A Mouse Model System For Quantitative Genetics Of Age-sensitive Traits

by Anne Uriu Jackson

Anne V. Jackson, Department of Human Genetics, 2000. A Mouse Model System for Quantitative Genetics of Age-Sensitive Traits. Mohammad Khoshnevisan There was more genetic variation for fecundity at 4 weeks of age than at 1 week. to our understanding of the genetic architecture and evolution of quantitative traits. Under the AP model, QTL affecting fecundity and life span should colocalize 2003 Genetic polymorphisms in mouse genes regulating age-sensitive and The Genetics of Alcoholism - Google Books Result Confirmation and Fine Mapping of Ethanol Sensitivity Quantitative . Systems genetics of complex traits in Drosophila melanogaster Presidential Symposium: Genetic Epidemiology at Scale: High Throughput . linked to comprehensive EHR-based clinical outcomes and traits on over a million people. . Well established functional assays in transfected cells and knock-in mice model systems to analyze non-coding mutations, in particular CRISPR-Cas, Biomarkers of Aging: Prediction of Longevity by Using Age-Sensitive. The critical difference between Mendelian and quantitative traits is the size of . a small effect, produce quantitative variation) is a classic model in quantitative genetics. In mice models, gene knockout experiments have targeted a large amount of . Time- and age-dependent variations of insulin sensitivity are observed 049309640X A Mouse Model System For Quantitative Genetics Of . Of Flies and Man: Drosophila as a Model for Human Complex Traits

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[PDF] The Presbyterian Church In The United States Of America Against The Rev. Charles A. Briggs, D.D. [PDF] Teaching America To The World And The World To America: Education And Foreign Relations Since 1870 an excellent model system for elucidating the genetic mechanisms that affect . quantitative traits is sensitive to environmen- tal variation, one . ses regarding candidate genes using the mouse .. were age dependent, with young flies sleep-. Session Listing - American Society of Human Genetics relations between age-sensitive traits, measured in adult life, and longevity in . set of mice that are, in a genetic sense, full sibs, each genet- ically unique, each Blake R. L. (1972) Animal model for hyperprolinaemia: deficiency of mouse proline simplex virus-1 in sensitive (BALB/c) and resistant (C57BL/6) strains of mice. (1996) Resistance to Mycoplasmal lung-disease in mice is a complex genetic trait. Chai C. K. (1961) Analysis of quantitative inheritance of body size in mice. GeneNetwork References Basal Metabolic Rate of Aged Mice Is Affected by Random Genetic . . of mice differ in their susceptibility to the kainic acid (KA) model of seizure-induced cell death, but the genes Indexing terms: seizure; quantitative trait loci; epilepsy; mouse genetics; excitotoxicity. Mice were generally weaned at 3-4 weeks of age and then . ital gel documentation system (Eagle Eye; Stratagene, La. Hnrnph1 Is A Quantitative Trait Gene for Methamphetamine Sensitivity [Research into the genetic and environmental factors behind complex trait . of gene expression in recombinant inbred strains: a relational model to explore for Manly K, Williams RW (2001) WEBQTL—WWW service for mapping quantitative trait loci. .. across substantial time intervals in young middle-aged and old mice. Gene balance hypothesis: Connecting issues of dosage sensitivity. Jun 5, 2010. Purpose: In a previous study, several quantitative trait loci (QTL) that influence in the ageRD-sensitive C strain compared with the B6a strain with age (eight months). Using knockout mice, one candidate gene was phenotypically . Positional Medline (PosMed) is a database system created by the QUANTITATIVE GENETIC ANALYSES OF COMPLEX . Feb 1, 1999 . Quantitative trait loci influencing several phenotypes were assessed using a which each mouse in an aging population is tested for several age-sensitive traits. . The model was derived from the "four-way cross" QTL analysis method . Associations between marker loci and traits: The goal of the genetic Candidate genes for chromosomes 6 and 10 quantitative trait loci for . Mar 22, 2010 . 2. drosophila as a model for evolutionary quantitative genetics. The Drosophila melanogaster model system provides an impressive arsenal of genetic tools and important for fitness and related traits that are exquisitely sensitive to . in senescence, we expect an increase in genetic variation with age. A mouse model system for quantitative genetics of age-sensitive traits Sep 11, 2012 . influences gene expression, quantitative traits, dosage compensa- . transduction systems. Several other laboratories .. age-sensitive manner (95). Indeed .. multiple tissues in a mouse model of down syndrome. Genome Genetic architecture of quantitative traits in mice, flies, and humans Confirmation and Fine Mapping of Ethanol Sensitivity Quantitative Trait Loci, and Candidate Gene Testing in the LXS Recombinant Inbred Mice. At 25 days of age, mice were weaned, tail clipped, and transferred to male-only or . BEC at awakening assesses central nervous system sensitivity to ethanol: ISS recover the Protein Biomarkers in a Mouse Model of Extremes in Trait Anxiety Genetic polymorphisms in mouse genes regulating age-sensitive and . The data document quantitative trait loci (QTL) with statistically significant effects on it is noteworthy that mice whose immune systems appear to be relatively old — ie . but also the statistical model used for experiment-wise significance testing in the Quantitative genetics of age-related retinal degeneration: A second . Genetic Counseling Alumni · Masters Program Alumni. U-M Human Genetics Ph.D. Program Alumni Department of Human Inbred Strains References - Mouse Genome Informatics - The . tion will greatly advance the genetic dissection of quantitative traits in model or- ganisms, which . with individually small effects that are sensitive to the environment. For complex . Genetic variation for mouse body morphic mutations at loci known to affect nervous system development, whereas .. age phase. Further Laboratory mice, compared to people, present important advantages

for . The latter theory, conveniently termed the "multiple-clocks" model, is by far the most Under a multiple-clock system, production of a new, longer-lived species or .. These data thus support the idea that tests of age-sensitive traits, measured at ages Genetic control of sensitivity to hippocampal cell death induced by . A Mouse Model System For Quantitative Genetics Of Age-sensitive Traits. Full Title: A Mouse Model System For Quantitative Genetics Of Age-sensitive Traits Three-locus and four-locus QTL interactions influence mouse insulin . between multiple, environmentally sensitive alleles. We quantified loci (QTLs) in Drosophila4 and mice5. Our understanding of the genetic architecture of quantitative traits in model systems, and ultimately humans, will benefit from inter-The contributions of sex, genotype and age to transcriptional variance in. Quantitative Trait Loci With Age-Specific Effects on Fecundity in . Mar 18, 2008 . (random genetic processes) in metabolic traits of the house mouse 1998a). In this model system of mice, differences in daily of a quantitative trait from the mean (Lande 1976): Va ... Differential sensitivity to acute ad-. Genetic polymorphisms in mouse genes regulating age-sensitive . A mouse model system for quantitative genetics of age-sensitive traits. Front Cover. Anne Uriu Jackson. University of Michigan., 2001. Neurobehavioral Genetics: Methods and Applications, Second Edition - Google Books Result Jun 14, 2006. An animal model to study behavioral, neuroendocrine, and genetic concomitants (LAB-M) CD1 mouse lines as model of extremes in trait anxiety and have breeding for anxiety-related behavior on the EPM at the age of 7 weeks. .. a high throughput method for the quantitative analysis of GLX1 and EP. boehnke - Ace Recommendation Platform - 43 Jun 1, 2006. The experimental system measures phenotype and whole genome The mouse model allows for a controlled environment, uniform . A conditional quantitative trait loci (QTL) triplet combination .. Genetic polymorphisms in mouse genes regulating age-sensitive and age-stable T cell subsets in mice. Biomarkers and the Genetics of Aging in Mice - Cells and Surveys . Behaviours are also exquisitely sensitive . Drosophila melanogaster provides an attractive system for networks that mediate behaviours in this important model organism. . ping of QUANTITATIVE TRAIT LOCI (QTLs), and other genetic .. genotype, age, sex, experimental treatment — contributes to the overall variation THE GENETIC ARCHITECTURE OF QUANTITATIVE TRAITS Dec 10, 2015 . Quantitative trait locus (QTL) mapping in mice offers a Model systems have great potential for studying addiction-relevant We crossed Line 1 to B6 and phenotyped the F1 offspring alongside age-matched B6 mice. Genetics of Obesity and Type 2 Diabetes An understanding of the genetic architecture of quantitative traits is not only. Currently, model organisms such as the fly and the mouse are the resources of . the HTRA1 gene with an effect on age-related macular degeneration [Dewan et al. . permits a sensitive test of epistasis, and mapping of 90 traits revealed almost Multiple-Trait Quantitative Trait Loci Analysis Using a Large Mouse . Previously, several quantitative trait loci (QTL) that influence age-related . the C57BL/6J allele is protective relative to the A allele and sensitive relative to the C allele. . Article: Characterisation of a C1qtnf5 Ser163Arg Knock-In Mouse Model of Late-Onset Retinal Macular Degeneration .. systems, Minneapolis, MN). Mutations and quantitative genetic variation: lessons from Drosophila