# Biological challenges to effective vaccines in the developing world

**Monday 10 – Tuesday 11 November 2014**  
Organised by Professor Nicholas Grassly, Professor Gagandeep Kang and Professor Beate Kampmann

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DAY 2</th>
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| **SESSION 1: Environmental effects on the developing immune system and vaccine response**  
Chair Gagandeep Kang | **SESSION 2: The intestinal microbiota and response to oral vaccines**  
Chair Nicholas Grassly | **SESSION 3: What should we measure to understand and improve vaccine response?**  
Chair Beate Kampmann | **SESSION 4: Prospects for better vaccines and vaccination strategies in low-income countries**  
Chair Myron Levine |
| **09:00** Welcome by Royal Society & Nicholas Grassly | **13:30** | **09:00** | **13:30** |
| **09:05** Alison Elliott  
Maternal exposure to infection and the infant response to BCG and other vaccines | **13:30** | **09:00** | **13:30** |
| **13:00** Partha Majumder  
Genomics of immune response to typhoid and cholera vaccines | **13:30** | **09:30** | **14:00** |
| **13:30** Bali Pulendran  
Systems-based approaches to vaccine development | **13:30** | **09:30** | **14:00** |
| **13:30** Rino Rappuoli  
Getting new vaccines to people who need them | **13:30** | **09:30** | **14:00** |
| **09:30** Discussion | **14:00** | **09:30** | **14:00** |
| **10:15** Valérie Verhasselt  
Immune tolerance induction by breastfeeding | **14:15** | **10:15** | **14:45** |
| **10:30** Coffee | **15:00** | **10:30** | **15:00** |
| **11:00** David Goldblatt  
Responses to pneumococcal vaccines in the context of HIV infection | **15:30** | **11:00** | **15:30** |
| **11:30** Gagandeep Kang  
Do probiotics and antibiotics improve antibody responses to oral vaccines and natural infection? | **15:30** | **11:00** | **15:30** |
| **11:30** Discussion | **16:00** | **11:30** | **16:00** |
| **11:45** Andrew Prendergast  
Malnutrition and response to vaccines | **16:15** | **11:30** | **16:00** |
| **12:15** Discussion | **16:45** | **12:15** | **16:15** |
| **12:30** LUNCH | **17:00** | **12:30** | **CLOSE** |
| **12:30** LUNCH | **17:00** | **12:30** | **CLOSE** |

*Draft programme – correct as of 06/11/2014 – subject to change*