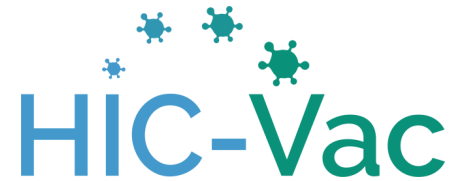


HIC-Vac

The network

www.hic-vac.org

Peter Openshaw, Network Director
p.openshaw@imperial.ac.uk



THE PROBLEM... OUR OPPORTUNITY

- Vaccines are very cost-effective but not optimal
- Animal studies are essential, but not definitive
- Vaccine development is slow and expensive
- Infection challenge makes decisions faster/cheaper
- The UK is a great place to do challenge studies

Mission: *To support, advocate and develop the use of human infection challenge to improve vaccines for infectious diseases of global importance*

HIC-Vac

- The **UK has unique strengths**
- Extensive infrastructure
- **Need and utility is great:** new vaccines, rapid advances in immunological understanding
- **Strong commercial buy-in**
- All our investigators work on **LMIC diseases** and/or have LMIC collaborators

Experimental Human Infection Models “are on the rise”



SHARE



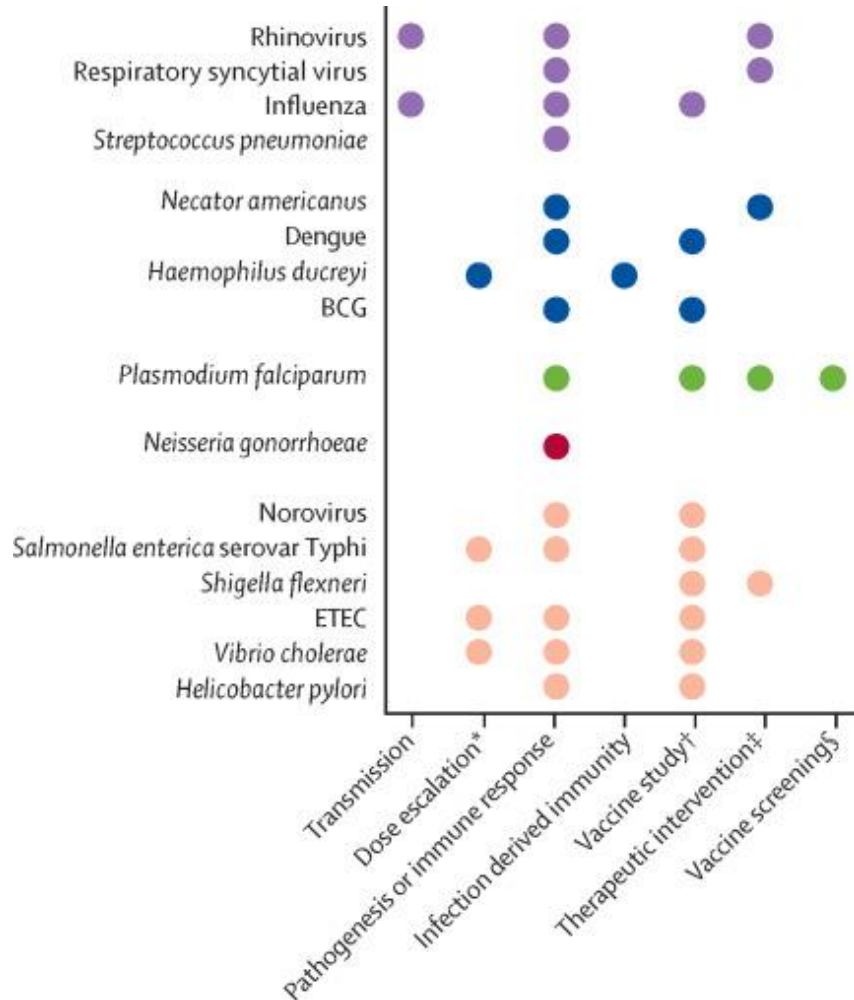
NIH researchers infect volunteers with the flu virus in an ongoing effort to improve vaccines.

AP PHOTO/CHARLES DHR

Studies that intentionally infect people with disease-causing bugs are on the rise

By Jon Cohen | May 18, 2016, 3:00 AM

Human pathogens that can be used

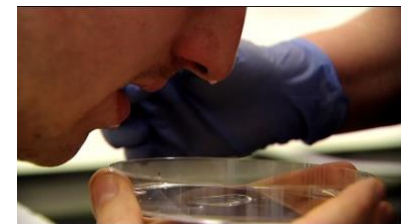


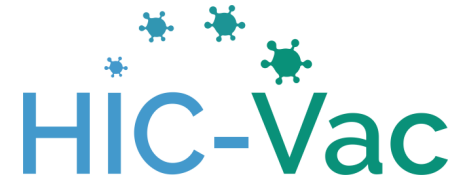
Fundamental understanding of pathogenesis & immunity

Efficacy testing of therapeutics & vaccines

Darton *et al.* Lancet Infect Dis 2015

Volunteers are (surprisingly) willing to have a lot done to them...



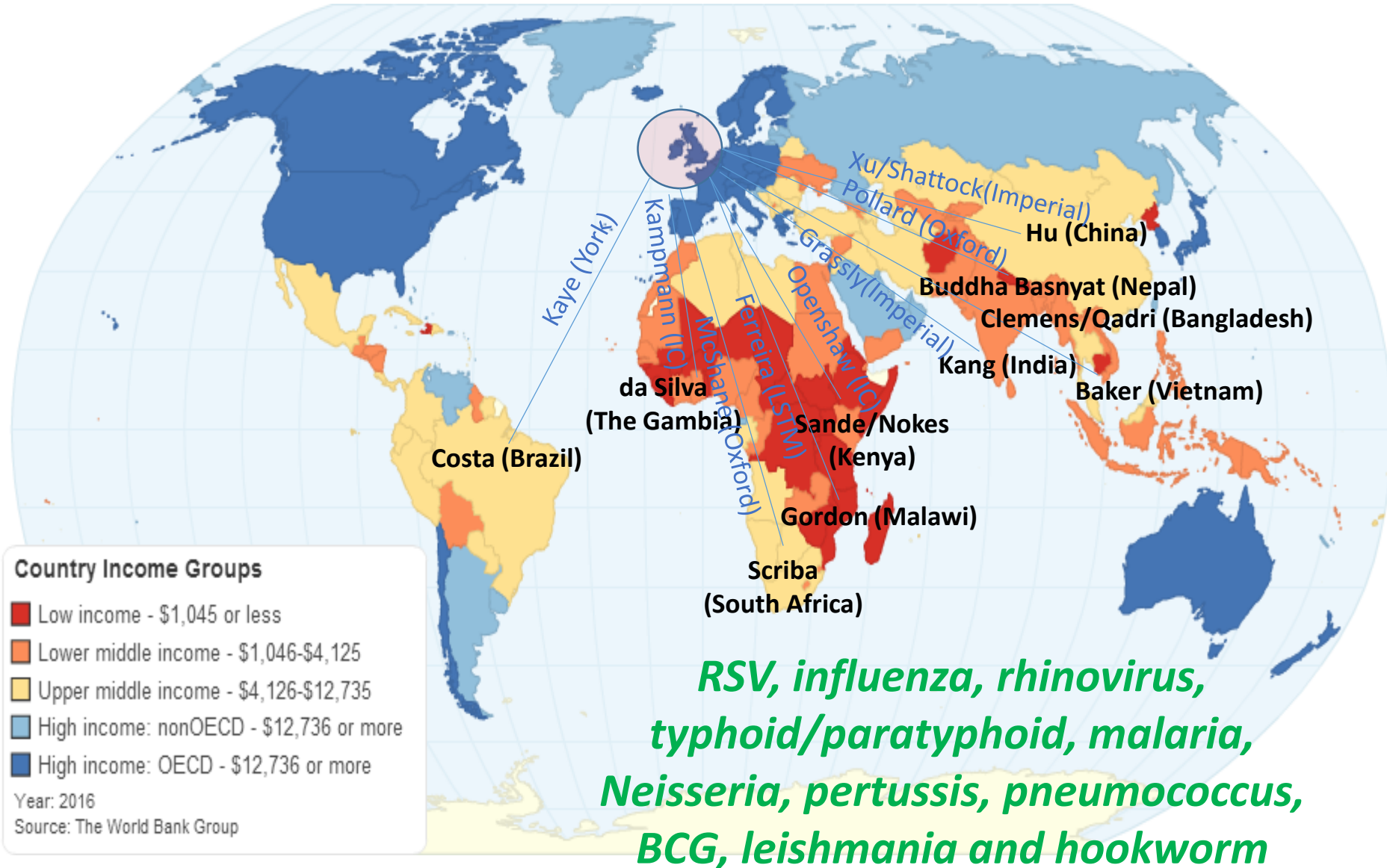


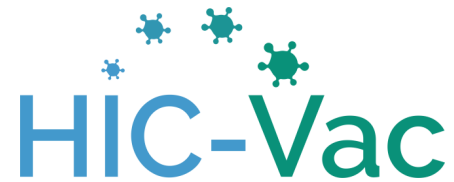
What is HIC-Vac?

A £2.3m, 4 yr MRC-funded network to:

- Support, develop and advocate the use of Human Infection Challenge
- Improve understanding of infections and the diseases they cause
- Enhance the development of new/better vaccines/treatments.

HIC-Vac





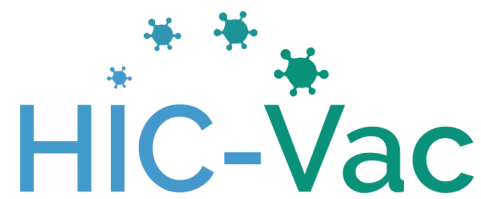
Our shared objectives

UNDERPINNING

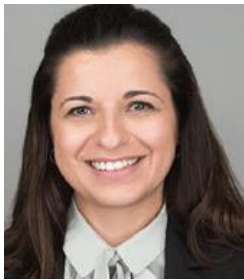
- Facilitate and support regulatory and ethical structures
- To enhance and support applications to science funders
- To enhance public understanding of HIC in the UK/LMIC
- To enable and de-risk phase III vaccine studies

NETWORKING

- To create an interactive, supportive network of investigators
- To create bridges between the UK and LMIC
- Exchange of eligible volunteers between programmes



Network Management Board



Name	Surname	Institution
Daniela	Ferreira	Liverpool School of Tropical Medicine (LSTM)
Sarah	Gilbert	University of Oxford
Stephen	Gordon	LSTM & Malawi-Liverpool-Wellcome Trust Clinical Research Programme (MLW)
Cherry	Kang	Translational Health Science and Technology Institute (THSTI), India
Peter	Openshaw	Imperial College London (Director)
Andrew	Pollard	University of Oxford (Deputy Director)
Robert	Read	University of Southampton
John	Tregoning	Imperial College London





Strategic aims:

1. Methodology development
2. Deeper analysis of existing samples
3. Ethical framework development
4. Attenuated challenge
5. Regulatory development
6. Challenge agent manufacture
7. Effect of co-infection on challenge
8. Comparison of natural infection with challenge

Membership of HIC-Vac

Total members (n=97)

1. **Investigator (50)**: Independent current HIC studies
2. **Associates (31)**: work with Investigators (Postdoc *etc.*)
3. **Affiliates (16)**: Others who want to be in HIC-Vac

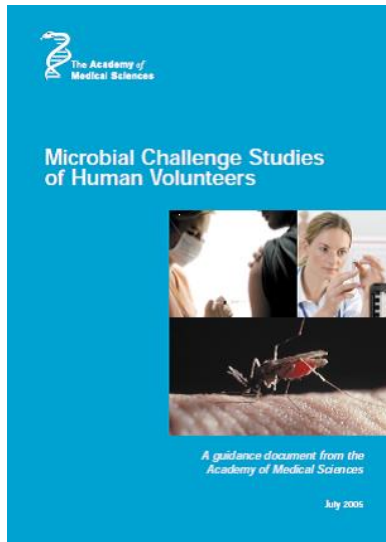
Provides:

- Eligibility to apply for HIC-Vac funding*
- Invitations to meetings and events*
- Profile on website – networking and collaborations*
- HIC-Vac mailing list for network notices: **all**

* Not Affiliates



HIC-Vac events



6th February 2018

Academy of Medical Sciences

Updating the regulatory guidance

18-19th June 2018

Sandpit/ideas lab event, Oxford

with *knowinnovation*



knowinnovation

12-13th Nov 2018

HIC-Vac annual symposium, Liverpool

2019

LMIC location for the annual meeting

Ideas for pump-priming applications





HIC-Vac funding

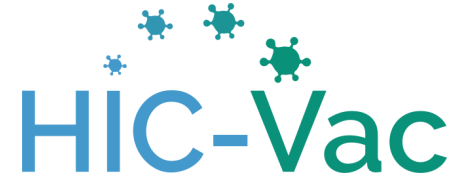
Aim: to advance the field of human infection challenge.

Should lead to relevant and useful data, **or** pilot data for larger grants.

1. Pump-priming: £ 1.7m total awards
2. Training: £ 150k

Frequency: at least annually during first 2-3 years of the network





HOW WILL WE MEASURE SUCCESS?

- Efficient use of shared resources
- Cross-network collaboration (esp. with LMIC)
- New investigators joining the field
- Involvement of volunteers, public and industry
- New grants and publications citing HIC-Vac
- Increased numbers of HIC studies




HIC-Vac

www.hic-vac.org



Thank you

HIC-Vac: Supporting and developing human infection challenge (HIC) studies to accelerate the development of vaccines against pathogens of high global impact.

Our network will enable open sharing of knowledge and expertise, using network resources to increase HIC use in the UK and Lower and Middle Income Countries (LMIC), disseminating best practice, enhancing training and fostering new collaborative studies relevant to high-impact pathogens.

About us

The HIC-Vac network is supported by the GCRF Networks in Vaccines Research and Development, which is funded by the Medical Research Council (MRC) and the Biotechnology and Biological Sciences Research Council (BBSRC). The HIC-Vac network is directed by Professor Peter Openshaw and Professor Andrew Paller and is hosted at Imperial College London within the National Heart and Lung Institute Respiratory Infection Section.

Outputs

Our objectives are to deliver:

- A mutually supportive network of investigators
- Communication and advocacy for HIC studies through stakeholder engagement
- Pump-priming projects to enable, enhance and extend HIC
- Focus on LMIC capacity-building for conducting HIC studies
- Develop and share topic-specific guidance and best practice including regulatory and ethical frameworks

BECOME A MEMBER NOW

Click below to find out how to become a member.

[Register](#)

WHAT IS HIC-VAC?

Find out more about the network, our objectives and our strategic priorities.

[See more >](#)

FUNDING OPPORTUNITIES

Please check back on 27/11/17 for details of our pump-priming call.

[See more >](#)

BECOME A MEMBER

Find out how to become a member and the different levels of membership that we offer.

[See more >](#)

