

3M Collaborates with Infectious Disease Research Institute on Vaccine Adjuvants

3M Drug Delivery Systems announces the signing of a non-exclusive license agreement with the Infectious Disease Research Institute (IDRI) in support of vaccine research for humanitarian efforts in developing countries. Under the agreement, 3M will donate its patented toll-like receptor (TLR) immune response modifier compounds.

3M's patented TLR immune response modifier compounds, which may be useful as vaccine adjuvants, will be used by IDRI to research new vaccines. Vaccine adjuvants are known to help boost the effectiveness of a vaccine.

"IDRI's vaccine platform has the potential to prevent and treat a number of important diseases in the developing world. By providing our vaccine adjuvant compounds to their vaccines, we are providing a cost-effective way for IDRI to conduct vaccine research," said Dr. Mark Tomai, PhD, Vaccine Business Development, 3M Drug Delivery Systems. "This will help them and us learn more about the potential effectiveness of our vaccine adjuvants. We anticipate this collaboration with IDRI to be the first in many deals around our TLR vaccine adjuvant portfolio."

3M's TLR compounds, also called TLR7 and TLR8 agonists, are small organically synthesized molecules that offer flexibility in formulating and route of delivery, and ease in manufacturing, unlike most other TLR agonists, which are much larger and not as easy to manufacture.

"IDRI's access to a 3M compound provides us with a very important tool for our efforts to develop adjuvants to be used in vaccines for diseases of global impact," says Steve Reed, IDRI's Founder and Head of Research. "We are very pleased that 3M has demonstrated this confidence in our organization—and are confident that IDRI's access to the 3M technology will improve our vaccine research and development."

"Our toll-like receptor agonist platform is a major part of our vaccine offering that also includes our Microstructured Transdermal System(a) for needle-free delivery of vaccines. We are at the start of a positive relationship that pairs our unique technology with a critical global need. We look forward to working with IDRI on its vaccine research," said Dr. Steven Wick, Technical Director, 3M Drug Delivery Systems.

About 3M Drug Delivery Systems Immune Response Modifiers

3M Drug Delivery Systems has a portfolio of patent protected toll-like receptor TLR7 and TLR8 agonists that have shown promise as vaccine adjuvants. There are a variety of assets in the portfolio that can be used topically, admixed or in conjugatable form. The lead candidate, resiquimod (TLR7/8 agonist) has shown promising results in a number of animal models and has an extensive toxicology and clinical data package to support further development as a vaccine adjuvant. In addition, 3M offers other TLR7 and TLR8 agonists, some of which can be attached to various proteins that enhance vaccine efficacy in a number of models. As small molecules, 3M's TLR7 and TLR8 agonists offer unique advantages over other TLR agonists with regards to delivery and manufacturing. 3M is actively seeking partners to license these assets on a non-exclusive basis. For more information, or to contact Dr. Tomai, go to www.3m.com/dds.

In addition, 3M Drug Delivery Systems has a variety of immune response modifier compounds that may be useful in oncology and dermatology.

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$24 billion in sales, 3M employs 75,000 people worldwide and has operations in more than 60 countries.

About IDRI

IDRI is a non-profit organization committed to developing technologies to treat "neglected" diseases that place a significant burden on those living in the developing world. IDRI achieves its mission by working closely with industry, universities, and hospitals in developed and developing countries, government and private funding agencies, the Bill and Melinda Gates Foundation as well as the World Health Organization. For more information, go to www.idri.org.

(a) 3M Microstructured Transdermal System (MTS) is a state-of-the-art solid microneedle system for transcutaneous or intra-dermal drug delivery. MTS bypasses the barrier properties of the stratum corneum and provides a means to deliver a wide variety of molecules that ordinarily would not penetrate the skin, including vaccines. MTS enhances the efficacy of vaccines by targeting the antigen presenting cells within the skin, thereby improving delivery efficiency and reducing dose requirements. MTS is a painless, easy-to-use system with the potential to greatly improve the delivery of vaccines.

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