

THE DISTILLERY

This week in therapeutics

| Indication | Target/marker/pathway | Summary | Licensing status | Publication and contact information |
|-------------------------------|--|--|--|---|
| Cardiovascular disease | | | | |
| Myocardial infarction (MI) | Stem cell factor (SCF; c-Kit ligand; KITLG) | Porcine studies suggest <i>SCF</i> gene therapy could help treat MI. Previous studies in rodent models of MI showed that expressing human <i>SCF</i> in the heart contributed to cardiac repair and survival. In pig models of MI, myocardial injection of an adenoviral vector encoding human <i>SCF</i> increased ejection fraction, stroke volume and other measures of left ventricular cardiac function compared with injection of an adenoviral vector encoding a non–cardiac-related control protein. In this model, the adenoviral vector encoding human <i>SCF</i> also decreased infarct zone size at three months post-injection compared with the control vector. Ongoing work by Celladon Corp. includes evaluating cardiac delivery of <i>SCF</i> with an adeno-associated viral (AAV) vector or as <i>SCF</i> mRNA. | Patented by Celladon; unavailable for licensing | Ishikawa, K. <i>et al. Circ. Heart Fail.</i> ; published online Oct. 23, 2014; doi:10.1161/circheartfailure.114.001711 Contact: Kiyotake Ishikawa, Icahn School of Medicine at Mount Sinai, New York, N.Y. e-mail: kiyotake.ishikawa@mssm.edu |

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