Endometrioid_CHTN-OE-035
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-036 Ovarian_Tumor_Endometrioid_CHTN-OE-038
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-039 Ovarian_Tumor_Endometrioid_CHTN-OE-040
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-042 Ovarian_Tumor_Endometrioid_CHTN-OE-046
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-047 Ovarian_Tumor_Endometrioid_CHTN-OE-048
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-053 Ovarian_Tumor_Endometrioid_CHTN-OE-054
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-056 Ovarian_Tumor_Endometrioid_CHTN-OE-059
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-060 Ovarian_Tumor_Endometrioid_CHTN-OE-061
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-065 Ovarian_Tumor_Endometrioid_CHTN-OE-069
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-076 Ovarian_Tumor_Endometrioid_CHTN-OE-077
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-080 Ovarian_Tumor_Endometrioid_CHTN-OE-082
                                       1                                     1
Ovarian_Tumor_Endometrioid_CHTN-OE-087 Ovarian_Tumor_Endometrioid_CHTN-OE-092
                                       1                                     1
    Ovarian_Tumor_Endometrioid_JH-OE-2T   Ovarian_Tumor_Endometrioid_KU-OE-003
                                       1                                     1
  Ovarian_Tumor_Endometrioid_KU-OE-004   Ovarian_Tumor_Endometrioid_KU-OE-007
                                       1                                     1
    Ovarian_Tumor_Endometrioid_UM-OE-1T     Ovarian_Tumor_Mucinous_CHTN-OM-007
```

	1		1
Ovarian_Tumor_Mucinous_CHTN-OM-017		Ovarian_Tumor_Mucinous_CHTN-OM-023	
	1		1
Ovarian_Tumor_Mucinous_CHTN-OM-029		Ovarian_Tumor_Mucinous_CHTN-OM-032	
	1		1
Ovarian_Tumor_Mucinous_CHTN-OM-035		Ovarian_Tumor_Mucinous_CHTN-OM-036	
	1		1
Ovarian_Tumor_Mucinous_KU-OM-003		Ovarian_Tumor_Mucinous_KU-OM-004	
	1		1
Ovarian_Tumor_Mucinous_KU-OM-006		Ovarian_Tumor_Mucinous_KU-OM-007	
	1		1
Ovarian_Tumor_Mucinous_UM-OM-01		Ovarian_Tumor_Mucinous_UM-OM-03	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-002		Ovarian_Tumor_Serous_CHTN-OS-003	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-009		Ovarian_Tumor_Serous_CHTN-OS-010	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-011		Ovarian_Tumor_Serous_CHTN-OS-018	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-020		Ovarian_Tumor_Serous_CHTN-OS-029	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-038		Ovarian_Tumor_Serous_CHTN-OS-041	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-044		Ovarian_Tumor_Serous_CHTN-OS-046	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-048		Ovarian_Tumor_Serous_CHTN-OS-053	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-055		Ovarian_Tumor_Serous_CHTN-OS-068	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-072		Ovarian_Tumor_Serous_CHTN-OS-081	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-089		Ovarian_Tumor_Serous_CHTN-OS-093	
	1		1
Ovarian_Tumor_Serous_CHTN-OS-098		Ovarian_Tumor_Serous_CU-OS-04	
	1		1
Ovarian_Tumor_Serous_CU-OS-05		Ovarian_Tumor_Serous_KU-OS-001	
	1		1
Ovarian_Tumor_Serous_KU-OS-002		Ovarian_Tumor_Serous_KU-OS-003	
	1		1
Ovarian_Tumor_Serous_KU-OS-005		Ovarian_Tumor_Serous_KU-OS-007	
	1		1
Ovarian_Tumor_Serous_KU-OS-009		Ovarian_Tumor_Serous_KU-OS-011	
	1		1
Ovarian_Tumor_Serous_KU-OS-012		Ovarian_Tumor_Serous_KU-OS-013	
	1		1
Ovarian_Tumor_Serous_KU-OS-015		Ovarian_Tumor_Serous_KU-OS-018	
	1		1
Ovarian_Tumor_Serous_KU-OS-021		Ovarian_Tumor_Serous_KU-OS-022	

```
                                    1                                               1
        Ovarian_Tumor_Serous_UM-OS-02              Ovarian_Tumor_Serous_UM-OS-07
                                    1                                               1
        Ovarian_Tumor_Serous_UM-OS-09              Ovarian_Tumor_Serous_UM-OS-10
                                    1                                               1
        Ovarian_Tumor_Serous_UM-OS-11                                         (Other)
                                    1                                               4
```

```
sample_type:
healthy   tumor
      4      99
```

```
histological_type:
clearcell       endo  mucinous        ser      NA's
        8         37        13         41         4
```

```
primarysite:
 ov
103
```

```
summarygrade:
high   low NA's
  38    36   29
```

```
summarystage:
early   late  NA's
   42     53      8
```

```
tumorstage:
    1     2     3     4 NA's
   35    11    44     9     4
```

```
substage:
    a     b     c     d NA's
   19     2    54     1    27
```

```
grade:
    1     2     3 NA's
   19    17    38    29
```

```
batch:
2002-04-03 2002-04-04 2002-04-09 2002-04-10 2002-04-12 2002-08-13 2002-08-15
         3          8          9          2          3          4          4
2002-08-22 2002-08-23 2002-08-27 2002-08-28 2002-08-29 2002-08-30 2002-09-11
         8          8          5          6         16         14          9
2006-01-27
         4
```

uncurated_author_metadata:
    title: Ovarian_Tumor_ClearCell_CHTN-OC-004///geo_accession: GSM139377///status
    title: Ovarian_Tumor_ClearCell_CHTN-OC-012///geo_accession: GSM139378///statu
    title: Ovarian_Tumor_ClearCell_CHTN-OC-028///geo_accession: GSM139379///statu
    title: Ovarian_Tumor_ClearCell_KU-OC-003///geo_accession: GSM139380///status
    title: Ovarian_Tumor_ClearCell_KU-OC-004///geo_accession: GSM139381///status
    title: Ovarian_Tumor_ClearCell_KU-OC-005///geo_accession: GSM139382///status
    title: Ovarian_Tumor_ClearCell_KU-OC-006///geo_accession: GSM139383///status
    title: Ovarian_Tumor_ClearCell_KU-OC-007///geo_accession: GSM139384///status
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-005///geo_accession: GSM139385///statu
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-011///geo_accession: GSM139386///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-014///geo_accession: GSM139387///statu
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-017///geo_accession: GSM139388///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-018///geo_accession: GSM139389///status
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-019///geo_accession: GSM139390///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-023///geo_accession: GSM139391///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-029///geo_accession: GSM139392///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-033///geo_accession: GSM139393///status
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-035///geo_accession: GSM139394///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-036///geo_accession: GSM139395///stat
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-038///geo_accession: GSM139396///status
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-039///geo_accession: GSM139397///st
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-040///geo_accession: GSM139398///statu
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-042///geo_accession: GSM139399///sta
    title: Ovarian_Tumor_Endometrioid_CHTN-OE-046///geo_accession: GSM139400///statu

title: Ovarian_Tumor_Endometrioid_CHTN-OE-047///geo_accession: GSM139401///statu

title: Ovarian_Tumor_Endometrioid_CHTN-OE-048///geo_accession: GSM139402///statu

title: Ovarian_Tumor_Endometrioid_CHTN-OE-053///geo_accession: GSM139403///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-054///geo_accession: GSM139404///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-056///geo_accession: GSM139405///status

title: Ovarian_Tumor_Endometrioid_CHTN-OE-059///geo_accession: GSM139406///status:

title: Ovarian_Tumor_Endometrioid_CHTN-OE-060///geo_accession: GSM139407///status

title: Ovarian_Tumor_Endometrioid_CHTN-OE-061///geo_accession: GSM139408///status

title: Ovarian_Tumor_Endometrioid_CHTN-OE-065///geo_accession: GSM139409///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-069///geo_accession: GSM139410///statu

title: Ovarian_Tumor_Endometrioid_CHTN-OE-076///geo_accession: GSM139411///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-077///geo_accession: GSM139412///statu

title: Ovarian_Tumor_Endometrioid_CHTN-OE-080///geo_accession: GSM139413///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-082///geo_accession: GSM139414///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-087///geo_accession: GSM139415///stat

title: Ovarian_Tumor_Endometrioid_CHTN-OE-092///geo_accession: GSM139416///statu

title: Ovarian_Tumor_Endometrioid_JH-OE-2T///geo_accession: GSM139417///

title: Ovarian_Tumor_Endometrioid_KU-OE-003///geo_accession: GSM139418///sta

title: Ovarian_Tumor_Endometrioid_KU-OE-004///geo_accession: GSM139419///stat

title: Ovarian_Tumor_Endometrioid_KU-OE-007///geo_accession: GSM139420///stat

title: Ovarian_Tumor_Endometrioid_UM-OE-1T///geo_accession: GSM139421///st

title: Ovarian_Tumor_Mucinous_CHTN-OM-007///geo_accession: GSM139422///stat

title: Ovarian_Tumor_Mucinous_CHTN-OM-017///geo_accession: GSM139423///st

title: Ovarian_Tumor_Mucinous_CHTN-OM-023///geo_accession: GSM139424///sta

title: Ovarian_Tumor_Mucinous_CHTN-OM-029///geo_accession: GSM139425///st

title: Ovarian_Tumor_Mucinous_CHTN-OM-032///geo_accession: GSM139426///st

title: Ovarian_Tumor_Mucinous_CHTN-OM-035///geo_accession: GSM139427///st

title: Ovarian_Tumor_Mucinous_CHTN-OM-036///geo_accession: GSM139428///st

title: Ovarian_Tumor_Mucinous_KU-OM-003///geo_accession: GSM139429///sta

title: Ovarian_Tumor_Mucinous_KU-OM-004///geo_accession: GSM139430///sta

title: Ovarian_Tumor_Mucinous_KU-OM-006///geo_accession: GSM139431///sta

title: Ovarian_Tumor_Mucinous_KU-OM-007///geo_accession: GSM139432///sta

title: Ovarian_Tumor_Mucinous_UM-OM-01///geo_accession: GSM139433//

title: Ovarian_Tumor_Mucinous_UM-OM-03///geo_accession: GSM139434//

title: Ovarian_Tumor_Serous_CHTN-OS-002///geo_accession: GSM139435/

title: Ovarian_Tumor_Serous_CHTN-OS-003///geo_accession: GSM139436

title: Ovarian_Tumor_Serous_CHTN-OS-009///geo_accession: GSM139437/

title: Ovarian_Tumor_Serous_CHTN-OS-010///geo_accession: GSM139438/

title: Ovarian_Tumor_Serous_CHTN-OS-011///geo_accession: GSM139439/

title: Ovarian_Tumor_Serous_CHTN-OS-018///geo_accession: GSM139440/

title: Ovarian_Tumor_Serous_CHTN-OS-020///geo_accession: GSM139441/

title: Ovarian_Tumor_Serous_CHTN-OS-029///geo_accession: GSM139442///

title: Ovarian_Tumor_Serous_CHTN-OS-038///geo_accession: GSM139443///

title: Ovarian_Tumor_Serous_CHTN-OS-041///geo_accession: GSM139444/

title: Ovarian_Tumor_Serous_CHTN-OS-044///geo_accession: GSM139445

title: Ovarian_Tumor_Serous_CHTN-OS-046///geo_accession: GSM139446/

title: Ovarian_Tumor_Serous_CHTN-OS-048///geo_accession: GSM139447

title: Ovarian_Tumor_Serous_CHTN-OS-053///geo_accession: GSM139448/

title: Ovarian_Tumor_Serous_CHTN-OS-055///geo_accession: GSM139449/

title: Ovarian_Tumor_Serous_CHTN-OS-068///geo_accession: GSM139450///

title: Ovarian_Tumor_Serous_CHTN-OS-072///geo_accession: GSM139451/

title: Ovarian_Tumor_Serous_CHTN-OS-081///geo_accession: GSM139452/

title: Ovarian_Tumor_Serous_CHTN-OS-089///geo_accession: GSM139453/

title: Ovarian_Tumor_Serous_CHTN-OS-093///geo_accession: GSM139454/

title: Ovarian_Tumor_Serous_CHTN-OS-098///geo_accession: GSM139455/

title: Ovarian_Tumor_Serous_CU-OS-04///geo_accession: GSM139

title: Ovarian_Tumor_Serous_CU-OS-05///geo_accession: GSM139

title: Ovarian_Tumor_Serous_KU-OS-001///geo_accession: GSM139458

title: Ovarian_Tumor_Serous_KU-OS-002///geo_accession: GSM139459

title: Ovarian_Tumor_Serous_KU-OS-003///geo_accession: GSM139460/

title: Ovarian_Tumor_Serous_KU-OS-005///geo_accession: GSM139461/

title: Ovarian_Tumor_Serous_KU-OS-007///geo_accession: GSM139462/

title: Ovarian_Tumor_Serous_KU-OS-009///geo_accession: GSM139463/

title: Ovarian_Tumor_Serous_KU-OS-011///geo_accession: GSM139464/

title: Ovarian_Tumor_Serous_KU-OS-012///geo_accession: GSM139465/

title: Ovarian_Tumor_Serous_KU-OS-013///geo_accession: GSM139466/

title: Ovarian_Tumor_Serous_KU-OS-015///geo_accession: GSM139467/

title: Ovarian_Tumor_Serous_KU-OS-018///geo_accession: GSM139468/

title: Ovarian_Tumor_Serous_KU-OS-021///geo_accession: GSM139469/

title: Ovarian_Tumor_Serous_KU-OS-022///geo_accession: GSM139470/

title: Ovarian_Tumor_Serous_UM-OS-02///geo_accession: GSM139471

title: Ovarian_Tumor_Serous_UM-OS-07///geo_accession: GSM1394

```
                              title: Ovarian_Tumor_Serous_UM-OS-09///geo_accession: GSM1394
                               title: Ovarian_Tumor_Serous_UM-OS-10///geo_accession: GSM139
                              title: Ovarian_Tumor_Serous_UM-OS-11///geo_accession: GSM1394
```

```
    duplicates:
    GSE6008.GSE6008_GSM139476///GSE6008.GSE6008_GSM139477
                                                  1
    GSE6008.GSE6008_GSM139476///GSE6008.GSE6008_GSM139478
                                                  1
    GSE6008.GSE6008_GSM139477///GSE6008.GSE6008_GSM139478
                                                  1
                                               NA's
                                                100
```

Value

An expression set

GSE6822   *Classification of ovarian tumor samples*

Description

Ouellet V, Provencher DM, Maugard CM, Le Page C, Ren F, Lussier C, Novak J, Ge B, Hudson TJ,
Tonin PN, Mes-Masson A-M: Discrimination between serous low malignant potential and invasive
epithelial ovarian tumors using molecular profiling. Oncogene 2005, 24:4672-4687.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Ouellet V, Provencher DM, Maugard CM, Le Page C, Ren F, Lussie
  Laboratory: Ouellet, Mes-Masson 2005
  Contact information:
  Title: Classification of ovarian tumor samples
  URL:
  PMIDs: PMID unknown

  Abstract: A 40 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
```

```
   notes:
    platform_title:
       [Hu6800] Affymetrix Human Full Length HuGeneFL Array
    platform_shorttitle:
       Affymetrix Hu6800
    platform_summary:
       hu6800
    platform_manufacturer:
       Affymetrix
    platform_distribution:
       commercial
    platform_accession:
       GPL80
    version:
       2015-09-22 20:07:22

   featureData(eset):
   An object of class 'AnnotatedDataFrame'
     featureNames: A28102_at AB000114_at ... Z97074_at (6407 total)
     varLabels: probeset gene EntrezGene.ID best_probe
     varMetadata: labelDescription
```

Details

```
assayData: 6407 features, 66 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
Ovarian tumor AM053 Ovarian tumor AM122 Ovarian tumor AM124 Ovarian tumor AM125
                 1                   1                   1                   1
Ovarian tumor AM127 Ovarian tumor AM137 Ovarian tumor AM138 Ovarian tumor AM144
                 1                   1                   1                   1
Ovarian tumor AM178 Ovarian tumor AM179 Ovarian tumor AM182 Ovarian tumor AM195
                 1                   1                   1                   1
Ovarian tumor AM196 Ovarian tumor AM198 Ovarian tumor AM200 Ovarian tumor AM201
                 1                   1                   1                   1
Ovarian tumor AM202 Ovarian tumor AM203 Ovarian tumor AM204 Ovarian tumor AM207
                 1                   1                   1                   1
Ovarian tumor AM208 Ovarian tumor AM209 Ovarian tumor AM225 Ovarian tumor AM226
                 1                   1                   1                   1
Ovarian tumor AM228 Ovarian tumor AM233 Ovarian tumor AM250 Ovarian tumor AM252
                 1                   1                   1                   1
Ovarian tumor AM253 Ovarian tumor AM255 Ovarian tumor AM256 Ovarian tumor AM259
                 1                   1                   1                   1
Ovarian tumor AM261 Ovarian tumor AM263 Ovarian tumor AM268 Ovarian tumor AM269
```

```
             1                  1                  1                  1
 Ovarian tumor AM287 Ovarian tumor AM288 Ovarian tumor AM289 Ovarian tumor AM290
             1                  1                  1                  1
 Ovarian tumor AM292 Ovarian tumor AM293 Ovarian tumor AM294 Ovarian tumor AM311
             1                  1                  1                  1
 Ovarian tumor AM313 Ovarian tumor AM315 Ovarian tumor AM317 Ovarian tumor AM333
             1                  1                  1                  1
 Ovarian tumor AM335 Ovarian tumor AM339 Ovarian tumor AM341 Ovarian tumor AM344
             1                  1                  1                  1
 Ovarian tumor AM345 Ovarian tumor AM347 Ovarian tumor AM348 Ovarian tumor AM349
             1                  1                  1                  1
 Ovarian tumor AM354 Ovarian tumor AM364 Ovarian tumor AM367 Ovarian tumor AM368
             1                  1                  1                  1
 Ovarian tumor AM381 Ovarian tumor AM382 Ovarian tumor AM398 Ovarian tumor AM429
             1                  1                  1                  1
 Ovarian tumor AM431 Ovarian tumor AM438
             1                  1


 sample_type:
 tumor
    66

 histological_type:
       clearcell               endo                mix          mucinous
            11                    7                  3                 1
           ser undifferentiated
            41                    3

 primarysite:
 ov
 66

 summarygrade:
 high  low NA's
   40   15   11

 grade:
    1    2    3 NA's
    1   14   40   11

 batch:
 2000-12-21 2001-05-03 2001-05-29 2001-06-12 2001-09-25 2001-09-26 2001-09-27
          1          1          3          3          1          5          8
 2002-02-14 2002-04-17 2002-04-18 2002-07-18 2002-07-24 2002-10-20 2002-10-30
          4          1          9          7          4         10          5
 2002-11-01 2002-11-13
          2          2
```

uncurated_author_metadata:

title: Ovarian tumor AM053///geo_accession:

title: Ovarian tumor AM122///geo_accession: GSM157231///status: Public on Dec 31 20

title: Ovarian tumor AM124///geo_accession:

title: Ovarian tumor AM125///geo_accession:

title: Ovarian tumor AM127///geo_accession: GSM157234///status: Public

title: Ovarian tumor AM137///geo_accession: GSM157238

title: Ovarian tumor AM138///geo_accession: GSM157239

title: Ovarian tumor AM144///geo_accession: GSM157

title: Ovarian tumor AM178///geo_accession:

title: Ovarian tumor AM179///geo_accession: GSM157242

title: Ovarian tumor AM182///geo_accession: GSM157

title: Ovarian tumor AM195///geo_accession:

title: Ovarian tumor AM196///geo_accession: GSM157245

title: Ovarian tumor AM198///geo_accession: GSM1

title: Ovarian tumor AM200///geo_accession: GSM157

title: Ovarian tumor AM201///geo_accession: GSM1

title: Ovarian tumor AM202///geo_accession: GSM1

title: Ovarian tumor AM203///geo_accession: GSM157

title: Ovarian tumor AM204///geo_accession: GSM1

title: Ovarian tumor AM207///geo_accession: GSM1

title: Ovarian tumor AM208///geo_accession: GSM1

title: Ovarian tumor AM209///geo_accession: GSM1

title: Ovarian tumor AM225///geo_accession: GSM15

title: Ovarian tumor AM226///geo_accession: GSM15

title: Ovarian tumor AM228///geo_accession: GSM15

title: Ovarian tumor AM233///geo_accession: GSM15

title: Ovarian tumor AM250///geo_accession:

title: Ovarian tumor AM252///geo_accession: GSM157

title: Ovarian tumor AM253///geo_accession: GSM157261

title: Ovarian tumor AM255///geo_accession:

title: Ovarian tumor AM256///geo_accession:

title: Ovarian tumor AM259///geo_accession: GSM15726

title: Ovarian tumor AM261///geo_accession:

title: Ovarian tumor AM263///geo_accession:

title: Ovarian tumor AM268///geo_accession:

title: Ovarian tumor AM269///geo_accession:

title: Ovarian tumor AM287///geo_accession: GSM157269///status: Public

title: Ovarian tumor AM288///geo_accession: GSM157270///status: Public

title: Ovarian tumor AM289///geo_accession:

title: Ovarian tumor AM290///geo_accession:

title: Ovarian tumor AM292///geo_accession: GSM157273///status: Public

title: Ovarian tumor AM293///geo_accession:

title: Ovarian tumor AM294///geo_accession:

title: Ovarian tumor AM311///geo_accession: GSM157

title: Ovarian tumor AM313///geo_accession: GS

title: Ovarian tumor AM315///geo_accession: GS

title: Ovarian tumor AM317///geo_accession: GSM1

title: Ovarian tumor AM333///geo_accession: GSM1

```
                                              title: Ovarian tumor AM335///geo_accession:
                                              title: Ovarian tumor AM339///geo_accession:
                                             title: Ovarian tumor AM341///geo_accession: G
                                        title: Ovarian tumor AM344///geo_accession: GSM15
                                              title: Ovarian tumor AM345///geo_accession:
                           title: Ovarian tumor AM347///geo_accession: GSM157286///status: Public
                                              title: Ovarian tumor AM348///geo_accession:
                                              title: Ovarian tumor AM349///geo_accession:
                                           title: Ovarian tumor AM354///geo_accession: GSM1
                                    title: Ovarian tumor AM364///geo_accession: GSM157290//
                                              title: Ovarian tumor AM367///geo_accession:
                                              title: Ovarian tumor AM368///geo_accession:
                                              title: Ovarian tumor AM381///geo_accession:
                                              title: Ovarian tumor AM382///geo_accession:
                     title: Ovarian tumor AM398///geo_accession: GSM157295///status: Public on Dec 31
                       title: Ovarian tumor AM429///geo_accession: GSM157296///status: Public on Dec 3
                                              title: Ovarian tumor AM431///geo_accession:
                                               title: Ovarian tumor AM438///geo_accession:

     duplicates:
        Length    Class      Mode
            66 character character
```

Value

An expression set

GSE8842 *Analysis of gene expression in early-stage ovarian cancer.*

Description

Gene expression profile was analyzed in 68 stage I and 15 borderline ovarian cancers to determine if different clinical features of stage I ovarian cancer such as histotype, grade, and survival are related to differential gene expression.Tumors were obtained directly at surgery and immediately frozen in liquid nitrogen until analysis. Glass arrays containing 16,000 genes were used in a dual-color assay labeling protocol.Unsupervised analysis identified eight major patient partitions, one of which was statistically associated to overall survival, grading, and histotype and another with grading and histotype. Supervised analysis allowed detection of gene profiles clearly associated to histotype or to degree of differentiation. No difference was found between borderline and grade 1 tumors. As to recurrence, a subset of genes able to differentiate relapsers from nonrelapsers was identified. Among these, cyclin E and minichromosome maintenance protein 5 were found particularly relevant, as their expression was inversely correlated to progression-free survival (P = 0.00033 and 0.017, respectively).Specific molecular signatures define different histotypes and prognosis of stage I ovarian cancer. Mucinous and clear cells histotypes can be distinguished from the others regardless of tumor grade. Cyclin E and minichromosome maintenance protein 5, whose expression was found previously to be related to a bad prognosis of advanced ovarian cancer, appear to be potential prognostic markers in stage I ovarian cancer too, independent of other pathologic and clinical variables.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Marchini S, Mariani P, Chiorino G, Marrazzo E, Bonomi R, Frusc
  Laboratory: Marchini, D'Incalci 2008
  Contact information:
  Title: Analysis of gene expression in early-stage ovarian cancer.
  URL:
  PMIDs: 19047114

  Abstract: A 225 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      Agilent Human 1 cDNA Microarray (G4100A)
   platform_shorttitle:
      Agilent  G4100A cDNA
   platform_summary:
      hgug4100a
   platform_manufacturer:
      Agilent
   platform_distribution:
      custom-commerical
```

```
    platform_accession:
       GPL5689
    platform_technology:
       spotted DNA/cDNA
    version:
       2015-09-22 20:07:40

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1 2 ... 8864 (7809 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 7809 features, 83 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median 0.95LCL 0.95UCL
     83       15       NA      12      NA


--------------------------
Available sample meta-data:
--------------------------


alt_sample_name:
p0102bis sample_Ovarian tumor p0103bis sample_Ovarian tumor
                            1                             1
p0112bis sample_Ovarian tumor p0114bis sample_Ovarian tumor
                            1                             1
p0125bis sample_Ovarian tumor p0128bis sample_Ovarian tumor
                            1                             1
p0143bis sample_Ovarian tumor p0146bis sample_Ovarian tumor
                            1                             1
p0188bis sample_Ovarian tumor p0208bis sample_Ovarian tumor
                            1                             1
p0210bis sample_Ovarian tumor p0217bis sample_Ovarian tumor
                            1                             1
 p057bis sample_Ovarian tumor  p070bis sample_Ovarian tumor
                            1                             1
 p080bis sample_Ovarian tumor  p091bis sample_Ovarian tumor
                            1                             1
 p139bis sample_Ovarian tumor   p13bis sample_Ovarian tumor
                            1                             1
 p141bis sample_Ovarian tumor  p166bis sample_Ovarian tumor
                            1                             1
```

p171bis	sample_Ovarian tumor 1	p17bis	sample_Ovarian tumor 1
p183bis	sample_Ovarian tumor 1	p209bis	sample_Ovarian tumor 1
p212bis	sample_Ovarian tumor 1	p213bis	sample_Ovarian tumor 1
p243bis	sample_Ovarian tumor 1	p246bis	sample_Ovarian tumor 1
p261bis	sample_Ovarian tumor 1	p284bis	sample_Ovarian tumor 1
p293bis	sample_Ovarian tumor 1	p310bis	sample_Ovarian tumor 1
p31bis	sample_Ovarian tumor 1	p320bis	sample_Ovarian tumor 1
p331bis	sample_Ovarian tumor 1	p336bis	sample_Ovarian tumor 1
p350bis	sample_Ovarian tumor 1	p375bis	sample_Ovarian tumor 1
p382bis	sample_Ovarian tumor 1	p383bis	sample_Ovarian tumor 1
p386bis	sample_Ovarian tumor 1	p388bis	sample_Ovarian tumor 1
p398bis	sample_Ovarian tumor 1	p39bis	sample_Ovarian tumor 1
p401bis	sample_Ovarian tumor 1	p414bis	sample_Ovarian tumor 1
p421bis	sample_Ovarian tumor 1	p429bis	sample_Ovarian tumor 1
p433bis	sample_Ovarian tumor 1	p448bis	sample_Ovarian tumor 1
p455bis	sample_Ovarian tumor 1	p459bis	sample_Ovarian tumor 1
p462bis	sample_Ovarian tumor 1	p482bis	sample_Ovarian tumor 1
p487bis	sample_Ovarian tumor 1	p497bis	sample_Ovarian tumor 1
p502bis	sample_Ovarian tumor 1	p540bis	sample_Ovarian tumor 1
p541bis	sample_Ovarian tumor 1	p549bis	sample_Ovarian tumor 1
p550bis	sample_Ovarian tumor 1	p567bis	sample_Ovarian tumor 1
p56bis	sample_Ovarian tumor 1	p573bis	sample_Ovarian tumor 1
p586bis	sample_Ovarian tumor 1	p597bis	sample_Ovarian tumor 1
p616bis	sample_Ovarian tumor 1	p63bis	sample_Ovarian tumor 1

```
   p646bis sample_Ovarian tumor    p66bis sample_Ovarian tumor
                            1                                1
    p68bis sample_Ovarian tumor   p690bis sample_Ovarian tumor
                            1                                1
   p692bis sample_Ovarian tumor   p725bis sample_Ovarian tumor
                            1                                1
    p73bis sample_Ovarian tumor   p760bis sample_Ovarian tumor
                            1                                1
   p770bis sample_Ovarian tumor   p772bis sample_Ovarian tumor
                            1                                1
   p775bis sample_Ovarian tumor   p793bis sample_Ovarian tumor
                            1                                1
    p79bis sample_Ovarian tumor    p84bis sample_Ovarian tumor
                            1                                1
    p90bis sample_Ovarian tumor
                            1
```

```
sample_type:
borderline       tumor
       15          68
```

```
histological_type:
       clearcell                  endo          mucinous                 other
             16                     17                17                     1
           ser undifferentiated
             31                 1
```

```
primarysite:
ov
83
```

```
summarygrade:
high  low NA's
  35   33   15
```

```
summarystage:
early
   83
```

```
tumorstage:
 1
83
```

```
substage:
 a  b  c
25  5 53
```

```
grade:
```

```
    1     2     3 NA's
   13    20    35    15

age_at_initial_pathologic_diagnosis:
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
 21.00   43.00   50.00   51.25   61.00   87.00

recurrence_status:
norecurrence    recurrence
          62            21

days_to_death:
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     0    1192    2248    2273    3048    5824

vital_status:
deceased   living
      15       68

uncurated_author_metadata:
          title: p0102bis sample_Ovarian tumor///geo_accession: GSM214010///status:

  title: p0103bis sample_Ovarian tumor///geo_accession: GSM214078///status: Public

             title: p0112bis sample_Ovarian tumor///geo_accession: GSM214040///sta

                 title: p0114bis sample_Ovarian tumor///geo_accession: GSM214

        title: p0125bis sample_Ovarian tumor///geo_accession: GSM214009///status:

           title: p0128bis sample_Ovarian tumor///geo_accession: GSM214030///s

        title: p0143bis sample_Ovarian tumor///geo_accession: GSM214012///status:

        title: p0146bis sample_Ovarian tumor///geo_accession: GSM214033///status:

            title: p0188bis sample_Ovarian tumor///geo_accession: GSM214041///

         title: p0208bis sample_Ovarian tumor///geo_accession: GSM214011///status

       title: p0210bis sample_Ovarian tumor///geo_accession: GSM214031///status:

          title: p0217bis sample_Ovarian tumor///geo_accession: GSM214008///sta

     title: p057bis sample_Ovarian tumor///geo_accession: GSM214064///status: Publ

         title: p070bis sample_Ovarian tumor///geo_accession: GSM214032///status
```

title: p080bis sample_Ovarian tumor///geo_accession: GSM214017///status: F

title: p091bis sample_Ovarian tumor///geo_accession: GSM214024///status:

title: p139bis sample_Ovarian tumor///geo_accession: GSM214047///status

title: p13bis sample_Ovarian tumor///geo_accession: GSM214043///status:

title: p141bis sample_Ovarian tumor///geo_accession: GSM214081///status: Public

title: p166bis sample_Ovarian tumor///geo_accession: GSM214013///status: Publi

title: p171bis sample_Ovarian tumor///geo_accession: GSM214014///status

title: p17bis sample_Ovarian tumor///geo_accession: GSM214080///status: Public or

title: p183bis sample_Ovarian tumor///geo_accession: GSM214015///status:

title: p209bis sample_Ovarian tumor///geo_accession: GSM214090///status: Public or

title: p212bis sample_Ovarian tumor///geo_accession: GSM214065///status: Publ

title: p213bis sample_Ovarian tumor///geo_accession: GSM214018///status: F

title: p243bis sample_Ovarian tumor///geo_accession: GSM214042///status: F

title: p246bis sample_Ovarian tumor///geo_accession: GSM214055///status: Publi

title: p261bis sample_Ovarian tumor///geo_accession: GSM214034///status:

title: p284bis sample_Ovarian tumor///geo_accession: GSM21

title: p293bis sample_Ovarian tumor///geo_accession: GSM214035///status: Publi

title: p310bis sample_Ovarian tumor///geo_accession: GSM214083///status: Public on

title: p31bis sample_Ovarian tumor///geo_accession: GSM214019///status: F

title: p320bis sample_Ovarian tumor///geo_accession: GSM214020///status:

title: p331bis sample_Ovarian tumor///geo_accession: GSM214021///status: Publ

title: p336bis sample_Ovarian tumor///geo_accession: GSM214056///status:

title: p350bis sample_Ovarian tumor///geo_accession: GSM214036///status: Publi

title: p375bis sample_Ovarian tumor///geo_accession: GSM214048///status: Publi

title: p382bis sample_Ovarian tumor///geo_accession: GSM214037///status:

title: p383bis sample_Ovarian tumor///geo_accession: GSM214029///status:

title: p386bis sample_Ovarian tumor///geo_accession: GSM214038///status:

title: p388bis sample_Ovarian tumor///geo_accession: GSM214059///status:

title: p398bis sample_Ovarian tumor///geo_accession: GSM214066///status:

title: p39bis sample_Ovarian tumor///geo_accession: GSM214076///status: Public on

title: p401bis sample_Ovarian tumor///geo_accession: GSM214022///status: P

title: p414bis sample_Ovarian tumor///geo_accession: GSM214051///status: Publi

title: p421bis sample_Ovarian tumor///geo_accession: GSM214023///status

title: p429bis sample_Ovarian tumor///geo_accession: GSM214067///sta

title: p433bis sample_Ovarian tumor///geo_accession: GSM214079///status: Public on

title: p448bis sample_Ovarian tumor///geo_accession: GSM214068///status: P

title: p455bis sample_Ovarian tumor///geo_accession: GSM214069///status

title: p459bis sample_Ovarian tumor///geo_accession: GSM214025///status: Publi

title: p462bis sample_Ovarian tumor///geo_accession: GSM214084///status: Public on

title: p482bis sample_Ovarian tumor///geo_accession: GSM214050///status: P

title: p487bis sample_Ovarian tumor///geo_accession: GSM214026///status: Publ

title: p497bis sample_Ovarian tumor///geo_accession: GSM214052///statu

title: p502bis sample_Ovarian tumor///geo_accession: GSM214070///status: Pub

title: p540bis sample_Ovarian tumor///geo_accession: GSM214085///status: Public

title: p541bis sample_Ovarian tumor///geo_accession: GSM214082///status: Public or

title: p549bis sample_Ovarian tumor///geo_accession: GSM214086///status: Public on

title: p550bis sample_Ovarian tumor///geo_accession: GSM214053///status:

title: p567bis sample_Ovarian tumor///geo_accession: GSM214054///status: Publi

```
            title: p56bis sample_Ovarian tumor///geo_accession: GSM214044///status:
        title: p573bis sample_Ovarian tumor///geo_accession: GSM214060///status: Publ
        title: p586bis sample_Ovarian tumor///geo_accession: GSM214061///status: Publ
    title: p597bis sample_Ovarian tumor///geo_accession: GSM214088///status: Public
        title: p616bis sample_Ovarian tumor///geo_accession: GSM214071///status: Publ
        title: p63bis sample_Ovarian tumor///geo_accession: GSM214027///status: Publi
    title: p646bis sample_Ovarian tumor///geo_accession: GSM214087///status: Public c
        title: p66bis sample_Ovarian tumor///geo_accession: GSM214045///status: Publi
        title: p68bis sample_Ovarian tumor///geo_accession: GSM214046///status: Publ
            title: p690bis sample_Ovarian tumor///geo_accession: GSM214072///status:
        title: p692bis sample_Ovarian tumor///geo_accession: GSM214073///status: Pub
        title: p725bis sample_Ovarian tumor///geo_accession: GSM214057///status: Pub
        title: p73bis sample_Ovarian tumor///geo_accession: GSM214028///status: Publi
            title: p760bis sample_Ovarian tumor///geo_accession: GSM214062///statu
        title: p770bis sample_Ovarian tumor///geo_accession: GSM214089///status: P
        title: p772bis sample_Ovarian tumor///geo_accession: GSM214058///status: Pu
        title: p775bis sample_Ovarian tumor///geo_accession: GSM214074///status: Pub
        title: p793bis sample_Ovarian tumor///geo_accession: GSM214075///status: Pu
        title: p79bis sample_Ovarian tumor///geo_accession: GSM214063///status: Publi
        title: p84bis sample_Ovarian tumor///geo_accession: GSM214039///status: Publ
    title: p90bis sample_Ovarian tumor///geo_accession: GSM214077///status: Public on
```

Value

An expression set

GSE9891	*Novel molecular subtypes of serous and endometrioid ovarian cancer linked to clinical outcome.*

Description

The study aim to identify novel molecular subtypes of ovarian cancer by gene expression profiling with linkage to clinical and pathologic features.Microarray gene expression profiling was done on 285 serous and endometrioid tumors of the ovary, peritoneum, and fallopian tube. K-means clustering was applied to identify robust molecular subtypes. Statistical analysis identified differentially expressed genes, pathways, and gene ontologies. Laser capture microdissection, pathology review, and immunohistochemistry validated the array-based findings. Patient survival within k-means groups was evaluated using Cox proportional hazards models. Class prediction validated k-means groups in an independent dataset. A semisupervised survival analysis of the array data was used to compare against unsupervised clustering results.Optimal clustering of array data identified six molecular subtypes. Two subtypes represented predominantly serous low malignant potential and low-grade endometrioid subtypes, respectively. The remaining four subtypes represented higher grade and advanced stage cancers of serous and endometrioid morphology. A novel subtype of high-grade serous cancers reflected a mesenchymal cell type, characterized by overexpression of N-cadherin and P-cadherin and low expression of differentiation markers, including CA125 and MUC1. A poor prognosis subtype was defined by a reactive stroma gene expression signature, correlating with extensive desmoplasia in such samples. A similar poor prognosis signature could be found using a semisupervised analysis. Each subtype displayed distinct levels and patterns of immune cell infiltration. Class prediction identified similar subtypes in an independent ovarian dataset with similar prognostic trends.Gene expression profiling identified molecular subtypes of ovarian cancer of biological and clinical importance.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Tothill RW, Tinker AV, George J, Brown R, Fox SB, Lade S, Johr
  Laboratory: Tothill, Bowtell 2008
  Contact information:
  Title: Novel molecular subtypes of serous and endometrioid ovarian cancer linked
  URL:
  PMIDs: 18698038

  Abstract: A 243 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
   platform_shorttitle:
      Affymetrix HG-U133Plus2
   platform_summary:
      hgu133plus2
```

```
    platform_manufacturer:
       Affymetrix
    platform_distribution:
       commercial
    platform_accession:
       GPL570
    version:
       2015-09-22 20:16:32

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 285 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   7 observations deleted due to missingness
       n   events   median 0.95LCL 0.95UCL
 278.00  113.00     3.95    3.53    5.01


-------------------------
Available sample meta-data:
-------------------------


alt_sample_name:
    X129    X146    X152  X20019  X20025  X20027  X20031  X20032  X20041  X20046
       1       1       1       1       1       1       1       1       1       1
  X20074  X22002  X22012  X22013  X22020  X22023  X22027  X22029  X22031  X22037
       1       1       1       1       1       1       1       1       1       1
  X22046  X22047  X22048  X22057  X22058   X2219   X2227  X23026  X23030  X23036
       1       1       1       1       1       1       1       1       1       1
  X23043  X23052  X23053  X23055  X23066  X23070  X23074  X23077  X23084  X23098
       1       1       1       1       1       1       1       1       1       1
  X23102  X23106  X23116  X23128  X23139  X23143  X23162  X23165  X23167  X23170
       1       1       1       1       1       1       1       1       1       1
  X23172  X23177  X23178  X23182  X23187  X23197  X23202  X23204  X23210  X23212
       1       1       1       1       1       1       1       1       1       1
  X23213  X23221  X26047    X261  X27006  X27098  X32013  X32022  X32032  X32034
       1       1       1       1       1       1       1       1       1       1
  X32048  X32049  X32054  X32055  X32089  X32098  X32103  X32117  X34019  X34049
       1       1       1       1       1       1       1       1       1       1
```

```
   X34066  X34078  X34080  X34085  X34086  X34090  X34102  X34103  X34111  X34113
        1       1       1       1       1       1       1       1       1       1
   X34117  X34125  X34165  X34168  X34172  X34186  X34202  X34207  X34801 (Other)
        1       1       1       1       1       1       1       1       1     186

sample_type:
tumor
  285

histological_type:
 endo other    ser
   20     1    264

primarysite:
    ft other     ov
     8    34    243

arrayedsite:
    ft other     ov
     2    83    200

summarygrade:
high  low NA's
 163  116    6

summarystage:
early  late  NA's
   42   240     3

tumorstage:
    1    2    3    4 NA's
   24   18  218   22    3

substage:
    a    b    c NA's
   26   19  212   28

grade:
    1    2    3 NA's
   19   97  163    6

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  22.00   53.00   59.00   59.62   68.00   80.00       3

pltx:
    n    y NA's
   39  243    3
```

```
tax:
   n   y NA's
  87 195    3

neo:
   n   y NA's
 264  18    3

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    0.0   300.0   450.0   618.9   810.0  4980.0      10

recurrence_status:
norecurrence    recurrence          NA's
          94           188             3

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    0.0   547.5   855.0   955.1  1252.0  6420.0       7

vital_status:
deceased   living    NA's
     113      169       3

debulking:
   optimal suboptimal       NA's
       160         88         37

batch:
2004-12-03 2004-12-23 2005-01-12 2005-01-17 2005-01-24 2005-01-31 2005-02-21
         3          4          7          7          8         10         10
2005-03-17 2005-05-05 2005-05-09 2005-05-25 2005-05-27 2005-05-30 2005-06-02
         2          1          1          2          3          3          6
2005-06-06 2005-06-08 2005-06-16 2005-06-17 2005-06-24 2005-07-06 2005-07-15
         4          5          3          5          6          2          9
2005-07-20 2005-07-29 2005-08-03 2005-08-05 2005-08-18 2005-08-24 2005-08-26
         7          5          6          3          4          8          4
2005-09-09 2005-09-14 2005-09-16 2005-09-21 2005-10-05 2005-10-26 2005-10-28
         4          6          6          4          5          2          4
2005-11-04 2005-11-09 2005-11-11 2005-11-23 2005-12-15 2005-12-21 2006-01-20
         6          3          7          4          7          8          3
2006-01-31 2006-02-08 2006-02-28 2006-04-05 2006-04-06 2006-04-12 2006-04-13
         7          3          3          7          3          7          4
2006-04-28 2006-05-03 2006-06-06 2006-06-07 2006-06-22 2006-07-07 2006-07-19
         6          9          6          3          9          4          7

uncurated_author_metadata:
```

title: X129///geo_accession: GSM250001///status: Public on Mar 01 20

title: X146///geo_accession: GSM250000///status: Public on Mar 01 2008//

title: X152///geo_accession: GSM249999///status: Public on Mar 01 2008///submi

title: X20019///geo_accession: GSM249998///status: Public on Mar 01 2008

title: X20025///geo_accession: GSM249997///status: Public on Mar 01 2008///subm

title: X20027///geo_accession: GSM249996///status: Public on Mar 01 2008

title: X20031///geo_accession: GSM249995///status: Public on Mar 01

title: X20032///geo_accession: GSM249994///status: Public on Mar 01 20

title: X20041///geo_accession: GSM249993///status: Public on Mar 01 2008

title: X20046///geo_accession: GSM249992///status: Public on Mar 01 2008///

title: X20074///geo_accession: GSM249991///status: Public on Mar 01 2008///sub

title: X22002///geo_accession: GSM249728///status: Public on Mar 01 2

title: X22012///geo_accession: GSM249990///status: Public on Mar 01 2008/

title: X22013///geo_accession: GSM249989///status: Public on Mar 01 2008///subm

title: X22020///geo_accession: GSM249988///status: Public on Mar 01 2008

title: X22023///geo_accession: GSM249987///status: Public on Mar 01 2008//

title: X22027///geo_accession: GSM249725///status: Public on Mar 01

title: X22029///geo_accession: GSM249986///status: Public on Mar 01 200

title: X22031///geo_accession: GSM249985///status: Public on Mar 01 2

title: X22037///geo_accession: GSM249984///status: Public on Mar 01 2008/

title: X22046///geo_accession: GSM249983///status: Public on Mar 01 2008/

title: X22047///geo_accession: GSM249982///status: Public on Mar 01 2008///su

title: X22048///geo_accession: GSM249981///status: Public on Mar 01 2008/

title: X22057///geo_accession: GSM249980///status: Public on Mar 01 2008///

title: X22058///geo_accession: GSM249979///status: Public on Mar 01 2008/

title: X2219///geo_accession: GSM249978///status: Public on Mar 01

title: X2227///geo_accession: GSM249977///status: Public on Ma

title: X23026///geo_accession: GSM249976///status: Public on Mar 01 2008/

title: X23030///geo_accession: GSM249975///status: Public on Mar 01 2008//

title: X23036///geo_accession: GSM249727///status: Public on Mar 01 2

title: X23043///geo_accession: GSM249974///status: Public on Mar 01

title: X23052///geo_accession: GSM249721///status: Public on Mar

title: X23053///geo_accession: GSM249973///status: Public on Mar 01 2008/

title: X23055///geo_accession: GSM249972///status: Public on Mar 01 2008//

title: X23066///geo_accession: GSM249716///status: Public on Mar 01 2

title: X23070///geo_accession: GSM249971///status: Public on Mar 01 200

title: X23074///geo_accession: GSM249970///status: Public on Mar 01 2008//

title: X23077///geo_accession: GSM249969///status: Public on Mar 01 2008/

title: X23084///geo_accession: GSM249968///status: Public on Mar 01 2008/

title: X23098///geo_accession: GSM249967///status: Public on Mar 01 2008//

title: X23102///geo_accession: GSM249966///status: Public on Mar 01 2

title: X23106///geo_accession: GSM249965///status: Public on Mar 01 2008///submissi

title: X23116///geo_accession: GSM249964///status: Public on Mar 01 2008///su

title: X23128///geo_accession: GSM249963///status: Public on Mar 01 2008/

title: X23139///geo_accession: GSM249962///status: Public on Mar 01 2008/

title: X23143///geo_accession: GSM249961///status: Public on Mar 01 2008/

title: X23162///geo_accession: GSM249960///status: Public on Mar 01 2008///

title: X23165///geo_accession: GSM249959///status: Public on Mar 01 2008/

```
title: X23167///geo_accession: GSM249958///status: Public on Mar 01 2008//
title: X23170///geo_accession: GSM249957///status: Public on Mar 01 2008//
title: X23172///geo_accession: GSM249956///status: Public on Mar 01 2008
title: X23177///geo_accession: GSM249720///status: Public on Mar
title: X23178///geo_accession: GSM249955///status: Public on Mar 01 2
title: X23182///geo_accession: GSM249954///status: Public on Mar 01 2008/
title: X23187///geo_accession: GSM249953///status: Public on Mar 01 2008//
title: X23197///geo_accession: GSM249951///status: Public on Mar 01 2008
title: X23202///geo_accession: GSM249950///status: Public on Mar 01 2008///
title: X23204///geo_accession: GSM249949///status: Public on Mar 01 2008///
title: X23210///geo_accession: GSM249948///status: Public on Mar 01 20
title: X23212///geo_accession: GSM249947///status: Public on Mar 01 2008///su
title: X23213///geo_accession: GSM249946///status: Public on Mar 01 2008
title: X23221///geo_accession: GSM249945///status: Public on Mar 01 2008///su
title: X26047///geo_accession: GSM249944///status: Public on Mar 01 2008///sub
title: X261///geo_accession: GSM249943///status: Public on Mar 01
title: X27006///geo_accession: GSM249942///status: Public on Mar 01 2008/
title: X27098///geo_accession: GSM249941///status: Public on Mar 01 2008//
title: X32013///geo_accession: GSM249940///status: Public on Mar 01 200
title: X32022///geo_accession: GSM249939///status: Public on Mar 01 2008/
title: X32032///geo_accession: GSM249938///status: Public on Mar 01 2008///su
title: X32034///geo_accession: GSM249937///status: Public on Mar 01 2008///subm
title: X32048///geo_accession: GSM249936///status: Public on Mar 01 2008///
title: X32049///geo_accession: GSM249935///status: Public on Mar 01 2008///su
```

title: X32054///geo_accession: GSM249934///status: Public on Mar 01 2008/

title: X32055///geo_accession: GSM249933///status: Public on Mar 01 2

title: X32089///geo_accession: GSM249932///status: Public on Mar 01 2008///submiss

title: X32098///geo_accession: GSM249931///status: Public on Mar 01 2008///s

title: X32103///geo_accession: GSM249930///status: Public on Mar 01 2008//

title: X32117///geo_accession: GSM249715///status: Public on Mar

title: X34019///geo_accession: GSM249929///status: Public on Mar 01 2008/

title: X34049///geo_accession: GSM249928///status: Public on Mar 01 200

title: X34066///geo_accession: GSM249927///status: Public on Mar 01 2008//

title: X34078///geo_accession: GSM249926///status: Public on Mar 01 2008//

title: X34080///geo_accession: GSM249925///status: Public on Mar 01 2008/

title: X34085///geo_accession: GSM249924///status: Public on Mar 01 2008//

title: X34086///geo_accession: GSM249923///status: Public on Mar 01 2008

title: X34090///geo_accession: GSM249922///status: Public on Mar 0

title: X34102///geo_accession: GSM249921///status: Public on Mar 01 2008///sub

title: X34103///geo_accession: GSM249920///status: Public on Mar 01 2008/

title: X34111///geo_accession: GSM249919///status: Public on Mar 01 2008//

title: X34113///geo_accession: GSM249918///status: Public on Mar 01 2008//

title: X34117///geo_accession: GSM249917///status: Public on Mar 01 2008/

title: X34125///geo_accession: GSM249916///status: Public on Mar 01 2008//

title: X34165///geo_accession: GSM249915///status: Public on Mar 01 2008/

title: X34168///geo_accession: GSM249914///status: Public on Mar 01 2008///su

title: X34172///geo_accession: GSM249913///status: Public on Mar 01 2008/

title: X34186///geo_accession: GSM249912///status: Public on Mar 01 2008//

```
      title: X34202///geo_accession: GSM249911///status: Public on Mar 01 2008///sub
         title: X34207///geo_accession: GSM249910///status: Public on Mar 01 2008///
          title: X34801///geo_accession: GSM249909///status: Public on Mar 01 2008//
```

Value

An expression set

```
loadOvarianDatasets
```
*Function to load ovarian cancer SummarizedExperiment objects from
the Experiment Hub*

Description

This function returns ovarian cancer datasets from the hub and a vector of patients from the datasets
that are duplicates based on a spearman correlation > 0.98

Usage

```
loadOvarianDatasets(
  rescale = FALSE,
  minNumberGenes = 0,
  minNumberEvents = 0,
  minSampleSize = 0,
  keepCommonOnly = FALSE,
  imputeMissing = FALSE,
  removeDuplicates = FALSE
)
```

Arguments

rescale   apply centering and scaling to the expression sets (default FALSE)

minNumberGenes

an integer specifying to remove expression sets with less genes than this number
(default 0)

minNumberEvents

an integer specifying how man survival events must be in the dataset to keep the
dataset (default 0)

```
minSampleSize
```
> an integer specifying the minimum number of patients required in a summa-
> rizedExperiment (default 0)

```
keepCommonOnly
```
> remove entrezIDs not common to all datasets (default FALSE)

```
imputeMissing
```
> remove patients from datasets with missing expression values

```
removeDuplicates
```
> remove patients with a Spearman correlation greater than or equal to 0.98 with
> other patient expression profiles (default TRUE)

Value

a list with 2 elements. The First element named summarizedExperiments contains the datasets. The
second element named duplicates contains a vector with patient IDs for the duplicate patients (those
with Spearman correlation greater than or equal to 0.98 with other patient expression profiles).

Examples

```
experimentsAndDups = loadOvarianDatasets()
```

---

loadOvarianEsets	*Function to load ovarian cancer expression sets from the Experiment Hub*

Description

This function returns ovarian cancer datasets from the hub and a vector of patients from the datasets
that are most likely duplicates

Usage

```
loadOvarianEsets(
  removeDuplicates = TRUE,
  quantileCutoff = 0,
  rescale = FALSE,
  minNumberGenes = 0,
  minNumberEvents = 0,
  minSampleSize = 0,
  removeRetracted = TRUE,
  removeSubsets = TRUE,
  keepCommonOnly = FALSE,
  imputeMissing = FALSE
)
```

Arguments

`removeDuplicates`
> remove patients with a Spearman correlation greater than or equal to 0.98 with other patient expression profiles (default TRUE)

`quantileCutoff`
> A nueric between 0 and 1 specifying to remove genes with standard deviation below the required quantile (default 0)

`rescale` apply centering and scaling to the expression sets (default FALSE)

`minNumberGenes`
> an integer specifying to remove expression sets with less genes than this number (default 0)

`minNumberEvents`
> an integer specifying how man survival events must be in the dataset to keep the dataset (default 0)

`minSampleSize`
> an integer specifying the minimum number of patients required in an eset (default 0)

`removeRetracted`
> remove datasets from retracted papers (default TRUE, currently just PMID17290060 dataset)

`removeSubsets`
> remove datasets that are a subset of other datasets (defeault TRUE, currently just PMID19318476)

`keepCommonOnly`
> remove probes not common to all datasets (default FALSE)

`imputeMissing`
> remove patients from datasets with missing expression values

Value

a list with 2 elements. The First element named esets contains the datasets. The second element named duplicates contains a vector with patient IDs for the duplicate patients (those with Spearman correlation greater than or equal to 0.98 with other patient expression profiles).

Examples

```
esetsAndDups = loadOvarianEsets()
```

PMID15897565	*Patterns of gene expression that characterize long-term survival in advanced stage serous ovarian cancers.*

Description

A better understanding of the underlying biology of invasive serous ovarian cancer is critical for
the development of early detection strategies and new therapeutics. The objective of this study was
to define gene expression patterns associated with favorable survival.RNA from 65 serous ovarian
cancers was analyzed using Affymetrix U133A microarrays. This included 54 stage III/IV cases
(30 short-term survivors who lived <3 years and 24 long-term survivors who lived >7 years) and
11 stage I/II cases. Genes were screened on the basis of their level of and variability in expres-
sion, leaving 7,821 for use in developing a predictive model for survival. A composite predictive
model was developed that combines Bayesian classification tree and multivariate discriminant mod-
els. Leave-one-out cross-validation was used to select and evaluate models.Patterns of genes were
identified that distinguish short-term and long-term ovarian cancer survivors. The expression model
developed for advanced stage disease classified all 11 early-stage ovarian cancers as long-term sur-
vivors. The MAL gene, which has been shown to confer resistance to cancer therapy, was most
highly overexpressed in short-term survivors (3-fold compared with long-term survivors, and 29-
fold compared with early-stage cases). These results suggest that gene expression patterns underlie
differences in outcome, and an examination of the genes that provide this discrimination reveals
that many are implicated in processes that define the malignant phenotype.Differences in survival
of advanced ovarian cancers are reflected by distinct patterns of gene expression. This biological
distinction is further emphasized by the finding that early-stage cancers share expression patterns
with the advanced stage long-term survivors, suggesting a shared favorable biology.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Berchuck A, Iversen ES, Lancaster JM, Pittman J, Luo J, Lee P,
  Laboratory: Berchuck, Marks 2005
  Contact information:
  Title: Patterns of gene expression that characterize long-term survival in advanc
  URL:
  PMIDs: 15897565

  Abstract: A 258 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
   platform_summary:
      hgu133a
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL96
   warnings:
```

```
        These samples are a subset of PMID17290060.
     version:
        2015-09-22 20:17:53

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 63 samples
Platform type:
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   1761    1828    1907    2001    2032    2536

sample_type:
tumor
   63

histological_type:
ser
 63

primarysite:
ov
63

summarygrade:
high  low NA's
  25   37    1

summarystage:
early  late
   11    52

tumorstage:
 1  2  3  4
 7  4 48  4

grade:
```

```
   1    2    3    4 NA's
   2   35   24    1    1
```

age_at_initial_pathologic_diagnosis:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  33.00   52.50   59.00   59.21   67.00   79.00
```

os_binary:
```
 long short  NA's
   24    28    11
```

debulking:
```
   optimal suboptimal        NA's
        24          28          11
```

batch:
```
2002-09-20 2002-10-23 2002-11-12 2002-12-16 2002-12-21 2003-01-03 2003-05-30
        15          9         10          1          3         11         13
2003-07-02
         1
```

uncurated_author_metadata:
```
 Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1761///Cancer.Type: Early st

 Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1762///Cancer.Type: Early st

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1763///Cancer.Type: Early sta

 Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1764///Cancer.Type: Early st

 Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1765///Cancer.Type: Early st

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1772///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1773///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1774///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1775///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1776///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1777///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1778///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1779///Cancer.Type: Lor
```

```
       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1780///Cancer.Type: Lor

        Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1781///Cancer.Type: Lor

         Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1828///Cancer.Type: Sh

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1829///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1830///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1831///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1832///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1833///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1834///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1835///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1836///Cancer.Type: Shor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1900///Cancer.Type: Lor

        Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1901///Cancer.Type: Lor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1902///Cancer.Type: Lor

  Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1903///Cancer.Type: Early sta

        Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1904///Cancer.Type: Lor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1905///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1906///Cancer.Type: Shor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1907///Cancer.Type: Lor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1908///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1909///Cancer.Type: Shor

       Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 1989///Cancer.Type: Lor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2003///Cancer.Type: Shor

      Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2004///Cancer.Type: Shor
```

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2005///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2019///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2020///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2021///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2026///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2027///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2028///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2029///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2030///Cancer.Type: Sh

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2031///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2032///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2033///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2390///Cancer.Type: Early st

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2391///Cancer.Type: Early st

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2392///Cancer.Type: Early sta

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2393///Cancer.Type: Early sta

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2394///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2395///Cancer.Type: Lor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2396///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2397///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2398///Cancer.Type: Sh

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2399///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2400///Cancer.Type: Shor

Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2401///Cancer.Type: Shor

```
         Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2402///Cancer.Type: Sh

   Genome.ID..File.name....0074_GenomeID_h133a_2802.cel: 2536///Cancer.Type: Early st
```

Value

An expression set

PMID17290060	*An integrated genomic-based approach to individualized treatment of*
	patients with advanced-stage ovarian cancer.

Description

The purpose of this study was to develop an integrated genomic-based approach to personalized
treatment of patients with advanced-stage ovarian cancer. We have used gene expression profiles to
identify patients likely to be resistant to primary platinum-based chemotherapy and also to identify
alternate targeted therapeutic options for patients with de novo platinum-resistant disease.A gene
expression model that predicts response to platinum-based therapy was developed using a train-
ing set of 83 advanced-stage serous ovarian cancers and tested on a 36-sample external validation
set. In parallel, expression signatures that define the status of oncogenic signaling pathways were
evaluated in 119 primary ovarian cancers and 12 ovarian cancer cell lines. In an effort to increase
chemotherapy sensitivity, pathways shown to be activated in platinum-resistant cancers were sub-
ject to targeted therapy in ovarian cancer cell lines.Gene expression profiles identified patients with
ovarian cancer likely to be resistant to primary platinum-based chemotherapy with greater than 80%
accuracy. In patients with platinum-resistant disease, we identified expression signatures consistent
with activation of Src and Rb/E2F pathways, components of which were successfully targeted to
increase response in ovarian cancer cell lines.We have defined a strategy for treatment of patients
with advanced-stage ovarian cancer that uses therapeutic stratification based on predictions of re-
sponse to chemotherapy, coupled with prediction of oncogenic pathway deregulation, as a method
to direct the use of targeted agents.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Dressman HK, Berchuck A, Chan G, Zhai J, Bild A, Sayer R, Crag
  Laboratory: Dressman, Lancaster 2007
  Contact information:
  Title: An integrated genomic-based approach to individualized treatment of patien
  URL:
  PMIDs: 17290060

  Abstract: A 223 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
```

```
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
   platform_summary:
      hgu133a
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL96
   warnings:
      This paper has been retracted.
   version:
      2015-09-22 20:19:16

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 117 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events  median 0.95LCL 0.95UCL
 117.00   67.00    5.26    2.79    7.48


--------------------------
Available sample meta-data:
--------------------------


alt_sample_name:
    1024   1447   1451   1504   1526   1552   1578   1590   1615   1623
       1      1      1      1      1      1      1      1      1      1
    1665   1674   1675   1774   1784   1834   1846   1877   1913   1929
       1      1      1      1      1      1      1      1      1      1
    2046   2063   2064   2075   2198   2204   2324   2419   2422   2424
       1      1      1      1      1      1      1      1      1      1
    2465   2476   2479   2505   2542   2573   2673   2739   2802   2849
       1      1      1      1      1      1      1      1      1      1
```

```
    2895     2967     2981     2999     3018     3090     3102     3107     3142      860
       1        1        1        1        1        1        1        1        1        1
     872      922    D1805    D1837    D1859    D2098    D2208    D2332    D2342    D2358
       1        1        1        1        1        1        1        1        1        1
   D2421    D2432    D2433    D2480    D2557    D2559    D2560    D2572    D2575    D2576
       1        1        1        1        1        1        1        1        1        1
   D2581    D2603    D2611    D2629    D2640    D2648    D2668    D2689    D2691    D2700
       1        1        1        1        1        1        1        1        1        1
   D2726    D2727    D2733    D2738    D2749    D2776    D2792    M1054    M1055     M120
       1        1        1        1        1        1        1        1        1        1
   M1241    M1390    M1503    M1572      M17    M1891    M2070    M2097    M2184  (Other)
       1        1        1        1        1        1        1        1        1       18
```

```
sample_type:
tumor
  117
```

```
histological_type:
ser
117
```

```
primarysite:
 ov
117
```

```
summarygrade:
high  low NA's
  57   57    3
```

```
summarystage:
early  late  NA's
    1   115     1
```

```
tumorstage:
   2    3    4 NA's
   1   98   17    1
```

```
grade:
   1    2    3    4 NA's
   4   53   56    1    3
```

```
days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     30     510    1020    1496    2220    5550
```

```
vital_status:
deceased   living
      67       50
```

```
primary_therapy_outcome_success:
  completeresponse progressivedisease
                85                   32

debulking:
   optimal suboptimal
        63         54

batch:
2002-09-20 2002-10-23 2002-11-12 2002-12-16 2002-12-21 2003-01-03 2003-05-30
        10          8          9          1          3         11         10
2004-03-09 2004-03-16 2004-04-20 2004-05-18 2004-05-21 2004-05-27 2004-06-22
        16          6          5         15          7          7          1
2004-06-23
         8

uncurated_author_metadata:
                            OVC.TumorID: 1024///Survival: 13///X0...alive...1...dead: 1
                            OVC.TumorID: 1447///Survival: 75///X0...alive...1...dead: 1/
                            OVC.TumorID: 1451///Survival: 132///X0...alive...1...dead: 1
                             OVC.TumorID: 1504///Survival: 108///X0...alive...1...dead:
                            OVC.TumorID: 1526///Survival: 74///X0...alive...1...dead: 1/
                            OVC.TumorID: 1552///Survival: 33///X0...alive...1...dead: 1/
                            OVC.TumorID: 1578///Survival: 33///X0...alive...1...dead: 1/
                             OVC.TumorID: 1590///Survival: 148///X0...alive...1...dead:
                            OVC.TumorID: 1615///Survival: 13///X0...alive...1...dead: 1/
                             OVC.TumorID: 1623///Survival: 147///X0...alive...1...dead:
                            OVC.TumorID: 1665///Survival: 15///X0...alive...1...dead: 1/
                             OVC.TumorID: 1674///Survival: 18///X0...alive...1...dead: 1
                          OVC.TumorID: 1675///Survival: 34///X0...alive...1...dead: 1//
                          OVC.TumorID: 1774///Survival: 22///X0...alive...1...dead: 1//
                            OVC.TumorID: 1784///Survival: 78///X0...alive...1...dead: 1
```

OVC.TumorID: 1834///Survival: 118///X0...alive...1...dead: 1

OVC.TumorID: 1846///Survival: 142///X0...alive...1...dead:

OVC.TumorID: 1877///Survival: 119///X0...alive...1...dead:

OVC.TumorID: 1913///Survival: 32///X0...alive...1...dead: 1/

OVC.TumorID: 1929///Survival: 134///X0...alive...1...dead:

OVC.TumorID: 2046///Survival: 127///X0...alive...1...dead:

OVC.TumorID: 2063///Survival: 16///X0...alive...1...dead: 1//

OVC.TumorID: 2064///Survival: 27///X0...alive...1...dead: 1///Ass

OVC.TumorID: 2075///Survival: 87///X0...alive...1...dead:

OVC.TumorID: 2198///Survival: 91///X0...alive...1...dead:

OVC.TumorID: 2204///Survival: 118///X0...alive...1...dead:

OVC.TumorID: 2324///Survival: 98///X0...alive...1...dead:

OVC.TumorID: 2419///Survival: 107///X0...alive...1...dead: 0

OVC.TumorID: 2422///Survival: 20///X0...alive...1...dead:

OVC.TumorID: 2424///Survival: 16///X0...alive...1...dead: 1//

OVC.TumorID: 2465///Survival: 17///X0...alive...1...dead: 1//

OVC.TumorID: 2476///Survival: 86///X0...alive...1...dead: 1//

OVC.TumorID: 2479///Survival: 95///X0...alive...1...dead: 0//

OVC.TumorID: 2505///Survival: 95///X0...alive...1...dead: 0

OVC.TumorID: 2542///Survival: 36///X0...alive...1...dead:

OVC.TumorID: 2573///Survival: 7///X0...alive...1...dead: 1///

OVC.TumorID: 2673///Survival: 74///X0...alive...1...dead: 0//

OVC.TumorID: 2739///Survival: 67///X0...alive...1...dead: 0

OVC.TumorID: 2802///Survival: 24///X0...alive...1...dead: 1/

```
OVC.TumorID: 2849///Survival: 23///X0...alive...1...dead: 1//
 OVC.TumorID: 2895///Survival: 9///X0...alive...1...dead: 1//
  OVC.TumorID: 2967///Survival: 22///X0...alive...1...dead: 1
 OVC.TumorID: 2981///Survival: 6///X0...alive...1...dead: 1//
OVC.TumorID: 2999///Survival: 16///X0...alive...1...dead: 1//
 OVC.TumorID: 3018///Survival: 16///X0...alive...1...dead: 1
OVC.TumorID: 3090///Survival: 16///X0...alive...1...dead: 1//
OVC.TumorID: 3102///Survival: 10///X0...alive...1...dead: 1///
 OVC.TumorID: 3107///Survival: 31///X0...alive...1...dead: 1//
  OVC.TumorID: 3142///Survival: 18///X0...alive...1...dead: 1
  OVC.TumorID: 860///Survival: 17///X0...alive...1...dead: 1/
 OVC.TumorID: 872///Survival: 185///X0...alive...1...dead: 0/
   OVC.TumorID: 922///Survival: 183///X0...alive...1...dead:
 OVC.TumorID: D1805///Survival: 9///X0...alive...1...dead: 1/
OVC.TumorID: D1837///Survival: 83///X0...alive...1...dead: 0//
 OVC.TumorID: D1859///Survival: 110///X0...alive...1...dead: 1
 OVC.TumorID: D2098///Survival: 42///X0...alive...1...dead: 1
OVC.TumorID: D2208///Survival: 2///X0...alive...1...dead: 0///
 OVC.TumorID: D2332///Survival: 27///X0...alive...1...dead: 1
 OVC.TumorID: D2342///Survival: 20///X0...alive...1...dead: 1/
  OVC.TumorID: D2358///Survival: 9///X0...alive...1...dead: 1
  OVC.TumorID: D2421///Survival: 12///X0...alive...1...dead: 1
   OVC.TumorID: D2432///Survival: 34///X0...alive...1...dead:
OVC.TumorID: D2433///Survival: 49///X0...alive...1...dead: 0//
```

```
OVC.TumorID: D2480///Survival: 34///X0...alive...1...dead: 1//
OVC.TumorID: D2557///Survival: 62///X0...alive...1...dead: 0//
  OVC.TumorID: D2559///Survival: 5///X0...alive...1...dead: 1/
OVC.TumorID: D2560///Survival: 91///X0...alive...1...dead: 0//
  OVC.TumorID: D2572///Survival: 37///X0...alive...1...dead: 0
OVC.TumorID: D2575///Survival: 33///X0...alive...1...dead: 1//
OVC.TumorID: D2576///Survival: 17///X0...alive...1...dead: 1//
  OVC.TumorID: D2581///Survival: 63///X0...alive...1...dead: 0
OVC.TumorID: D2603///Survival: 42///X0...alive...1...dead: 0//
  OVC.TumorID: D2611///Survival: 2///X0...alive...1...dead: 1/
  OVC.TumorID: D2629///Survival: 36///X0...alive...1...dead: 0
OVC.TumorID: D2640///Survival: 1///X0...alive...1...dead: 1///
OVC.TumorID: D2648///Survival: 35///X0...alive...1...dead: 1//
      OVC.TumorID: D2668///Survival: 40///X0...alive...1...dead
OVC.TumorID: D2689///Survival: 45///X0...alive...1...dead: 0//
OVC.TumorID: D2691///Survival: 63///X0...alive...1...dead: 0//
OVC.TumorID: D2700///Survival: 74///X0...alive...1...dead: 0//
 OVC.TumorID: D2726///Survival: 71///X0...alive...1...dead: 0/
  OVC.TumorID: D2727///Survival: 53///X0...alive...1...dead: 0
OVC.TumorID: D2733///Survival: 55///X0...alive...1...dead: 0//
OVC.TumorID: D2738///Survival: 68///X0...alive...1...dead: 0//
OVC.TumorID: D2749///Survival: 24///X0...alive...1...dead: 1//
OVC.TumorID: D2776///Survival: 10///X0...alive...1...dead: 1//
OVC.TumorID: D2792///Survival: 16///X0...alive...1...dead: 1//
```

```
                    OVC.TumorID: M1054///Survival: 101///X0...alive...1...dead: 0///Assig

           OVC.TumorID: M1055///Survival: 13///X0...alive...1...dead: 0///Assigned

              OVC.TumorID: M120///Survival: 35///X0...alive...1...dead: 1///Assign

         OVC.TumorID: M1241///Survival: 95///X0...alive...1...dead: 0///Assigned.S

                    OVC.TumorID: M1390///Survival: 46///X0...alive...1...dead: 0/

            OVC.TumorID: M1503///Survival: 53///X0...alive...1...dead: 1///Assign

            OVC.TumorID: M1572///Survival: 22///X0...alive...1...dead: 1///Assigne

         OVC.TumorID: M17///Survival: 17///X0...alive...1...dead: 0///Assigned.Sta

  OVC.TumorID: M1891///Survival: 12///X0...alive...1...dead: 0///Assigned.Stage: 4///

           OVC.TumorID: M2070///Survival: 65///X0...alive...1...dead: 0///Assigned.S

              OVC.TumorID: M2097///Survival: 58///X0...alive...1...dead: 0///Assi

          OVC.TumorID: M2184///Survival: 34///X0...alive...1...dead: 0///Assigne
```

Value

An expression set

| PMID19318476 | *Microarray analysis of early stage serous ovarian cancers shows profiles predictive of favorable outcome.* |

Description

Although few women with advanced serous ovarian cancer are cured, detection of the disease at an early stage is associated with a much higher likelihood of survival. We previously used gene expression array analysis to distinguish subsets of advanced cancers based on disease outcome. In the present study, we report on gene expression of early-stage cancers and validate our prognostic model for advanced-stage cancers.Frozen specimens from 39 stage I/II, 42 stage III/IV, and 20 low malignant potential cancers were obtained from four different sites. A linear discriminant model was used to predict survival based upon array data.We validated the late-stage survival model and show that three of the most differentially expressed genes continue to be predictive of outcome. Most early-stage cancers (38 of 39 invasive, 15 of 20 low malignant potential) were classified as

long-term survivors (median probabilities 0.97 and 0.86). MAL, the most differentially expressed gene, was further validated at the protein level and found to be an independent predictor of poor survival in an unselected group of advanced serous cancers (P = 0.0004).These data suggest that serous ovarian cancers detected at an early stage generally have a favorable underlying biology similar to advanced-stage cases that are long-term survivors. Conversely, most late-stage ovarian cancers seem to have a more virulent biology. This insight suggests that if screening approaches are to succeed it will be necessary to develop approaches that are able to detect these virulent cancers at an early stage.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Berchuck A, Iversen ES, Luo J, Clarke JP, Horne H, Levine DA,
  Laboratory: Berchuck, Lancaster 2009
  Contact information:
  Title: Microarray analysis of early stage serous ovarian cancers shows profiles p
  URL:
  PMIDs: 19318476

  Abstract: A 241 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HG-U133A] Affymetrix Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HG-U133A
   platform_summary:
      hgu133a
   platform_manufacturer:
      Affymetrix
   platform_distribution:
      commercial
   platform_accession:
      GPL96
   warnings:
      These samples are a subset of PMID17290060.
   version:
      2015-09-22 20:20:30

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 42 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n   events   median 0.95LCL 0.95UCL
  42.00   22.00     2.79    2.30      NA


-------------------------
Available sample meta-data:
-------------------------

alt_sample_name:
D1462 D1805 D2171 D2208 D2247 D2332 D2432 D2480 D2559 D2560 D2575 D2576 D2611
    1     1     1     1     1     1     1     1     1     1     1     1     1
D2629 D2640 D2648 D2736 D2749 D2776 D2792 M1025 M1054 M1055  M120 M1241 M1572
    1     1     1     1     1     1     1     1     1     1     1     1     1
  M17 M1777 M1891 M2184 M2515 M2807 M3035  M337 M3484  M359 M4161  M444  M503
    1     1     1     1     1     1     1     1     1     1     1     1     1
M5668 M5775  M806
    1     1     1

sample_type:
tumor
   42

histological_type:
ser
 42

summarygrade:
high  low NA's
  24   17    1

summarystage:
early  late  NA's
    2    39     1

tumorstage:
    1    2    3    4 NA's
    1    1   29   10    1

substage:
    a    b    c NA's
    1    1   29   11

grade:
```

```
   1    2    3 NA's
   2   15   24    1
```

age_at_initial_pathologic_diagnosis:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  33.00   55.00   62.00   61.46   70.00   81.00        1
```

recurrence_status:
```
norecurrence    recurrence
          6            36
```

days_to_death:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   30.0   367.5   825.0  1105.0  1050.0  3420.0
```

vital_status:
```
deceased   living
      22       20
```

debulking:
```
   optimal suboptimal        NA's
        20          21           1
```

batch:
```
2004-03-09 2004-03-16 2004-04-20 2004-05-18 2004-05-21 2004-05-27 2004-06-22
        14          3          4          8          6          5          1
2004-06-23
         1
```

uncurated_author_metadata:

Tumor: D2560///NEW.Response: CR///SHORT.LONG: NA///AgeDx: 60///DateDx: 5/14/1996///

Value

An expression set

`TCGA.RNASeqV2`   *Integrated genomic analyses of ovarian carcinoma.*

Description

A catalogue of molecular aberrations that cause ovarian cancer is critical for developing and deploying therapies that will improve patients' lives. The Cancer Genome Atlas project has analysed messenger RNA expression, microRNA expression, promoter methylation and DNA copy number in 489 high-grade serous ovarian adenocarcinomas and the DNA sequences of exons from coding genes in 316 of these tumours. Here we report that high-grade serous ovarian cancer is characterized by TP53 mutations in almost all tumours (96%); low prevalence but statistically recurrent somatic mutations in nine further genes including NF1, BRCA1, BRCA2, RB1 and CDK12; 113 significant focal DNA copy number aberrations; and promoter methylation events involving 168 genes. Analyses delineated four ovarian cancer transcriptional subtypes, three microRNA subtypes, four promoter methylation subtypes and a transcriptional signature associated with survival duration, and shed new light on the impact that tumours with BRCA1/2 (BRCA1 or BRCA2) and CCNE1 aberrations have on survival. Pathway analyses suggested that homologous recombination is defective in about half of the tumours analysed, and that NOTCH and FOXM1 signalling are involved in serous ovarian cancer pathophysiology.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Integrated genomic analyses of ovarian carcinoma. Nature 2011,
  Laboratory: Cancer Genome Atlas Research Network 2011
  Contact information:
  Title: Integrated genomic analyses of ovarian carcinoma.
  URL:
  PMIDs: 21720365

  Abstract: A 179 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [RNASeqV2] Illumina HiSeq RNA sequencing
   platform_shorttitle:
      Illumina HiSeq RNA sequencing
   platform_summary:
      NA
   platform_manufacturer:
      Illumina
   platform_distribution:
      sequencing
   platform_accession:
      NA
   platform_technology:
      RNA sequencing
   version:
      2015-09-22 20:27:26

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: ?|100133144 ?|100134869 ... ZZZ3|26009 (20471 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20471 features, 261 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   5 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 256.00  143.00    3.62    3.19    4.03
```

```
--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
TCGA-04-1348-01A-01R-1565-13 TCGA-04-1357-01A-01R-1565-13
                           1                            1
TCGA-04-1362-01A-01R-1565-13 TCGA-04-1364-01A-01R-1565-13
                           1                            1
TCGA-04-1365-01A-01R-1565-13 TCGA-04-1514-01A-01R-1566-13
                           1                            1
TCGA-04-1519-01A-01R-1565-13 TCGA-09-0364-01A-02R-1564-13
                           1                            1
TCGA-09-0366-01A-01R-1564-13 TCGA-09-0367-01A-01R-1564-13
                           1                            1
TCGA-09-0369-01A-01R-1564-13 TCGA-09-1662-01A-01R-1566-13
                           1                            1
TCGA-09-1666-01A-01R-1566-13 TCGA-09-1667-01C-01R-1566-13
                           1                            1
TCGA-09-1668-01B-01R-1566-13 TCGA-09-1669-01A-01R-1566-13
                           1                            1
TCGA-09-1670-01A-01R-1566-13 TCGA-09-1673-01A-01R-1566-13
                           1                            1
TCGA-09-1674-01A-01R-1566-13 TCGA-09-2044-01B-01R-1568-13
                           1                            1
TCGA-09-2045-01A-01R-1568-13 TCGA-09-2048-01A-01R-1568-13
                           1                            1
TCGA-09-2051-01A-01R-1568-13 TCGA-09-2054-01A-01R-1568-13
                           1                            1
TCGA-09-2056-01B-01R-1568-13 TCGA-10-0928-01A-02R-1564-13
                           1                            1
TCGA-10-0936-01A-01R-1564-13 TCGA-13-0730-01A-01R-1564-13
                           1                            1
TCGA-13-0799-01A-01R-1564-13 TCGA-13-0800-01A-01R-1564-13
                           1                            1
TCGA-13-0801-01A-01R-1564-13 TCGA-13-0890-01A-01R-1564-13
                           1                            1
TCGA-13-0893-01B-01R-1565-13 TCGA-13-0897-01A-01R-1564-13
                           1                            1
TCGA-13-0899-01A-01R-1564-13 TCGA-13-0913-01A-01R-1564-13
                           1                            1
TCGA-13-0916-01A-01R-1564-13 TCGA-13-0920-01A-01R-1564-13
                           1                            1
TCGA-13-0924-01A-01R-1564-13 TCGA-13-1403-01A-01R-1565-13
                           1                            1
TCGA-13-1405-01A-01R-1565-13 TCGA-13-1410-01A-01R-1565-13
                           1                            1
TCGA-13-1481-01A-01R-1565-13 TCGA-13-1497-01A-01R-1565-13
```

```
                              1                              1
 TCGA-13-1498-01A-01R-1565-13 TCGA-13-1505-01A-01R-1565-13
                              1                              1
 TCGA-13-1506-01A-01R-1565-13 TCGA-13-1507-01A-01R-1565-13
                              1                              1
 TCGA-13-1511-01A-01R-1565-13 TCGA-13-1512-01A-01R-1565-13
                              1                              1
 TCGA-13-2060-01A-01R-1568-13 TCGA-20-1682-01A-01R-1564-13
                              1                              1
 TCGA-20-1683-01A-01R-1566-13 TCGA-20-1684-01A-01R-1566-13
                              1                              1
 TCGA-20-1685-01A-01R-1566-13 TCGA-20-1687-01A-01R-1566-13
                              1                              1
 TCGA-23-1023-01A-02R-1564-13 TCGA-23-1026-01B-01R-1569-13
                              1                              1
 TCGA-23-1027-01A-02R-1564-13 TCGA-23-1029-01B-01R-1567-13
                              1                              1
 TCGA-23-1109-01A-01R-1564-13 TCGA-23-1111-01A-01R-1567-13
                              1                              1
 TCGA-23-1114-01B-01R-1566-13 TCGA-23-1120-01A-02R-1565-13
                              1                              1
 TCGA-23-1122-01A-01R-1565-13 TCGA-23-1123-01A-01R-1565-13
                              1                              1
 TCGA-23-1809-01A-01R-1566-13 TCGA-23-2077-01A-01R-1568-13
                              1                              1
 TCGA-23-2081-01A-01R-1568-13 TCGA-23-2084-01A-02R-1568-13
                              1                              1
 TCGA-24-0975-01A-02R-1565-13 TCGA-24-1103-01A-01R-1565-13
                              1                              1
 TCGA-24-1413-01A-01R-1565-13 TCGA-24-1416-01A-01R-1565-13
                              1                              1
 TCGA-24-1417-01A-01R-1565-13 TCGA-24-1418-01A-01R-1565-13
                              1                              1
 TCGA-24-1419-01A-01R-1565-13 TCGA-24-1423-01A-01R-1565-13
                              1                              1
 TCGA-24-1424-01A-01R-1565-13 TCGA-24-1427-01A-01R-1565-13
                              1                              1
 TCGA-24-1428-01A-01R-1564-13 TCGA-24-1430-01A-01R-1566-13
                              1                              1
 TCGA-24-1436-01A-01R-1566-13 TCGA-24-1467-01A-01R-1566-13
                              1                              1
 TCGA-24-1469-01A-01R-1566-13 TCGA-24-1474-01A-01R-1566-13
                              1                              1
 TCGA-24-1544-01A-01R-1566-13 TCGA-24-1548-01A-01R-1566-13
                              1                              1
 TCGA-24-1549-01A-01R-1566-13 TCGA-24-1550-01A-01R-1566-13
                              1                              1
 TCGA-24-1551-01A-01R-1566-13 TCGA-24-1552-01A-01R-1566-13
```

```
                              1                              1
  TCGA-24-1553-01A-01R-1566-13 TCGA-24-1555-01A-01R-1566-13
                              1                              1
  TCGA-24-1556-01A-01R-1566-13 TCGA-24-1557-01A-01R-1566-13
                              1                              1
  TCGA-24-1558-01A-01R-1566-13 TCGA-24-1560-01A-01R-1566-13
                              1                              1
  TCGA-24-1562-01A-01R-1566-13                      (Other)
                              1                            162


unique_patient_ID:
  TCGA-04-1348 TCGA-04-1357 TCGA-04-1362 TCGA-04-1364 TCGA-04-1365 TCGA-04-1514
             1            1            1            1            1            1
  TCGA-04-1519 TCGA-09-0364 TCGA-09-0366 TCGA-09-0367 TCGA-09-0369 TCGA-09-1662
             1            1            1            1            1            1
  TCGA-09-1666 TCGA-09-1667 TCGA-09-1668 TCGA-09-1669 TCGA-09-1670 TCGA-09-1673
             1            1            1            1            1            1
  TCGA-09-1674 TCGA-09-2044 TCGA-09-2045 TCGA-09-2048 TCGA-09-2051 TCGA-09-2054
             1            1            1            1            1            1
  TCGA-09-2056 TCGA-10-0928 TCGA-10-0936 TCGA-13-0730 TCGA-13-0799 TCGA-13-0800
             1            1            1            1            1            1
  TCGA-13-0801 TCGA-13-0890 TCGA-13-0893 TCGA-13-0897 TCGA-13-0899 TCGA-13-0913
             1            1            1            1            1            1
  TCGA-13-0916 TCGA-13-0920 TCGA-13-0924 TCGA-13-1403 TCGA-13-1405 TCGA-13-1410
             1            1            1            1            1            1
  TCGA-13-1481 TCGA-13-1497 TCGA-13-1498 TCGA-13-1505 TCGA-13-1506 TCGA-13-1507
             1            1            1            1            1            1
  TCGA-13-1511 TCGA-13-1512 TCGA-13-2060 TCGA-20-1682 TCGA-20-1683 TCGA-20-1684
             1            1            1            1            1            1
  TCGA-20-1685 TCGA-20-1687 TCGA-23-1023 TCGA-23-1026 TCGA-23-1027 TCGA-23-1029
             1            1            1            1            1            1
  TCGA-23-1109 TCGA-23-1111 TCGA-23-1114 TCGA-23-1120 TCGA-23-1122 TCGA-23-1123
             1            1            1            1            1            1
  TCGA-23-1809 TCGA-23-2077 TCGA-23-2081 TCGA-23-2084 TCGA-24-0975 TCGA-24-1103
             1            1            1            1            1            1
  TCGA-24-1413 TCGA-24-1416 TCGA-24-1417 TCGA-24-1418 TCGA-24-1419 TCGA-24-1423
             1            1            1            1            1            1
  TCGA-24-1424 TCGA-24-1427 TCGA-24-1428 TCGA-24-1430 TCGA-24-1436 TCGA-24-1467
             1            1            1            1            1            1
  TCGA-24-1469 TCGA-24-1474 TCGA-24-1544 TCGA-24-1548 TCGA-24-1549 TCGA-24-1550
             1            1            1            1            1            1
  TCGA-24-1551 TCGA-24-1552 TCGA-24-1553 TCGA-24-1555 TCGA-24-1556 TCGA-24-1557
             1            1            1            1            1            1
  TCGA-24-1558 TCGA-24-1560 TCGA-24-1562      (Other)
             1            1            1          162


sample_type:
tumor
```

```
  261

histological_type:
ser
261

primarysite:
other    ov
    1   260

summarygrade:
high  low NA's
 226   29    6

summarystage:
early  late  NA's
   18   242     1

tumorstage:
   2    3    4 NA's
  18  209   33    1

substage:
   b    c NA's
  16  211   34

grade:
   1    2    3    4 NA's
   1   28  225    1    6

age_at_initial_pathologic_diagnosis:
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
 34.00   51.00   58.00   58.84   66.00   87.00

pltx:
   n    y NA's
  17  215   29

tax:
   n    y NA's
  17  215   29

neo:
   n NA's
 232   29

days_to_tumor_recurrence:
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
```

```
    9.0    225.0    426.5    585.3    755.0   5480.0         19
```

recurrence_status:
```
norecurrence    recurrence
        123           138
```

days_to_death:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
   9.0   341.8   878.0  1018.0  1446.0  5480.0       5
```

vital_status:
```
deceased   living    NA's
    143      114       4
```

site_of_tumor_first_recurrence:
```
locoregional   metastasis          NA's
         82           56           123
```

primary_therapy_outcome_success:
```
  completeresponse     partialresponse progressivedisease       stabledisease
               147                  30                 15                  15
               NA's
                54
```

debulking:
```
   optimal suboptimal         NA's
       171         60           30
```

percent_normal_cells:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  0.000   0.000   0.000   2.066   0.000  55.000       5
```

percent_stromal_cells:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
   0.00    5.00   10.00   11.43   15.00   70.00       4
```

percent_tumor_cells:
```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
   0.00   77.00   85.00   82.07   90.00  100.00       4
```

uncurated_author_metadata:

age_at_initial_pathologic_diagnosis: 38///anatomic_organ_subdivision: Bilateral///b

age_at_initial_

age_at_in

age_at_initial_pathologic_diagn

age_at_initial_pathologic_diagnosis: 4

age_at_initial_pathologic_diagnosi

age_at_in

age_at_initial_pathologic_diagnosis: 42///anatomic_organ_subdivi

age_at_initial_pathologic_diagnosis: 4

age_at_init

age_at_initial_path

age_at_initial_pathol

a

age_at_initial_patholog

ag

age_at_initial_p

age_at_initial_pathologic_diagnosis: 45///anatomic_or

age_at

age_at_initial_pathologic_diagnosis: 45///anato

age_at_initial_patholog

age_at_initial_patholo

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_diagnosis: 45///anatomic_organ_subdivision:

age_at_initial_pathologic_dia

age_at_initial_pathologic_diagnosis: 46///anatomic_organ_subdivision:

age_at_initial_pathologic_diagnosis: 47

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_diagnosis: 47///anatomic

age_at_initial_

age_at_initial_pathologic_diagnosis: 47///anatomic_org

age_at_initial_pathologic_diagnosis: 48///ana

age_at

age_

age_at_initial_pathologic_dia

age_at_initi

age_at_initial_pathologic_diagnosis: 49///anatomic_

age_at_initial_pathologic_diagnosis: 50///anatomic_organ_

age_at_initial_pathologic_diagno

age_at_initial_pathol

age_at_initial_pathologic_diagnosis: 50///anatomic_organ_subdivision: Left///bcr_p

age_at_initial_pathologic_diagnosis: 50///anatom

age_at_initial_pathologi

age_at_initial_pathologic_diagnosis: 51///anatomic_organ_subdivision: Bilateral//

age_at_initial

age_at_initial_pathologic_diagno

age_at_ir

age_at

age_at_initial_pathologic_diagnosis: 51///anatomi

age_at_initial_pathologic_di

age_at_initial_p

age

age_at_initial_pathologic_d

age_at_initial_pathologic_diagn

age_at_

age_at_initial_pathologic_diagnosis:

age_at_initial_pathol

age_at_initial_pathologic_diagn

age_at_initial_pathologic_diagnosis: 53///anatomic_organ_sub

age_at_initial_pathologic_diagnosis:

age_at_initial_pathologic_diagnosis: 53///anatomic

age_at_initial_pathol

age_at_initial_pathologic_diagnosis: 54///anatomic_organ_subdivision

age_at_i

age_at_initia

age_at_init

age_at_initial_pathologic_diagnosis: 54///anatomic_organ_subdivisi

age

Value

An expression set

TCGAOVARIAN	*Integrated genomic analyses of ovarian carcinoma.*

Description

A catalogue of molecular aberrations that cause ovarian cancer is critical for developing and deploying therapies that will improve patients' lives. The Cancer Genome Atlas project has analysed messenger RNA expression, microRNA expression, promoter methylation and DNA copy number in 489 high-grade serous ovarian adenocarcinomas and the DNA sequences of exons from coding genes in 316 of these tumours. Here we report that high-grade serous ovarian cancer is characterized by TP53 mutations in almost all tumours (96%); low prevalence but statistically recurrent somatic mutations in nine further genes including NF1, BRCA1, BRCA2, RB1 and CDK12; 113 significant focal DNA copy number aberrations; and promoter methylation events involving 168 genes. Analyses delineated four ovarian cancer transcriptional subtypes, three microRNA subtypes, four promoter methylation subtypes and a transcriptional signature associated with survival duration, and shed new light on the impact that tumours with BRCA1/2 (BRCA1 or BRCA2) and CCNE1 aberrations have on survival. Pathway analyses suggested that homologous recombination is defective in about half of the tumours analysed, and that NOTCH and FOXM1 signalling are involved in serous ovarian cancer pathophysiology.

Format

```
experimentData(eset):
Experiment data
  Experimenter name: Integrated genomic analyses of ovarian carcinoma. Nature 2011,
  Laboratory: Cancer Genome Atlas Research Network 2011
  Contact information:
  Title: Integrated genomic analyses of ovarian carcinoma.
  URL:
  PMIDs: 21720365

  Abstract: A 179 word abstract is available. Use 'abstract' method.
  Information is available on: preprocessing
  notes:
   platform_title:
      [HT_HG-U133A] Affymetrix HT Human Genome U133A Array
   platform_shorttitle:
      Affymetrix HT_HG-U133A
   platform_summary:
      hthgu133a
```

```
    platform_manufacturer:
        Affymetrix
    platform_distribution:
        commercial
    platform_accession:
        GPL3921
    warnings:
        The following samples are likely from specimens also used in GSE26712: TCG
A.13.0725, TCGA.13.0885, TCGA.13.0887, TCGA.13.0890, TCGA.13.0886, TCGA.13
.0714, TCGA.13.0727, TCGA.13.1817, TCGA.13.1499, TCGA.13.0883
    version:
        2015-09-22 20:25:15

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-M27830_M_at (21260 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 21260 features, 578 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   21 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 557.00  290.00    3.73    3.45    4.06


--------------------------
Available sample meta-data:
--------------------------

alt_sample_name:
TCGA-01-0628-11A-01R-0362-01 TCGA-01-0630-11A-01R-0362-01
                           1                            1
TCGA-01-0631-11A-01R-0362-01 TCGA-01-0633-11A-01R-0362-01
                           1                            1
TCGA-01-0636-11A-01R-0362-01 TCGA-01-0637-11A-01R-0362-01
                           1                            1
TCGA-01-0639-11A-01R-0362-01 TCGA-01-0642-11A-02R-0362-01
                           1                            1
TCGA-04-1331-01A-01R-0434-01 TCGA-04-1332-01A-01R-0434-01
                           1                            1
TCGA-04-1335-01A-01R-0434-01 TCGA-04-1336-01A-01R-0434-01
                           1                            1
TCGA-04-1337-01A-01R-0434-01 TCGA-04-1338-01A-01R-0434-01
```

```
                    1                                 1
    TCGA-04-1341-01A-01R-0434-01 TCGA-04-1342-01A-01R-0434-01
                    1                                 1
    TCGA-04-1343-01A-01R-0434-01 TCGA-04-1346-01A-01R-0434-01
                    1                                 1
    TCGA-04-1347-01A-01R-0434-01 TCGA-04-1348-01A-01R-0453-01
                    1                                 1
    TCGA-04-1349-01A-01R-0453-01 TCGA-04-1350-01A-01R-0453-01
                    1                                 1
    TCGA-04-1351-01A-01R-0453-01 TCGA-04-1353-01A-01R-1048-01
                    1                                 1
    TCGA-04-1356-01A-01R-0453-01 TCGA-04-1357-01A-01R-0453-01
                    1                                 1
    TCGA-04-1360-01A-01R-0453-01 TCGA-04-1361-01A-01R-0453-01
                    1                                 1
    TCGA-04-1362-01A-01R-0453-01 TCGA-04-1364-01A-01R-0453-01
                    1                                 1
    TCGA-04-1365-01A-01R-0453-01 TCGA-04-1367-01A-01R-0453-01
                    1                                 1
    TCGA-04-1369-01A-02R-1048-01 TCGA-04-1371-01A-01R-0453-01
                    1                                 1
    TCGA-04-1514-01A-01R-0502-01 TCGA-04-1516-01A-01R-1048-01
                    1                                 1
    TCGA-04-1517-01A-01R-0538-01 TCGA-04-1519-01A-01R-0538-01
                    1                                 1
    TCGA-04-1525-01A-01R-0538-01 TCGA-04-1530-01A-02R-0502-01
                    1                                 1
    TCGA-04-1536-01A-01R-0538-01 TCGA-04-1542-01A-01R-0502-01
                    1                                 1
    TCGA-04-1638-01A-01R-0582-01 TCGA-04-1644-01B-01R-1048-01
                    1                                 1
    TCGA-04-1646-01A-01R-0582-01 TCGA-04-1648-01A-01R-0582-01
                    1                                 1
    TCGA-04-1649-01A-01R-0582-01 TCGA-04-1651-01A-01R-0582-01
                    1                                 1
    TCGA-04-1652-01A-01R-0582-01 TCGA-04-1654-01A-02R-0653-01
                    1                                 1
    TCGA-04-1655-01A-01R-0564-01 TCGA-09-0364-01A-02R-0362-01
                    1                                 1
    TCGA-09-0365-01A-02R-0362-01 TCGA-09-0366-01A-01R-0362-01
                    1                                 1
    TCGA-09-0367-01A-01R-0362-01 TCGA-09-0369-01A-01R-0362-01
                    1                                 1
    TCGA-09-1659-01B-01R-0538-01 TCGA-09-1661-01B-01R-0538-01
                    1                                 1
    TCGA-09-1662-01A-01R-0538-01 TCGA-09-1664-01A-01R-0582-01
                    1                                 1
    TCGA-09-1665-01B-01R-0538-01 TCGA-09-1666-01A-01R-0538-01
```

```
                              1                              1
   TCGA-09-1667-01C-01R-0538-01 TCGA-09-1668-01B-01R-0538-01
                              1                              1
   TCGA-09-1669-01A-01R-0538-01 TCGA-09-1670-01A-01R-0564-01
                              1                              1
   TCGA-09-1672-01A-01R-0564-01 TCGA-09-1673-01A-01R-0564-01
                              1                              1
   TCGA-09-1674-01A-01R-0564-01 TCGA-09-1675-01B-01R-0564-01
                              1                              1
   TCGA-09-2043-01A-01R-0709-01 TCGA-09-2044-01B-01R-0709-01
                              1                              1
   TCGA-09-2045-01A-01R-0709-01 TCGA-09-2048-01A-01R-0709-01
                              1                              1
   TCGA-09-2049-01D-01R-0709-01 TCGA-09-2050-01A-01R-0709-01
                              1                              1
   TCGA-09-2051-01A-01R-0709-01 TCGA-09-2053-01C-01R-0668-01
                              1                              1
   TCGA-09-2054-01A-01R-0668-01 TCGA-09-2055-01B-01R-0709-01
                              1                              1
   TCGA-09-2056-01B-01R-0668-01 TCGA-10-0925-01B-01R-0653-01
                              1                              1
   TCGA-10-0926-01A-01R-0404-01 TCGA-10-0927-01A-02R-0404-01
                              1                              1
   TCGA-10-0928-01A-02R-0404-01 TCGA-10-0930-01A-02R-0404-01
                              1                              1
   TCGA-10-0931-01A-01R-0404-01 TCGA-10-0933-01A-01R-0404-01
                              1                              1
   TCGA-10-0934-01A-02R-0404-01 TCGA-10-0935-01A-02R-0404-01
                              1                              1
   TCGA-10-0936-01A-01R-0404-01 TCGA-10-0937-01A-02R-0404-01
                              1                              1
   TCGA-10-0938-01A-02R-0404-01 TCGA-13-0714-01A-01R-0362-01
                              1                              1
   TCGA-13-0717-01A-01R-0362-01 TCGA-13-0720-01A-01R-0362-01
                              1                              1
   TCGA-13-0723-01A-02R-0362-01 TCGA-13-0724-01A-01R-0362-01
                              1                              1
                        (Other)                           NA's
                            479                              1

unique_patient_ID:
TCGA-01-0628 TCGA-01-0630 TCGA-01-0631 TCGA-01-0633 TCGA-01-0636 TCGA-01-0637
           1            1            1            1            1            1
TCGA-01-0639 TCGA-01-0642 TCGA-04-1331 TCGA-04-1332 TCGA-04-1335 TCGA-04-1336
           1            1            1            1            1            1
TCGA-04-1337 TCGA-04-1338 TCGA-04-1341 TCGA-04-1342 TCGA-04-1343 TCGA-04-1346
           1            1            1            1            1            1
TCGA-04-1347 TCGA-04-1348 TCGA-04-1349 TCGA-04-1350 TCGA-04-1351 TCGA-04-1353
```

```
            1             1             1             1             1             1
 TCGA-04-1356 TCGA-04-1357 TCGA-04-1360 TCGA-04-1361 TCGA-04-1362 TCGA-04-1364
            1             1             1             1             1             1
 TCGA-04-1365 TCGA-04-1367 TCGA-04-1369 TCGA-04-1371 TCGA-04-1514 TCGA-04-1516
            1             1             1             1             1             1
 TCGA-04-1517 TCGA-04-1519 TCGA-04-1525 TCGA-04-1530 TCGA-04-1536 TCGA-04-1542
            1             1             1             1             1             1
 TCGA-04-1638 TCGA-04-1644 TCGA-04-1646 TCGA-04-1648 TCGA-04-1649 TCGA-04-1651
            1             1             1             1             1             1
 TCGA-04-1652 TCGA-04-1654 TCGA-04-1655 TCGA-09-0364 TCGA-09-0365 TCGA-09-0366
            1             1             1             1             1             1
 TCGA-09-0367 TCGA-09-0369 TCGA-09-1659 TCGA-09-1661 TCGA-09-1662 TCGA-09-1664
            1             1             1             1             1             1
 TCGA-09-1665 TCGA-09-1666 TCGA-09-1667 TCGA-09-1668 TCGA-09-1669 TCGA-09-1670
            1             1             1             1             1             1
 TCGA-09-1672 TCGA-09-1673 TCGA-09-1674 TCGA-09-1675 TCGA-09-2043 TCGA-09-2044
            1             1             1             1             1             1
 TCGA-09-2045 TCGA-09-2048 TCGA-09-2049 TCGA-09-2050 TCGA-09-2051 TCGA-09-2053
            1             1             1             1             1             1
 TCGA-09-2054 TCGA-09-2055 TCGA-09-2056 TCGA-10-0925 TCGA-10-0926 TCGA-10-0927
            1             1             1             1             1             1
 TCGA-10-0928 TCGA-10-0930 TCGA-10-0931 TCGA-10-0933 TCGA-10-0934 TCGA-10-0935
            1             1             1             1             1             1
 TCGA-10-0936 TCGA-10-0937 TCGA-10-0938 TCGA-13-0714 TCGA-13-0717 TCGA-13-0720
            1             1             1             1             1             1
 TCGA-13-0723 TCGA-13-0724 TCGA-13-0725       (Other)
            1             1             1           479

 sample_type:
 adjacentnormal         tumor
              8           570

 histological_type:
  ser NA's
  568   10

 primarysite:
 other    ov  NA's
     4   564    10

 summarygrade:
 high   low NA's
  480    75   23

 summarystage:
 early  late  NA's
    43   520    15
```

```
tumorstage:
   1    2    3    4 NA's
  16   27  436   84   15

substage:
   b    c NA's
  31  448   99

grade:
   1    2    3    4 NA's
   6   69  479    1   23

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  26.00   51.00   59.00   59.70   68.25   89.00      10

pltx:
   n    y NA's
  19  492   67

tax:
   n    y NA's
  43  468   67

neo:
   n NA's
 511   67

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    8.0   238.2   443.5   623.7   812.0  5480.0      56

recurrence_status:
norecurrence    recurrence
        279           299

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
      8     349     881    1010    1446    5480      21

vital_status:
deceased   living     NA's
     290      270       18

site_of_tumor_first_recurrence:
              locoregional locoregional_plus_metastatic
                       153                            3
                  metastasis                        NA's
```

```
                             143                              279
    primary_therapy_outcome_success:
      completeresponse     partialresponse progressivedisease       stabledisease
                   318                  65                  41                  30
                 NA's
                 124

    debulking:
       optimal suboptimal        NA's
           367        140          71

    percent_normal_cells:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
      0.000   0.000   0.000   2.385   0.000  55.000      19

    percent_stromal_cells:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
      0.00    5.00   10.00   12.85   20.00   70.00      25

    percent_tumor_cells:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
      0.00   75.00   85.00   80.64   90.00  100.00      22

    batch:
       Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
      9.00   13.00   17.00   18.55   22.00   40.00       1

    uncurated_author_metadata:
                                              age_at_initial_pathologic_diagnosis:
```

```
                                                                              age_at
```

```
                                      age_at_initial_pathologic_
                    age_at_initial_pathologic_diagnosis: 37///an
```

```
age_at_initial_pathologic_diagnosis: 38///anatomic_organ_subdivision: Bilateral///b
```

```
age_at_initial_pathologic_diagnosis: 38///anatomic_organ_subdivision: Bil
                                                   age_at_initial_
                                                      age_at_in
               age_at_initial_pathologic_diagnosis: 39///ana
                                  age_at_initial_pathologic_dia
                                  age_at_initial_pathologic_diagn


                                  age_at_initial_pathologic_diagnosis: 4
             age_at_initial_pathologic_diagnosis: 40///anatomic_organ_su
                                     age_at_initial_pathologic_diagnosi
                                                      age_at_in
                                     age_at_initial_patho
                                     age_at_initial_pathologic_diag
                     age_at_initial_pathologic_diagnosis: 4


           age_at_initial_pathologic_diagnosis: 42///anatomic_organ_subdivi
                                               age_at_initial_pat
              age_at_initial_pathologic_diagnosis: 42///anatomic_org
                                         age_at_initial_pathol
                     age_at_initial_pathologic_diagnosis: 4




                                                   age_at_ini
```

                                                                                    age

                                    age_at_initial_pathologic_diagnosis: 4

                                                        age_at_initial

                                                            age_at_init

                                                        age_at_initi

                                            age_at_initial_pathologic_diagno

                        age_at_initial_pathologic_diagnosis: 44///anatomic_o

                                            age_at_initial_pathologic_diagr

                                                age_at_initial_path

                                            age_at_initial_patho

                                            age_at_initial_pathol

                                                                            a

                                    age_at_initial_patholog

                                                                        ag

                                        age_at_initial_p

                    age_at_initial_pathologic_diagnosis: 45///anatomic_or

age_at

age_at_initial_pathologic_diagnosis: 45///anato

age_at_initial_patholog

age_at_initial_patholo

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_diagnosis: 45///anatomic_organ_subdivision:

age_at_initial_pathologic_dia

age_at_initial_pathologic_diagnosis: 46///anatomic_organ_subdivision

age_at_initial_pathologic_diagnosis: 46///anato

age_at_initial_pathologic_diagnosis: 47

age_at_initial_pathologic

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_diagnosis: 47///anatomic

age_at_initial_

age_at_initial_pathologic_diagnosis: 47///anatomic_org

age_at_initial_pathologic_diagnosis: 48///ana

age_at_initial_pathologic_diagnosis

age_at_initial_pathologic_di

age_at_initial_pathologic_diagnosis: 48///ana

```
duplicates:
   Length     Class      Mode
      578 character character
```

Value

An expression set