



Centre for

BLOOD RESEARCH

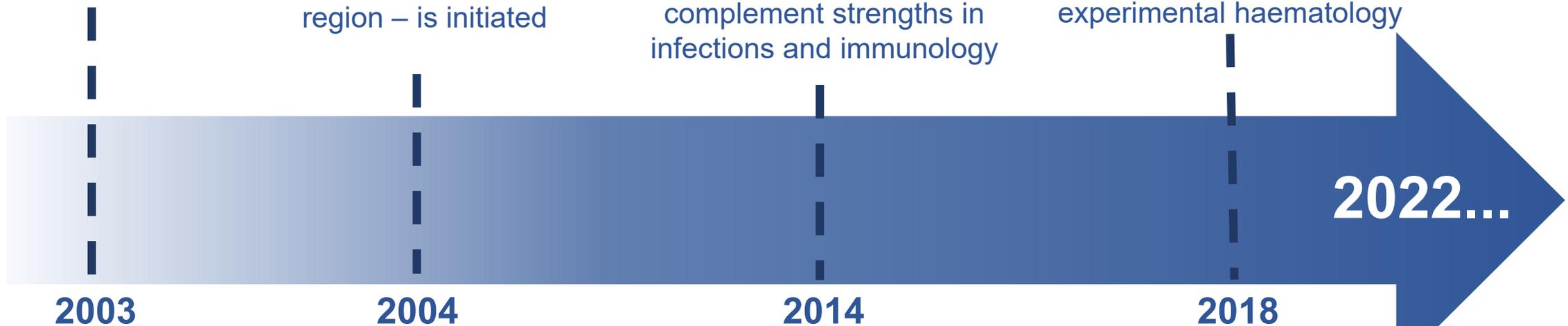
A brief history of Blood Research at York

The Hull York Medical School (HYMS) – based at the University of Hull and the University of York – takes its first intake of medical students

The Haematological Malignancy Research Network (HMRN) – a collaborative venture between UoY academics and NHS clinicians in 14 hospitals across the region – is initiated

The Department of Biology at the UoY starts a Biomedical Science degree and appoints research staff in haematology to complement strengths in infections and immunology

YBRI is formed in 2018, bringing together Biomedical research across the University, stimulating further investments to recruit and retain research staff in epidemiology and experimental haematology



York **B**iomedical
Research Institute

Eve Roman



Alex Smith



Rob Newton



Debra
Howell



Simon
Crouch



York **B**iomedical
Research Institute

Immunology, Haematology and Infection Theme

hmrh

***Epidemiology and
Cancer Statistics and the
Haematological
malignancy Diagnostic
Service (Leeds)***

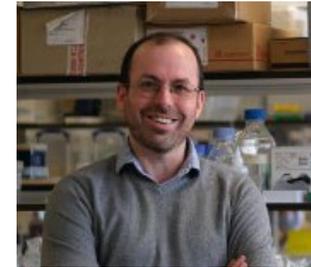
 UNIVERSITY
of York
Department of Biology

***Experimental
Haematology***

Ian Hitchcock



David Kent



Katherine
Bridge



Jillian
Barlow



Bill Grey



James
Hewitson



Blood Cancer Research at York – A Significant and Diverse Funding Portfolio

- Current research funding totals >£22M from UKRI, Charities and Industrial Partnerships
- Nearly 70 staff and students affiliated with Blood Research (9 academic staff, 3 independent research fellows, 21 postdoctoral researchers, 8 clinical research nurses, 5 technicians, 3 study administrators, 3 software engineers, 14 PhD students and 7 administrative staff)



Medical
Research
Council

BILL &
MELINDA
GATES
foundation



LeukaemiaUK



NIHR | National Institute
for Health Research



THE RAY RENDALL LEUKAEMIA FUND

AstraZeneca



abbvie



FURTHER FASTER TOGETHER

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NIHR | Leeds Biomedical Research Centre



NIHR Leeds BRC – Research themes

Our research themes

Musculoskeletal Disease: will identify people at-risk of developing rheumatoid and other forms of arthritis to: prevent them from developing these conditions; and develop individually targeted, cost-effective treatments for a variety of musculoskeletal conditions. This theme is led by Professor Ann Morgan

Cardiometabolic Disease: will discover new principles for detecting and treating heart disease, particularly in terms of complications from diabetes. This theme is led by Professor David Beech

Surgical Technologies: will develop and apply new surgical technologies to: provide more precise surgery that is tailored to the biology of the underlying disease; improve healing of bone and soft tissues; and limit disability following orthopaedic surgery. The theme is led by Professor David Jayne

Haematology: will identify the determinants of poor outcomes, enabling development of personalised-treatment strategies for blood-related cancers. This theme is led by Professor Gordon Cook and Professor Eve Roman

Pathology: using AI and screening advances, we will improve the accuracy and speed of bowel diagnosis, enabling early and more effective treatment. This theme is led by Professor Philip Quirke

Antimicrobial Resistance and Infection: will accurately identify patients at risk of antibiotic resistant infections; ensure our existing antibiotics are working; and develop new infection treatments. This theme is led by Professor Mark Wilcox



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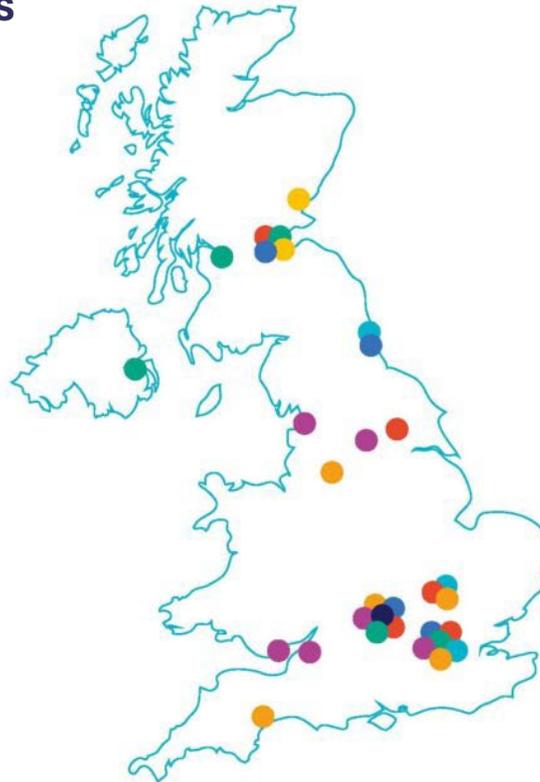


MRC National
Mouse Genetics
Network

MRC National Mouse Genetics Network

Clusters and Facilities

- Cancer
- Congenital Anomalies
- Degron Tagging
- Haem
- Microbiome
- Mitochondria
- MURIDAE
- Mary Lyon Centre at MRC Harwell
- Advance at MRC Harwell



Haem

Developing new tools to revolutionise how we study normal and stressed haematopoiesis, and how we map and manipulate immune cell function for clinical benefit.

[View Cluster](#)



University of York



University of Cambridge

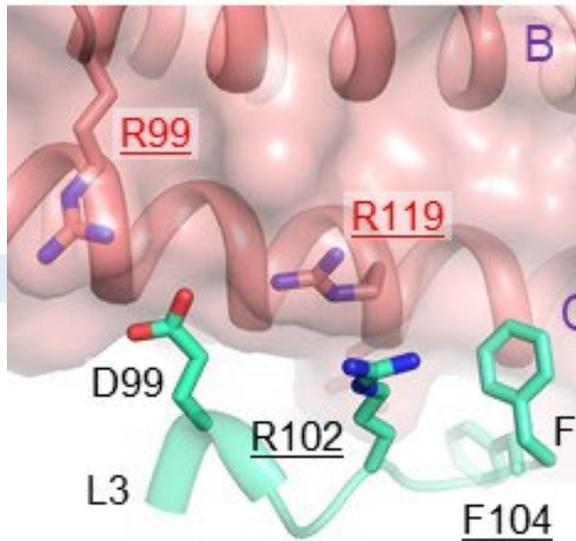


Wellcome-MRC Cambridge Stem
Cell Institute

Imperial College
London

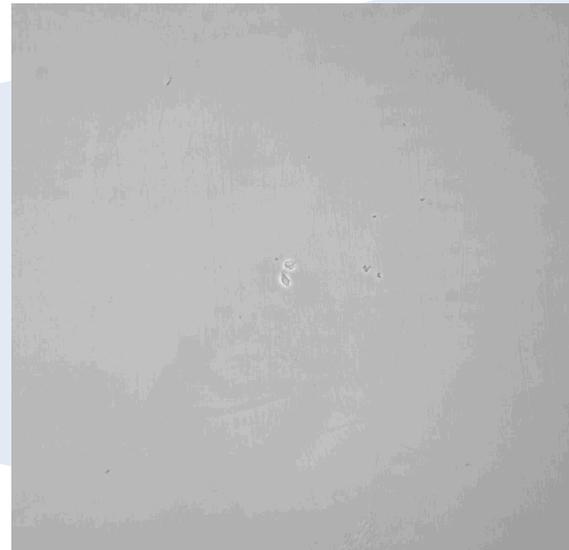
Imperial College London

Single Molecules



Sci. Transl. Med. 2022 Jun. 14(650)
PNAS 2021 Jan 12;118
Blood. 2020 Nov. 133(22):2535-2547
Science. 2020 Feb 7;367(6478):643-652
PNAS 2018 Dec 26;115(52):13204-13209
Cell Rep. 2017 Jul 5;20(1):173-187

Single Cells

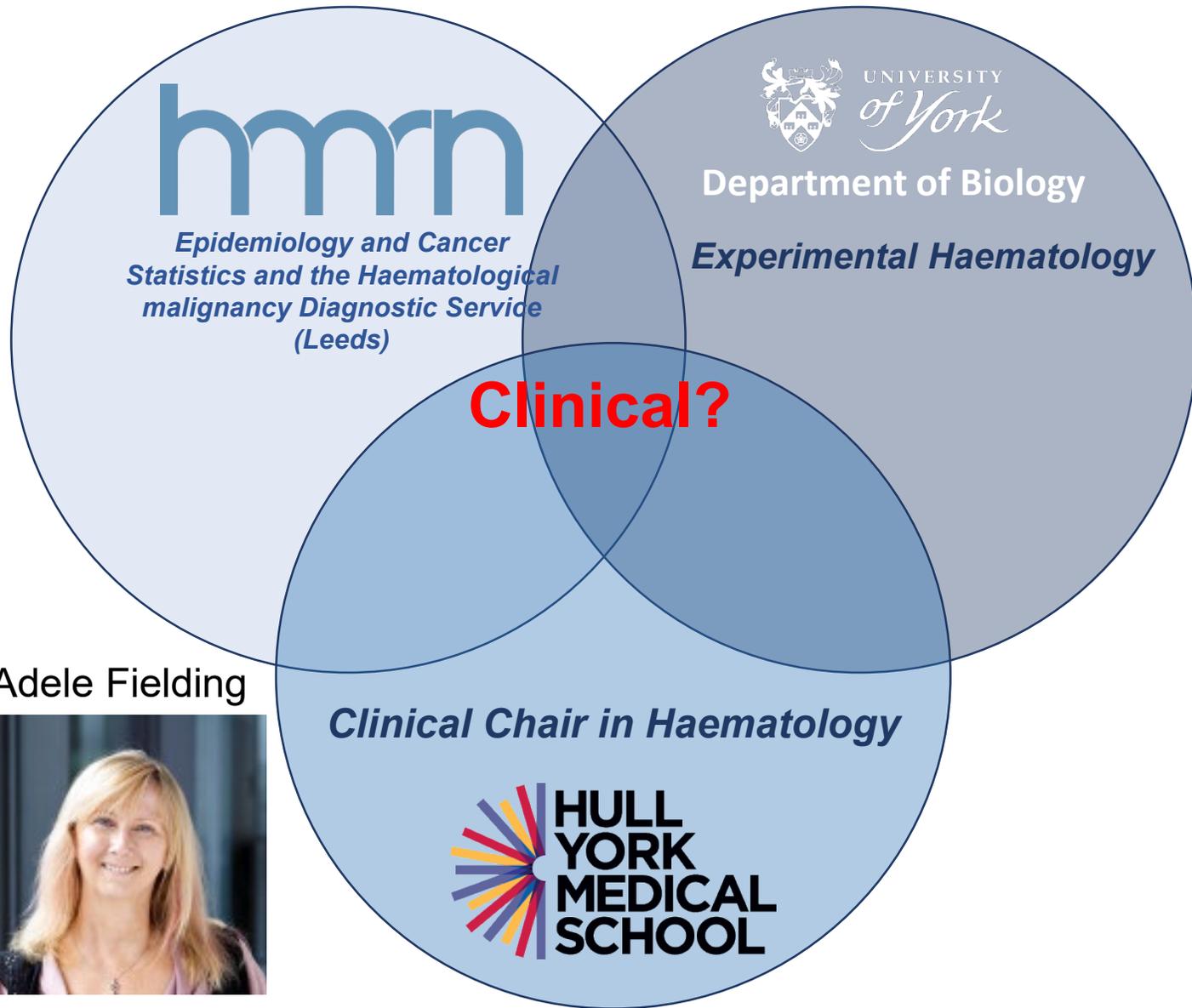


Nature 2022 608, August 724–732
Blood. 2018 Aug 23;132(8):791-803
Nature. 2018 Sep;561(7724):473-478
Blood. 2016 Aug 25;128(8):e20-31.
Cell Stem Cell. 2015 Jun 4;16(6):712-24.
N Engl J Med. 2015 Feb 12;372(7):601-12.

Whole Populations



BMJ Open. 2022 Mar 29;12(3):e050816
Mol Cell. 2021 Oct 7;81(19):4059-4075
BMJ Open. 2021 Feb 22;11(2):e041296
Blood. 2020 May 14;135(20):1759-1771
Leukemia. 2020 May;34(5):1329-1341
BMJ Open. 2020 Feb 12;10(2):e034244.



Adele Fielding



Proposal made to the University of York...

Centre for Blood Research

Understanding blood diseases
from single molecules to whole
populations

- Relocations across the Faculty of Science and HYMS to allow Population, Experimental and Clinical Haematology to share the same physical space
- To develop more in clinical areas with the vision of hosting Clinical PhD students that would be able to access both population and experimental haematology research areas
- To increase our translational research outputs with more patient-focused and therapeutic/diagnostic development

New, purpose built space for a multi-disciplinary centre



UNIVERSITY
of York



- **New, hybrid space designed to allow experimental, clinical and epidemiological research under one roof**
- **Include space for small clinics and patient/public outreach events**
- **Space (lab and office) for use of industrial partners to strengthen ties and promote translational research**

Training the Next Generation of Haematology Researchers



- Establish a clinical and non-clinical PhD training programme
- Allow clinicians from Yorkshire and Humberside to stay in the area and develop their own research programme (*bloom where you are planted*)
- Support summer studentships and Masters degrees for young scientists from under-represented backgrounds.

Patient-centred, translational research



- Ensure research is focused on developing kinder, more effective treatments for patients
- Involve patients from Yorkshire and Humberside in research design and capture patient perspectives
- Support researchers to engage in patient and public engagement by arranging regular open events



- Any Questions?
- What would you like to see at the Centre for Blood Research?
- How could you help with the success of CBR at York?
- Would you like to get involved in research at CBR?