This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Stimulus-triggered acquisition of pluripotency (STAP) cells derived from adult mouse somatic cells	<p>Methods to generate mouse STAP cells by exposure to low pH could lead to the production of stem cells for use in human regenerative medicine. In culture, differentiated mouse Cd45⁺ blood cells and a variety of other somatic cells treated with low pH reverted to a pluripotent state after 7 days. In chimeric mice, STAP cells gave rise to all three germ layers and germ cells. In culture, adrenocorticotrophic hormone (Acth)- and leukemia inhibitory factor (Lif)-containing medium induced proliferation of STAP stem cells, whereas in medium used for their generation, STAP cells had limited self-renewal capacity. In a second study, STAP cells cultured with fibroblast growth factor 4 (Fgf4) were converted into trophoblast stem cell-like cells that led to generation of extra-embryonic tissue and embryonic tissue when injected into blastocysts. Ongoing work includes testing the potential of the method to revert cells derived from primates and humans to an embryonic stem cell-like state.</p> <p>SciBX 7(8); doi:10.1038/scibx.2014.240 Published online Feb. 27, 2014</p>	<p>For the first study, patent applications for STAP cell-generating methodology filed; licensing status undisclosed</p> <p>For the second study, patent and licensing information unavailable</p>	<p>Obokata, H. <i>et al. Nature</i>; published online Jan. 29, 2014; doi:10.1038/nature12968 Contact: Charles A. Vacanti, Harvard Medical School, Boston, Mass. e-mail: cvacanti@partners.org Contact: Haruko Obokata, RIKEN Center for Developmental Biology, Kobe, Japan e-mail: obokata@cdb.riken.jp</p> <p>Obokata, H. <i>et al. Nature</i>; published online Jan. 29, 2014; doi:10.1038/nature12969 Contact: Teruhiko Wakayama, RIKEN Center for Developmental Biology, Kobe, Japan e-mail: teru@cdb.riken.jp Contact: Yoshiaki Sasai, same affiliation as above e-mail: yoshikisasai@cdb.riken.jp Contact: Haruko Obokata, same affiliation as above e-mail: obokata@cdb.riken.jp</p>