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Exploring needle-free transdermal immunization techniques for respiratory syncytial virus**Ipshita Menon**

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Vaccine-enhanced respiratory disease has thwarted the attempts to develop a vaccine for Respiratory Syncytial Virus (RSV) using the inactivated form of the virus. As a result, there is a need for a safe and effective vaccine for RSV. Fusion protein is a one of the major proteins present on the surface of the virus, which can be integrated into a virus-like particle (VLP), yielding a highly immunogenic non- virulent

F-VLP antigen. This study aims at using a needle free transdermal route of administration to exploit the rich population of Langerhans cells present in the epidermis and dermis. We have used microneedles (AdminPatch®) as well as Precise Laser Epidermal System (P.L.E.A.S.E), a minimally invasive ablative fractional (Er: YAG) laser for creating micro-channels to deliver the antigen.

Biography

Ipshita Menon has obtained her Master of Pharmacy degree from the University of Mumbai, India. She is a Ph.D. student in Department of Pharmaceutical Sciences, Mercer University, Atlanta, Georgia. As a graduate student in the vaccine nanotechnology laboratory at Mercer University, her area of research involves development of particulate vaccines against infectious diseases. She is currently working on designing a particulate vaccine for Respiratory Syncytial Virus. Her area of study involves exploring the transdermal route of administration using ablative laser and microneedles.

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