



MINERAL BINDING MRNA LIPID NANOPARTICLES

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The Invention

UW-Madison researchers have developed two methods and related materials for promoting binding of mRNA LNPs to minerals. In the first, a positively charged lipid (e.g., DOTAP) is substituted/incorporated into the formulation. This addition allows for the mRNA LNP to be directly incorporated into MCMs. The second method leverages click chemistry to conjugate a hydroxyapatite (HA) – the main inorganic component of bone – targeting peptide to mRNA LNPs. These modified mRNA LNPs are able to bind HA in bone for local delivery/transfection.

Additional Information

For More Information About the Inventors

- [William Murphy](#)

Tech Fields

- [Drug Delivery : Other drug delivery technologies](#)

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847