

1. 2.

Strona główna | Kurs: Bioinformatyka. Laboratorium | temat - Bio-lab_2021-11_MikroRNA | GEO DataSet Browser

https://www.ncbi.nlm.nih.gov/sites/GDSbrowser?acc=GDS3309

NCBI | DATASET BROWSER | GEO Gene Expression Omnibus

COVID-19 Information
Public health information (CDC) | Research Information (NIH) | SARS-CoV-2 data (NCBI) | Prevention and treatment information (HHS) | Español

Search for: GDS3309[ACCN] Search Clear Show All Advanced Search

DataSet Record GDS3309: Expression Profiles | Data Analysis Tools | Sample Subsets

Title: Cigarette smoking effect on the nasal epithelium

Summary: Analysis of nasal epithelia from cigarette smokers. Cigarette smoke creates a field of injury in epithelial cells lining the respiratory tract. Results extend the concept of a smoking-induced field of injury beyond intrathoracic (bronchial) epithelia to extrathoracic epithelia that line the nose.

Organism: Homo sapiens

Platform: GPL571: [HG-U133A_2] Affymetrix Human Genome U133A 2.0 Array

Citation: Sridhar S, Schembri F, Zeskind J, Shah V et al. Smoking-induced gene expression changes in the bronchial airway are reflected in nasal and buccal epithelium. BMC Genomics 2008 May 30;9:259. PMID: 18513428

Reference Series: GSE8987 Sample count: 15

Value type: count Series published: 2008/07/03

Cluster Analysis

Download

- DataSet full SOFT file
- DataSet SOFT file
- Series family SOFT file
- Series family MINML file
- Annotation SOFT file

Data Analysis Tools

Find genes 2

Compare 2 sets of samples

Cluster heatmaps

Experiment design and value distribution

Find gene name or symbol: Go

Find genes that are up/down for this condition(s): agent Go

Tytuł: Cigarette smoking effect on the nasal epithelium

3.

Analyzes the expression level of 18,400 transcripts and variants, including 14,500 well-characterized human genes.

Sekwencje pochodziły z organizmu człowieka.

Tabela **Data table** zawiera odnośniki do stron NCBI sekwencji.

4.

```
Open GDS3309_full.soft Save
/tmp/mozilla_basill0

1 ^DATABASE = Geo
2 !Database_name = Gene Expression Omnibus (GEO)
3 !Database_institute = NCBI NLM NIH
4 !Database_web_link = http://www.ncbi.nlm.nih.gov/geo
5 !Database_email = geo@ncbi.nlm.nih.gov
6 !Database_ref = Nucleic Acids Res. 2005 Jan 1;33 Database Issue:D562-6
7 ^DATASET = GDS3309
8 !dataset_title = Cigarette smoking effect on the nasal epithelium
9 !dataset_description = Analysis of nasal epithelia from cigarette smokers. Cigarette smoke creates a field
of injury in epithelial cells lining the respiratory tract. Results extend the concept of a smoking-
induced field of injury beyond intrathoracic (bronchial) epithelia to extrathoracic epithelia that line
the nose.
10 !dataset_type = Expression profiling by array
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12 !dataset_platform = GPL571
13 !dataset_platform_organism = Homo sapiens
14 !dataset_platform_technology_type = in situ oligonucleotide
15 !dataset_feature_count = 22277
16 !dataset_sample_organism = Homo sapiens
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18 !dataset_channel_count = 1
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20 !dataset_value_type = count
21 !dataset_reference_series = GSE8987
22 !dataset_order = none
23 !dataset_update_date = Sep 10 2008
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25 !subset_dataset_id = GDS3309
26 !subset_description = control
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28 !subset_type = agent
29 ^SUBSET = GDS3309_2
30 !subset_dataset_id = GDS3309
31 !subset_description = cigarette smoke
32 !subset_sample_id = GSM227869,GSM227872,GSM227873,GSM227875,GSM227879,GSM227881,GSM227882
33 !subset_type = agent
34 ^Annotation
```

Plain Text Tab Width: 8 Ln 40, Col 21 INS

5.

Mamy 15 eksperymentów. Część dotyczy osób niepalących, część aktywnych palaczy.

6.

Kurs: Bioinformatyka. Laboratorium temat - Bio-lab_2021-11_Mikron GEO DataSet Browser GEO Accession viewer

https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSM227869

Platform ID [GPL571](#)
 Series (1) [GSE8987](#) Expression data from buccal and nasal epithelium of current and never smokers

Data table header descriptions

ID_REF
VALUE Signal
ABS_CALL indicating whether the transcript was present (P), absent (A), or marginal (M)
DETECTION P-VALUE

Data table

ID_REF	VALUE	ABS_CALL	DETECTION P-VALUE
AFFX-BioB-5_at	219.508	P	0.000972149
AFFX-BioB-M_at	275.697	P	0.00159257
AFFX-BioB-3_at	108.475	P	0.026111
AFFX-BioC-5_at	483.965	P	0.000856509
AFFX-BioC-3_at	551.319	P	7.00668e-05
AFFX-BioDn-5_at	795.63	P	9.4506e-05
AFFX-BioDn-3_at	3354.97	P	0.000340305
AFFX-CreX-5_at	6408.26	P	5.16732e-05
AFFX-CreX-3_at	8016.55	P	4.42873e-05
AFFX-DapX-5_at	29.4455	A	0.175328
AFFX-DapX-M_at	44.2461	A	0.313723
AFFX-DapX-3_at	5.82879	A	0.960339
AFFX-LysX-5_at	21.9814	A	0.262827
AFFX-LysX-M_at	25.5152	A	0.737173
AFFX-LysX-3_at	13.0402	A	0.368438
AFFX-PheX-5_at	3.19525	A	0.876428
AFFX-PheX-M_at	4.5567	A	0.9273
AFFX-PheX-3_at	31.4524	A	0.672921
AFFX-ThrX-5_at	2.56848	A	0.910522
AFFX-ThrX-M_at	6.80782	A	0.699394

7.

Step 1: Select test and significance level

Two-tailed t-test (A vs B) Significance level: 0.100

Step 2: Select which Samples to put in Group A and Group B

Group A: GSM227868, GSM227870, GSM227871, GSM227874, GSM227876, GSM227877, GSM227878, GSM227880

Group B: GSM227869, GSM227872, GSM227873, GSM227875, GSM227879, GSM227881, GSM227882

Step 3: Query Group A vs. B

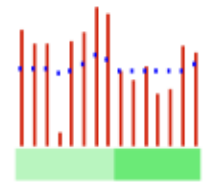
Selected items

Items: 1 to 20 of 1473

<< First < Prev Page 1 of 74 Next > Last >>

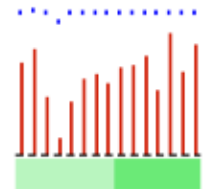
☐ [RFC2 - Cigarette smoking effect on the nasal epithelium](#)

1. Annotation: [RFC2](#), replication factor C subunit 2
Organism: Homo sapiens
Reporter: [GPL571](#), 1053_at (ID_REF), [GDS3309](#), 5982 (Gene ID), [M87338](#)
DataSet type: Expression profiling by array, count, 15 samples
ID: 53928502
[GEO DataSets](#) [Gene](#) [Profile neighbors](#) [Chromosome neighbors](#) [Homologene neighbors](#)



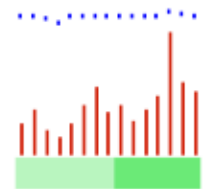
☐ [CAPNS1 - Cigarette smoking effect on the nasal epithelium](#)

2. Annotation: [CAPNS1](#), calpain small subunit 1
Organism: Homo sapiens
Reporter: [GPL571](#), 200001_at (ID_REF), [GDS3309](#), 826 (Gene ID), [NM_001749](#)
DataSet type: Expression profiling by array, count, 15 samples
ID: 53928522
[GEO DataSets](#) [Gene](#) [Profile neighbors](#) [Chromosome neighbors](#) [Homologene neighbors](#)



☐ [TAF10 - Cigarette smoking effect on the nasal epithelium](#)

3. Annotation: [TAF10](#), TATA-box binding protein associated factor 10
Organism: Homo sapiens
Reporter: [GPL571](#), 200055_at (ID_REF), [GDS3309](#), 6881 (Gene ID), [NM_006284](#)
DataSet type: Expression profiling by array, count, 15 samples
ID: 53928576
[GEO DataSets](#) [Gene](#) [Profile neighbors](#) [Chromosome neighbors](#) [Homologene neighbors](#)

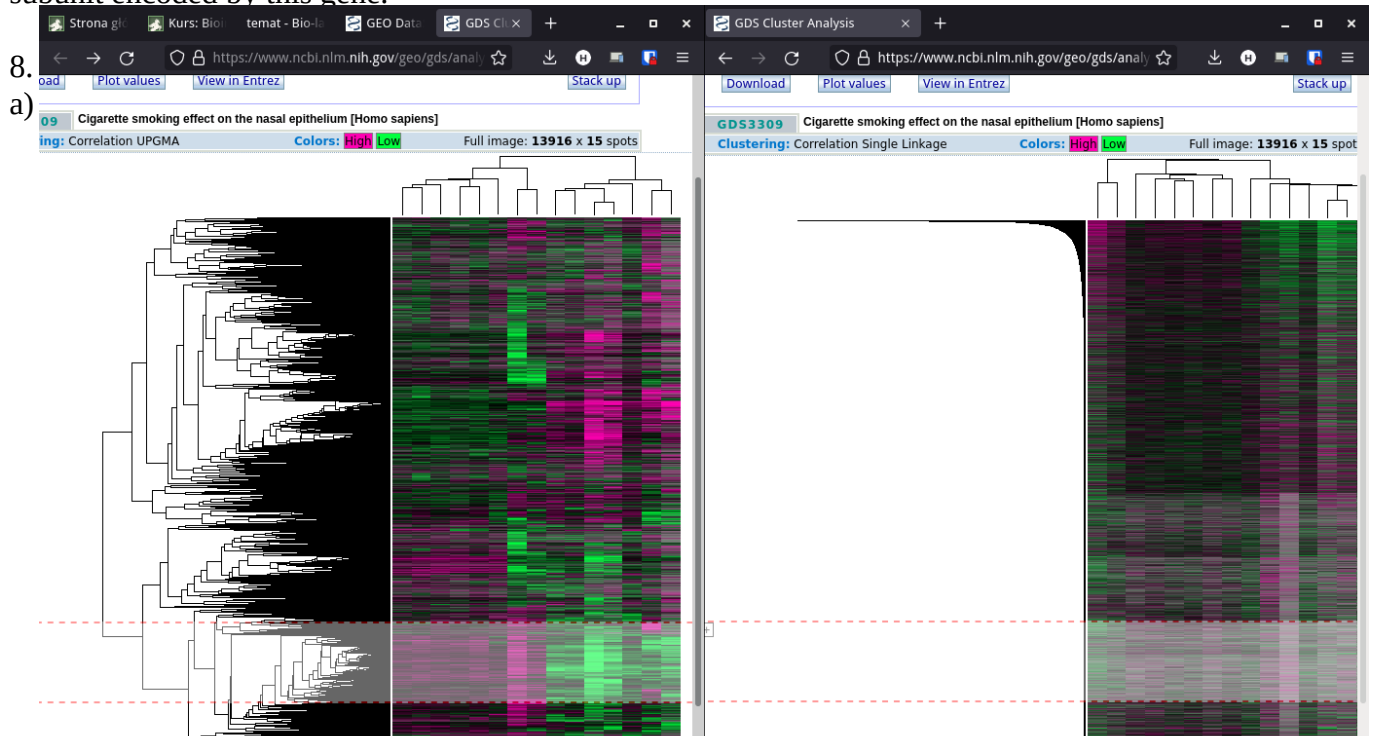


☐ [LOC101929240 - Cigarette smoking effect on the nasal epithelium](#)



RFC2 replication factor C subunit 2 [Homo sapiens (human)] - This gene encodes a member of the activator 1 small subunits family.

CAPNS1 calpain small subunit 1 [Homo sapiens (human)] - This gene is a member of the calpain small subunit family. Calpains are calcium-dependent cysteine proteinases that are widely distributed in mammalian cells. Calpains operate as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by this gene.



b)

K-means/K-medians clustering divide genes into k partitions. The best solution in 3 trials is reported.

Color Options		Clustering Options	
High expression level:	Magenta ▾	Distance:	Euclidean ▾
Low expression level:	Green ▾	K-method:	Mean ▾
Display		Clusters, k (2-15):	2 ▾

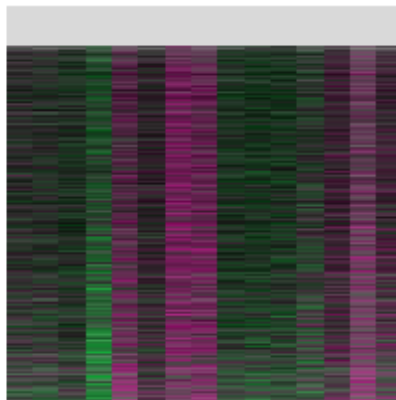
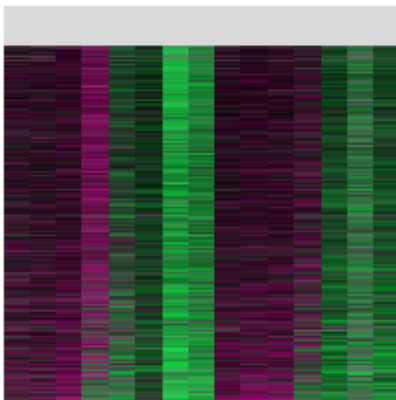
GDS3309

Cigarette smoking effect on the nasal epithelium [Homo sapiens]

Clustering: Euclidean K-means

Colors: High Low

Full image: **13916** x **15** spots



K-means/K-medians clustering divide genes into k partitions. The best solution in 3 trials is reported.

Color Options		Clustering Options	
High expression level:	<div>Magenta ▾</div>	Distance:	<div>Euclidean ▾</div>
Low expression level:	<div>Green ▾</div>	K-method:	<div>Mean ▾</div>
<div>Display</div>		Clusters, k (2-15):	<div>3 ▾</div>

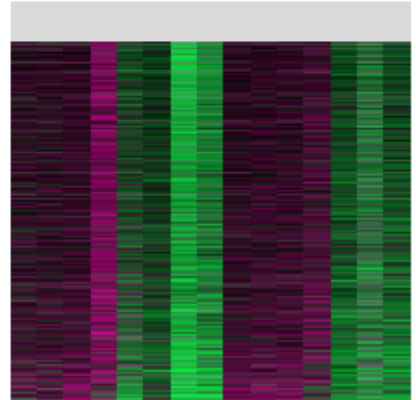
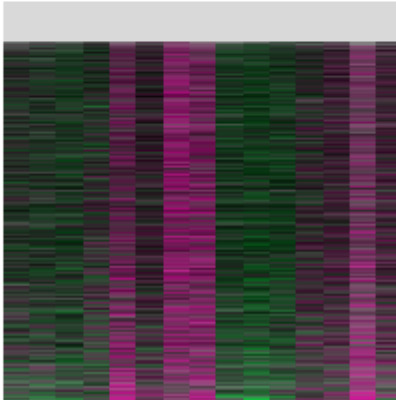
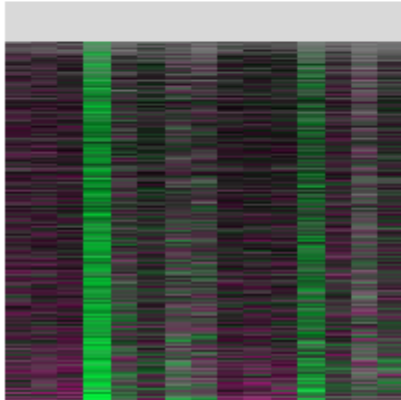
GDS3309

Cigarette smoking effect on the nasal epithelium [Homo sapiens]

Clustering: Euclidean K-means

Colors: High Low

Full image: 13916 x 15 spots



K-means/K-medians clustering divide genes into k partitions. The best solution in 3 trials is reported.

Color Options		Clustering Options	
High expression level:	Magenta ▼	Distance:	Euclidean ▼
Low expression level:	Green ▼	K-method:	Mean ▼
Display		Clusters, k (2-15):	4 ▼

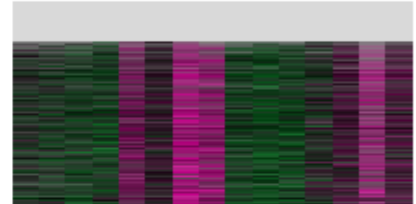
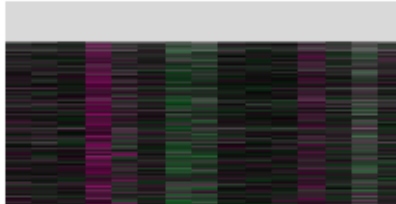
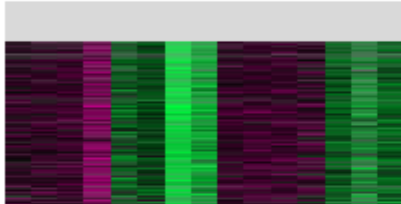
GDS3309

Cigarette smoking effect on the nasal epithelium [Homo sapiens]

Clustering: Euclidean K-means

Colors: High Low

Full image: **13916** x **15** spots



K-means/K-medians clustering divide genes into k partitions. The best solution in 3 trials is reported.

Color Options		Clustering Options	
High expression level:	Magenta ▼	Distance:	Euclidean ▼
Low expression level:	Green ▼	K-method:	Mean ▼
Display		Clusters, k (2-15):	4 ▼

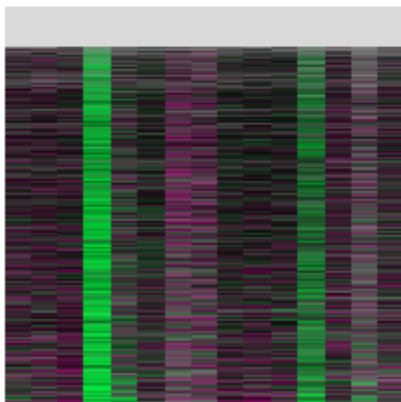
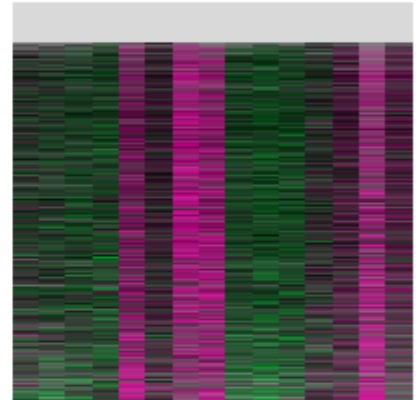
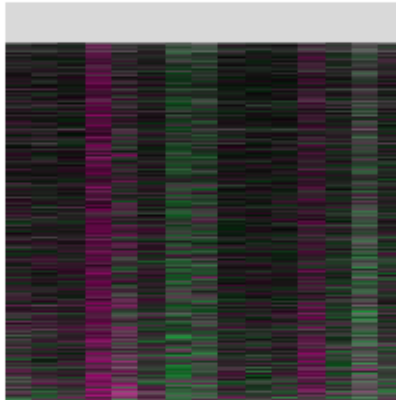
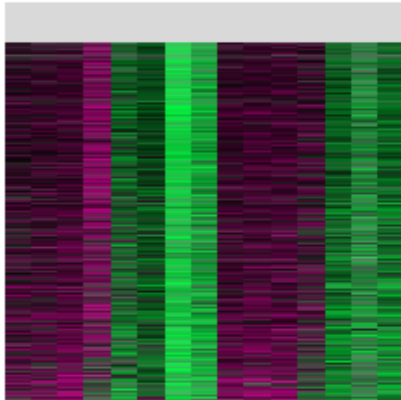
GDS3309

Cigarette smoking effect on the nasal epithelium [Homo sapiens]

Clustering: Euclidean K-means

Colors: High Low

Full image: **13916** x **15** spots



GDS3309

Cigarette smoking effect on the nasal epithelium [Homo sapiens]

Clustering: Chromosome Position Ordering

Colors: High Low

Full image: 13916 x 15 spots

