Didactic Possibilities

Different types of experiments in which *Drosophila* are exposed to CO_2, cigarette smoke, or smoke from other plants can be configured. Demonstrative activities allow the observation of the damage caused by smoking. While CO_2 and fume produced by the burning of most plants only produce anesthesia in the flies, cigarette smoke produces a high mortality. These observations can be associated to discussion and advertisements about smoke-free. Higher skills like setup of experiments, control of variables, statistical analysis, and so forth can be developed if the activities were done as a project. For example, analyses of genetic variability for nicotine susceptibility allow discussion of themes like pharmacogenetics. The literature reviews on the phenomena observed can lead to a deeper understanding in physiology, biochemistry, genetics, and other disciplines.

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References: Miller, M.C.D., L.M. Montplaisir, E.G. Offerdahl, F. Cheng and G.L. Ketterling 2010, CBE—Life Sciences Education 9: 45–54; Öberg, M., M.S. Jaakkola, A. Woodwardc, A. Peruga, and A. Prüss-Ustün 2010, The Lancet 377: 139-146; Passador-Gurgel, G., W. Hsieh, P. Hunt, N. Deighton, and G. Gibson 2007, Nature Genetics 39: 264-268; WHO, 2011, http://www.who.int/nmh/publications/ncd_report2010/en/; Wolf, F.W., and U. Heberlein 2003, J. Neurobiol. 54: 161–178.

54th Annual *Drosophila* Research Conference

The 54th Annual *Drosophila* Research Conference was held on 3-7 April 2013 in Washington, D.C. The 2013 Organizing Committee was Richard Mann (Columbia University, New York, NY), Hannele Ruohola-Baker (University of Washington, Seattle, WA), Kristin Scott (University of California, Berkeley, CA), and David Stern (Janelia Farm Research Campus, Ashburn, VA). The conference was sponsored by The *Drosophila* Board in association with the Genetics Society of America, 9650 Rockville Pike, Bethesda, MD 20814-3998. The Program and Abstracts Volume lists two Plenary sessions, 156 platform session talks, 807 posters, and 12 workshops.

Historical Address Speaker

Jules A. Hoffmann (IBMC, University of Strasbourg, Strasbourg, France). Innate immunity: From flies to humans.

Plenary Lectures

Marc R. Freeman (University of Massachusetts Medical School/HHMI, Worcester, MA). Molecular mechanisms of axon degeneration.

Tom Clandinin (Stanford University, CA). Genetic approaches to dissecting neural computation in the visual system.

Chris Jiggins (University of Cambridge, Cambridge, UK). The genomics of speciation and pattern evolution in (butter)flies.

Naama Barkai (Weizman Institute, Rehovot, Israel). Creating gradients by morphogen shuttling.

Leanne Jones (Salk Institute, La Jolla, CA). Maintenance of niche function and tissue homeostasis during ageing.