

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Disease models</b>			
Mouse models of rhinovirus infection	<p>Three different mouse models of rhinovirus infection could be useful for identifying compounds that treat the common cold, asthma and chronic obstructive pulmonary disorder (COPD). One of the models was engineered to express mouse-human intercellular adhesion molecule-1 (ICAM-1; CD54), which is recognized by 90% of rhinovirus serotypes—the major-group rhinoviruses. The other 10% of rhinovirus serotypes are the minor-group rhinoviruses. In a second model, mice were sensitized to and challenged with ovalbumin and also inoculated with minor-group rhinovirus to mimic rhinovirus-induced asthma. In a third model, healthy mice were infected with minor-group rhinovirus. The researchers are now using the models to test the efficacy of interleukin-29 (IL-29), also known as interferon-<math>\lambda</math> (IFN-<math>\lambda</math>), in treating exacerbations of asthma due to cold infection.</p> <p>Synairgen plc has IFN-<math>\beta</math> (IL-28), another molecule identified by the researchers, in Phase I testing to treat rhinovirus-induced COPD and asthma. PEG-interferon-<math>\lambda</math> from ZymoGenetics Inc. is in Phase I testing to treat hepatitis C virus infection.</p>	<p>Mouse models not patented; patents owned by researchers covering the therapeutic use of IL-28 and IL-29 to treat or prevent complications due to cold infection in asthma patients; licensed by Synairgen plc</p>	<p>Bartlett, N. <i>et al. Nat. Med.</i>; published online Feb. 3, 2008; doi:10.1038/nm1713  <b>Contact:</b> Sebastian L. Johnston, U.K. National Heart and Lung Institute, Wright Fleming Institute of Infection and Immunity, and Medical Research Council &amp; Asthma U.K. Centre in Allergic Mechanisms of Asthma, Imperial College London, London, U.K.            e-mail: <a href="mailto:s.johnston@imperial.ac.uk">s.johnston@imperial.ac.uk</a></p>