

THE DISTILLERY

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
mRNA vaccines to prevent influenza A infection	Vaccination with a mixture of protamine-complexed mRNAs could help prevent influenza A infection. A mixture of protamine-complexed mRNA was formulated that could be stored for three weeks without loss of efficacy. In both newborn and aged mice, immunization with a vaccine containing influenza A virus hemagglutinin and influenza A virus neuraminidase mRNAs resulted in 100% survival against a lethal influenza virus challenge and no signs of infection, whereas immunization with a control antigen led to 0% survival. In pigs, immunization with a related mRNA vaccine that also contained influenza A virus nucleoprotein (NP) mRNA prevented signs of clinical disease following influenza virus challenge, whereas immunization with a control antigen did not. Next steps include studying the long-term protection conferred by this vaccine approach. CureVac GmbH has mRNA-based vaccines in preclinical development to prevent undisclosed infections.	Patented; Sanofi has an exclusive option to develop vaccines for predefined, undisclosed pathogens; additional indications available for partnering	Petsch, B. <i>et al. Nat. Biotechnol.</i> ; published online Nov. 25, 2012; doi:10.1038/nbt.2436 Contact: Lothar Stitz, Friedrich Loeffler Institute, Greifswald-Insel Riems, Germany e-mail: lothar.stitz@fli.bund.de Contact: Karl-Josef Kallen, CureVac GmbH, Tubingen, Germany e-mail: josef.kallen@curevac.com

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