

Oncomine Update May 2007

The Oncomine database has been updated, and now provides gene expression data from 35 new cancer studies. As always, Oncomine uses the expression data within each study to pre-compute differential expression, co-expression, and Outlier Analysis, and uses Meta-analysis to compare expression patterns between studies. In addition, all expression data in Oncomine is supplemented with clinical, molecular, and treatment data, and is used to compute gene signatures that describe differences in expression between different tissues, cell types, or conditions. No matter how you use Oncomine, these new studies offer important new opportunities for furthering cancer research.

We are already working to add studies for the next update, and welcome your requests at support@compendiabio.com.

Best Regards,

The Compendia Bioscience Team

New Studies!

Brain

French_Brain

Brain	Anaplastic Oligodendroglioma (29); Normal (6); Other (3)	1p Status, 19q Status, 10q Status, EGFR Amplification, Response, Therapy, Survival	Cancer Res 2007 PMID 16357140
-------	----------------------------------------------------------------	------------------------------------------------------------------------------------------	-------------------------------------

Gene expression profiles associated with treatment response in oligodendrogliomas

Breast

Chin_Breast

Breast	Breast Carcinoma (118)	Erb N2, p53, Estrogen Receptor, Progesterone Receptor, Node Positive, Race, Response	Cancer Cell 2006 PMID 17157792
--------	---------------------------	--------------------------------------------------------------------------------------------	--------------------------------------

Genomic and transcriptional aberrations linked to breast cancer pathophysiologies

Ivshina_Breast

Breast	Breast Carcinoma (289)	Elston grade, Estrogen receptor Status, Lymph Node Status, p53 Status, Disease-free Survival	Cancer Res 2006 PMID 17079448
--------	---------------------------	----------------------------------------------------------------------------------------------------	-------------------------------------

Genetic reclassification of histologic grade delineates new clinical subtypes of breast cancer

Minn_Breast_2

Breast	Primary Breast Cancer (99), MDA-MD-231 Cell Lines (21), MCF10A (1)	Tumor Size, Lymph Node Status, Lung Metastasis, Bone Metastasis, Estrogen Receptor, Her2 Status	Nature 2005 PMID 16049480
--------	-----------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	---------------------------------

Genes that mediate breast cancer metastasis to lung

Leukemia

Bourquin_Leukemia

Leukemia	Acute Megakaryoblastic Leukemia (AMK) (38), Acute Myeloid Leukemia (AML)(8), Down's – AMK (23), Down's-AML (2), Down's-Transient Myeloproliferative Disease (8)	Age, Sex, Blast %	PNAS 2006 PMID 16492768
----------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------	-------------------------------

Identification of distinct molecular phenotypes in acute megakaryoblastic leukemia by gene expression profiling

Choi_Leukemia

Leukemia	Chronic Adult T-Cell Leukemia (ATL) (19), Acute ATL (22), Normal (6)	Age, Sex, WBC Count, Hypercalcemia, Serum LDH	Oncogene 2007 PMID 16909099
----------	-------------------------------------------------------------------------------	--------------------------------------------------	-----------------------------------

A genomic analysis of adult T-cell leukemia

Stegmaier_Leukemia

Leukemia	HL-60 cells (21), Primary Acute Myeloid Leukemia (3), Normal Neutrophils (3), Normal Monocytes (3)	ATRA, Phorbol 12-myristate 13- acetate	Nature Genetics 2004 PMID 14770183
----------	----------------------------------------------------------------------------------------------------------------	-------------------------------------------	------------------------------------------

Gene expression-based high-throughput screening(GE-HTS) and application to leukemia differentiation

Lung

Chen_Lung_3

Lung	Lung Cancer (126)	Age, Sex, Cell Type, Cancer Stage, Survival Time, Metastasis Time	N Engl J Med. 2007 PMID 17202451
------	----------------------	-------------------------------------------------------------------------	----------------------------------------

A five-gene signature and clinical outcome in non-small-cell lung cancer

Stearman_Lung

Lung	Invasive Non-Small Cell Lung Carcinomas (NSCLC) 10, Adjacent Normal Lung (10)	9 samples were from patients with a history of smoking	Am J Pathol 2005 PMID 16314486
------	----------------------------------------------------------------------------------------	-----------------------------------------------------------	--------------------------------------

Analysis of orthologous gene expression between human pulmonary adenocarcinoma and a carcinogen-induced murine model.

Myeloma

Agnelli-Myeloma

Myeloma	Bone Marrow (102)	Chromosome 11, 19, 13,1q Status	Br J Haematol 2007 PMID 17367409
---------	----------------------	------------------------------------	-------------------------------------

Upregulation of translational machinery and distinct genetic subgroups characterize hyperdiploidy in multiple myeloma

Neuroblastoma

Wang_Neuroblastoma

Neuroblastoma	Primary Neuroblastoma (101), Normal Fetal Brain (1)	Age, INSS Stage, MYCN Status, 1p36 Status, 11q23 Status, Unb11q LOH, 17q Status, Tumor%	Cancer Res 2006 PMID 16778177
---------------	--------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------

Integrative genomics identifies distinct molecular classes of neuroblastoma and shows that multiple genes are targeted by regional alterations in DNA copy number

Normal

Su_Normal_2

Normal	Normal Human Tissue (73), Cancer Tissue (6)	PNAS 2004 PMID 15075390
--------	---------------------------------------------	----------------------------

A gene atlas of the mouse and human protein-encoding transcriptomes

Yanai_Normal

Normal	Normal Human Tissue (12)	Bioinformatics 2005 PMID 15388519
--------	--------------------------	--------------------------------------

Genome-wide midrange transcription profiles reveal expression level relationships in human tissue specification

Ovarian

Hendrix_Ovarian

Ovary	Ovarian Tumor (99), Normal (4)	Tumor Type, Histologic Subtype, Stage, Grade, B-catenin, CTNNB1, APC, PTEN, KRAS, PIK3CA, p53 Cancer Res 2006 PMID 16452189
-------	--------------------------------	-----------------------------------------------------------------------------------------------------------------------------------

Fibroblast growth factor 9 has oncogenic activity and is a downstream target of Wnt signaling in ovarian endometrioid adenocarcinomas

Prostate

Tomlins_Prostate

Prostate	Laser dissected prostate cancer (65), Non-cancer (36)	Prostate Cancer Progression Terms, Gleason Score Nature Genetics 2007 PMID 17173048
----------	-------------------------------------------------------	-------------------------------------------------------------------------------------------

Integrative molecular concept modeling of prostate cancer progression

Cell Lines

Ma_CellLine

Cell Line	U87 Glioblastoma Cell Line (3), U87 Over-Expressing Dominant-negative PDGF (6), U87 with G418 Resistance Marker (6)	Cancer Res 2005 PMID 15994924
-----------	---------------------------------------------------------------------------------------------------------------------	----------------------------------

Autocrine platelet-derived growth factor-dependent gene expression in glioblastoma cells is mediated largely by activation of the transcription factor sterol regulatory element binding protein and is associated with altered genotype and patient survival in human brain tumors

Monroe_CellLine

Cell Line	U2OS Human Osteosarcoma Cell Line Expressing ERa, ERb, or ERab	Estradiol, Tamoxifen Cancer Res 2005 PMID 15802376
-----------	----------------------------------------------------------------	----------------------------------------------------------

Estrogen receptor alpha and beta heterodimers exert unique effects on estrogen- and tamoxifen-dependent gene expression in human U2OS osteosarcoma cells

Neve_CellLine

Cell Line	51 breast cancer cell lines representing the molecular heterogeneity commonly found in breast cancers	Gene Cluster, Estrogen Receptor Status, Progesterone Receptor Status, HER2 Overexpression, Herception Response, TP53 Protein Level, TP53 Mutation Status, Age, Ethnicity Cancer Cell 2006 PMID 17157791
-----------	-------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

A collection of breast cancer cell lines for the study of functionally distinct cancer subtypes

Zhou_CellLine

Cell Line	Non-Small Cell Lung Carcinoma (NSCLC) Cell Lines (44), Calu-3 (1), H820 (1)	Histologic Subtype, Age, Race, Sex, Gefitinib Sensitivity	Cancer Cell 2006 PMID 16843264
-----------	-----------------------------------------------------------------------------	-----------------------------------------------------------	--------------------------------

Targeting ADAM-mediated ligand cleavage to inhibit HER3 and EGFR pathways in non-small cell lung cancer