

IN brief

Monsanto waves white flag

Monsanto said on July 17 that it will progressively withdraw applications for commercial growing of genetically modified organisms pending in Brussels and no longer seek approval in Europe for new genetically modified (GM) seeds. The St. Louis-based agbiotech giant intends to concentrate on other markets, while focusing on conventional agriculture in the EU. Monsanto is pulling out after 15 years of investing in R&D and 400 field trials conducted in Europe. "Monsanto's decision this summer and BASF's last year could be seen as inevitable given Europe's thirst for innovative industries," says Nathalie Moll from the European Association of Biotech Industries in Brussels (*Nat. Biotechnol.* **30**, 204, 2012). Even if applications to cultivate GM crops in the EU are dropped, an efficient authorization process for GM imports remains important to biotech growers worldwide, Moll adds. "It seems that in future, Europe will continue to import and consume GM feed and industrial crops, yet these will not be produced by Europe's own farmers," says Robert Paarlberg, a policy analyst at Harvard. Sales of the only GM seeds approved for planting in the EU—MON810 corn—will continue, but the GM corn represents a negligible share of the corn under cultivation in the continent. "Consumers and the environment will pay the bill. The relevant science in Europe is fading away or leaving. There is, however, hope: the young generation appears more biotech-friendly," says Hans-Jörg Jacobsen from the Leibniz University of Hannover in Germany.

Anna Meldolesi

Table 1 Selected Axl kinase inhibitors in development

Company (location)	Compound	Target(s)	Lead indication	Clinical status
BergenBio & Rigel Pharmaceuticals	BGB324	Axl	Cancer	Phase 1
Servier (Neuilly-sur-Seine, France)	S49076	Met, Axl/Mer, fibroblast growth factor receptor 1,2,3	Advanced solid tumors	Phase 1
Tolero Pharmaceuticals (Salt Lake City, Utah) & Astex Pharmaceuticals (Dublin, California)	TP-0903	Axl-kinase	Pancreatic cancer, lung cancer	Preclinical

cancers induced by inflammatory agents (*Proc. Natl. Acad. Sci. USA* **110**, 13091–13096, 2013). In contrast, mice lacking just one of the kinases have a more normal phenotype. "This has been a potential concern since the receptors were identified as playing a role in the immune response," says Carla Rothlin, at Yale School of Medicine, in New Haven, Connecticut, who co-led the recent study with Sourav Ghosh, of the University of Arizona, in Tucson. Rothlin and Ghosh were both involved in that earlier study, while working as postdoctoral researchers at Greg Lemke's laboratory at the Salk Institute, in

La Jolla, California (*Cell* **131**, 1124–1136, 2007). BGB324 appears to target Axl kinase preferentially, however, which could allay any safety concerns arising out of their work (*Cancer Res.* **70**, 1544–1554, 2010). "The specificity may be important," Ghosh says. "Ideally if we can only specifically target cancer cells that would be excellent. We know it's a huge challenge." The same issue applies to other Axl kinase inhibitors in development (Table 1)—and to any Mer inhibitors entering the clinic as well. "I think there's a lot to learn about the function of the receptor," says Ghosh.

Cormac Sheridan Dublin

Biotech burger—but where's the beef?



The first lab-grown beef burger was presented in August by Dutch researcher Mark Post. It cost \$250,000—paid for by Google co-founder Sergey Brin—and took three months to produce. Post cultured bovine muscle stem cells at his laboratory at Maastricht University in the Netherlands as a sustainable alternative to meat from livestock. The patty was made by adding beetroot juice and saffron. Those who tried the burger said it tasted like beef but lacked juiciness, probably because it had no fat.

IN their words



"Everyone in the field acknowledges this [using fetal bovine serum] as a problem. It's not in any way animal friendly, it's not cheap and it's not environmentally friendly. It currently undermines a lot of the arguments

that people put forward in support of *in vitro* meat." Neil Stephens, a sociologist at Cardiff University. (*The Daily Beast*, 7 August 2013)

"Maybe you could describe the US market as a tsunami and Europe as a rising tide, but it's growing and it's growing steadily." Jim Healy, partner at California-based venture capital firm Sofinnova Ventures, on investors' renewed interest in biotech. (*Reuters*, 7 August 2013)