TOUCHING BASE

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Mutant of the Month

Elite Genetics

This month's mutant is one of the original inspirations for the field of genetics and one of its oldest unsolved mysteries. The straight horns in both sexes of the Racka (rat-ska) sheep can be half a meter long. No locus has yet been identified to explain why they spiral but do not curl. In discussion of selective breeding of Racka sheep by Hungarian herdsmen, Count Imre Festetics (1764–1847) published the idea that hereditary phenomena in successive generations obey "genetic laws of nature," 47 years before Gregor Mendel. Festetics used the term "genetic" 80 years before Johannsen and Bateson. He was interested in mutations, inbreeding, outbreeding and artificial selection, and he recognized that his genetic laws applied to human societies. Festetics' 1819 paper (*Oekon. Neuigk. Vehandl.* 22, 169–171) was in the library in Brno, but there is no evidence that Mendel ever read or cited the work. ***MA***

All systems go

This past month, the Nature Publishing Group launched a new journal, *Molecular Systems Biology* (MSB). This online journal represents the first foray into open access publishing for a Nature family academic journal. The editor of MSB, George Church, opened the inaugural issue with his vision for the journal, which he hopes to place at the cutting edge of the revolution that will bring a systems approach to all of biology. A commentary by senior editor Ruedi Aebersold considered the place of systems biology, contending that it represents not just a new name but a new approach to biology as well. Also found in the issue are three original research articles. Aimee Marie Dudley *et al.* examine the degree of pleiotropy in yeast under varied environmental conditions. Ron Shamir and colleagues demonstrate the usefulness of an integrative approach to analyzing high-throughput data sets. Uri Alon and colleagues examine the feed-forward loop network motifs related to flagella expression in *Escherichia coli*. We welcome MSB and look forward to the continuing contributions of this journal to systems and biology. *OB*

Cancer genome project proposed

A group of US scientists, led by Eric Lander and Leland Hartwell, has proposed a large-scale project that would aim to catalog the complete DNA sequences of thousands of tumor specimens. The scope of the project is ambitious: complete sequencing of 250 samples from each of 50 major types of cancer. Critics argue that the project is too costly and will uncover only a fraction of the genetic and epigenetic changes underlying human cancer. But supporters, such as Harold Varmus and Bruce Stillman, argue that the benefits, in the form of improved cancer diagnosis, treatment and prevention, will outweigh the high costs of generating the sequence. The project has received backing from senior NIH officials and could eventually be funded by both public and private sources. The data would be freely available to researchers worldwide. *KV*

"Whether it's practical, whether it's doable, how much it costs, I take that out of the picture. These are the starting blocks that we need to develop a cure."

—Brian Druker, Oregon Health and Science University, on the proposed US cancer genome project (as quoted in the New York Times)

Cartoon by Sean Taverna

Mendel's golden years.

Touching Base written by Myles Axton, Orli Bahcall and Kyle Vogan