

Satellite meeting - Biological challenges to effective vaccines in the developing world: learning from variation in vaccine immunogenicity and efficacy

Organised by Professor Nicholas Grassly, Professor Gagandeep Kang and Professor Beate Kampmann
The Royal Society at Chicheley Hall, home of the Kavli Royal Society International Centre, Buckinghamshire
Wednesday 12 – Thursday 13 November 2014

DAY 1	
Session 1: What is the epidemiological evidence for population differences in vaccine response, how important is it and what does it tell us about the biological mechanisms?	
Chair: Professor Nicholas Grassly	
9.00	Welcome by the Royal Society & lead organiser
9.05	Umesh Parashar Oral rotavirus and cholera vaccines
9.25	Discussion
9.35	Paul Fine BCG!
9.55	Discussion
10.05	Kim Mulholland Conjugate bacterial vaccines
10.25	Discussion
10.35	Coffee
11.00	Science in progress presentations: Nicole Basta – Conjugate meningococcal A vaccine: Heterogeneity in immune response Azra Ghani – RTS,S malaria vaccine Gabriela Gomes - A missing dimension in measures of disease intervention impacts
11.45	Discussion
Session 2: Mechanisms of variable vaccine response among populations	
Chairs: Gagandeep Kang, Andrew Pollard	
Session 2.i) Maternal factors	
12.00	Yvonne Maldonado Maternal antibodies, infant microbiota and vaccine response
12.20	Discussion
12.30	LUNCH
13.30	Christine Jones Vaccine responses in HIV-exposed, uninfected infants
13.50	Discussion
14.00	Science in progress presentations: Sasirekha Ramani - Emerging themes in the role of glycans in rotavirus infections Liz Miller - The effect of maternal immunisation on vaccine response and protection in the infant Alison Kent - The effect of schedule on vaccine responses in the preterm infant
14.45	Discussion
15.00	Tea
Session 2.ii) Microbiological environment of the neonate and developing child	
15.30	Nicholas Grassly Enteric infection and oral vaccine immunogenicity
15.50	Discussion
16.00	Science in progress presentations:

	<p>Uma Chandra Mouli Natchu - The immune cytome in infancy Brenda Kwambana – Neonatal cohort study Mami Taniuchi - Influence of enteric infections at the time of vaccination on oral poliovirus vaccine immunogenicity</p>
16.45	Discussion
17.15	CLOSE

DAY 2	
Session 2.iii) Genetic polymorphisms in humans Chair: Professor Beate Kampmann	
8.30	<p>Adrian Hill Human genetics: from infectious diseases to vaccine responses</p>
8.50	Discussion
9.00	<p>Shamez Ladhani Genetic polymorphisms affecting innate immunity and Hib vaccine failure</p>
9.20	Discussion
9:30	<p>Science in progress presentations: Alexander Mentzer – The genetic determinants of response to vaccination in a Ugandan population</p>
9:45	Discussion
10.00	Coffee
2. iv) Vaccination history and heterologous vaccine effects Chair: Professor Nicholas Grassly	
10.30	<p>Andrew Pollard WHO SAGE recommendations on heterologous vaccine effects</p>
10.50	Discussion
11.00	<p>Mihai Netea Innate immune training by BCG vaccination</p>
11.20	Discussion
Session 3: What should we measure in vaccine trials in addition to antibody to understand vaccine failure and develop better vaccines? Chair: Professor Beate Kampmann	
11.30	<p>Tobias Kollmann Dissecting the response to vaccination in the youngest – do we have the tools?</p>
11.50	Discussion
12.00	Lunch
13.00	<p>Thomas Scriba How are the principles of basic immunology best applied to vaccine development: TB vaccines as example?</p>
13.20	Discussion
13.30	<p>Science in progress presentations: Sudhir Babji – Immune responses to enteric vaccination and infection in an Indian birth cohort Daniela Ferreira – Human pneumococcal challenge to test novel vaccines: effect of mucosal immunity and viral co-infection Christoph Blohmke – Novel insight into typhoid infection and vaccination from functional</p>

	genomics
14.15	Discussion
14.30	Tea
	Session 4: What are our research priorities now to achieve more effective vaccines in low-income countries in the future?
15.00	Rapporteur feedback from Sessions 1-3
15.30	Panel discussion and meeting summary Allan Saul – Novartis, Italy Adrian Hill – Jenner Institute, University of Oxford, UK Andrew Pollard – Oxford Vaccine Group, University of Oxford, UK Gagandeep Kang – CMC, India Beate Kampmann – MRC Unit, The Gambia Nicholas Grassly – Imperial College London, UK
16.45	CLOSE

Draft programme – correct as of 10/11/2014 – subject to change