NIH Grant Watch

Drosophila Genomics; Telomerases

BioTechniques and NIH Sales reviewed grants made by the National Institutes of Health during the last 30 days. Here are some highlights from among the largest R01 and R03 grants awarded during March 2009.

Drosophila Population Genomics \$799,999

(2R01HG002942-05, National Human Genome Research Institute)

Charles Langley (University of California, Davis, CA)

Goal: To completely sequence 50 *Drosophila melanogaster* genomes and annotate the genomic polymorphisms according to their diverse functions. In the course of the study, an appropriate resequencing technology will be developed, validated, and sustained, and the value of genomic studies of population polymorphisms will be emphasized.

Telomerase in Development, Senescence, and Neoplasia \$535,923

(5R01CA084628-17, National Cancer Institute)

Ronald Depinho (Dana Farber Cancer Institute, Boston, MA)

Goal: To explore the roles of telomeres, telomerase, and p53 in tumor progression and metastases in a telomerase knockout mouse strain. This study aims to investigate how the telomere and p53 pathways interact to govern tissue stem cell survival, transformation, and evolution into malignant disease. This will be accomplished through studies where telomere function is restored through inducible alleles for telomerase reverse transcriptase and p53; genetic screening to define the telomere checkpoint response; investigation of telomerase and p53 contributions to tumor progression; and the actions of established tumors in response to termination of telomere activity.

Regulation of Cell Growth and Proliferation by Myc \$530,193

(5R01CA020525-33, National Cancer Institute)

Robert Eisenman (Fred Hutchinson Cancer Research Center, Seattle, WA)

Goal: To link Myc's developmental functions with its ability to induce chromatin modifications. To accomplish this, the cytokine signaling role of N-myc in the developing mouse nervous system will be studied using targeted gene deletions and a mouse tumor model. Secondly, N-myc will be deleted with temporal and locational specificity. Finally, the mechanism, nature, and extent of chromatin modifications in response to Myc will be explored.

Transsynaptic Tracing of Olfactory Bulb Input to the Olfactory Cortex \$74,475

(5R03DC008874-03, National Institute on Deafness and Other Communication Disorders)

David Willhite (Yale University, New Haven, CT)

Goal: To map olfactory bulb input patterns to the olfactory cortex using transsynaptic tracing. The study will provide the first quantitative evidence of regional olfactory bulb input segregations, the degree of input as a function of distance, and whether input patterns are conserved between individuals.

Selected and written by Kristie Nybo and Bruce Perry.

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