Whether new regulations would apply to work by University of Rochester's Steve Goldman, who presented at the meeting, was also left hanging. Goldman implants glial progenitor cells from patients with neuropsychiatric disorders into mouse embryos. This work allows him to uncover potential new pathways for intervention as well as create models for studying the molecular bases of the pathologies seen in these patients.

Ultimately, the list of unknowns about human chimeras made it clear that fundamental knowledge is still needed before this field can move forward to provide therapeutic solutions, particularly in the area of organ replacement. Leading a discussion at the meeting, Janet Rossant, from the Hospital for Sick Children in Toronto, asked a series of pointed questions: Are there fundamental blocks with interspecies chimeras, given that only chimeras between closely related species have succeeded so far? What is the ideal cell type for engraftment, a pluripotent or fully differentiated cell or something in between? And of course, even if whole organs were generated in an interspecific chimera, what are the real prospects of using them in the clinic, given the complex nature of an organ like a kidney or a heart, which have continued interaction with the host even after the organ is formed?

In a letter published in *Science* on the day the panel met, researchers from Stanford and the University of Minnesota pointed out that NIH's role—"to identify, review, and fund research in biomedicine to advance the health of people"—argues for continuing funding in this field. They also pointed out the existence of several bodies that already oversee research involving chimeras: the Institution Review Boards (IRBs) for research involving human cells and tissues, the Stem Cell Review Organizations (SCROs) for studies with stem cells, and the Institutional Animal Use Committees (IACUCs). Researchers must also, the letter noted, comply with federal, state and local laws.

Perhaps most surprising was that NIH staffers at the meeting said that they had no foreknowledge of the October moratorium, says Goldman. Members of staff told him that they are concerned that the funding moratorium might presage more regulations. They did make it clear that the panel was meant as a fact-finding mission, not a forum to make policy. Summing up the feeling of researchers is Salk's Belmonte. "It is important to have guidelines so that researchers have a clear path in this promising and fast-moving area, but a blanket ban on funding this work will slow much-needed progress in basic research," he says.

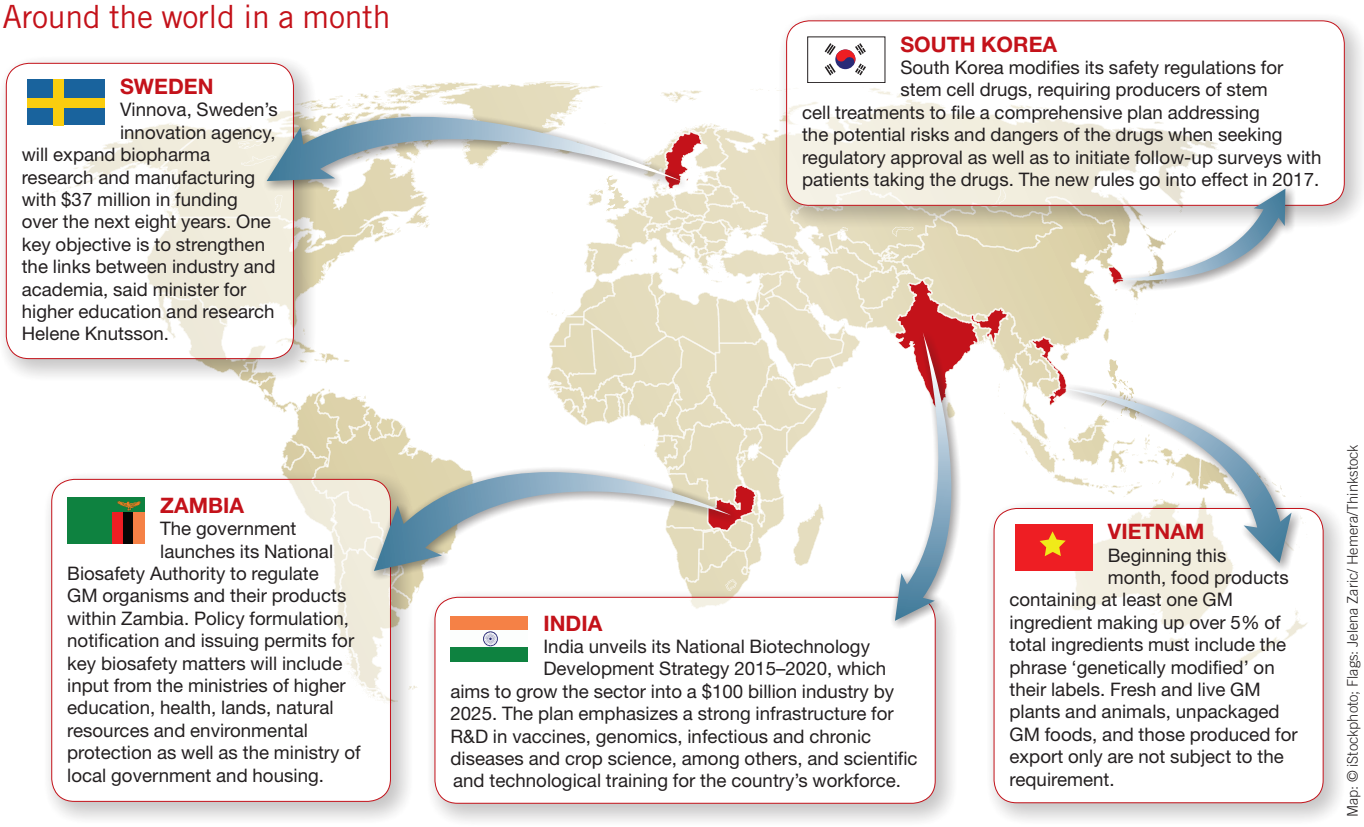
Laura DeFrancesco *Senior Editor*

Corrections

In the December 2015 issue, in the article "Predictive biomarkers for checkpoints, first tests approved," in Table 1, the highest threshold for PD-L1 positivity with the Ventana SP142 diagnostic for immune cells was given as 50%; the threshold is 10%. In addition, in Box 1, the name of the company Arcteris was misspelled as Arcteries. The errors have been corrected in the HTML and PDF versions of the article.

In the November 2015 issue, in the article "Drug makers target ubiquitin proteasome pathway anew," pevonedistat (TAK-924) was mis-identified as TAK-243, and the synergies referred to were seen in preclinical experiments, not in phase 1. The first two sentences in the penultimate paragraph "Less selective, perhaps, is targeting the E1 ubiquitin-activating enzyme. But Takeda is exploring these targets in combination with other therapies, having seen what senior scientist Allison Berger describes as "striking synergy" between an E1 ubiquitin-activating enzyme inhibitor TAK-243, in phase 1, and azacytidine in patients with acute myelogenous leukemia" have been replaced with "Targeting pathways linked to ubiquitin-like proteins remains at an early stage, too. Takeda is exploring the potential of pevonedistat (TAK-924), a first-in-class inhibitor of Nedd8 activating enzyme, in several cancers. A combination trial with azacitidine is underway in acute myelogenous leukemia, following what senior scientist Allison Berger called "striking synergy" seen in preclinical experiments." The errors have been corrected in the HTML and PDF versions of the article.

Around the world in a month



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