

Title: High-density microprojection array delivery to rat skin of low doses of trivalent inactivated poliovirus vaccine elicits potent neutralising antibody responses.

Authors Names and affiliations:

Authors Names and affiliations:

David A. Muller^{1,2,4*}, Germain J.P. Fernando^{1,3}, Nick S. Owens¹, Christiana Agyei-Yeboah¹, Jonathan C. J. Wei¹, Alexandra C.I. Depelseñaire¹, Angus Forster⁵, Paul Fahey⁵, William C. Weldon⁶, M. Steven Oberste⁶, Paul R. Young^{2,4}, Mark A. F. Kendall^{1,2,3*}.

¹Delivery of Drugs and Genes Group (D2G2) Australian Institute for Bioengineering and Nanotechnology, The University of Queensland, Brisbane, Queensland QLD 4072, Australia.

²Australian Infectious Diseases Research Centre, The University of Queensland, Brisbane, Queensland, Australia.

³ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Queensland, Australia

⁴School of Chemistry and Molecular Biosciences, The University of Queensland, Brisbane, Queensland, Australia.

⁵Vaxxas Pty Ltd, Translational Research Institute, Brisbane, Queensland 4102, Australia.

⁶Division of Viral Diseases, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA.

*To Whom Correspondence can be addressed:

Dr David A Muller

Address: The University of Queensland, Australian Institute for Bioengineering and Nanotechnology, Building 75, St Lucia, Queensland, 4072, Australia.

Email: d.muller4@uq.edu.au Tel: +61 7 3365 4881 Fax: +61 7 3346 4197

Supplementary information:

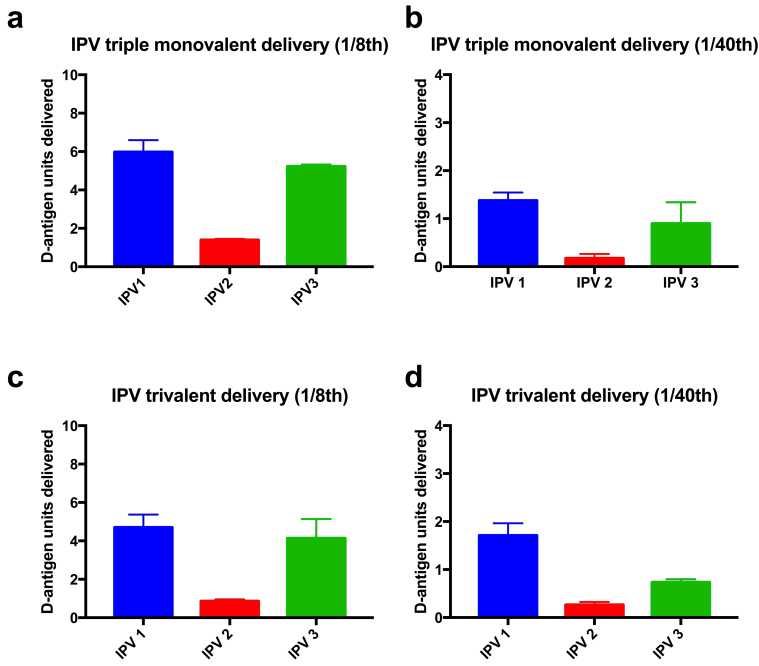


Figure S1: IPV delivered by Nanopatch into the ear of wistar rats as determined by D-antigen ELISA. Triple monovalent Nanopatch delivery of (a) 1/8th or (b) 1/40th IPV fraction doses. Trivalent Nanopatch delivery of (c) 1/8th or (d) 1/40th IPV fraction doses.

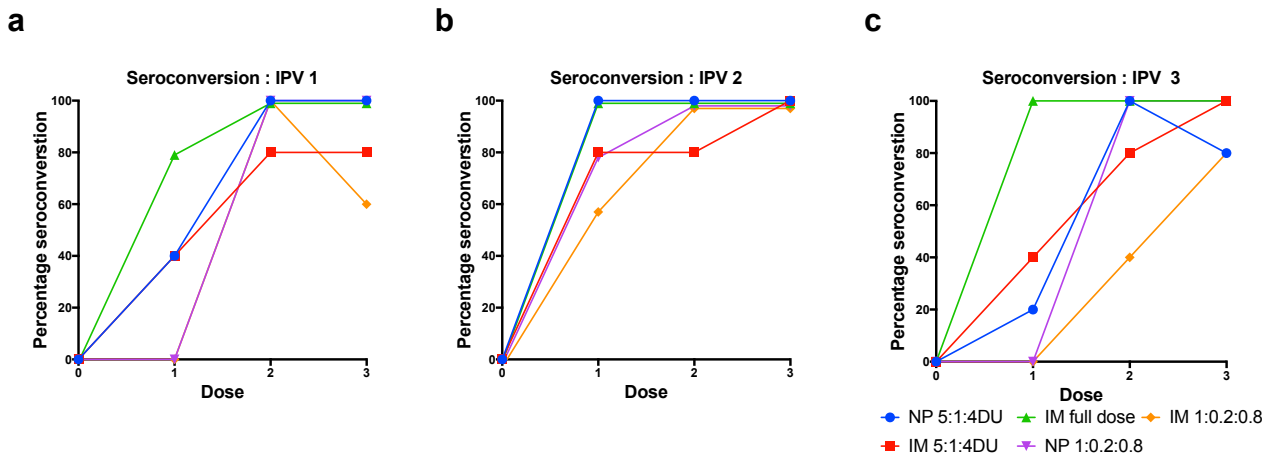


Figure S2. Seroconversion of each group in the triple monovalent study to (a) IPV1, (b) IPV2 and (c) IPV3. Seroconversion percentage corresponds with data presented in **Figure 2a-c**.

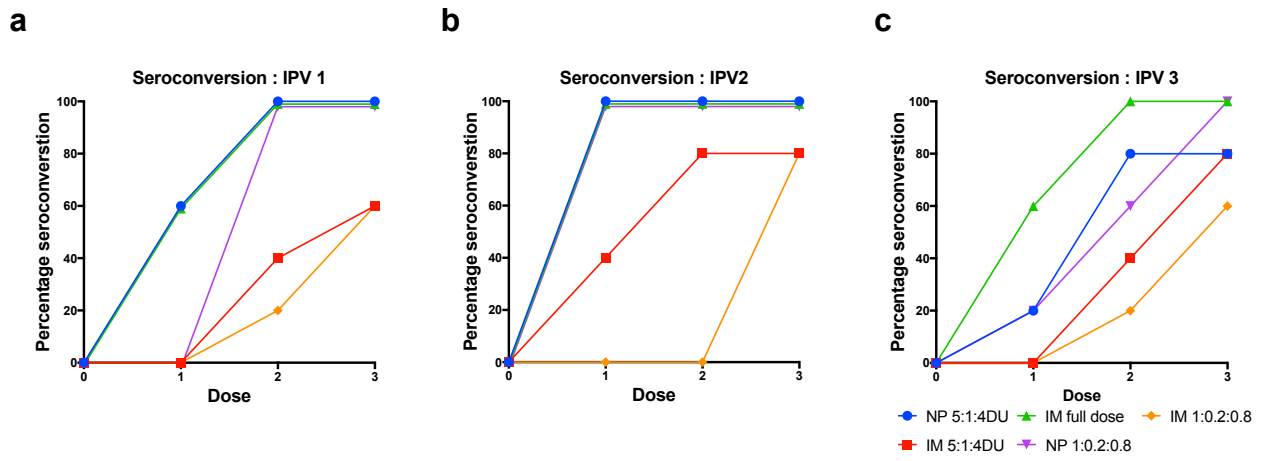


Figure S3. Seroconversion of each group in the trivalent study to (a) IPV1, (b) IPV2 and (c) IPV3.

Seroconversion percentage corresponds with data presented in **Figure 4a-c**.

