admits that total synthesis is not a fashionable pursuit but he insists that it will endure. “Anybody who downplays the Ley achievement as anything other than a landmark is simply jealous.” Baran is driven by what he describes as “the creation of beauty” and says: “If you focus on generating complexity in new ways, you have the opportunity to open up new realms of chemical space.” He cites examples of important reactions discovered in the course of solving a seemingly intractable problem and is now breeding wild mice with the Nozaki–Hiyama–Kishi coupling to form carbon–carbon bonds.

Better times? The jury is out on whether natural-product synthesis has a place in modern chemistry.

Lowe dismisses this idea. “You’re more likely to find new chemistry if you’re looking for it,” he says. But he admits that Ley’s work is different, because Ley invented new reagents and general synthetic routes to reach his goal.

Ley himself is well aware of the debates surrounding total synthesis, which he attributes to a squeeze on funding, and says that those who criticize are those who are unwilling to do the tough chemistry themselves. “There is nothing more noble than what we’re trying to achieve,” he says.

Katharine Sanderson

might also affect the results. There are three types of mouse, says geneticist Fernando Pardo-Manuel de Villena, of the University of North Carolina in Chapel Hill. There are the classical lab mice, descended from one original pool of pets, bred to be less aggressive than average; wild-derived lab strains, which are not bred on the basis of behaviour; and wild mice. Wild and lab mice are effectively chalk and cheese, with “strikingly different behaviour”, says Pardo-Manuel de Villena.

Dulac’s group bred two of the most common classical lab mouse strains — the C57BL and the 129/Sv types — together, and used the offspring in their experiments. But wild mice may behave very differently, points out mouse geneticist Elissa Chesler, of Oak Ridge National Laboratory in Tennessee. “Would there be any compensation for this gene if this mutant was crossed to wild mice?”

Dulac’s group is aware of this problem and is now breeding wild mice with the Trpc2-mutant mice, to experiment with a ‘wilder’ version.

Kerri Smith

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US genetics bill blocked again

US Senator Tom Coburn is single-handedly blocking the passage of a bill through the Senate that aims to protect people from genetic discrimination. Coburn (Republican, Oklahoma) is using a legislative tactic called a hold to block a Senate vote on the Genetic Information Nondiscrimination Act (GINA), which was passed in April by the House of Representatives on a vote of 420 to 3 (see Nature 447, 14–15; 2007). The bill would make it illegal for employers or insurers to use genetic information in hiring, firing, promotion or insurance-coverage decisions. President George W. Bush has promised to sign the bill into law should it reach his desk.

“I believe the bill, as drafted, contains unintended consequences,” Coburn wrote in a 1 August letter to his constituents, who have since deluged his office with complaining letters, e-mails and phone calls. “Congress has both the moral and legal responsibility to pay attention to details and get them right. I want to assure you that my hold on GINA is not because I oppose the bill’s purpose, but because I am concerned about its lack of precision.”

Coburn, who has holds on 87 bills, voted for essentially the same bill when the Senate passed it unanimously in 2005. At that time, both the House and Senate were controlled by Republicans, but the House refused to bring the bill to a vote. With Democrats now in charge of both, the bill is just one senator away from becoming law.

Coburn wants changes in the bill that would make it harder for victims to sue employers in some cases. He also says that the bill’s definition of genetic tests isn’t identical in the sections dealing with employers and insurers. But its advocates dismiss these concerns as manufactured excuses. “The goalposts keep moving,” says Kathy Hudson, director of the Genetics and Public Policy Center at Johns Hopkins University in Baltimore, Maryland. “He raises a concern and that concern gets addressed or negated and all of a sudden there is a new concern.”

Meredith Wadman