

Fluid dynamics of needle-free intradermal injection



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9:30 - 10:30

ZOOM



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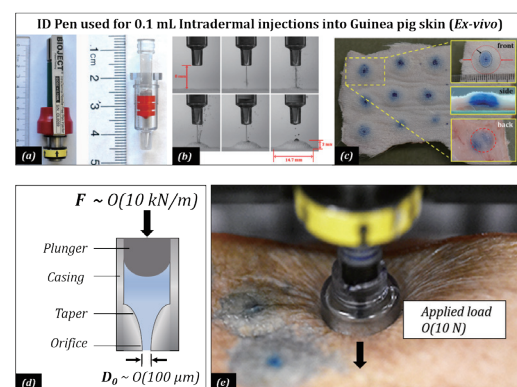


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Language / English
Everyone is welcome to join

Dr. Jeremy Oliver Marston

Delivery of medicines and vaccines has been largely unchanged for the past 150 years, with hypodermic needles being the vector of choice. In contrast, there has been considerable innovation in drug development, with explosive growth in the field of injectables (i.e. liquid-based drugs delivered across the skin). In this talk, I will present my groups' recent work in this area, with the main focus on needle-free intradermal jet injection, where we use a combination of experimental (high-speed video) observations, theory and numerical simulations to elucidate fundamental fluid dynamics of the process. I will also briefly discuss my groups other efforts related to (i) laser-induced and spark-induced micro-jets, (ii) drop impact for ophthalmic drug delivery, and (iii) using tattoo devices for intradermal injection.



■共催 / Co-organized by
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