University of Oxford
IMMUNOLOGY NETWORK

National Institute for Health Research

UNIVERSITY OF OXFORD

HIDI, a Human Immune Discovery Initiative

Facilitating access to immunological expertise

Georgina Kerr
Research Facilitator for Immunology
1st October 2018

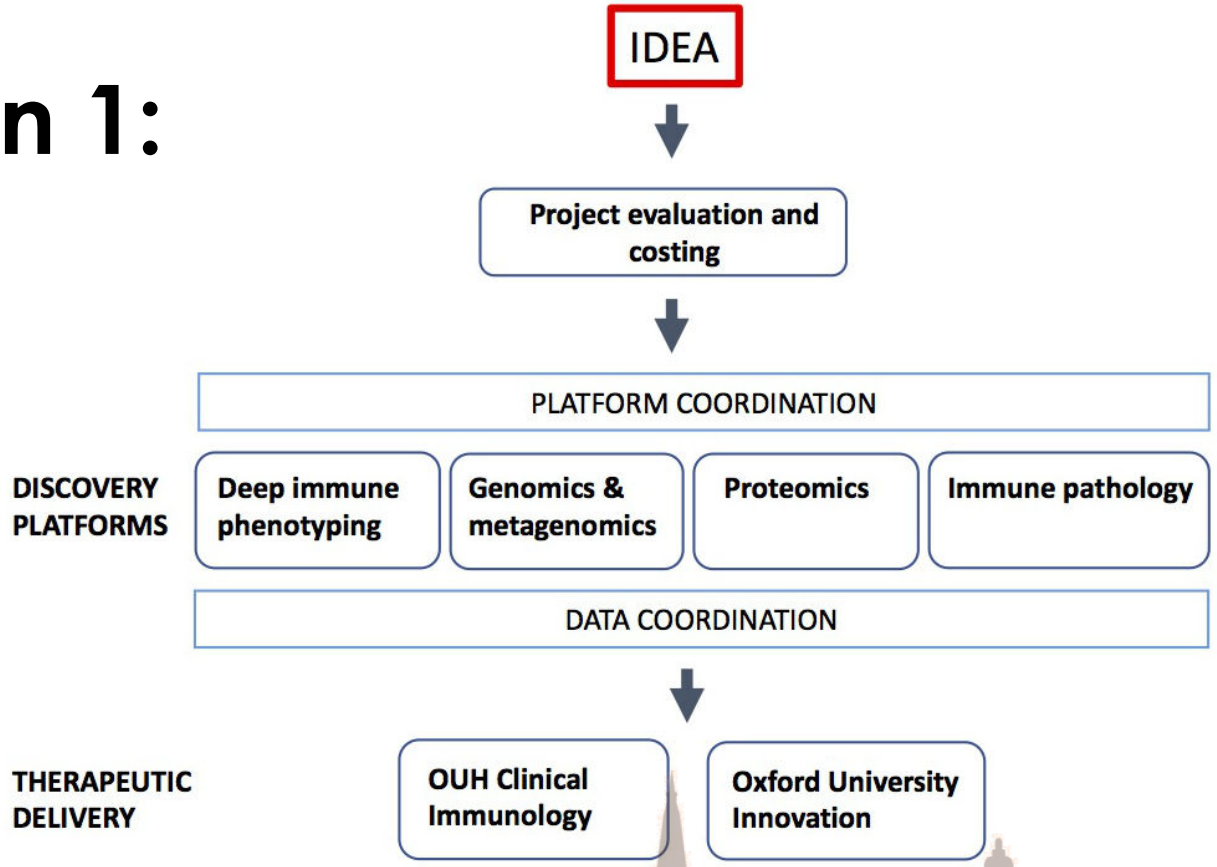
www.immunology.ox.ac.uk/HIDI

georgina.kerr@medsci.ox.ac.uk

Background

- Immunology Network, led by Paul Klenerman, was launched in March 2017 to build community of researchers with an interest in immunology, infection and inflammation
- Immunology Network aims to facilitate collaboration, the sharing of resources and expertise, and respond to funding opportunities
- Historical discussions around establishing an immune monitoring facility for University of Oxford
- Immunology Network secured NIHR Oxford BRC funding in Dec 2017 for 2 years to set up a Human Immune Discovery Initiative
- Ensures close links in immunology between OUH Trust and the University
- Focus is on human immunology research

HIDI version 1:



- Staff
- Pump priming

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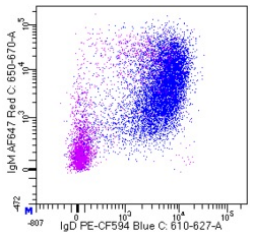
HIDI Discovery Platforms

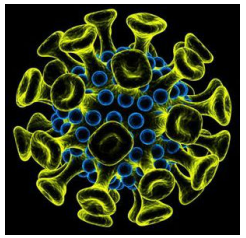
Deep Immune Phenotyping

- Flow cytometry (Cytek Aurora)
- CyTOF



Immune Imaging

- Chip cytometry
- Multi-spectral imaging
- EM and light microscopy
- Live-cell super-resolution
- CODEX

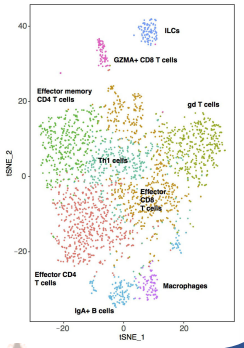


Tools/Resources

- Monoclonal antibody facility
- Cellular screening facility

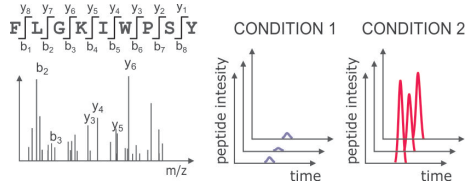
Genomics and Metagenomics

- Single cell and bulk RNAseq
- TCR/BCR sequencing
- Viromics
- Metabolomics
- Microbiome



Proteomics

- Immuno-peptidomics



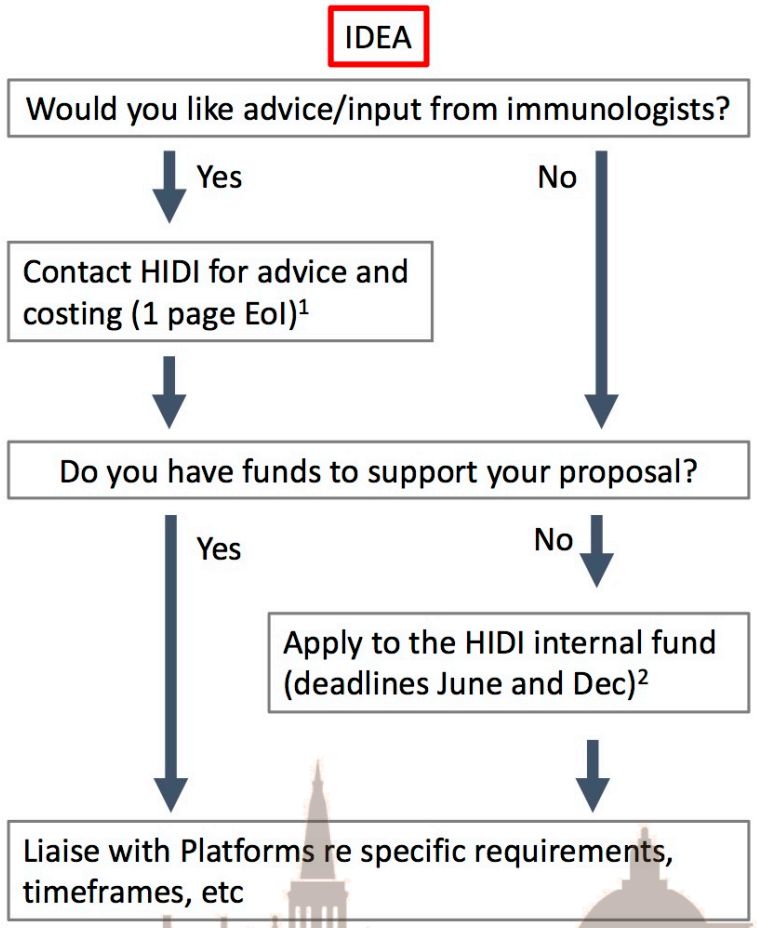
Key:

Core Platforms

www.immunology.ox.ac.uk/HIDI

georgina.kerr@medsci.ox.ac.uk

How to use HIDI:



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HIDI Internal Fund:

- Small awards (up to £10,000) and large awards (up to £40,000)
- Open to all researchers in all University departments
- Funding will support novel, human immunological research that utilizes HIDI Platforms
- Closing date: 14th December 2018
- Visit www.immunology.ox.ac.uk/HIDI for more information

HIDI Internal Fund

Remit and scope

1. excellent, novel, human immunology research
2. cross-technology, cross-Platform research
3. research for patient benefit

Highlight what HIDI is bringing to your project, must include a core Platform

Costing and match funding

Liaise closely with Platforms to provide accurate and realistic costs

Eligibility

Open to researchers at all levels. Those with limited immunology experience particularly welcome

How to apply

Through IRAMS, the University's online submission system

HIDI Internal Fund (lessons learned)

Remit and scope

Things that cannot be funded; staff, equipment, mouse studies

Costing and match funding

Liaise with Platform staff, has to include a core Platform

Eligibility

Post-docs and DPhil students can lead application

How to apply

No longer need HoD letter of support, only departmental approval (helpful to let them know you plan to apply)

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HIDI Internal Fund

How funding decisions are made:

- Management committee score 4-5 projects each

- Scoring guidelines
  - description of project (novelty, clearly articulated, funding request justified)
  - access (clear benefit)
  - interdisciplinarity/multi-Platform usage (single Platform but interdisciplinary, or multi-Platform)
  - patient benefit (clear translational outcome)

- Round table discussion of management committee

- Allocation of funding

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HIDI Internal Fund

What to expect once you are funded:

- Liaise with Platforms
- Access to LabArchives for data sharing
- Write short report at the end of the project

Important: you can still access HIDI without HIDI funding

Projects that were funded in June 2018:

Carolina Arancibia, Nuffield Department of Medicine (£9,990) *The role of the immune system and of host and bacterial metabolic functions in the pathogenesis of obesity and the response to bariatric surgery*

Enric Domingo, Department of Oncology (£10,000) *Precision immunoprofiling by computational pathology for stratification of rectal cancer patients*

Chantal Hargreaves, Nuffield Department of Medicine (£16,250) *Exploring T cell dysregulation as a cause of gut inflammation in CVID*

Maria Hawkins, Department of Oncology (£2,520) *Initial assessment of circulating immune cell populations in response to stereotactic body radiotherapy in patients with borderline resectable pancreatic cancer*

Joanna Hester, Nuffield Department of Surgical Sciences (£9,900) *Investigation into changes in regulatory T cells (Tregs) in renal transplant recipients receiving Treg cell therapy*

Projects that were funded in June call:

Sarosh Irani, Nuffield Department of Clinical Neuroscience (£9,890) *The single cell transcriptome of B cells in cerebrospinal fluid: towards therapeutic markers for the treatment of CNS autoimmunity*

Shivan Sivakumar, Department of Oncology (£10,000) *Characterising the immune landscape of pancreatic cancer*

Sarah Snelling, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Science (£10,000) *Exploring the influence of polymer chemistry and nanoarchitecture on leukocyte mediated foreign body reactions*

Paresh Vyas, Radcliffe Department of Medicine (£24,633.40) *Pilot Project: Mechanisms Regulating Immunological Control Of Acute Myeloid Leukaemia (AML) Following Allogeneic Stem Cell Transplantation (Allo-SCT)*

Approximately £70,000 available in December call