

“A bull is a lot better at doing it [procreating] than we are, and he enjoys it a lot more,” Alison Van Eenennaam, of UC Davis, comments on gene editing techniques to create a CRISPR-edited bull that will sire only males, which are more commercially valuable to ranchers for their size. It’s possible to do this through artificial insemination, but Van Eenennaam’s approach [of creating females that harbor the *SRY* (testis-determining factor) gene on its X chromosome] enables the process to go on by natural reproduction. (*MIT Technology Review*, 10 January 2018)

“You’ll take the call because you’ve got a friendly relationship. You’ll take the call because these people are going to help you in your future career [and] get you a job making three times as much.” Diana Zuckerman, president of the nonprofit National Center for Health Research and a former congressional staffer, comments on the appointment of a former Lilly executive, Alex Azar, as head of Health and Human Services, one of over a dozen such appointments to industry insiders, and how it raises the specter of influence peddling. (*STAT* 25 January 2018)

antigen 1 (STRO-1). But the maturation of MSC-based therapies still offers immediate revenue opportunities given Mesoblast’s blocking IP in this area.

Notwithstanding the current regulatory progress, the wider field of mesenchymal stem cell biology remains controversial. Some critics, indeed, have called for the very term to be abandoned. “The term mesenchymal stem cell is jargon. It means so many different things,” says Pamela Robey, acting scientific director of the stem cell unit at the NIH, and chief of the matrix metalloproteinase section, craniofacial and skeletal diseases branch of the National Institute of Dental and Craniofacial Research. What are loosely termed MSCs do not have a common embryonic origin and do not constitute a single lineage but are stem cells or progenitor cells with fibroblast-like cell-surface features, which can originate in a range of tissues (*F1000Res.*

6, 524, 2017). “The rationale for using these cells for what we call the paracrine effect is very slim,” Robey says. Drug regulators are not being rigorous enough, she says, in examining in a detailed fashion the immunomodulatory and anti-inflammatory effects claimed on their behalf. “In their defense, this is a newly emerging area,” she says. In February, the FDA entered a collaboration with Cytobank of Santa Clara, California to develop machine learning-driven methods to classify MSCs preparations aimed at improving cellular manufacturing. Regulators are, however, under pressure from the public, as well as from industry, not to block innovation in the field. “They’re walking a tightrope, so I can’t really blame them.” The future commercial—and clinical performance—of Alofisel will offer a good gauge of the EMA’s ability to strike the correct balance.

Cormac Sheridan

CORRECTION

In the February 2018 issue, in the News Analysis “California voters and CIRM—will lightning strike twice?”, the statement that CIRM’s Transition Committee “considered requesting \$5 billion (or a total of \$10 billion) from the electorate” should have read the “Committee heard a presentation for another \$5-billion (\$10-billion with interest) citizen-sponsored proposition.” The errors have been corrected in the HTML and PDF versions of the article on 22 February 2018.

Around the world in a month

UNITED KINGDOM
Regeneron Pharmaceuticals leads a consortium of companies to speed up exome sequencing of UK Biobank samples. Other member include AbbVie, Alnylam, AstraZeneca, Biogen and Pfizer, each of which will contribute \$10 million to the sequencing project to be conducted at the Regeneron Genetics Center.

PAKISTAN
Pakistan establishes a genetic mutation database to provide genetic counseling and screening in a country where marriages among close cousins are common. The database so far covers 1,000 mutations implicated in 120 types of syndromic and non-syndromic disorders associated with high medical risks.

RWANDA
The Rwanda Environment Management Authority prepares a draft bill allowing biotech animals, crops and microorganisms in the country for the first time. The legislation ensures an adequate level of protection for the safe transfer, handling and use of GMOs that may have an adverse effect on the conservation and sustainable use of biological diversity.

SRI LANKA
Entrepreneurs agree to build Sri Lanka’s first pharma industrial area in Kalutara with a \$100-million investment. The 50-acre Pharma Zone aims to reduce dependency on drug imports by lowering costs for local drug manufacturers through shared infrastructure and services, including warehousing. Investors are Sultan Ibrahim and Patrick Lim Soo Kit from Malaysia.

BURKINA FASO
Burkina Faso loses its decade-long standing as Africa’s largest cotton producer following the decision by government and cotton companies to phase out genetically modified *Bt* cotton cultivation. Burkina Faso produced 1.3 million bales of cotton in 2017, just shy of new leader Mali’s 1.325 million bales.

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