› NEWS UPDATES

A fly by any other name

The tiny fruit fly *Drosophila melanogaster* has achieved more celebrity than lab animals ten times its size. Its name is mentioned in countless texts and research articles, and its contributions to our understanding of the most basic tenets of genetics and inheritance are unparalleled. But this favored status as a model organism may not help *Drosophila* to keep its famous name.

The genus *Drosophila*, as currently organized, is a taxonomic mess. It includes roughly 2,000 species, who do not all share a common ancestor (as taxonomic rules suggest they should). Though some researchers seem happy to ignore the chaos, others propose that the taxonomy of the genus should be revised to more closely reflect biological relatedness of the species. Such a revision would very likely result in the reclassification of *D. melanogaster* into a new genus called *Sophophora*, changing its name to *Sophophora melanogaster*.

Kim van der Linde (Florida State University, Tallahassee) filed a petition that would preserve *D. melanogaster*'s name despite such taxonomic revision. But the International Commission of Zoological Nomenclature recently rejected the proposal (*Bull. Zool. Nomenclature* **67**, 106–115; 2010) after 3 years' deliberation, leaving geneticists and fruit fly fans worldwide to debate what's in a name.

Genetic and environmental interaction

A study in mice has shown that an interaction between a genetic mutation, a virus and injury leads to the development of inflammatory bowel pathologies that resemble some aspects of Crohn's disease in humans. These observations may help explain why only some of the people who have a genetic mutation linked to a disease like Crohn's actually develop the disease.

A team led by Thaddeus Stappenbeck and Herbert Virgin of Washington University in St. Louis (MO) had previously shown that mice with a mutation in the gene *Atg16L1* had abnormal Panneth cells, which are involved in mucosal immunity (*Nature* **456**, 259–263; 2008). *ATG16L1* is associated with Crohn's disease in humans. Last year, the researchers used embryo transfer to move their *Atg16L1* mutant mouse colony from a conventional barrier facility to a super-sterile facility. After the move, the mutant mice no longer had abnormal Panneth cells.

Analyses revealed that when the mutant mice were exposed to CR6 norovirus, their Panneth cells became abnormal (*Cell* **141**, 1135–1145; 2010). When the researchers fed these infected mice a toxic chemical, the mice developed some symptoms resembling Crohn's. Treating these mice with antibiotics to kill intestinal microbes eliminated the disease state. Future work will focus on whether human viruses can trigger Crohn's disease in genetically susceptible people.

Updating the *Guide*

On 2 June, the US National Research Council released an updated edition of the *Guide for the Care and Use of Laboratory Animals* (the *Guide*). The *Guide*, which was last published in 1996, recommends standards and practices for the humane care and treatment of animals used in research, testing or teaching.

Recognized nationally and internationally as a primary reference for animal care and use, previous editions of the *Guide* have been the basis for accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International. The *Guide* emphasizes a performance standards approach for animal care and use, in which desired outcomes, rather than specific engineering approaches, are described.

The new edition of the *Guide* expands on topics such as ethical principles for working with laboratory animals and includes new guidelines for the housing and environment standards for animals. It endorses the use of the three Rs (replacement, refinement and reduction) when using animals in research. For the first time, the *Guide* provides information on the care and use of fish and other aquatic species. It also stresses the need to house all social animals in compatible pairs or larger groups.