Emerging Science for Environmental Health Decisions

National Research Council of the National Academies

INTEGRATING ENVIRONMENTAL HEALTH DATA TO ADVANCE DISCOVERY
JANUARY 10-11, 2013

SUGGESTED READING AND RELATED LINKS

SESSION 2: DATA INTEGRATION—STRATEGIES AND LESSONS LEARNED

Greg Farber:
Milham MP, 2012. Open neuroscience solutions for the connectome-wide association era. Neuoron 73(2), 214-218.
http://www.cell.com/neuron/abstract/S0896-6273%2811%2901003-8#

Hall D, Huerta MF, McAuliffe MJ, Farber GK (2012). Sharing heterogeneous data: The national database for autism research. Neuroinform 10, 331-339.
http://link.springer.com/article/10.1007%2Fs12021-012-9151-4

Savage CJ, Vickers AJ (2009). Empirical study of data sharing by authors publishing in PLoS Journals. PLoS ONE 4(9) e7078.
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0007078

Ewan Birney:
Birney, Ewan (06 Sept 2012). The making of ENCODE: Lessons for big-data projects. Nature 489, 49-51.
http://www.nature.com/nature/journal/v489/n7414/full/489049a.html

SESSION 3: ENVIRONMENTAL HEALTH SCIENCE DATA STREAMS

Francesca Dominici:
Correia AW, Arden Pope III C, Dockery DW, Yang Y, Ezzati M, Dominici F (2013). Effect of air pollution control on life expectancy in the United States, an analysis of 545 U.S. counties for the period from 2000 to 2007. Epidemiology 24(1), 23-31.
http://journals.lww.com/epidem/Fulltext/2013/01000/Effect_of_Air_Pollution_Control_on_Life_Expectancy.4.aspx

Peng RD, Bobb JF, Tebaldi C, McDaniel L, Bell ML, Dominici F (2011). Toward a quantitative estimate of future heat wave mortality under global climate change. Environmental Health Perspective 119(5), 701-706.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094424/

Dominici F, Peng RD, Bell ML, et al (2006). Fine particulate air pollution and hospital admission for cardiovascular and respiratory diseases. JAMA (Journal of the American Medical Association) 295(10), 1127-34.
http://www.ncbi.nlm.nih.gov/pubmed/16522832

Ann Richard:
Kavlock R, Chandler K, Houck K, Richard A, et al (2012). Update on EPA's ToxCast Program: providing high throughput decision support tools for chemical risk management. Chemical Research in Toxicology. 25(7), 1287-1302
http://pubs.acs.org/doi/abs/10.1021/tx3000939

Judson R, Richard A, Dix, DJ, et al (2009). The toxicity data landscape for environmental chemicals. Environmental Health Perspective 117(5), 685-695.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685828/

Richard A, Yang C, Judson RS (2008). Toxicity data informatics: supporting a new paradigm for toxicity prediction. Toxicology Mechanisms and Methods 18(2-3), 103-118.
http://informahealthcare.com/doi/abs/10.1080/15376510701857452

Background Reading Links:
http://www.epa.gov/ncct/dsstox/
http://epa.gov/dsstox_structurebrowser/
http://actor.epa.gov/

Elaine Cohen Hubal:
Mattingly CJ, McKone, TE, Cohen Hubal EA (2012). Providing the missing link: the exposure science ontology ExO. Environmental Science & Technology 46(6), 3046-3053.
http://pubs.acs.org/doi/abs/10.1021/es2033857?mi=wxj6rs&af=R&pageSize=20&searchText=gene

Judson RS, Martin MT, Cohen Hubal EA, Richard A, et al (2012). Aggregating data for computational toxicology applications: the U.S. Environmental Protection Agency (EPA) aggregated computational toxicology resource (ACToR) system. International Journal of Molecular Sciences 13(2), 1805-1831.
http://www.mdpi.com/1422-0067/13/2/1805

Egeghy PP, Judson R, Cohen Hubal EA, et al (2012). The exposure data landscape for manufactured chemicals. Science of the Total Environment 414, 159-166.
http://www.sciencedirect.com/science/article/pii/S0048969711012393

Link to ExpoCast DB: http://actor.epa.gov/actor/faces/ExpoCastDB/Home.jsp