NIHR | National Institute for Health Research

#GMInflamShowcase

Greater Manchester Inflammation Research Showcase Musculoskeletal Disorders and Dermatology Focus

Tuesday 17th September 2024

A collaborative event by the NIHR Manchester Biomedical Research Centre and Greater Manchester Clinical Research Network

NIHR | National Institute for Health Research

#GMInflamShowcase

Welcome to the Inflammation Research Showcase

Dr James Bluett

Senior Clinical Lecturer and Honorary Consultant in Rheumatology at The University of Manchester

A collaborative event by the NIHR Manchester Biomedical Research Centre and Greater Manchester Clinical Research Network

Welcome

- NIHR Research Delivery Network National Specialty Lead Musculoskeletal and Orthopaedics
- Showcase the infrastructure and activities across Greater Manchester
- Early to late phase research
- Patient at the core of our activities

Housekeeping

Submit questions here

Toilets
Located in foyer

If **fire alarm** sounds leave via nearest exit

Please switch all devices to **silent mode**

Networking lunch will be provided at 12 noon

Please **submit questions** via the QR codes

Follow-up material will be circulated after the event

Our Speakers

Submit questions here








Chaired by Dr James Bluett
Senior Clinical Lecturer and Honorary Consultant Rheumatologist at The University of Manchester

Susannah Williams, Ini Ekang & Russ Cowper
Engagement & Involvement Specialist, and Public Representatives at VOCAL

Dr Adam Watts
Professor of Orthopaedics and Consultant Elbow and Upper Limb Surgeon at Wrightington Hospital

Dr Siân Hanison
Operational Director NIHR Manchester Clinical Research Facility

Suja Subin
Advanced Clinical Practitioner

Caroline Leech
Operational Manager at NIHR Manchester Clinical Research Facility

Professor Ben Parker
Consultant Rheumatologist and Co-Director of NIHR Manchester Clinical Research Facility

Professor Richard Warren
Consultant Dermatologist, Professor of Dermatology and Clinical Director of NIHR Manchester CRF

Our Speakers

Submit questions here







Professor Anne Barton
Consultant Rheumatologist and Director of the NIHR Manchester Biomedical Research Centre

Dr Omair Razzaq
GP at Ashton Medical Group and Specialty Lead for Primary Care at Greater Manchester CRN

Dr Matthew Harries
Consultant Dermatologist and Clinical Senior Lecturer at the University of Manchester

Professor Gisela Orozco
Professor of Functional Genomics at The University of Manchester

Dr Beatriz Duran
Consultant Pharmacist for Clinical Trials and ATMPs at Manchester University NHS Foundation Trust

Visveswaran Mallayan
Research and Innovation Manager at Manchester University NHS Foundation Trust

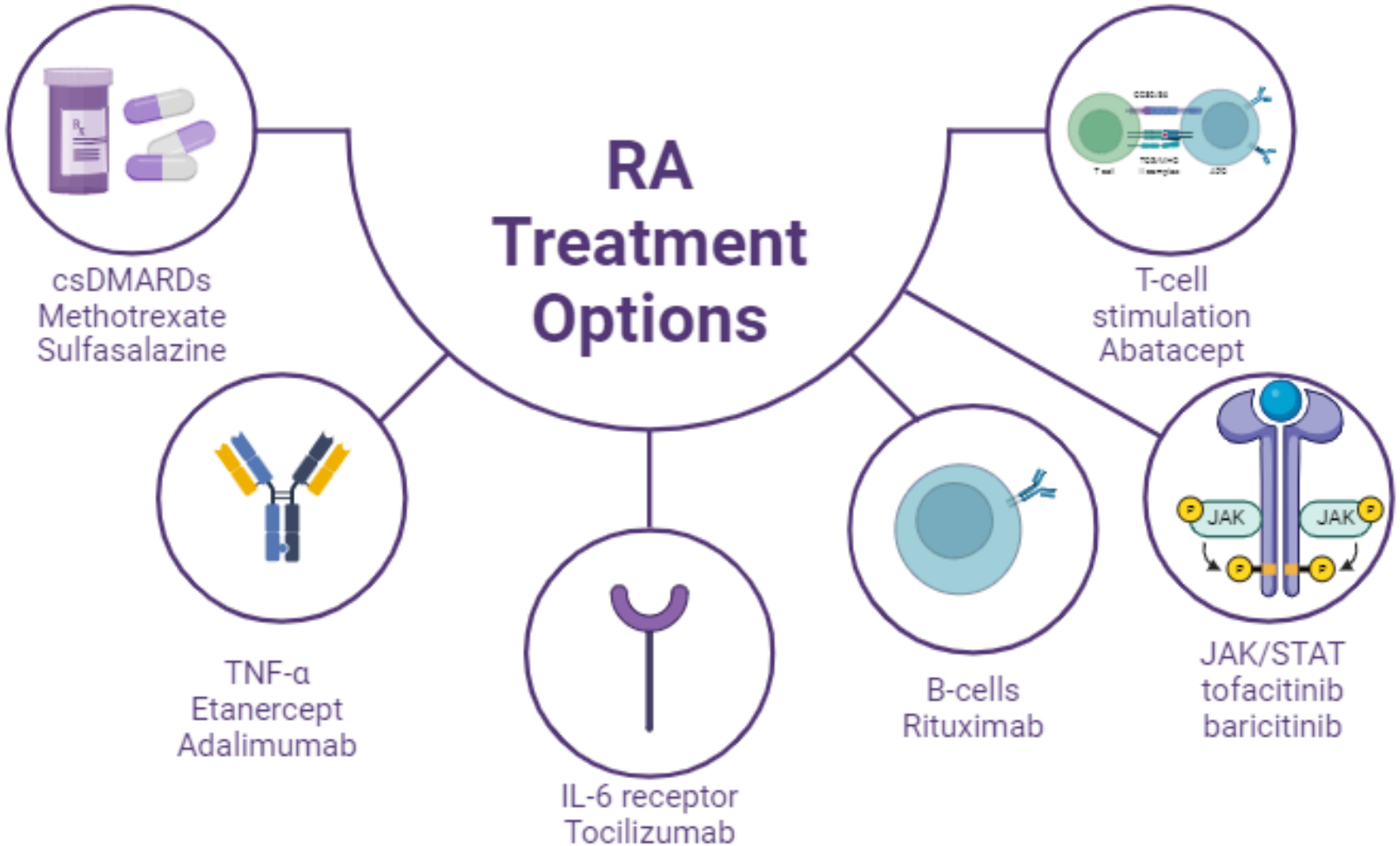
Sindhu John
Nurse Manager for MSK, Rheumatology, and Cross specialty team at Manchester University NHS Foundation Trust

Key Facts

- Rheumatic Musculoskeletal Diseases affect > 18 million in the UK
- > 20% of GP consultations

- 54% live with a skin disease

- Orthopaedics is one of the UK's largest medical-technology growth sectors


RA Treatment Options
csDMARDs
Methotrexate
Sulfasalazine
T-cell stimulation
Abatacept
TNF-α
Etanercept
Adalimumab
IL-6 receptor
Tocilizumab
B-cells
Rituximab
JAK/STAT
tofacitinib
baricitinib
JAK
JAK
Created in BioRender.com

- In the UK
  - The first hip implant
  - First stainless steel and acrylic-knee prosthesis

- The UK excels in:
  - Cutting-edge resurfacing technologies
  - Biologic repair, including soft tissue
  - Navigation and 3D imaging/printing
  - Laparoscopic delivery of biological and cellular therapies

Innovating Across the First Devolved Health and Social Care System

Universities

- The University of Manchester
- University of Bolton
- Manchester Metropolitan University
- University of Salford MANCHESTER

Infrastructure Bridging Gaps Between New Discoveries and Individualised Care

- NIHR Manchester Clinical Research Network
- NIHR Greater Manchester Patient Safety Research Collaboration
- University of Manchester Innovation Factory
- NIHR School for Primary Care Research
- TranslationManchester
- NIHR Manchester Biomedical Research Centre
- NIHR Policy Research Units
- NIHR Manchester Clinical Research Facility
- Health Innovation Manchester
- NIHR School for Social Care Research

NHS GM Integrated Care System

- Integrated Care Board
- Provider Collaboratives
- Mental Health
- Social Care
- Councils
- Combined Authority
- Voluntary, Community & Social Enterprises

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Supportive Infrastructure Across Translational Research

Pre-clinical ***in vitro*** and ***in vivo*** **studies**

Proof of concept studies and **Phase I clinical trials**

Phase 2/3 clinical trials
Clinical research studies **to inform evidence based guidelines**

Phase 4 clinical trials
Health implementation research
Real-World evidence studies

Population level outcomes
research and studies of the **impact on policy**

Discovery Science → **Translation to Humans** → **Translation to Patients** → **Translation into Practice** → **Translation to Community**

NIHR | Manchester Biomedical Research Centre

NIHR | Clinical Research Network Greater Manchester

Health Innovation Manchester

NIHR | Policy Research Unit

MANCHESTER 1824
The University of Manchester

TranslationManchester

NIHR | Manchester Clinical Research Facility

ecmc

University of Manchester Innovation Factory

NIHR | School for Primary Care Research

NIHR | School for Social Care Research

NIHR | Greater Manchester Patient Safety Research Collaboration

NIHR | National Institute for Health and Care Research

The NIHR CRN supports patients, the public, and health and care organisations across England to participate in high-quality research, advancing knowledge and improving care.

Clinical Research Network

- 1,045,282 participants recruited to CRN supported studies in 2023/24
- Supported 6,074 studies
- More than half of all GP practices in England (56%) took part in clinical research supported by the CRN during 2023/24

One of the best countries to host global trials

- 251,471 participants (24%) took part in studies involving companies in England in 2023/24 (up from 32,328 in 2022/23):
    - 140,793 (13%) were recruited to commercial contract studies
    - 110,678 (11%) to commercial collaborative studies (where companies work with a range of other partners)

Our 10 years in numbers:

Total participants in commercial research – **44, 256** (highest in the United Kingdom)

An average of **12 participants** recruited to commercial studies, per working day over 10 years

Total number of commercial studies recruiting in the last 10 years – **1,803**

Over **60** notable **1st recruits**, Global, European, UK first recruits – **23 global**, **7 European** and **33 UK** firsts

Local average set up times – **51 days** compared with a national average of 117 days

Percentage of commercial recruitment to time and target – **84%** (highest in England)

Number of recruits to medtech studies – **137 recruiting studies** with **11,191 participants**

Top recruiting region with **467 studies**, nationally and internationally.

Growing number of Investigators in our region. Currently **1,165** active Principal Investigators and over 190 Chief Investigators, which is an increase from 34 in 2012 – 2013.

Innovating Across the First Devolved Health and Social Care System

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- University of Bolton
- Manchester Metropolitan University
- University of Salford MANCHESTER

Infrastructure Bridging Gaps Between New Discoveries and Individualised Care

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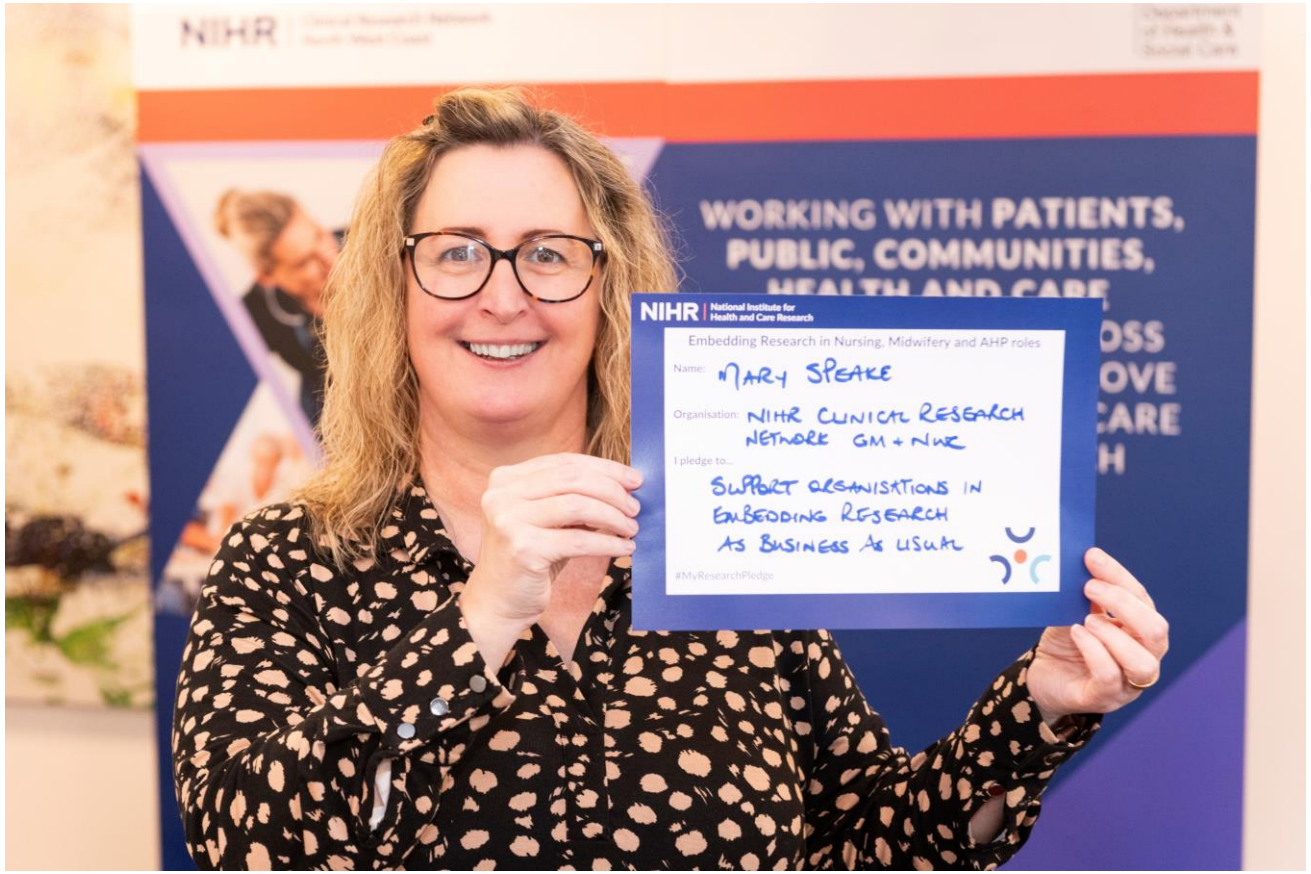
NIHR
WORKING WITH PATIENTS,
PUBLIC, COMMUNITIES,
NIHR | National Institute for Health and Care Research
Embedding Research in Nursing, Midwifery and AHP roles
Name: MARY SPEAKE
Organisation: NIHR CLINICAL RESEARCH NETWORK GM + NWC
I pledge to...
SUPPORT ORGANISATIONS IN EMBEDDING RESEARCH AS BUSINESS AS USUAL
#MyResearchPledge

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Time for CHANGE…

The Research Delivery Network

- Deliver high-quality research
- Work across the health and care system
- Operate as one organisation across England

- Support the successful delivery of high quality research, as an active partner in the research system

- Increase capacity and capability of the research infrastructure for the future

- Showcase the infrastructure and activities across Greater Manchester
  - Inclusive patient involvement
  - Deliver trials
  - Translational research
  - Fundamental research

Agenda – Morning Session

Submit questions here

Time	Session	Presenter
09:30–10:00	**Registration and Refreshments**	
10:00 – 10:10	**Welcome to the Inflammation Research Showcase**	Dr James Bluett University of Manchester
10:10 – 10:25	**Patient Voices in Research**	Susannah Williams, Ini Ekang & Russ Cowper VOCAL & Patient Representatives
10:25 – 10:40	**Research at Wrightington: A Specialist Musculoskeletal Hub**	Dr Adam Watts Wrightington Hospital
10:40 – 10:55	**The NIHR Manchester Clinical Research Facility**	Dr Siân Hanison, Suja Subin, Caroline Leech NIHR Manchester Clinical Research Facility
10:55 – 11:10	**Early Phase MSK Research at The NIHR Manchester Clinical Research Facility**	Professor Ben Parker NIHR Manchester Clinical Research Facility
11:10 – 11:25	**The Development of Novel Therapies for Treating Inflammatory Skin Diseases**	Professor Richard Warren University of Manchester
11:25 – 11.40	**The NIHR Manchester Biomedical Research Centre – What Is It and How Can It Drive Research Collaboration?**	Professor Anne Barton NIHR Manchester Biomedical Research Centre
11:40 – 12:00	**Morning Session Summary**	Dr James Bluett University of Manchester
12:00 – 13:30	**Lunch – Networking, Exhibition Stands and Breakout Rooms**	

Agenda – Afternoon Session

Submit questions here

Time	Session	Presenter
13:30 – 13:45	**Working With Primary Care**	Dr Omair Razzaq Ashton Medical Group, Greater Manchester Clinical Research Network
13:45 – 14:00	**Manchester Biomedical Research Centre Inflammatory Hair Diseases Programme**	Dr Matthew Harries The University of Manchester
14:00 – 14:15	**Genomic Centre and Current Projects**	Professor Gisela Orozco The University of Manchester
14:15 – 14:30	**Streamlining Clinical Trial Set-Up**	Dr Beatriz Duran Manchester University NHS Foundation Trust
14:30 – 14:45	**MFT – Reshaping the future: Innovations in MSK and Rheumatology Research**	Visveswaran Mallayan & Sindhu John Manchester University NHS Foundation Trust
14:45 – 15:00	**Patient Reflections on the day**	Susannah Williams, Ini Ekang & Russ Cowper VOCAL & Patient Representatives
15:00 – 15:30	**Summary Q&A and Panel Discussion**	Chaired by Dr James Bluett
15:30 – 16:00	**Close and Networking**	

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Patient Voices in Research

Susannah Williams, Ini Ekang & Russ Cowper

Engagement and Involvement Specialist and Public Representatives at VOCAL

Submit questions here

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wellcome

VOCAL

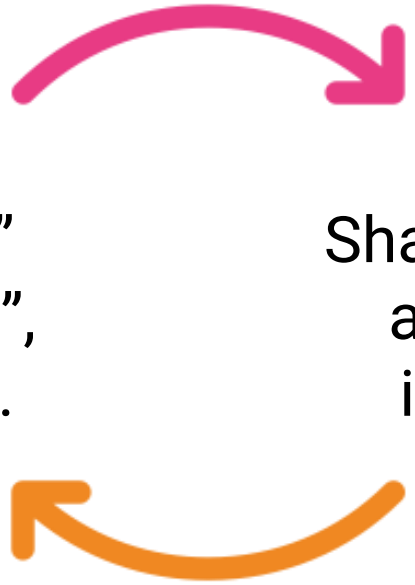
Bringing people & research together

Bringing people and health research together for everyone's benefit.

Creating opportunities for people to find out about and have a say in research.

Working together
Everyone matters
Innovating
Driving excellence

Vocal's approach



Involvement

Research done "with" or "by" people, not "to", "about" or "for" them.

Engagement

Sharing research with wider audiences, to stimulate interaction & dialogue.

PPIE is not

Education or simply communicating information

Participation – i.e. taking part in a research study, being a subject of research

Qualitative research/ or participatory research where data is collected & analysed

Ini: co-production is key

- The value of lived experience
- Applies to all research
- Based on partnership

Russ: making change

- Making studies more accessible
- Increasing trust
- Improving engagement with communities

Thank you

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Susannah Williams
susannah.williams@mft.nhs.uk

VOCAL Bringing people & research together

@letsgetvocal
@letsgetvocal
wearevocal.org

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Research at Wrightington
A Specialist Musculoskeletal Hub

Professor Adam Watts

Professor of Orthopaedics at Edge Hill University

Honorary Consultant Orthopaedic Elbow Surgeon at Wrightington Hospital

Submit questions here

Our Values | People at the Heart | Listen and Involve | Kind and Respectful | One Team

NHS
Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

MSK & Dermatology Research at WWL

Prof. Adam C Watts

Professor of Orthopaedics, Edge Hill University
Consultant Orthopaedic Elbow Surgeon, WWL
Clinical Director for Research, WWL

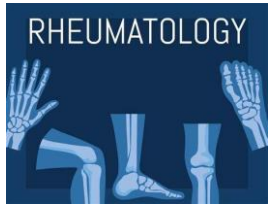
MSK and Dermatology at WWL

wrightington
Upper Limb Unit

The Centre for Hand and Upper Limb Surgery (Upper Limb Unit) at Wrightington Hospital has expanded and developed considerable expertise in the field of shoulder surgery, elbow replacement surgery, arthroscopy of the elbow, shoulder and wrist with special expertise of the wrist and distal radio-ulnar joint problems and hand problems.

wrightington
Lower Limb Unit

Wrightington's reputation for excellence attracts highly talented Consultants who specialise in joint surgery, and in the medical disciplines of rheumatology and rehabilitation.



The Rheumatology department is based at Wrightington Hospital and is part of the Specialist Services Division. They treat a wide range of rheumatological conditions including rheumatoid and psoriatic arthritis, lupus and scleroderma.

Dermatology

The Dermatology Department is an integrated service provided by a dedicated multi-professional team working in the purpose built Prosser White Dermatology Centre at Leigh Infirmary.
The service at WWL focuses on patients from baby to the elderly with a diagnosis of eczema and psoriasis, providing treatment and education. They aim to help and support patients/carers to become confident in self-managing these chronic skin conditions.

Patients at the centre of research

Provide the best care

Patients
To be widely recognised for delivering safe, personalised and compassionate care, leading to excellent outcomes and patient experience

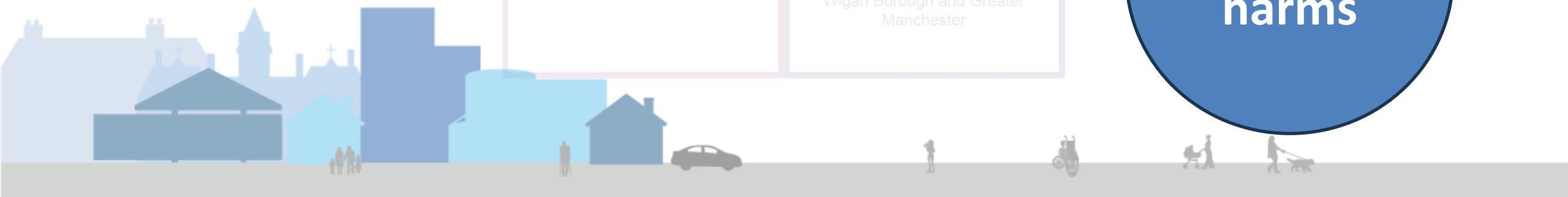
People
To create an inclusive and people centred experience at work that enables our WWL family to flourish

Performance
To consistently deliver efficient, effective and equitable patient care

Partnerships
To improve the lives of our community, working with our partners across the Wigan Borough and Greater Manchester

Improve outcomes

Reduce harms



PPIE

Helen Spickett
PPIE and Research Sponsorship Manager

WWL’s Research strategy

Aim One

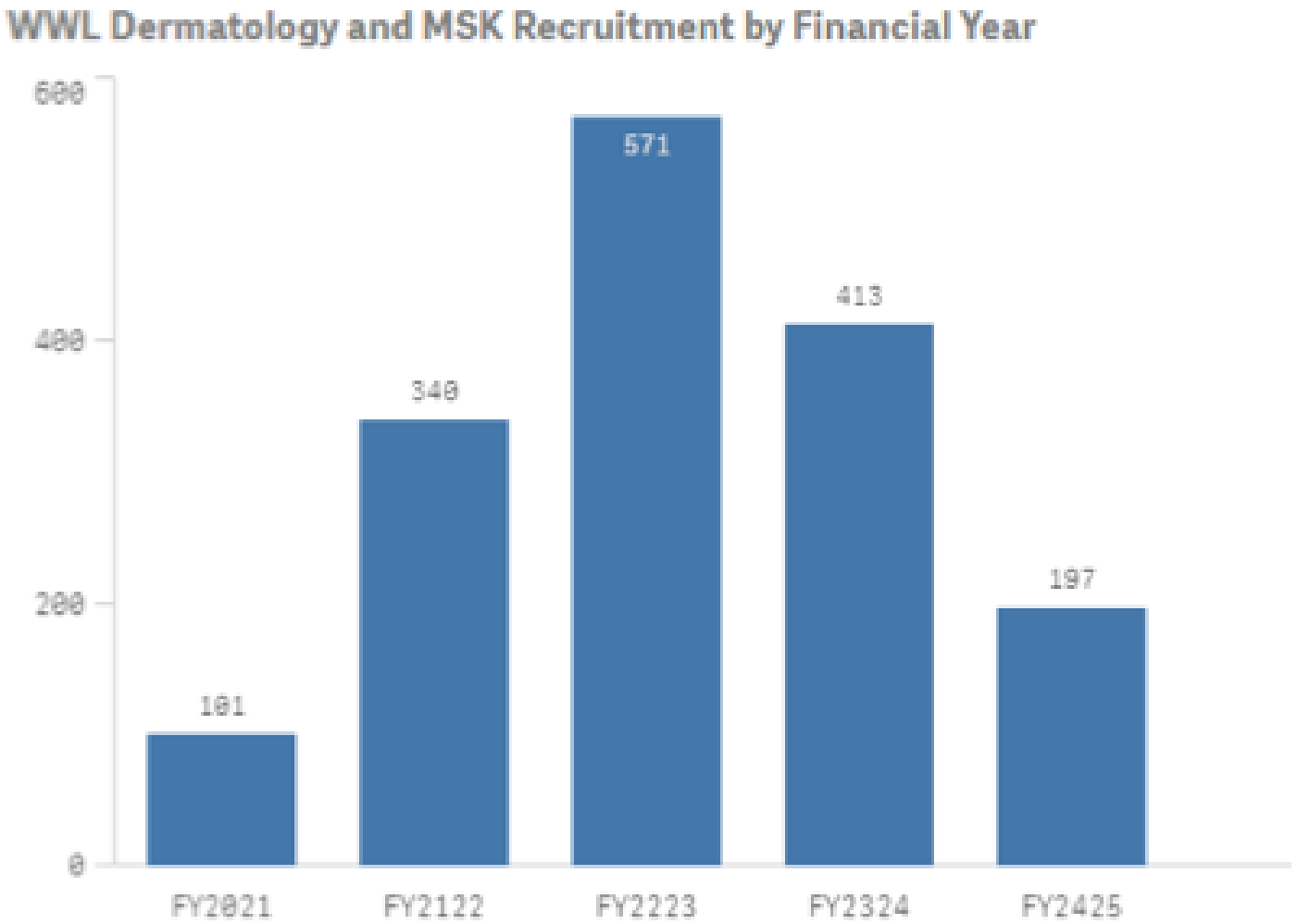
Develop partnerships which maximise our research potential and ability to meet the needs of our patients.

Aim Two

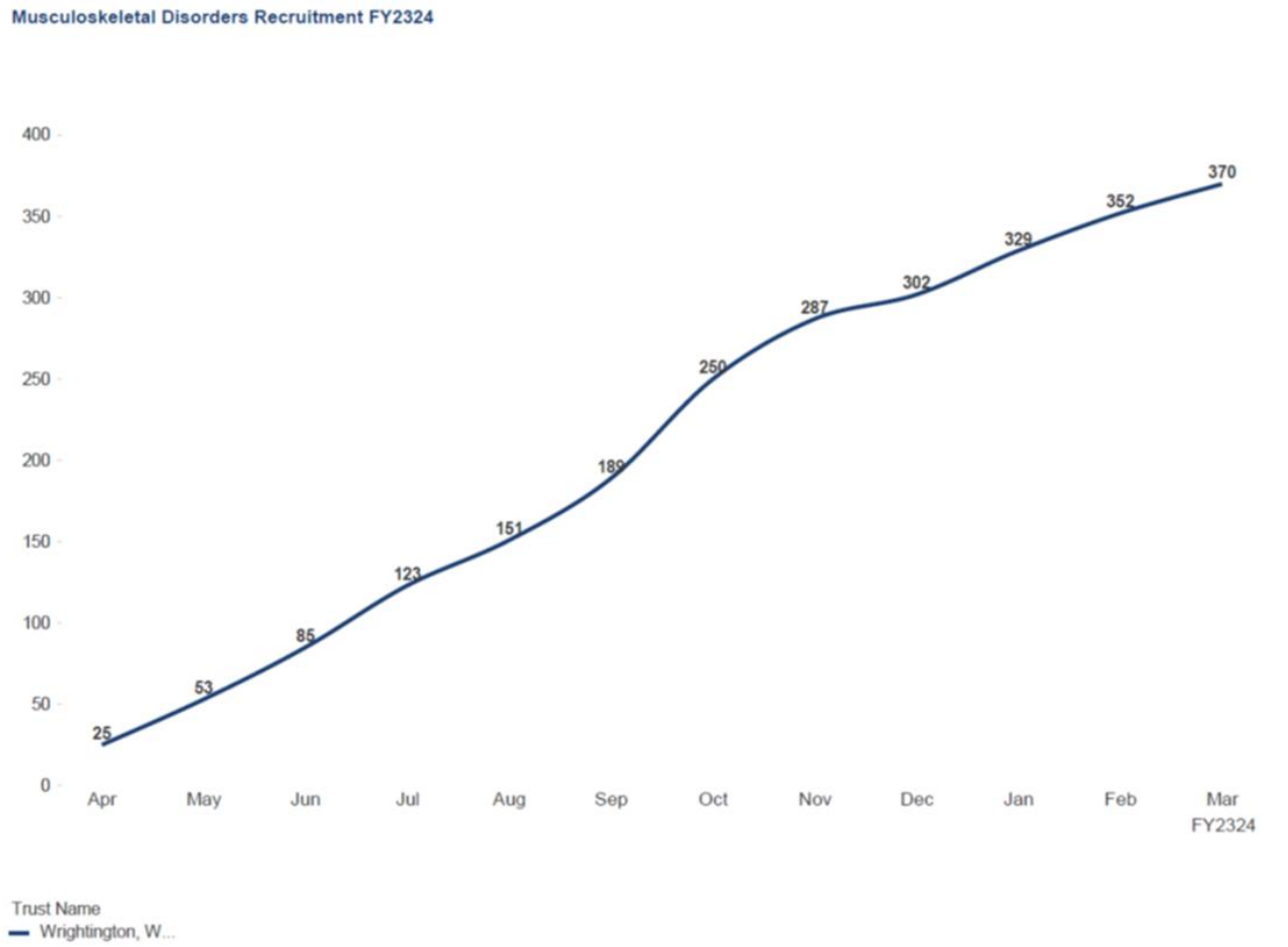
To nurture a culture that embeds research as a core component of high-quality service delivery and develop and sustainable research active workforce.

Aim Three

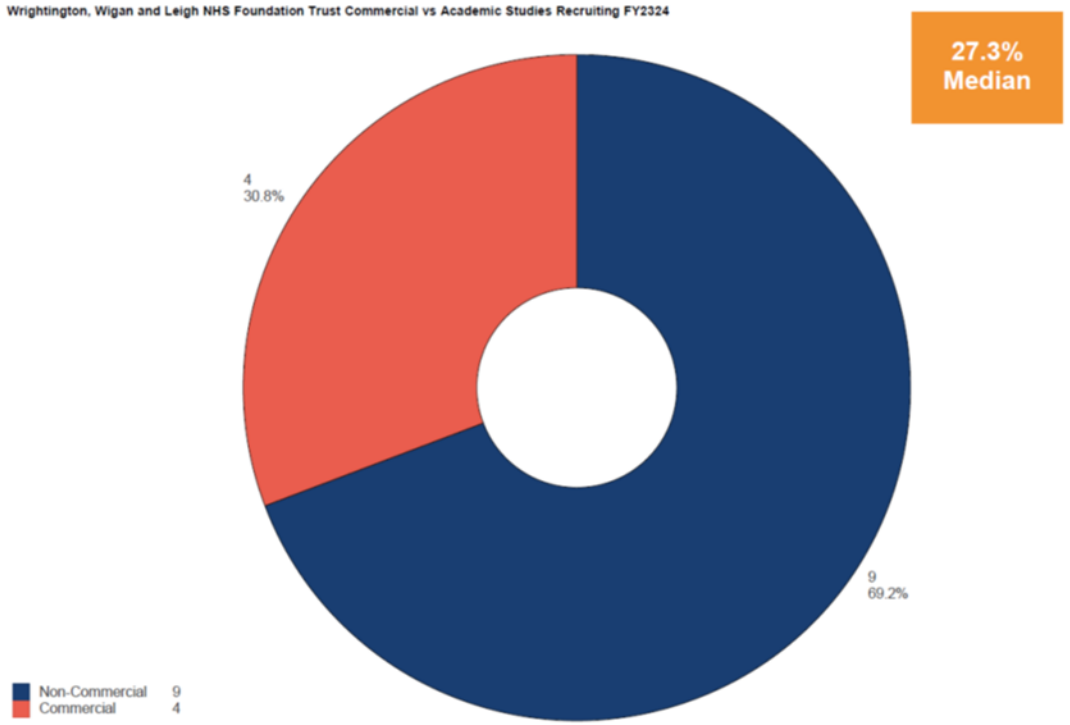
Develop our core infrastructure to provide effective support to Research Governance, Clinical Delivery and Research Sponsorship

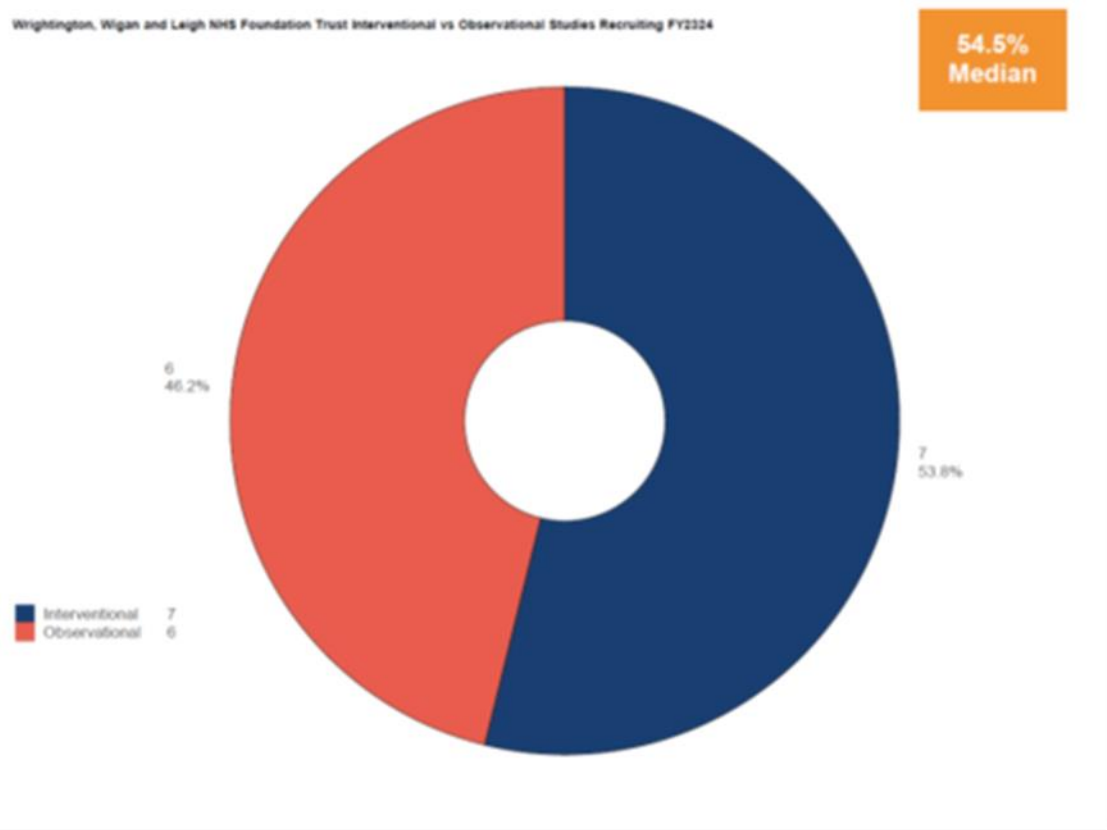

WWL Dermatology and MSK Recruitment by Financial Year
600
400
200
0
101
340
571
413
197
FY2021
FY2122
FY2223
FY2324
FY2425

WWL Musculoskeletal Disorders performance 23/24

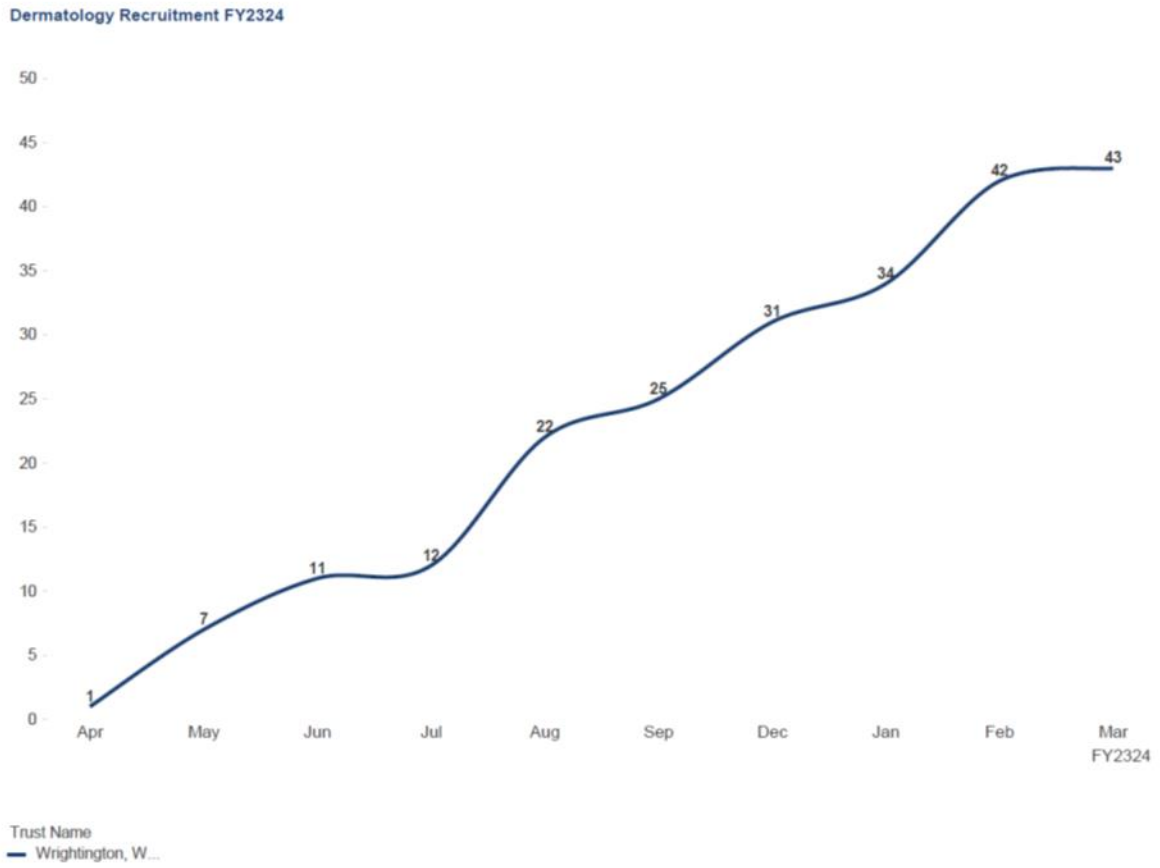


WWL Trust MSK study type 23/24

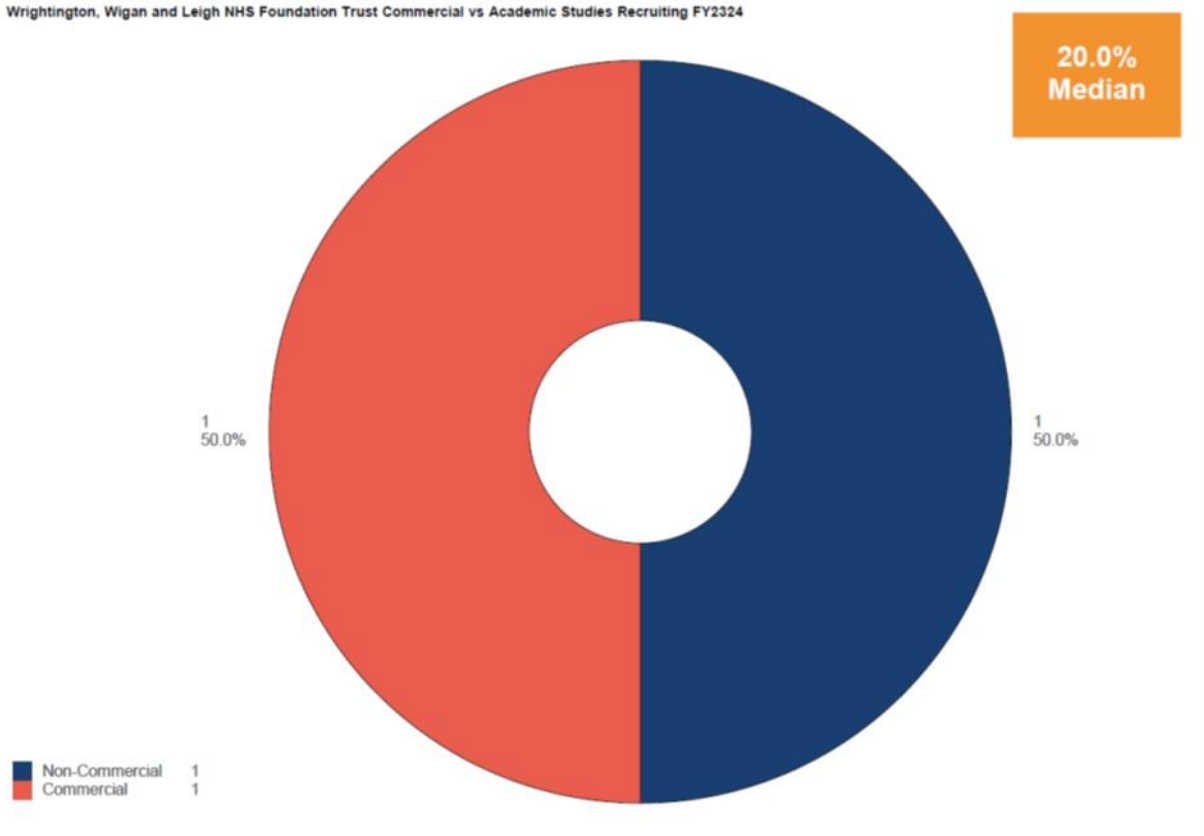


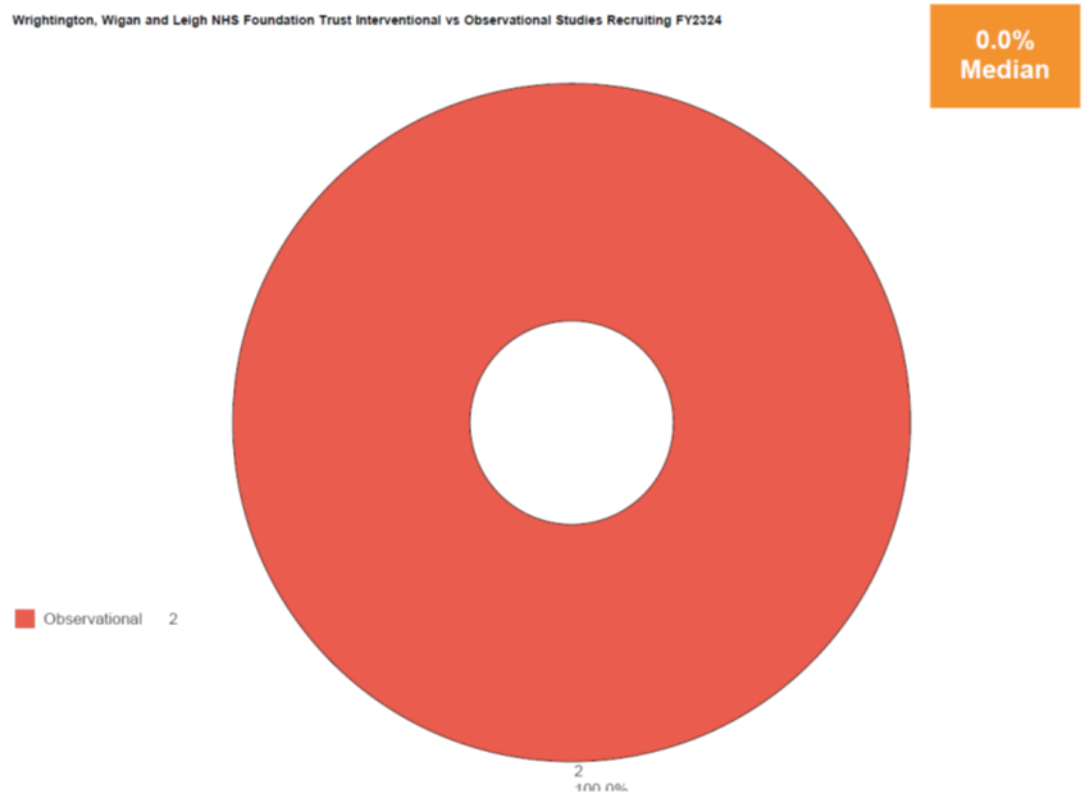


WWL Dermatology research performance 23/24



WWL Trust Dermatology study type 23/24





WWL aims to deliver commercial research that achieves national Key Performance Measures

- Achieve Site Set-up Timelines (less than 60 days from receipt of full information pack).
- Achieve >80% Recruitment of participants ‘on Time’ and ‘to Target’ (RTT KPI)
- Re-invest commercial trials income into research infrastructure.
- Fully comply with national approaches to costing and contracting.
- Use all potential recruitment opportunities working with our health and care partners to reach under-served people.

Our Performance

Greater Manchester Portfolio Activity FY23/24 (OPD Data-Cut 25/04/24)
WWL reported as 100% and 1st in Greater Manchester

Commercial Activity FY23/24 - Greater Manchester 'Trust' RTT

GM_Trust_Acronym	Closed studies with network supported sites	Total network supported sites	No. sites passing RTT	% Passed RTT
WWL	5	5	5	100.0%
Pimary Care	3	6	6	100.0%
BOLTON	1	1	1	100.0%
E CHESH	1	1	1	100.0%
TAMESIDE	1	1	1	100.0%
MFT	41	45	41	91.1%
NCA	20	20	18	90.0%
E LANCS	5	6	5	83.3%
CHRISTIE	50	50	41	82.0%
GMMH	3	3	1	33.3%
STOCKPORT	1	1	0	0.0%

Clinical Research Hub

Facilities

- Reception and patient waiting room
- Three patient consultation rooms dedicated to research trials
- Secure and temperature controlled clinical trials pharmacy dispensary, with lockable drugs cabinets and temperature-controlled fridges for investigational products.
- Clinical sample processing room (safety cabinet, centrifuge/refrigerated centrifuge, fridge/-80c freezer, printing/labelling equipment, resuscitation equipment/training equipment)
- Regulatory compliant clinical trials archive

- Bookable offices for research management and delivery for WWL and visiting Principal Investigators, Research staff and Commercial Trial Monitors
- Training and meeting rooms

- Free parking

Thank you

For further information please contact:

Prof Adam Watts – Clinical Director for Research
adam.c.watts@wwl.nhs.uk

Alison Robinson – Head of Research
alison.robinson2@wwl.nhs.uk

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The NIHR Manchester Clinical Research Facility

Dr Siân Hanison, Suja Subin & Caroline Leech

Operational Director, Advanced Clinical Practitioner & Operational Manager

NIHR Manchester Clinical Research Facility

Submit questions here

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NIHR Manchester Clinical Research Facility (CRF) overview

Professor Ben Parker

Co-Director of NIHR Manchester CRF /

Consultant Rheumatologist, Manchester University NHS Foundation Trust

Dr Siân Hanison

Operational Director of NIHR Manchester CRF

NIHR | Manchester Clinical Research Facility

"We want Manchester, and the wider North-west, to be at the forefront of cutting-edge research and high-quality healthcare"



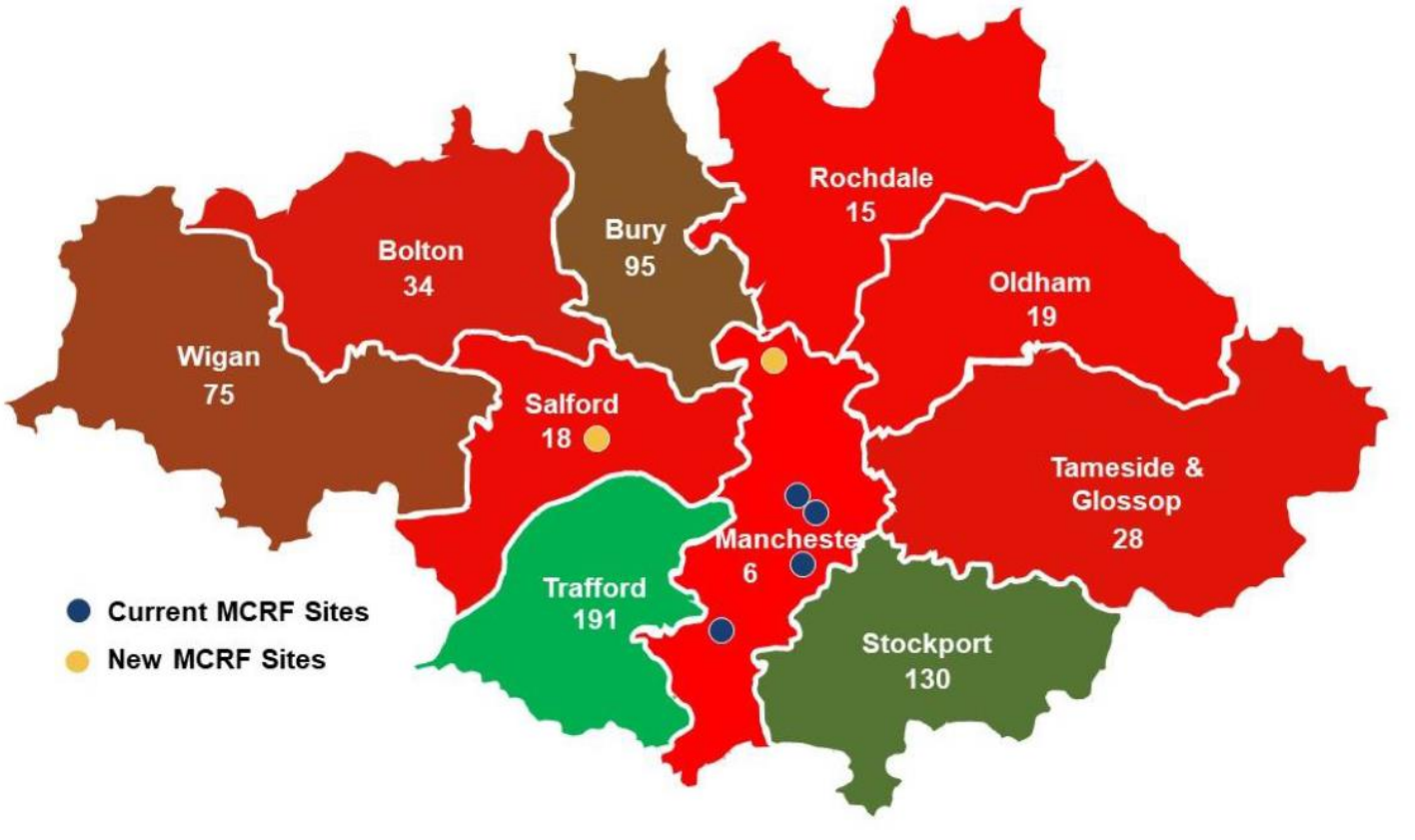

NIHR | Manchester Clinical Research Facility

Vision:

Manchester CRF will be a world-class exemplar of an integrated CRF that enhances translation of scientific advances through EM research and promotes research participation for patients of all ages and backgrounds across GM.

NIHR Manchester CRF Sites

Site
MRI
RMCH
Christie
Wythenshawe
Salford
NMGH



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NIHR Manchester CRF Funding and Services

NIHR Grant

- £15.5M (2022-2027)
- Cost recovery model, NIHR grant ~50% of total funding
- Commercial and academic studies

NHS Manchester University NHS Foundation Trust

The Christie NHS NHS Foundation Trust

NHS Northern Care Alliance NHS Foundation Trust

Inpatient and outpatient
24-hour 7-days a week
50+ beds/chairs
20+ consultation rooms

Dedicated children's facility

Dedicated oncology facility

Dedicated experienced research staff

Research pharmacy services and clinical trials aseptic unit

24h pre-analytical laboratory processing

3 MR scanners, PET/MR, proton beam research unit

Training Opportunities at all levels

NIHR | Manchester Clinical Research Facility

NIHR Manchester CRF Leadership

MRI

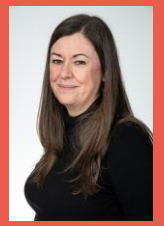
The Christie

RMCH

Wythenshawe

Salford Royal

NMGH



Manchester CRF

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NIHR Manchester CRF - BRC

MSK
Hearing Health

MRI
General adults / Phase 1

Respiratory Med
Mental Health

NMGH
Respiratory
Infectious Disease
Mental Health

Respiratory Med
Cardiovascular

Wythenshawe
Respiratory
Allergy
Cardiology

RMCH
Paediatrics

Rare Conditions

Salford Royal
Dermatology
Neuroscience

Dermatology
Cardiovascular

The Christie
Oncology

PED, PM
DXT & Living with

Next Gen Therapeutics & Diagnostics
Health Equity and Inclusivity

North-West CRF Alliance

(Alder Hey, Liverpool, Lancashire and Manchester)

- Focus on phase 1 clinical trials

- Scope
  1. Sponsorship
  2. Co-ordinated Delivery
  3. Training
  4. EDI
  5. Sharing good practice and initiatives

UKCRF Network

- Hosted in Manchester (MFT)
- Collaborative re-bid increased funding £2.4M
- Leadership Team: Lancashire, Southampton, Cambridge and Manchester
- Highly collaborative approach to developing and optimising CRF work

https://www.ukcrfnetwork.co.uk/

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NIHR Manchester Clinical Research Facility

Caroline Leech – Operational Manager

Suja Subin - Advanced Clinical Practitioner

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Manchester CRF Activity

869 Active projects at last annual report	75% Industry studies	429 Early Phase studies (49%)
3017 Participants recruited into studies	27533 Participant Visits	Over £3 Million Annual NIHR Funding

Rheumatoid Arthritis	Psoriasis	Juvenile Idiopathic Arthritis
Myositis	Psoriatic Arthritis	Sjogren's Syndrome
Osteoarthritis	Circadian Rhythms	Lupus

Expert staff

- Experienced early phase trained nursing and medical/ACP team
- Dedicated labs, radiographers and physiologists
- Anaesthetist support
- 24/7 inpatient support

NIHR | Manchester Clinical Research Facility

Equipment and specialist skills

Isolation rooms for gene therapy and infectious diseases

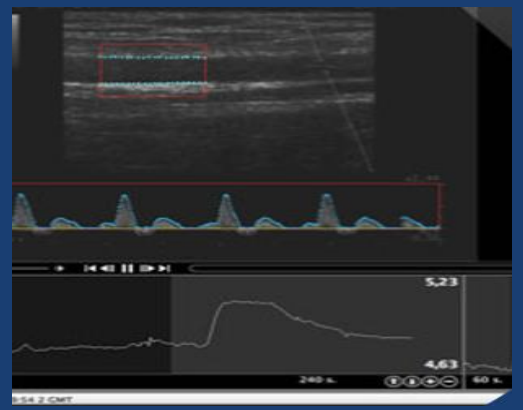
Minor Procedures suite – synovial biopsy, skin biopsy, Intrathecal administration

Temperature controlled rooms

NIHR | Manchester Clinical Research Facility

Equipment and specialist skills

- Ultrasound machine with MSK and cardiovascular capabilities
- Cardiovascular outcome studies: Flow mediated dilatation(FMD), Endopat, Arteriography, Carotid US
- Spirometry
- Triplicate ECGs, Holter monitoring
- Disease area specific assessments e.g BILAG/ESSDAI/ MDAT and cognitive assessments



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Early Phase MSK Research at The Clinical Research Facility

Professor Ben Parker

Consultant Rheumatologist and Co-Director of NIHR Manchester Clinical Research Facility

Submit questions here

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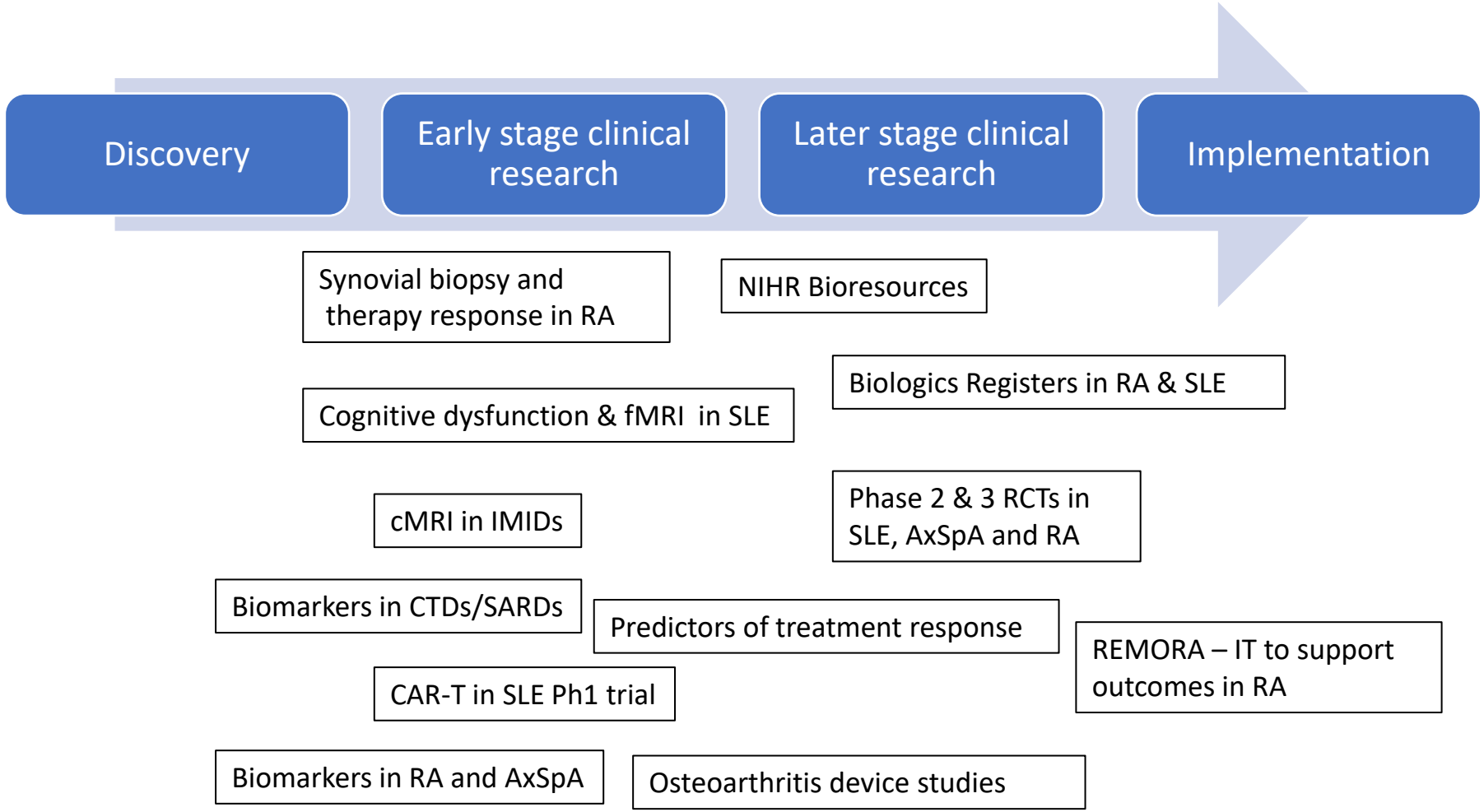
Early Phase MSK Research at Manchester Clinical Research Facility

Professor Ben Parker

Co-Director MCRF

Consultant Rheumatologist, MRI

Rheumatology research in Manchester and the translational pipeline



Exemplar studies in rheumatology

- Two examples of early phase MSK/rheumatology studies
- Both SLE studies (my area of expertise)
- Both delivered within Manchester Clinical Research Facility
- Demonstrates:
  - Early phase MSK research activity
  - MCRF capacity and capability

- All MSK disease areas supported

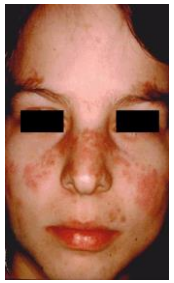
Systemic Lupus Erythematosus

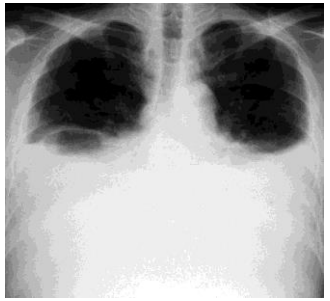
An uncommon multi-system chronic inflammatory autoimmune disease characterized by:

- Autoantibody production
- Relapsing-remitting disease with inflammation and damage:
- Heterogeneous clinical presentation
  - Challenging to manage
  - Challenging to research

- Multiple potential clinical features
  - Difficult study design
- Non-Caucasians have a higher prevalence and more severe features
  - Importance of inclusive study design and delivery








Study 1: Lipids and vascular dysfunction in SLE

- British Heart Foundation funded study
- Experimental Medicine (EM) study supported by NIHR infrastructure
  - Manchester Clinical Research Facility (MCRF)
  - Manchester Biomedical Research Centre (MBRC)
- Basic Scientist as Chief Investigator working with clinical teams at MFT

Role of bioactive lipids in vascular dysfunction in SLE

<u>Objective 1: In patients with SLE</u>

To determine how plasma lipid biomarkers relate to vascular and endothelial dysfunction in SLE

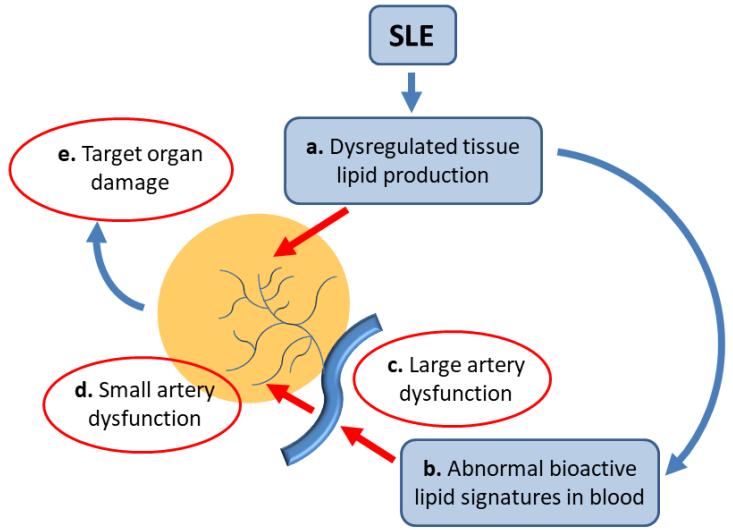


Figure 6: SLE-induced changes in local (**a**) and systemic (**b**) production of vasoactive lipid mediators, cause dysfunction of large (**c**) and (**d**) small (**d**) arteries and lead to target organ damage (**e**).

<u>Objective 2: In a mouse model of SLE</u>

To examine the molecular mechanisms by which SLE-altered systemic and local lipid mediators impact small artery function

→ Wire mammography in healthy mice using Inflammatory lipid profiles

MCRF-supported assessment and outcomes

<u>Objective 1: In patients with SLE and healthy controls</u>

To determine how plasma lipid biomarkers relate to vascular and endothelial dysfunction in SLE

Vascular function measures

Flow Mediated Dilatation

Aortic Pulse Wave Velocity

Subcutaneous Adipose Tissue Biopsy

Cardiac MRI Scan with Stress Perfusion

<u>Disease assessments in MCRF:</u>

- SLEDAI
- BILAG-2004
- SLICC-DI
- Medical review
- Immunology blood tests

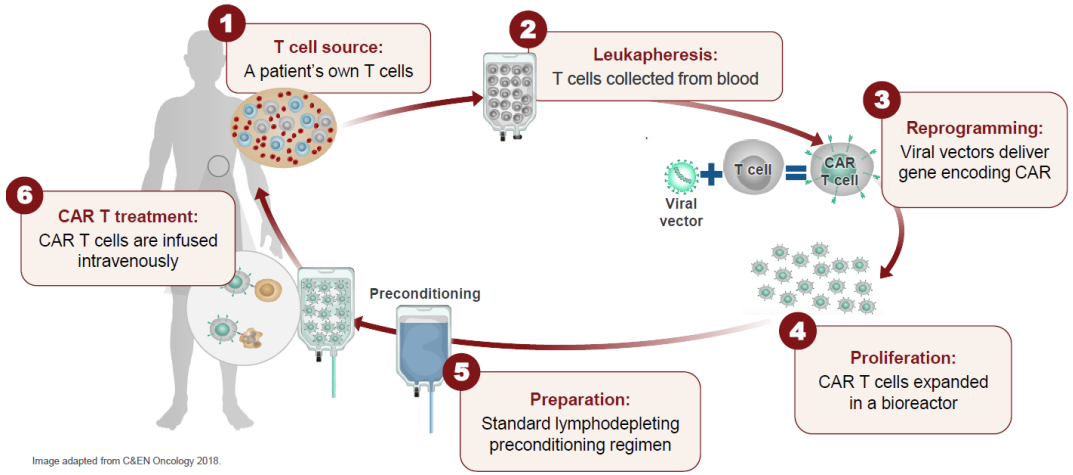
Demonstrates

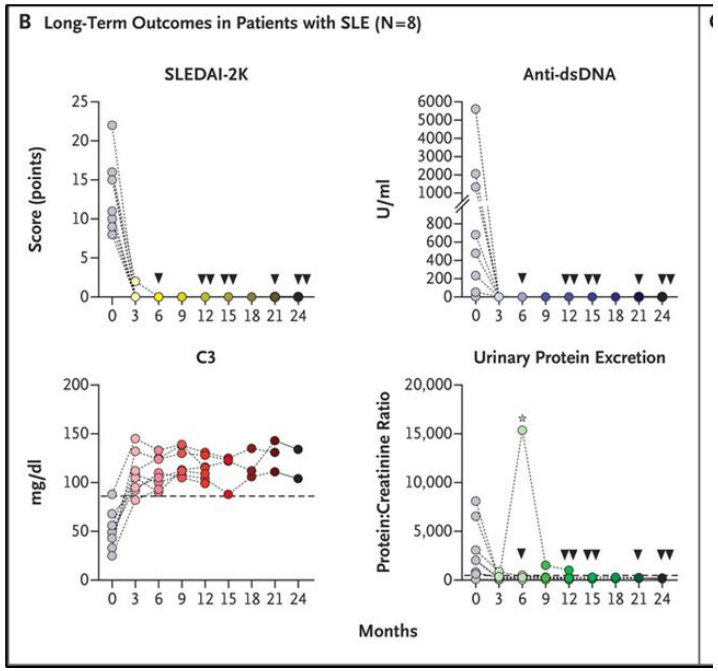
- Collaboration between clinical and non-clinical teams
  - Facilitated through MCRF
- MCRF support for an academic EM study
- MCRF-delivered outcomes on behalf of researchers
  - Cardiovascular outcomes - multiple
  - Advance Clinical Practitioner delivered interventions
    - Adipose/skin biopsy, FMD, PWV
- Use of common outcomes across disease areas supported by MCRF
  - In-house expertise for research outcomes
  - Can support a wide range of researchers/studies

Study 2: Phase 1 trial of CAR-T in severe SLE

- Commercial Phase 1 ATMP trial
- First cellular therapy trial to open in rheumatology in UK
  - Global first recruit in Manchester June 2024
- Delivery sites for cellular therapies in rheumatology
  - Co-location of haematology/oncology with tertiary rheumatology services

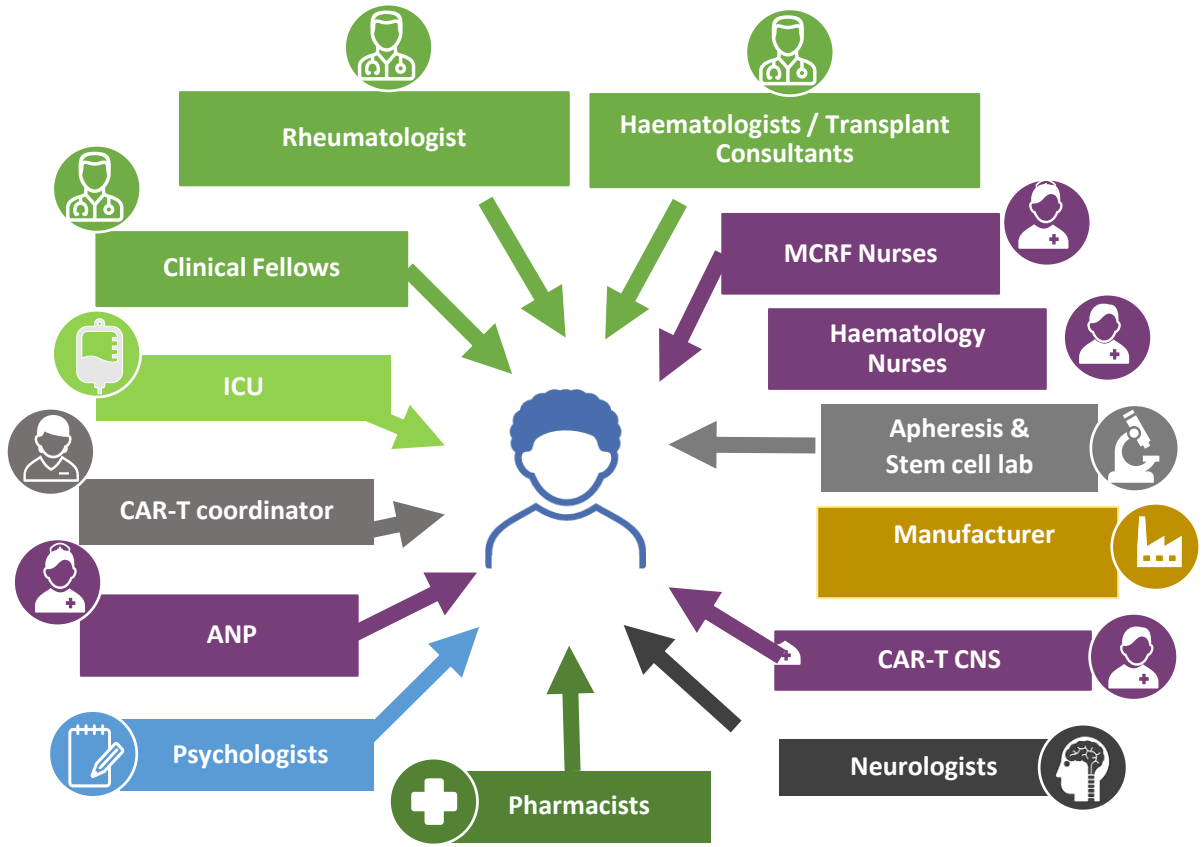
CAR-T therapy: personalised medicine





CAR-T therapy could be transformative in the management of severe, refractory SLE and related conditions

Complex Trial Delivery - Campus-wide



Additional Infrastructure needed:

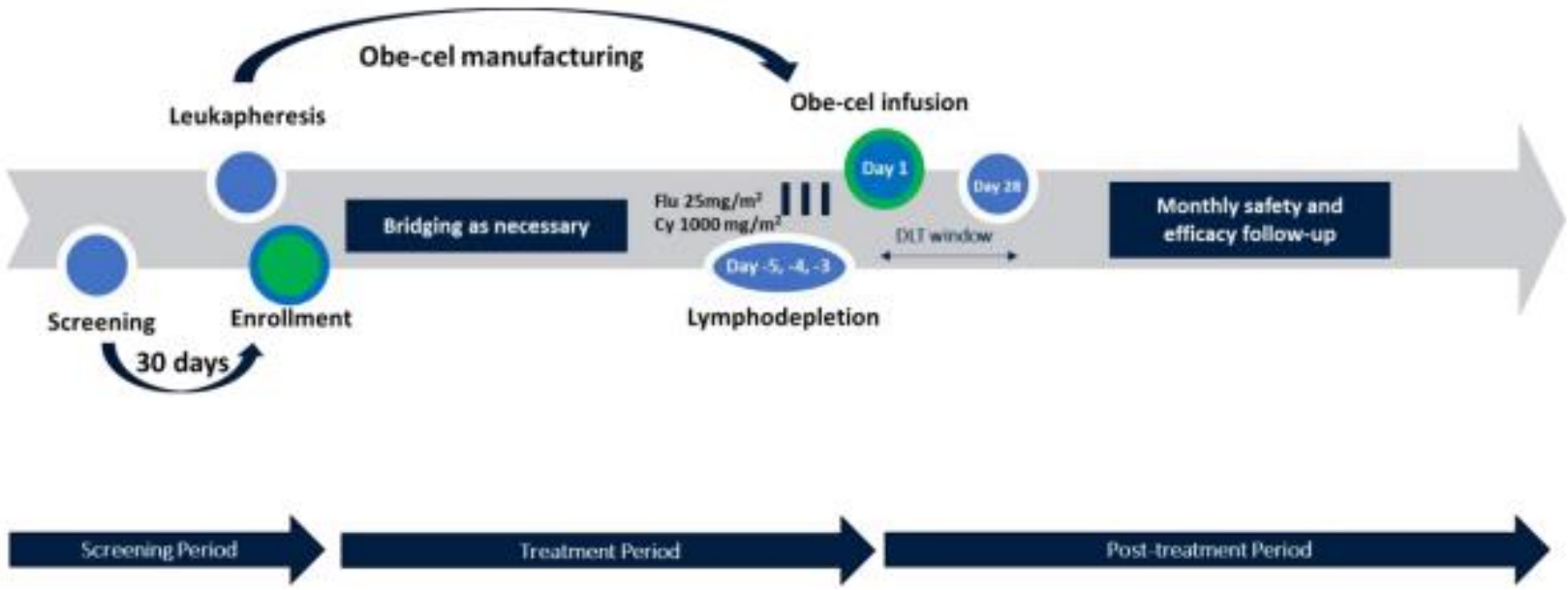
- Early Phase Safety Committee
  - Trial protocol review
  - ATMP safety review

Additional Infrastructure needed:

- Manchester Clinical Research Facility
  - Phase 1 experience
  - ATMP experience

Set-up and trial delivery: novel working

Shared responsibility for delivery – novel delivery model



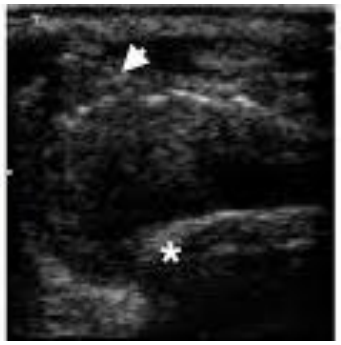
Rheumatology | Joint care | Haematology | Rheumatology

NIHR Manchester Clinical Research Facility

Demonstrates

- Successful non-malignant ATMP trial delivery
  - MFT infrastructure – EPSC, pharmacy, transplant labs, ITU
  - Cross-speciality working for autoimmune conditions
  - Delivery across the campus – anchored by MCRF
- ATMP trial and therapy expertise in Manchester
  - Nursing, physician, operational, & pharmacy staff
  - Leukapheresis and stem cell labs
- Phase 1 expertise in Manchester CRF
  - Regulation and reporting
  - Infrastructure support
- Abilty to support subsequent CAR-T/ATMP trials in non-malignant conditions
  - MCRF sites across Manchester

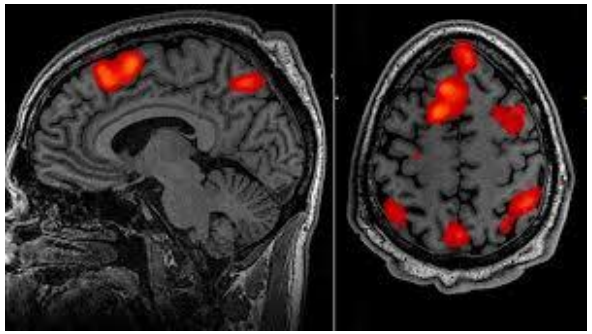
Additional MSK support hosted in MCRF



USS-guided synovial biopsy

Synovial Fluid aspirate

MSK USS



Functional MRI brain

MRI scans in MSK conditions

Summary

- Broad range of early phase MSK research underway in Manchester
  - Across all disease areas
  - Experimental medicine and clinical trials
- Infrastructure support facilitates and delivers high-quality complex research
  - MCRF rooms, facilities, and staff
- Collaboration promotes effective research delivery
  - Across specialties
  - Across sites
  - Across organisations

NIHR | Manchester Clinical Research Facility

Thank you

NIHR | National Institute for Health Research

#GMInflamShowcase

The Development of Novel Therapies for Treating Inflammatory Skin Diseases

Professor Richard Warren

Professor of Dermatology and Honorary Consultant Dermatologist at The University of Manchester

Clinical Director of NIHR Manchester CRF

Submit questions here

Greater Manchester Inflammation Research Showcase

The Development of Novel Therapies for Treating Inflammatory Skin Diseases

Prof Richard Warren

17/09/2024

BSc (Hons), MBChB (Hons), FRCP, PhD
Professor of Dermatology

Medical Director of the CRF Salford site and Dermatopharmacology Unit

Co-Lead Dermatology BRC

Patient experience

"For the first time since I was 18, I could wear make-up and nice skin products without worrying they'll cause a flare-up. You don't realise at that time how much of a physical and mental burden it is."

Patient enrolled in bimekizumab clinical trial for psoriasis at DPU

Daily Mail MORE STORIES

Jab ends scaly skin misery for 60% of psoriasis patients and could help 200,000 Britons with the life-long condition

By Ethan Ennals For The Mail On Sunday
22:01 01 May 2021, updated 22:14 01 May 2021

Share or comment on this article:

535 shares

51 comments

Slides redacted as contained confidential patient images.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Bimekizumab versus Adalimumab in Plaque Psoriasis

R.B. Warren, A. Blauvelt, J. Bagel, K.A. Papp, P. Yamauchi, A. Armstrong, R.G. Langley, V. Vanvoorden, D. De Cuyper, C. Cioffi, L. Peterson, N. Cross, and K. Reich

ABSTRACT

Date of preparation: August 2024 AU-BK-2400160

BE BRIGHT: PASI 90 and 100 response rates through 4 years (mNRI; N=197)

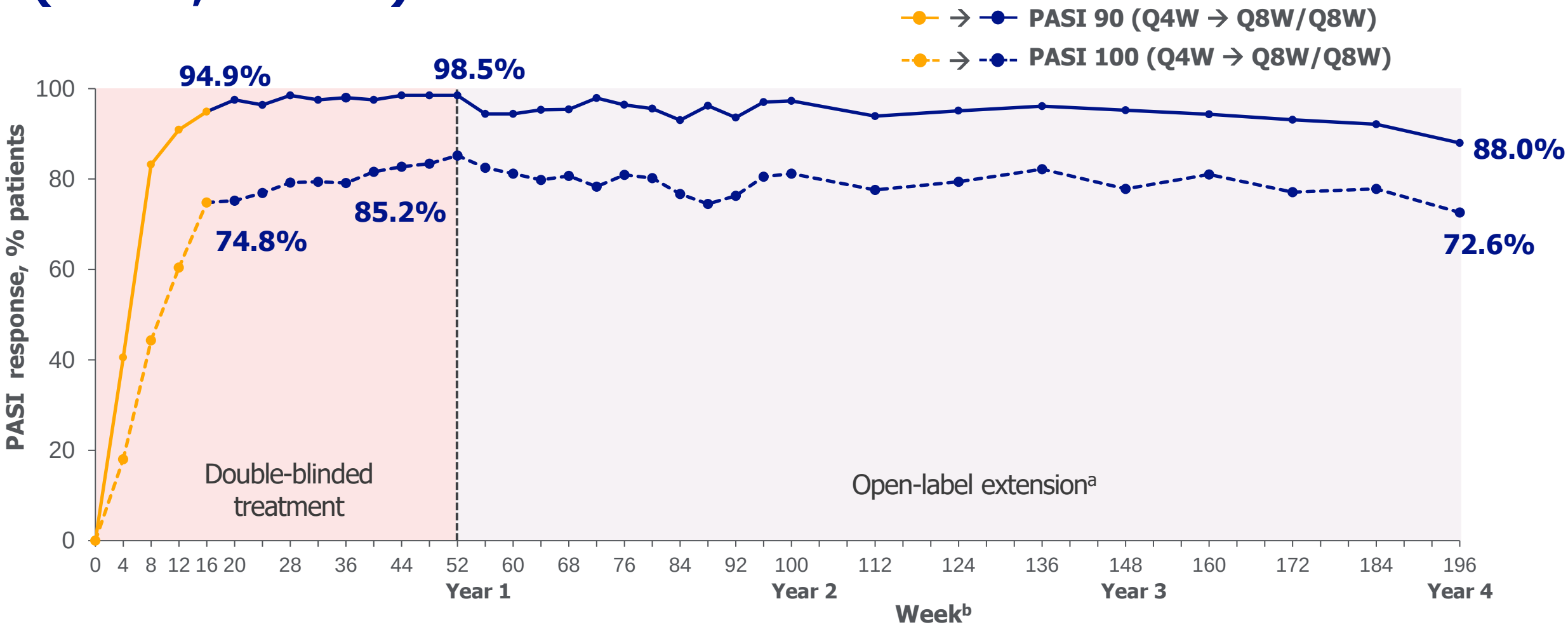


Figure adapted from Strober B et al. AAD 2024. Oral Presentation 061013, and builds on published evidence from Strober B et al. Br J Dermatol. 2023;188(6):749–759. BE BRIGHT is a phase 3 open-label extension study (from BE READY, BE VIVID, BE SURE) assessing long-term safety, tolerability and efficacy of BKZ in moderate-to-severe plaque psoriasis. Missing data were imputed using mNRI: patients who discontinued due to lack of efficacy/treatment-related adverse events were considered non-responders at subsequent timepoints; multiple imputation was used for other missing data. [a]All patients were switched to BKZ 320 mg Q8W at the next scheduled clinic visit on or after the Week 104 visit (OLE Week 48) following protocol amendment. [b]BE VIVID lasted 52 weeks and BE SURE and BE READY lasted 56 weeks; to pool data across studies, Week 56 data were not included. In this figure, the period after Week 52 corresponds to the BE BRIGHT OLE. BKZ: bimekizumab; mNRI: modified non-responder imputation; OC: observed cases; OLE: open-label extension; PASI 90/100: ≥90/100% improvement from baseline in Psoriasis Area and Severity Index; Q4/8W: every 4/8 weeks. Strober B et al. AAD 2024. Oral Presentation 061013.

Dermatopharmacology Unit

Diseases studied Mainly Phase 2/3

- Psoriasis
- Atopic dermatitis
- Alopecia Areata
- Hidradenitis suppurativa
- Gorlin’s syndrome

Companies we are currently working with

UCB	LEO Pharma	Janssen - Cilag	Incyte
Takeda	Almirall	AbbVie	Bristol Myers Squibb
Novartis	Eli Lilly	Sol-Gel	Amgen
Evolus	Bayer AG	Soterios	Arctic Bioscience

Number of studies conducted

Year	Commercial	Academic
2021-22	8	13
2022-23	12	10
2023-24	12	10
2024-25	17	8

Number of patients recruited

Year	Patients
2021-22	635
2022-23	368
2023-24	719
2024-25	208 (so far)

BADBIR
Largest Drug safety registry worldwide for psoriasis
Housed in Manchester
> 24,000 patients
IMPACT – Changing national and international guidelines of care

BIR
Biologics and Immunomodulators Register

Recruitment achievements in the last 5 years

2 European 1st patient randomised

6 UK 1st patient randomised

Our Team at DPU

NIHR | Manchester Biomedical Research Centre

Inflammation Cluster:
Dermatology

- Dermatology theme has an award value of £3.4million over the 5 years BRC.
- Spread over 5 key programmes.
- There is a large and varied group of affiliated research staff working on objectives and receiving infrastructure support.
- Support and Training Schemes for early and mid-career researchers.

3 Core Questions:

- What are the common pathways driving selected inflammatory skin diseases and wound healing?
- Can we predict disease course and therapeutic response?
- Can we target mechanisms to optimise skin condition prophylaxis and management?

Co-Lead: Jo Dumville
Jo.Dumville@manchester.ac.uk

Highlights

- The pilot for the **G**lobal **R**egistry of **A**lopecia areata disease **S**everity and treatment **S**afety (GRASS) registry has been set up to determine the pharmacovigilance and effectiveness of treatments for alopecia areata (AA) and generate high-quality, real-world data on existing and emerging therapies for AA.
- Commercial grants centred on the functional genomics of inflammatory skin disease currently under final negotiations.
- Solar urticaria involves rapid mast cell STAT3 activation and neutrophil recruitment, with FcεR1 as an upstream regulator – Published in JACI and selected as an Editor's choice.
- Zenas Yui, has been awarded an MRC Clinician Scientist Fellowship. This is based off his previous work using BADBIR datasets and BRC support.
- MRC DPFS Grant about use of Novel Peptides in Wound Healing (J. Wong) – £2.5m in value.
- Cohort Study set up in Venous Leg Ulcers (J. Dumville) – A historically unresearched condition.

Summary

- Dermatology is delivering high quality clinical and academic studies across Greater Manchester
  - Hugely positive impact for patients
  - Informing Clinical care guidelines
  - Great commercial collaborations

- Dermatology is part of wider research through the CRF facility and BRC

- **Acknowledge patients, funders and investigators involved in all components of Dermatology Research**

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#GMInflamShowcase

The NIHR Manchester Biomedical Research Centre

What Is It and How Can It Help To Drive Research Collaboration?

Professor Anne Barton

Director of the NIHR Manchester Biomedical Research Centre

Consultant Rheumatologist and Director of the

Centre for Musculoskeletal Research

Submit questions here

NIHR | Manchester Biomedical Research Centre

What is it and how can it help?

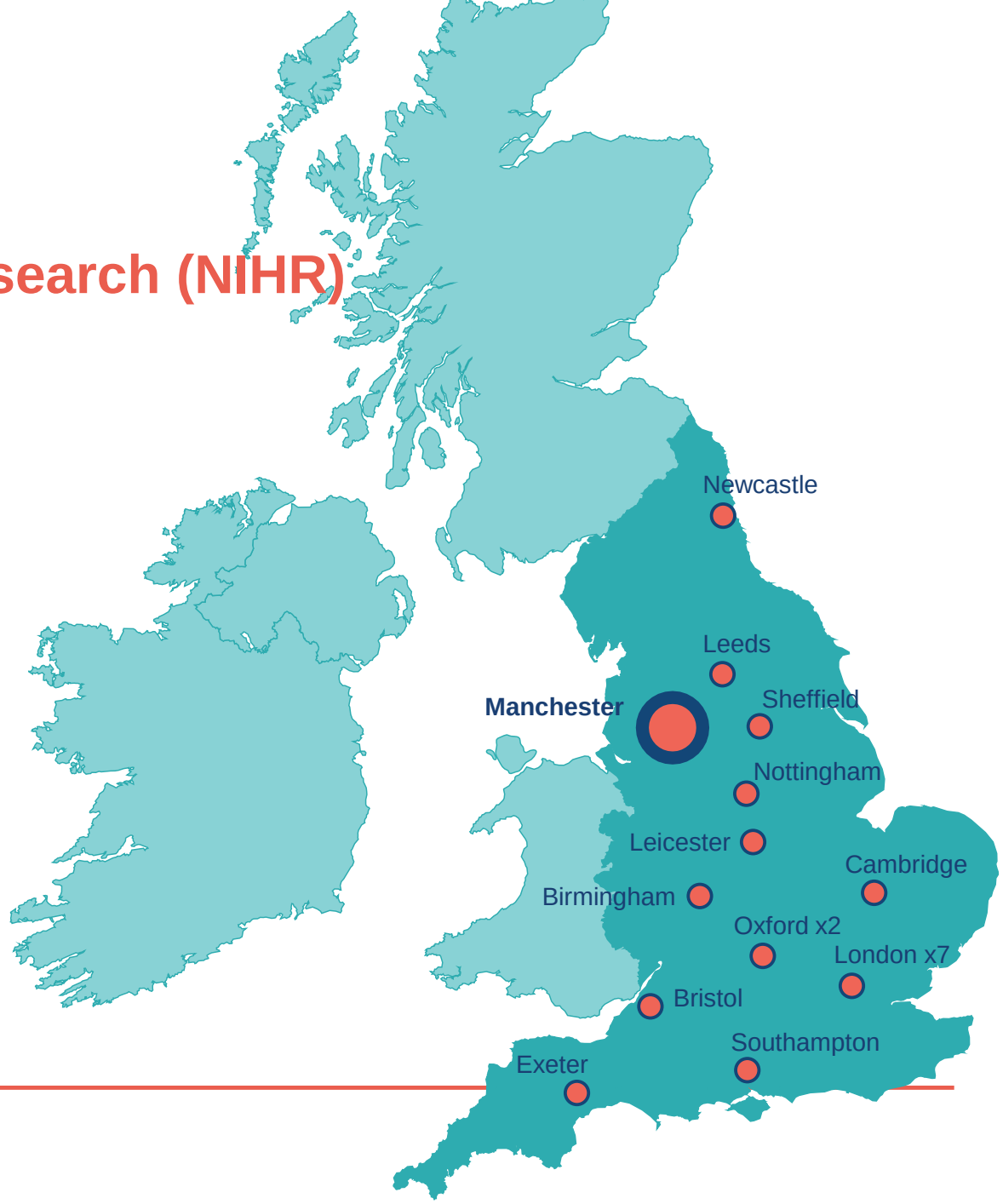
Industry showcase event

Prof Anne Barton, Director

Sept 2024

National Institute of Health and Care Research (NIHR) Biomedical Research Centres (BRCs)

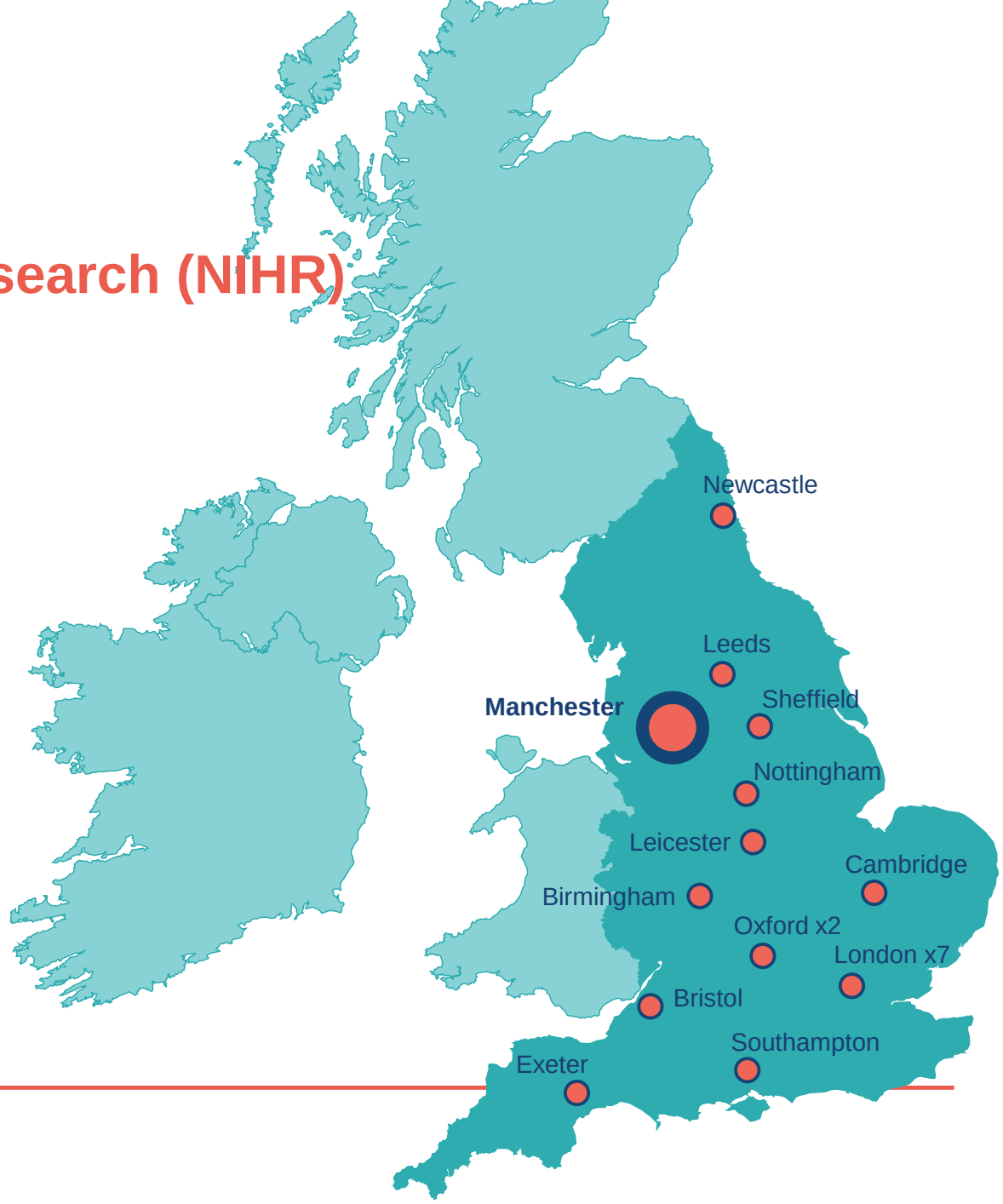
- Collaborations between Universities and NHS Trusts as leading **centres of excellence in experimental medicine**
- NIHR has awarded nearly £790 million to 20 NIHR BRCs across England (2022-27).
- Costed extension confirmed for BRCs until March 2028



National Institute of Health and Care Research (NIHR) Biomedical Research Centres (BRCs)

- Translating scientific breakthroughs into new treatments, diagnostics and medical technologies

- Deliver:
  - Impact
  - Inclusion
  - Innovation
  - Investment



NIHR Manchester BRC

- Two-stage competitive application process and interview
- Theme and BRC strategy peer review by international panel
- More than doubled the size (£28.5m > **£64.1m**), largest BRC outside of the South-East of England
- **Wider geography and higher number of Themes** funded
- Strong emphasis on **EDI and Inclusive Research, working with communities with highest need**

NHS Greater Manchester Mental Health NHS Foundation Trust

NHS Manchester University NHS Foundation Trust

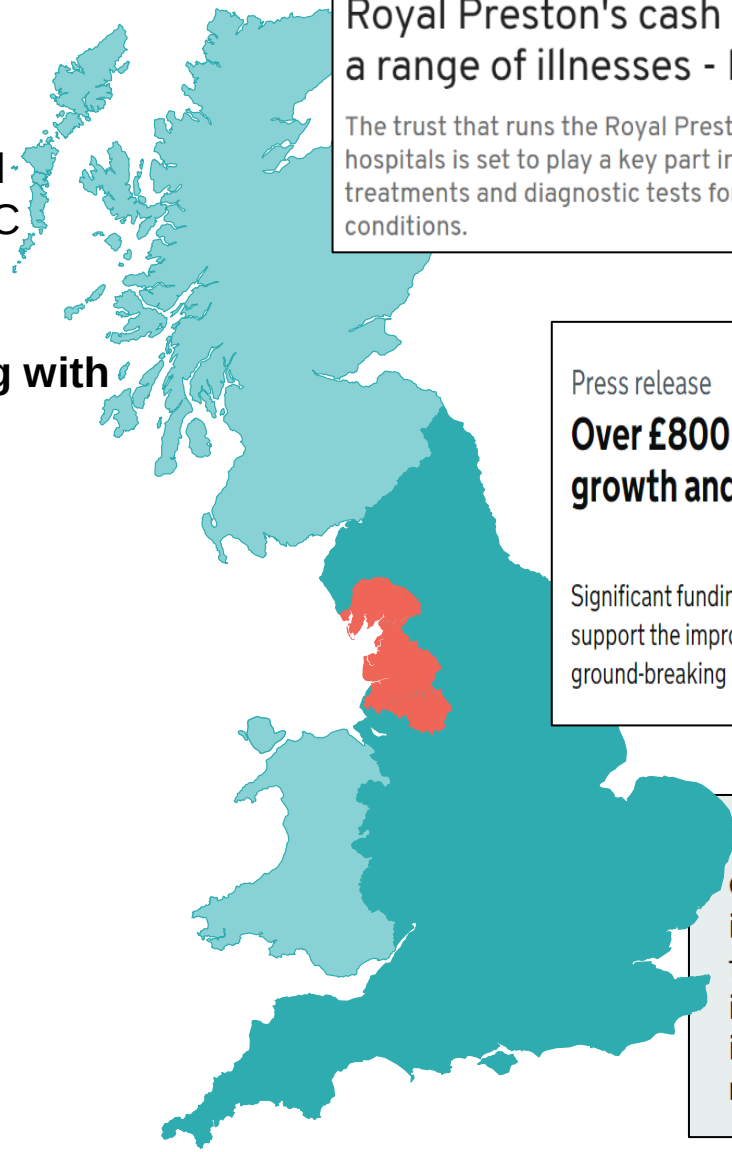
NHS The Christie NHS Foundation Trust

MANCHESTER 1824 The University of Manchester

NHS Northern Care Alliance NHS Foundation Trust

NHS Blackpool Teaching Hospitals NHS Foundation Trust

NHS Lancashire Teaching Hospitals NHS Foundation Trust



Health

Royal Preston's cash boost for research into a range of illnesses - both common and rare

The trust that runs the Royal Preston and Chorley and South Ribble hospitals is set to play a key part in the ongoing search for new medical treatments and diagnostic tests for a range of common and rare conditions.

Press release

Over £800 million to boost innovation, growth and improve patient safety

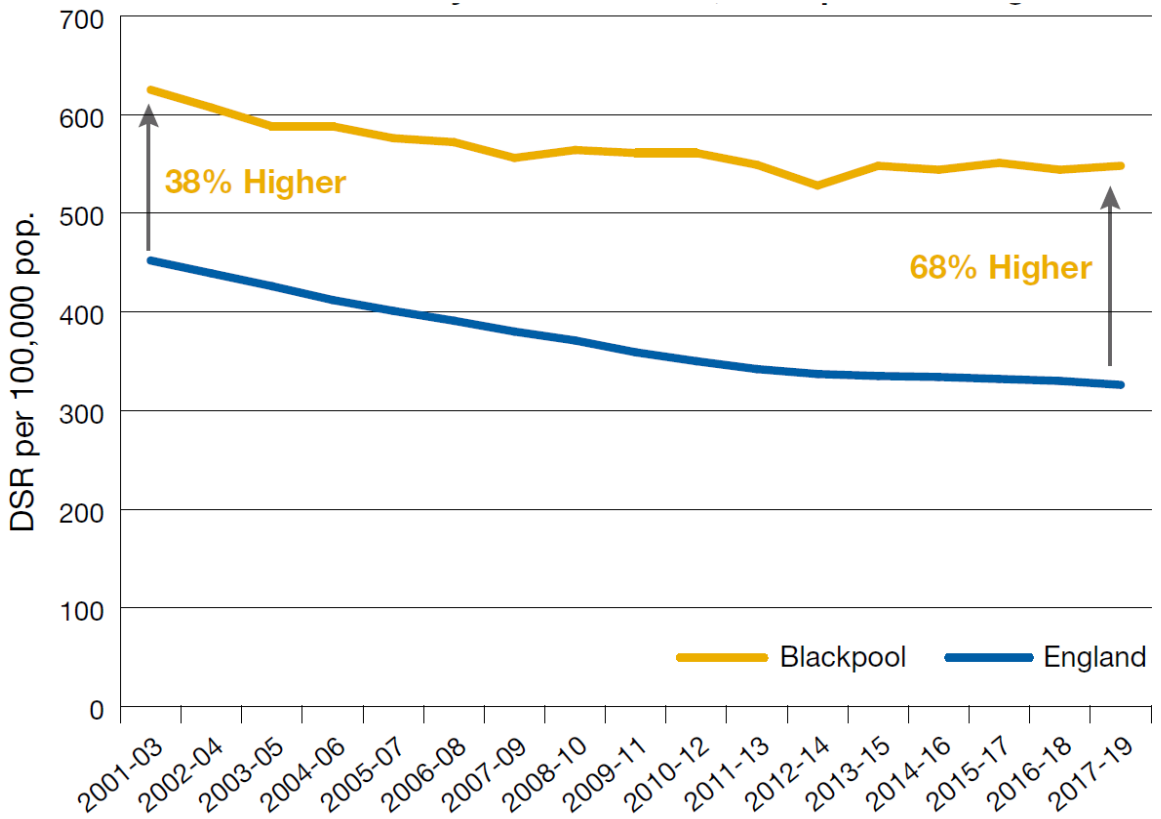
Significant funding for research centres across the country to support the improved delivery of health and care services and ground-breaking new treatments.

News posted 14 October, 2022

Greater Manchester awarded its largest ever research funding to tackle health inequalities and drive health improvements across the city region

Widening Gap in Premature Mortality (<75 yrs old) from all causes in Blackpool vs England

- High burden of poor health outcomes
- Historically low research infrastructure investment



Manchester BRC's vision is to drive personalised health & care for all

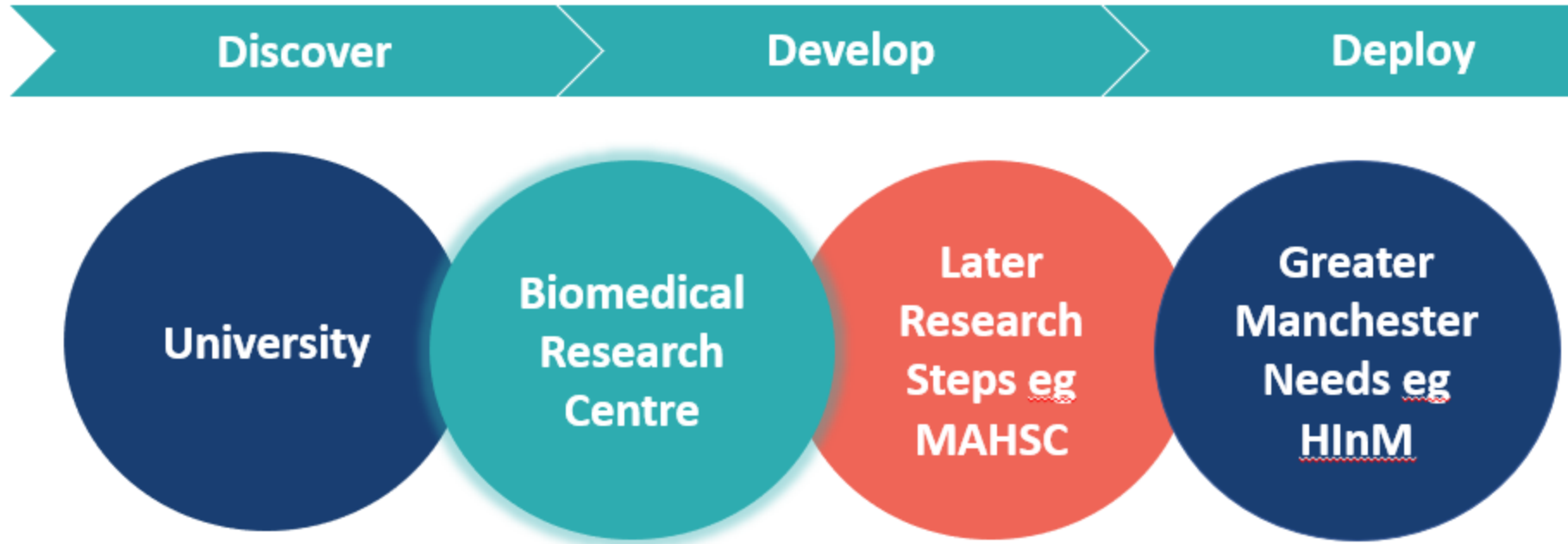
Embed early translational research further into our communities and localities in GM, Lancashire and South Cumbria

Build a unique national powerhouse for innovation

Accelerate at scale, the impact of our research through our mature and integrated innovation pipeline

Personalised Health & Care for *all*

Greater Manchester NIHR Infrastructure Oversight Board
Health Innovation Manchester



MANCHESTER 1824
The University of Manchester

NHS North West

Greater Manchester Health and Social Care Partnership

GMCA

Discovery Science

Push

Pull

GM / NW Healthcare Needs

NIHR | Manchester Biomedical Research Centre

New Enhanced Infrastructure

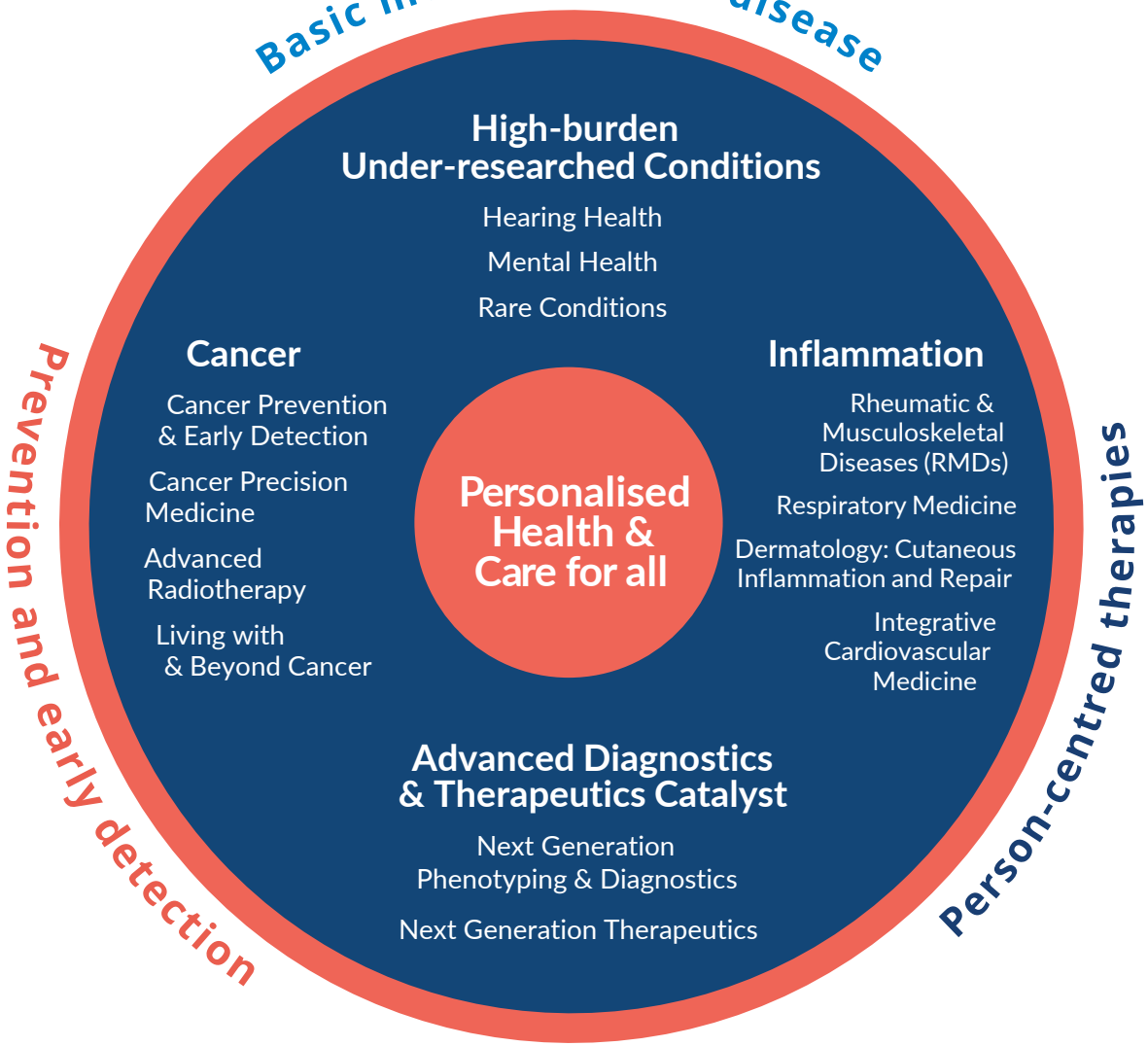
- Christabel Pankhurst Institute for Health Technology
- Paterson Institute for Cancer Research
- UK Biobank

biobank uk
Improving the health of future generations

Manchester BRC Structure

4 clusters / 13 Themes

Drive integration across themes



Peer support for project/ programme monitoring

Maximise leverage of internal/ external grant funding

Infrastructure

Inclusive Research Infrastructure

- Inclusive Research Mehtods
- Inclusive Research Oversight Board
- Patient Public Involvement, Engagement and Participation (PPIEP)
- Equality, Diversity and Inclusion (EDI)

Strategic Core Delivery

- Training and Capacity Building
- Digital Infrastructure
- Strategic Partnerships (e.g. industry, charities)
- Project management expertise
- Performance and Quality
- Data management
- Strategic Funding (capacity building, partnerships, cross-theme projects / programmes)
- Communications
- Impact

Summary

- Step change in delivering translational/early phase research
- Build translational research capacity across North-West
- Leverage new income (academic/industry) and inward investment
  - International industry advisory board (Chair: Chris Molloy)
  - Innovations and partnerships team (Operational Lead: Colette Inkson)
- Specific action to better understand health inequities and using this to bring our research to people in place

Offer to industry

- Internationally recognised expertise across multiple specialties
  - Rheumatic Musculoskeletal Diseases
  - Dermatology

  } Today's focus

- Large patient populations with high unmet need
  - Diverse
  - Urban/rural/coastal
  - Focus on inclusivity

- Close working with Clinical Research Facility
  - Early phase trial delivery

Offer to industry

- Large number of clinical academics
  - Bridging discovery science to clinical translation

- Expertise in:
  - Epidemiology
  - Genetics, genomics, proteomics, metabalomics, microbiome…
  - Clinical trials
  - Exploring health inequities
  - Patient and public involvement and engagement
  - Bioinformatics, lab facilities, imaging

Offer to industry

- Access to samples and data
  - Prospective, longitudinal
  - Tissue

- Expertise in:
  - Study design
  - Governance
  - Delivery
  - Analysis

- Enthusiasm to foster new collaborations / partnerships with industry
- Experience of working with industry partners

BRC Links with Industry

Industry	SMES	New Partnerships	Number of relationships with large pharma companies	Number of relationships with international companies	Number of partnerships with diagnostics companies	Number of partnerships with medical device companies	Number of partnerships with digital technology companies
Y1 2017-22	37	38					
Y2 2017-22	22	6					
Y3 2017-22	20	41					
Y4 2017-22	42	25					
Y5 2017-22	48	13					
Y6 2017-22	51	0					
Y1 2022-27	44	27					
Y2 2022-27	109		34	130	19	42	21

Leveraged Income for infrastructure in other parts of the BRC

- **NIHR Mental Health Mission** (£43M nationally NIHR Mental Health TRC)
  - £10M will be led by Manchester Investigators
- **MRC Rare Disease Platform Nodes:** 3 of 11 awarded to Manchester:
  - Ethics, Legal and Social Issues (PI: Ramona Moldovan) £1.3 m
  - EpiGenRare (PI: Siddharth Banka) £1.3 m
  - Rare Early-Onset Lower Urinary Tract (REOLUT) (PI: William Newman) £1.3 m
- **NIHR Health Technology Research Centre**
  - £3.0m award
  - Urgent and emergency care

Thank you

Manchester BRC's **vision** is to drive **personalised health** and **care for all**

- Build translational research capacity across Greater Manchester, Lancashire and South Cumbria
- Leverage new income (academic/industry) and inward investment
- Specific action to better understand health inequities and using this to bring our research to people in place

https://www.manchesterbrc.nihr.ac.uk

Follow us
@ManchesterBRC

Link in with us:
NIHR Manchester Biomedical Research Centre

Watch our YouTube

ManchesterBRC@mft.nhs.uk – sign up for access to newsletters/opportunities

Professor Anne Barton, BRC Director: Anne.Barton@manchester.ac.uk
Lisa Miles, BRC Operations Director: Lisa.Miles@mft.nhs.uk

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#GMInflamShowcase

Morning Session Summary

Submit questions here

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Lunch – Networking, Exhibition Stands and Breakout Sessions

Submit questions here

Agenda – Afternoon Session

Submit questions here

Time	Session	Presenter
13:30 – 13:45	**Working With Primary Care**	Dr Omair Razzaq Ashton Medical Group, Greater Manchester Clinical Research Network
13:45 – 14:00	**Manchester Biomedical Research Centre Inflammatory Hair Diseases Programme**	Dr Matthew Harries The University of Manchester
14:00 – 14:15	**Genomic Centre and Current Projects**	Professor Gisela Orozco The University of Manchester
14:15 – 14:30	**Streamlining Clinical Trial Set-Up**	Dr Beatriz Duran Manchester University NHS Foundation Trust
14:30 – 14:45	**MFT – Reshaping the future: Innovations in MSK and Rheumatology Research**	Visveswaran Mallayan & Sindhu John Manchester University NHS Foundation Trust
14:45 – 15:00	**Patient Reflections on the day**	Susannah Williams, Ini Ekang & Russ Cowper VOCAL & Patient Representatives
15:00 – 15:30	**Summary Q&A and Panel Discussion**	Chaired by Dr James Bluett
15:30 – 16:00	**Close and Networking**	

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#GMInflamShowcase

Working With Primary Care

Dr Omair Razzaq

General Practitioner at Ashton Medical Group, Specialty Lead for Primary Care, Greater Manchester Clinical Research Network

Submit questions here

Working With Primary Care

Enhancing Collaboration and Patient Outcomes

Omair Razzaq, GP Ashton Medical Group, Specialty Co-lead CRNGM

What is Primary Care Research?

Primary care research focuses on health outcomes, disease prevention, and the management of long-term conditions at the community level.

This research helps improve the quality of care and addresses the most prevalent and costly conditions.

Why go into Research?

Opportunities for patients

New treatments e.g. cholesterol lowering injections

New investigations e.g. FENO testing

Diagnose previously unknown issues e.g. AF, depression

Stay up to date

Proven benefits to patients who haven't taken part in research

Stay fresh

Get to meet all of you!

Connecting Specialists to Primary Care

High prevalence of musculoskeletal and dermatological conditions in primary care.

Specialists often receive referrals based on primary care assessments, making these findings crucial to diagnosis and treatment.

Collaboration improves continuity of care, particularly for chronic conditions.

Primary Care as a Key Setting for Patient Identification

General practitioners (GPs) are the first point of contact for most patients, including those with musculoskeletal and dermatological complaints.

GPs build long-term relationships with patients, making it easier to detect early symptoms and changes over time.

Despite advances in healthcare, patients still turn to their GPs for help, advice, and guidance on various health issues.

Access to Real-World Data

Primary care research collects data on patient presentations and treatments over time.

Insights into common presentations of musculoskeletal and dermatological diseases in diverse populations.

Helps specialists recognize emerging trends, atypical presentations, or changing demographics in diseases such as psoriasis or arthritis.

Improving Early Detection

Primary care research identifies patterns that help recognize musculoskeletal and dermatologic conditions at an earlier stage.

Collaboration with primary care helps streamline referral pathways, ensuring specialists see patients when necessary.

Improves early intervention strategies, reducing disease burden.

Supporting Research with the CRN Primary Care Team

The Clinical Research Network (CRN) Primary Care Team can disseminate studies rapidly across dozens of practices.

Potential reach extends to several hundred thousand patients, enhancing recruitment and study impact.

The CRN can assist with study delivery if a research project lends itself to being conducted in primary care settings or simply as Patient Identification Centres (PICs).

Cost-Effectiveness

Effective early interventions and streamlined referral systems lower long-term healthcare costs.

Reducing unnecessary specialist visits by equipping primary care providers with better diagnostic tools and knowledge.

Specialists benefit from focusing on complex cases that require their expertise.

Collaboration Across Disciplines

Musculoskeletal and dermatology specialists can collaborate with primary care on large-scale studies.

Research areas: Early detection of rheumatoid arthritis, chronic pain management, or skin cancer prevention.

Enhances cross-disciplinary learning and strengthens clinical practice through shared insights.

Maximizing the Benefits of Primary Care Research

Improved patient outcomes through earlier diagnosis and intervention.

Better resource management and reduced healthcare costs.

Enhanced collaboration that strengthens both primary and specialist care.

Thank You!

Questions?
Comments?
Suggestions?

NIHR | National Institute for Health Research

#GMInflamShowcase

Manchester Biomedical Research Centre Inflammatory Hair Diseases Programme

Dr Matthew Harries

Honorary Consultant Dermatologist and Clinical Senior Lecturer at the University of Manchester.

Submit questions here

Inflammatory Hair Diseases Research Programme

Matthew Harries PhD FRCP

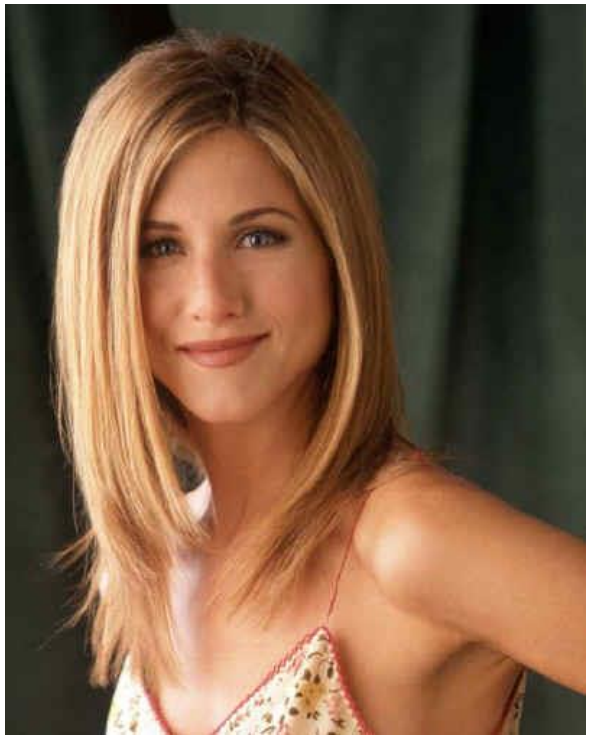
Clinical Senior Lecturer and Honorary Consultant Dermatologist

University of Manchester, Salford Royal Hospital

Northern Care Alliance NHS Foundation Trust, UK

Expression of Individuality....

Expression of Individuality….



…and Sexual Attractiveness

Daily Star front page for 4 November 2023

“1 in 5 anxious if hair’s dodgy…”

“…So bad that 6% won’t leave home”

Slides redacted as contained confidential patient images.

EPIDEMIOLOGY

BJD
British Journal of Dermatology

The associated burden of mental health conditions in alopecia areata: a population-based study in UK primary care*

Abby E. Macbeth,[1] Susan Holmes,[2] Matthew Harries,[3,4] Wing Sin Chiu,[5] Christos Tziotzios,[6,7] Simon de Lusignan,[8,9] Andrew G. Messenger[10] and Andrew R. Thompson[11]

2022

RCGP-RSC database:

- Increased levels of Anxiety & Depression in AA
- People with AA at increased risk of developing new-onset Anxiety & Depression
- People with AA more likely to be issued time-off-work certificates or recorded as unemployed
- Higher levels of antidepressant prescribing in AA

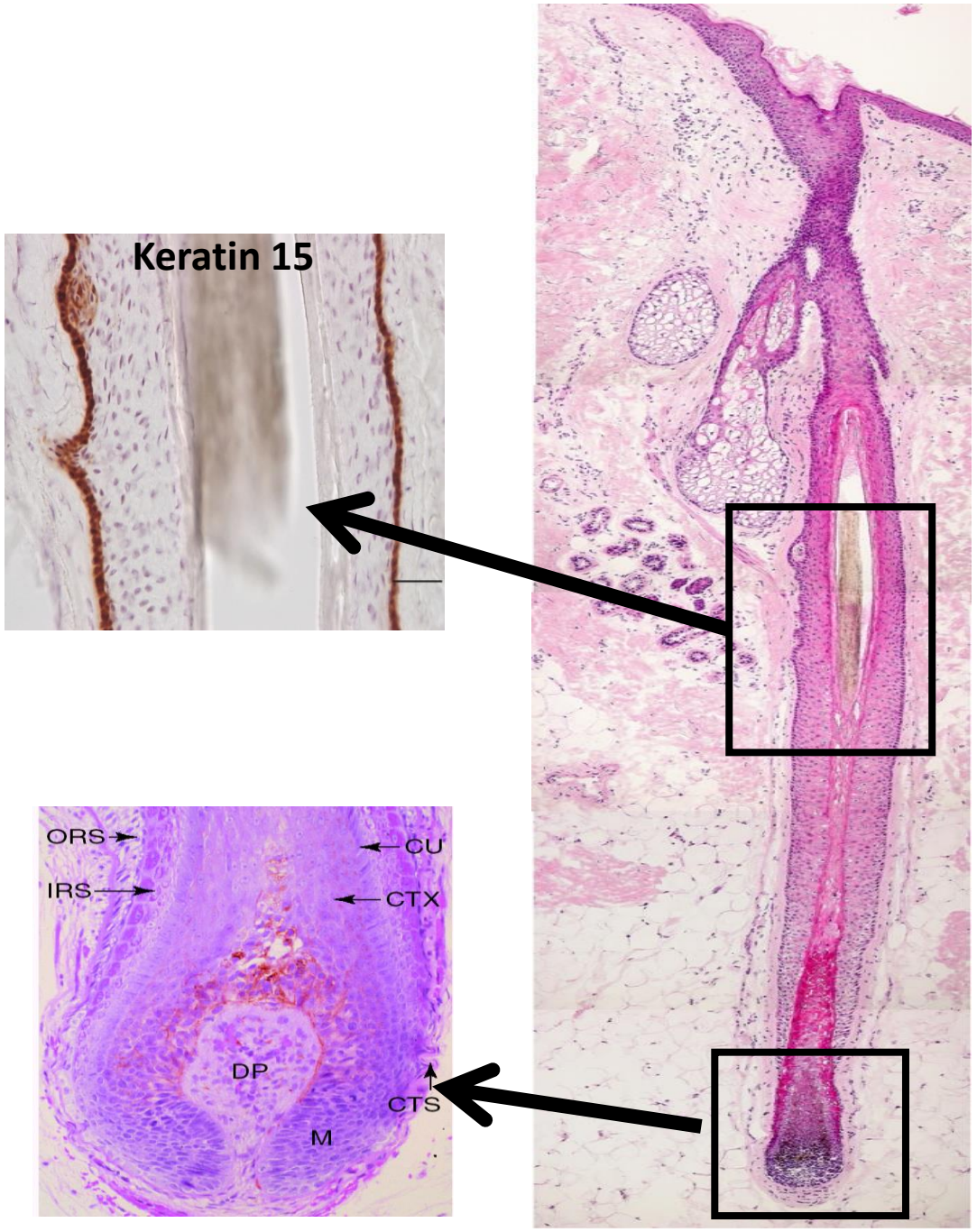
Hair Follicle Biology

The Bulge

- Home of HF Stem Cells
- Identification
  - Insertion of arrector pili muscle
  - Bulge markers (e.g. Keratin 15)

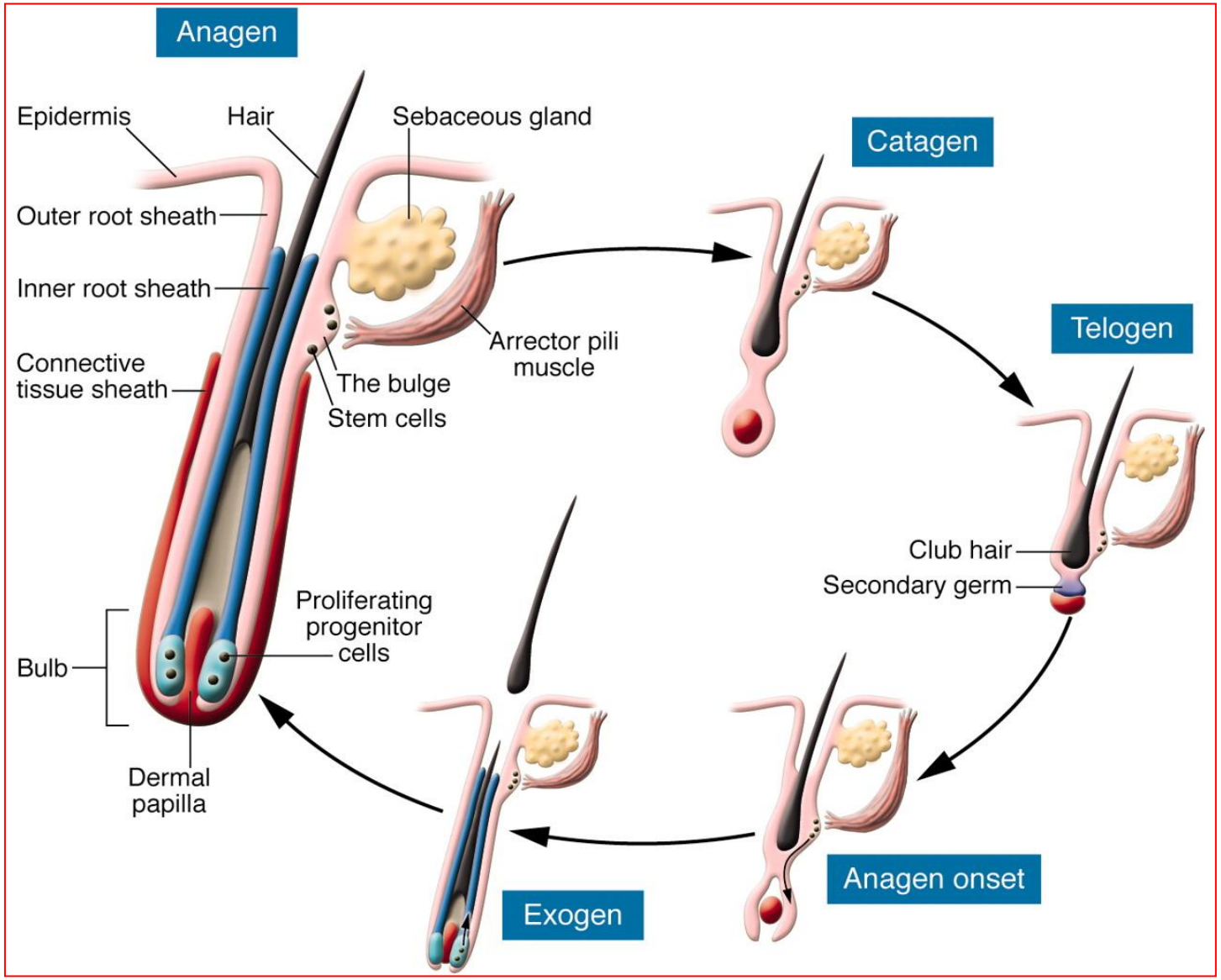
The Bulb

- Contains rapidly proliferating matrix cells that produces the hair shaft and inner root sheath

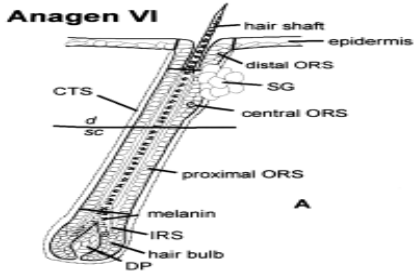


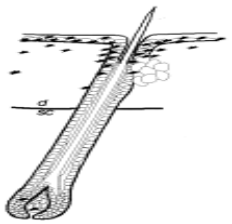
The Hair Cycle

- **Anagen** (85-100%)
  - Growth phase
  - 3 – 7 years
- **Catagen** (1%)
  - Transitional phase between anagen and telogen
  - Lasts 2 -3 weeks
- **Telogen** (0-15%)
  - Resting phase
  - Lasts approx. 3 months

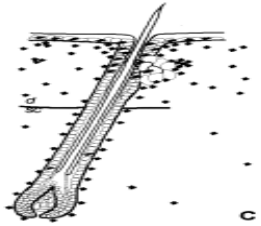


The Hair Immune System

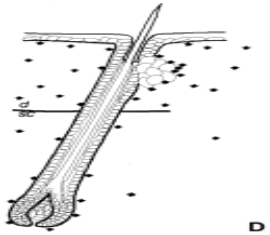




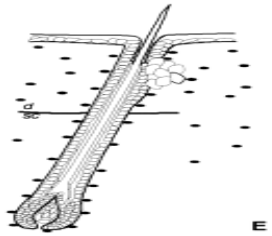
CD1a	epithelium	CTS
epidermis	++++	
distal ORS	++++	++
central ORS	++	0*
proximal ORS	0*	0*
hair bulb	+	+
dermal papilla		+



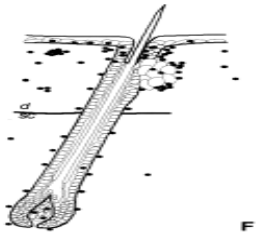
MHC II	epithelium	CTS
epidermis	++	
distal ORS	++++	++++
central ORS	+	++
proximal ORS	++	+++
hair bulb	+	+++
dermal papilla		0*



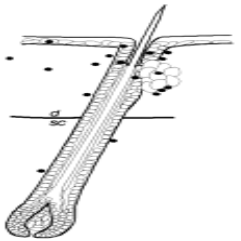
CD68	epithelium	CTS
epidermis	0	
distal ORS	0*	+
central ORS	0*	0*
proximal ORS	0*	+
hair bulb	0	++
dermal papilla		0



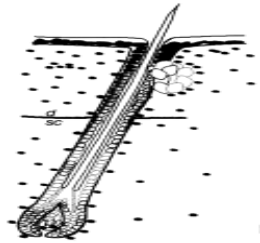
Mast cells	epithelium	CTS
epidermis	0	
distal ORS	0	++
central ORS	0	++
proximal ORS	0	++
hair bulb	0	++
dermal papilla		0



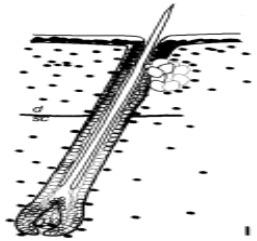
CD4	epithelium	CTS
epidermis	+++	
distal ORS	++++	++++
central ORS	+	++
proximal ORS	+	++
hair bulb	+	++
dermal papilla		++



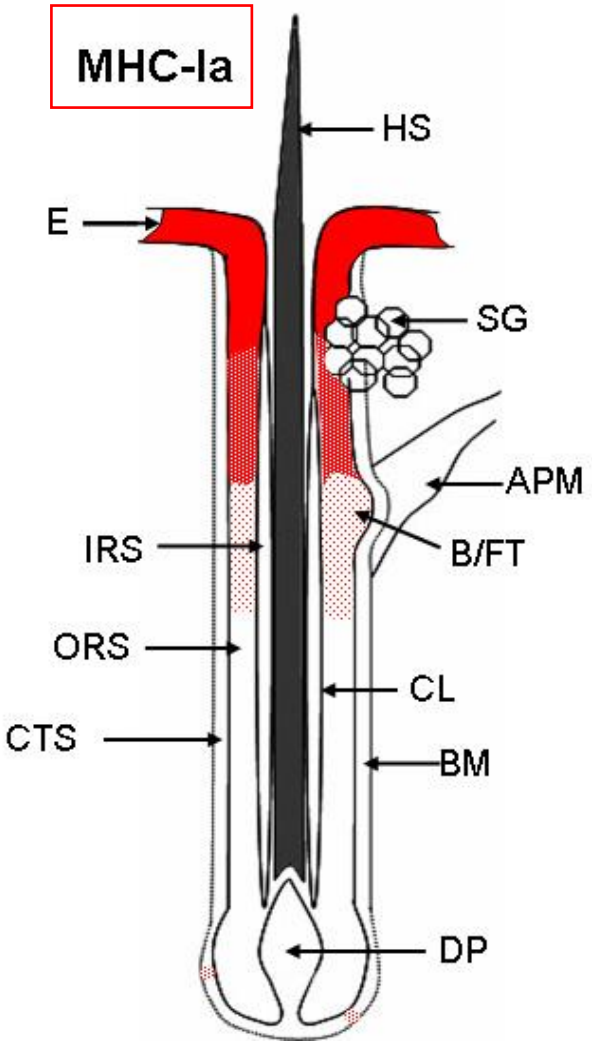
CD8	epithelium	CTS
epidermis	+	
distal ORS	++	++
central ORS	0*	+
proximal ORS	0	+
hair bulb	0	+
dermal papilla		0



MHC I	epithelium	CTS
epidermis	+++++	
distal ORS	+++++	++
central ORS	++	++
proximal ORS	0*	++
hair bulb	0*	++
dermal papilla		+



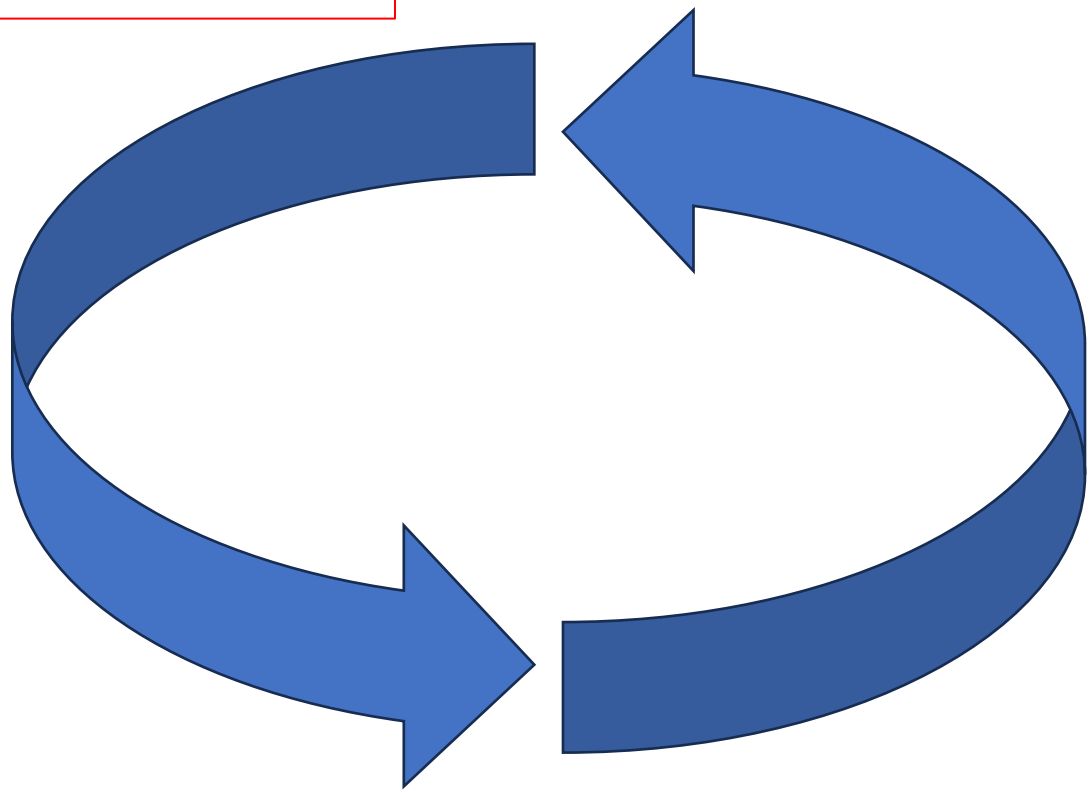
β_2—microglob.	epithelium	CTS
epidermis	+++++	
distal ORS	+++++	++
central ORS	++	++
proximal ORS	0*	++
hair bulb	0*	++
dermal papilla		+



"Immune Privilege"

Inflammatory Hair Diseases Research Programme

Salford Royal NHS Hair service

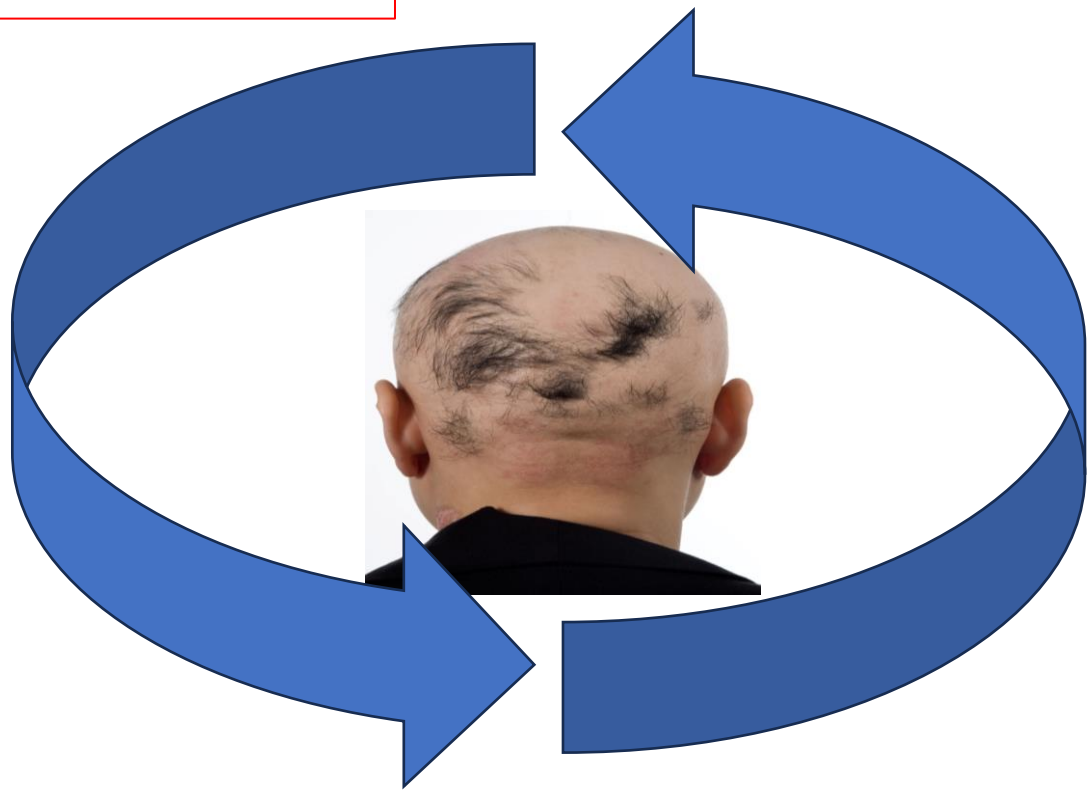


Manchester Hair Research Group
@ University of Manchester

Dermatopharmacology Unit
@ Salford Royal Hospital

Inflammatory Hair Diseases Research Programme

Salford Royal NHS Hair service



Manchester Hair Research Group
@ University of Manchester

Dermatopharmacology Unit
@ Salford Royal Hospital

Hair Loss Priority Setting Partnerships (PSP)

Alopecia Areata

Rank	Uncertainty
1	What are the causes of alopecia areata? For example, medications, medical problems, lifestyle, vaccinations
2	Are immunosuppressant therapies (e.g. methotrexate; mycophenolate mofitil) better than placebo in the treatment of alopecia areata?
3	In alopecia areata, are biological therapies (including janus kinase (JAK) inhibitors and anti-cytokine therapies) more effective than placebo in causing hair regrowth?
4	Are psychological interventions helpful in alopecia areata?
5	Can progression of alopecia areata be prevented by early diagnosis and treatment?
6	Do certain foods, vitamins or nutritional supplements improve hair regrowth in alopecia areata?
7	What can be learnt about alopecia areata from other autoimmune conditions?
8	In whom does alopecia areata hair loss progress and why?
9	Do any treatments have a long-term therapeutic benefit in alopecia areata?
10	How effective are alternative therapies in alopecia areata?

(MacBeth A … Harries M. Br J Dermatol 2017)

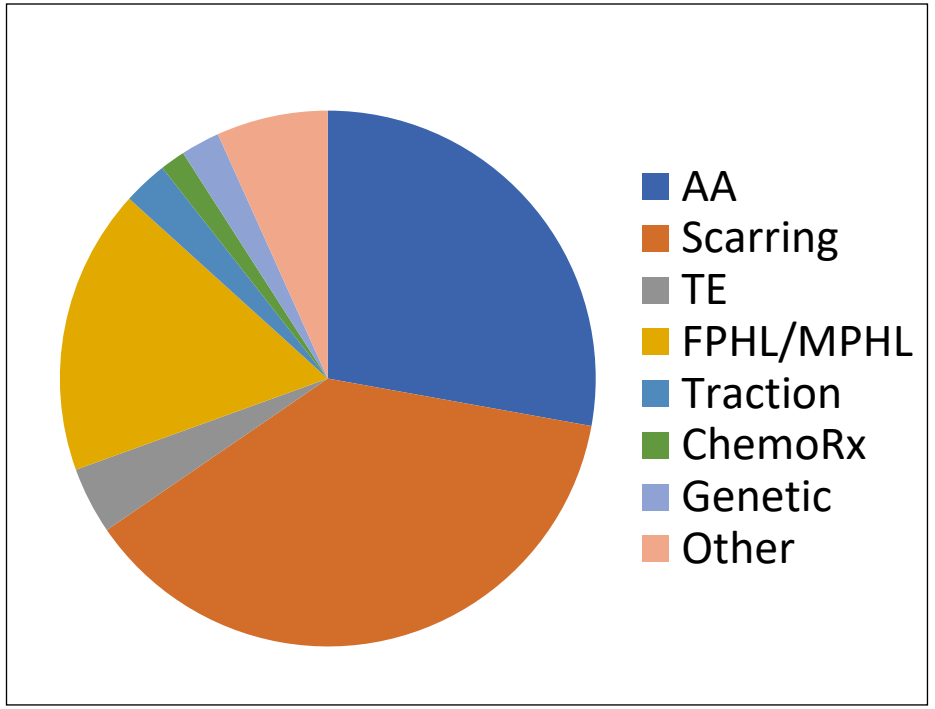
Hair Loss (other)

Rank	Uncertainty
1	What is the most effective treatment for frontal fibrosing alopecia?
2	What are the causes of frontal fibrosing alopecia (e.g. cosmetic / sunscreen use, dietary, genetic, autoimmune, medication, hormonal, environment, vaccination, infection)?
3	What are the causes of female pattern hair loss (e.g. genetic, hormonal and childbirth, autoimmune, dietary, other medical conditions, environmental factors)?
4	In all types of hair loss, are psychological therapies effective in improving patient outcomes?
5	In all types of hair loss, what outcome measures should be used to assess severity of hair loss, progression and impact on the individual?
6	Is spironolactone helpful in managing female pattern hair loss?
7	In all types of hair loss, does raising ferratin levels / replacing iron improve hair growth? And, what are the optimal levels of ferratin?
8	What is the most effective treatment for lichen planopilaris?
9	In all types of hair loss, do certain diets or nutritional supplements (e.g. vitamin D) prevent or improve hair loss?
10	In female pattern hair loss, does hormone replacement therapy (HRT) halt progression of the hair loss compared to placebo?

(MacBeth A … Harries M. Br J Dermatol 2018)

Salford Royal NHS Hair Service

- Weekly tertiary hair loss super-clinic
  - 3 Consultants, Hair Fellow & Specialist Registrars
- Specialist Histopathology
- Nurse-led specialist treatments
  - Topical immunotherapy
  - Intralesional steroid injections
  - Cosmetic camouflage



A PROJECT OF THE BRITISH ASSOCIATION OF DERMATOLOGISTS

GRASS UNITED KINGDOM

Global Register of Alopecia Areata disease Severity and treatment Safety

Registered Charity No. 313865

Other Clinical Research

Alopecia Areata Rapid Access Clinic

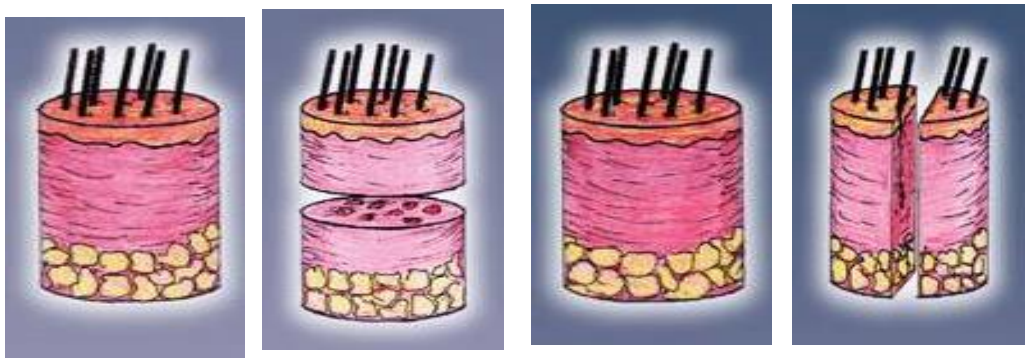
- “Can early assessment and treatment predict and influence the disease course in alopecia areata (AA)?”

Early Treatment for Alopecia Prevention (ETAP) & Generating AI in Alopecia (GAIA)

- ETAP = Questionnaire & focus group study exploring barrier to referral
- GAIA = Machine learning study of alopecia images (collaboration with Prof. Moi Hoon, MMU)
- >350 NIHR portfolio within 12 months

Dermatopharmacology Unit (DPU)

- Translational research
  - NIHR Manchester BRC programme
  - Other studies



- Phase 2 clinical trials
  - Topical dithranol for AA (Manentia UK)
  - Amlitelimab for severe AA (Sanofi)

- Phase 3 clinical trials
  - Upadacitinib for severe AA ("AA-UP" Abbvie)

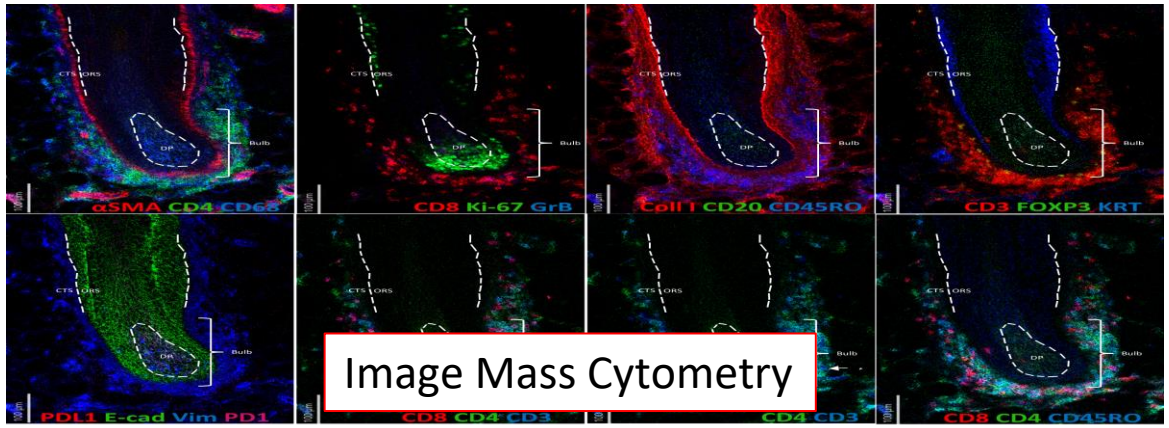
** 1st recruitment in UK & Europe **

Manchester Hair Research Group

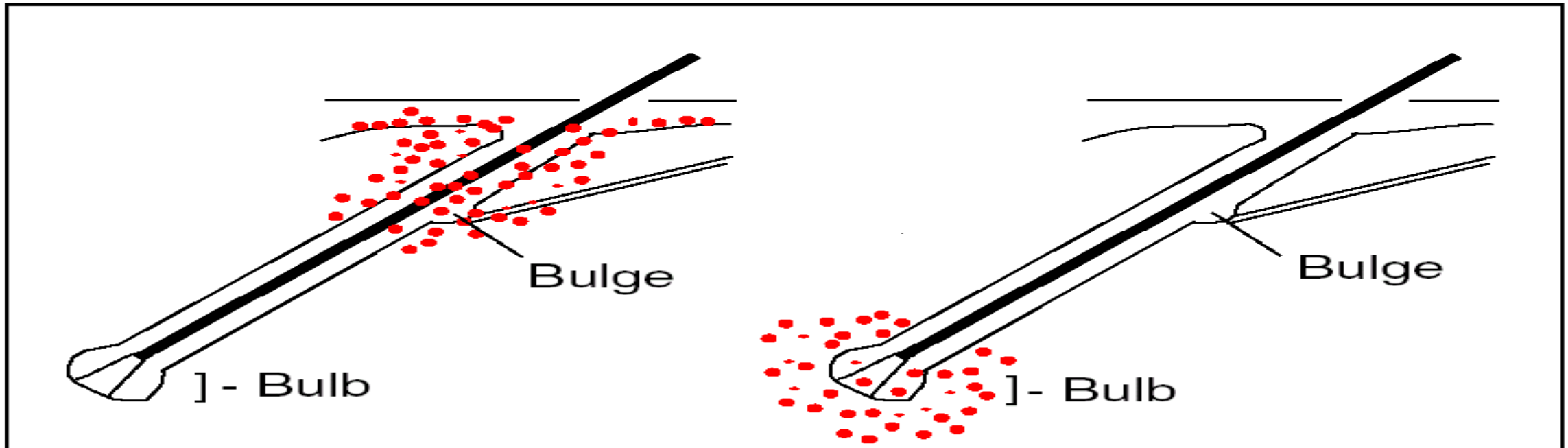
- Dr Talveen Purba

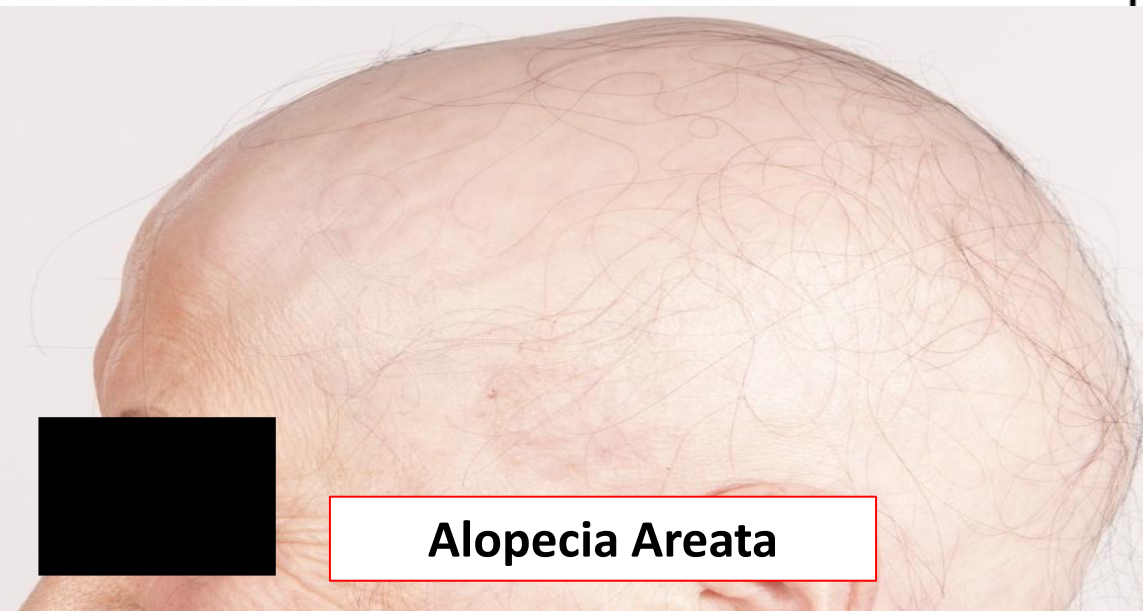
- 3 x PhD Students + visiting PhD student*
  - Early disease changes in alopecia areata
  - Chemotherapy- & radiotherapy-induced alopecia
  - Hair follicle metabolism
  - miRNA in Frontal fibrosing alopecia [*LJMU]

- MSH Biobank



“Location, location, location”





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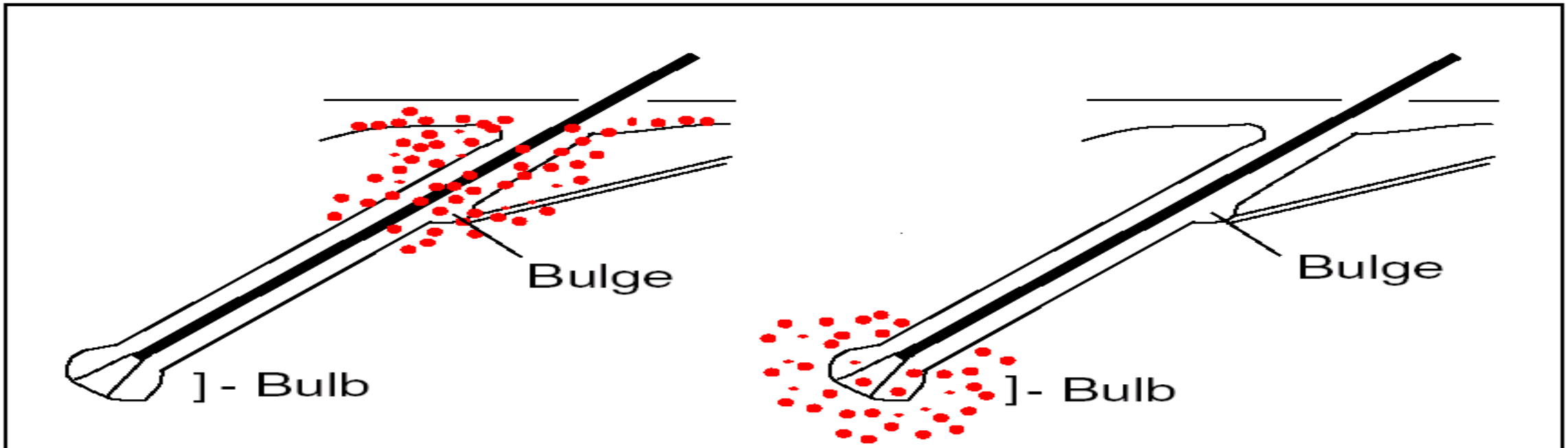

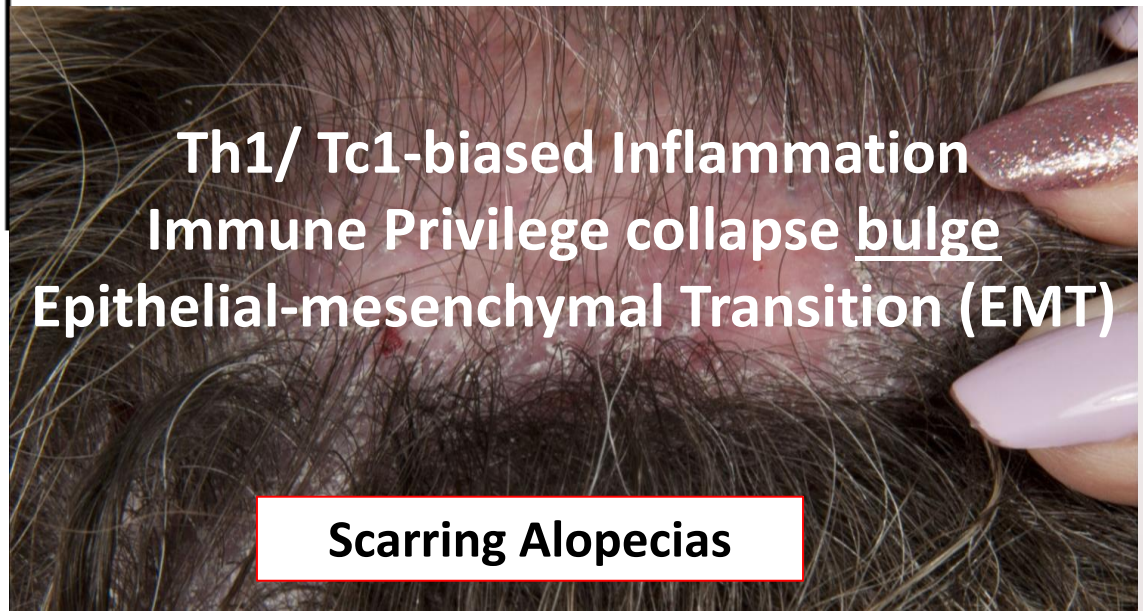

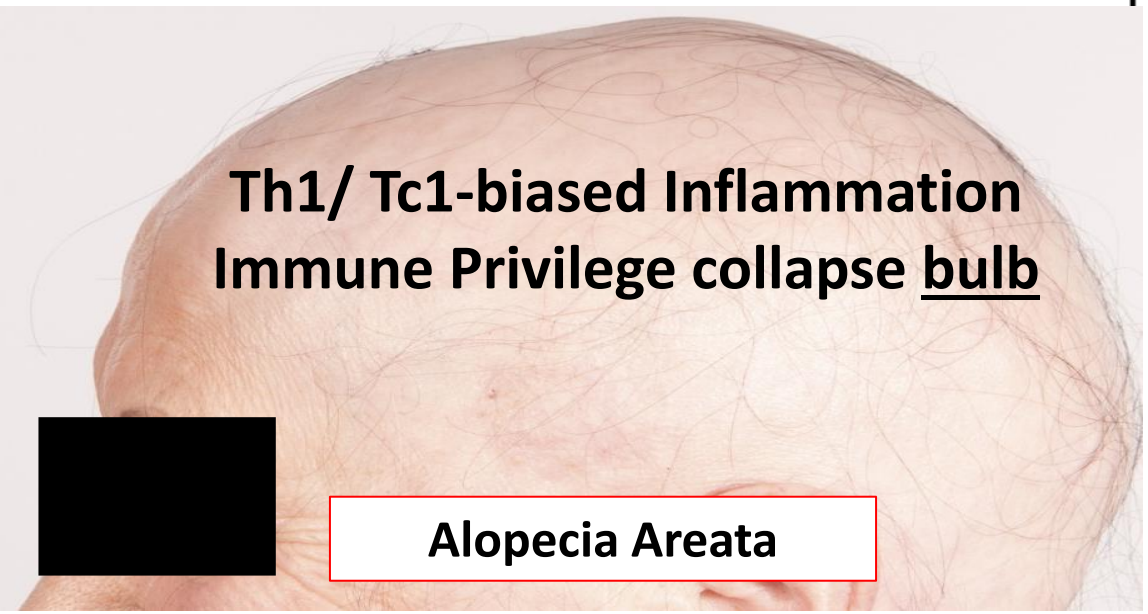

Normal Human Scalp HF *ex vivo* can be Induced to Undergo various key Molecular Changes seen in Hair Loss

- HF culture

(Langan et al. Exp Dermatol 2015)

- HF immune privilege collapse model

(Ito et al. Am J Pathol 2004; Harries et al. J Pathol 2013)

- HF EMT model

(Imanishi et al. JID 2018)

- HF chemotherapy-induced alopecia model

(Purba et al. EMBO Mol Med 2019)

- HF radiotherapy / proton beam induced alopecia model – under development

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<u>Key Readout Parameters</u>

Hair cycle - anagen / catagen

Apoptosis / proliferation

Stem cell & immunocyte markers

Immune privilege markers

EMT markers


Does mitochondrial dysfunction drive immune privilege collapse in lichen planopilaris pathogenesis?


All About
ALOPECIA
Saturday 23rd June 2018
@ Friends Meeting House, 6 Mount Street, M2 5NS
11am – 3pm
Opportunity to share your views
Find out about our research
Hair and make-up techniques
Join us for this FREE event
Call us today to book your place
To book your place and for more information please contact Caroline White
T: 0161 206 0893
E: caroline.white@manchester.ac.uk
Funded by NIHR
Public Programmes
People | Research | Dialogue
at Manchester University NHS Foundation Trust
MANCHESTER 1824
The University of Manchester

All About Alopecia

wearevocal.org

For questions or to book via email, contact **Susannah** on vocal@mft.nhs.uk

Saturday 9th Nov, 2024

11am – 3pm

Friends' Meeting House
Mount Street
M2 5NS

Book now

Join us at this free event to:

Discover ways to live well with alopecia
Have an opportunity to share your views
Find out about our research

Delivered by

FUNDED BY NIHR | National Institute for Health and Care Research

MANCHESTER 1824 The University of Manchester

VOCAL

The University of Manchester

Manchester Academic Health Science Centre

NIHR | Manchester Biomedical Research Centre

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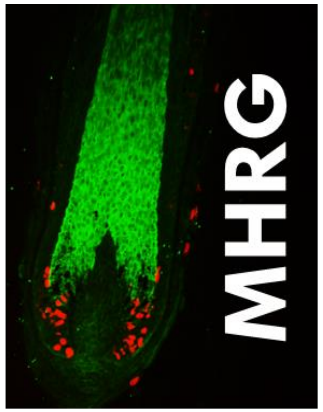
Northern Care Alliance
NHS Foundation Trust



Manchester Hair Research Group

CDR
Centre for Dermatology Research

matthew.harries@nca.nhs.uk

Tel. +44 (161) 206 9880

matthew.harries@manchester.ac.uk

NIHR | National Institute for Health Research

#GMInflamShowcase

Genomic Centre and Current Projects

Professor Gisela Orozco

Professor of Functional Genomics at the Center for Genetics and Genomics Versus Arthritis at The University of Manchester

Submit questions here

MANCHESTER 1824
The University of Manchester

CfMR
Centre for Musculoskeletal Research

GM Inflammation Research Showcase: MSK & Dermatology Focus Event

Centre for Genetics and Genomics Versus Arthritis

Prof Gisela Orozco

Director

CENTRE FOR GENETICS & GENOMICS VERSUS ARTHRITIS

NHS
National Institute for Health Research

Division of Musculoskeletal and Dermatological Sciences (DMDS)

Centre for Musculoskeletal Research

Centre Lead: Kimme Hyrich

CENTRE FOR GENETICS & GENOMICS VERSUS ARTHRITIS

Director:
Gisela Orozco

Deputy director;
Steve Eyre

CENTRE FOR EPIDEMIOLOGY VERSUS ARTHRITIS

Director:
Kimme
Hyrich

NHS National Institute for Health Research

Rheumatic Musculoskeletal Diseases Theme of Manchester Biomedical Research Centre

Theme co-leads: James Bluett, Andrew Morris

BRC Director: Anne Barton

Salford Royal NHS NHS Foundation Trust

Connective Tissue Research

OA Research

Hector Chinoy, Ariane Herrick, Terence O'Neill

BSRBR The British Society for Rheumatology Biologics Registers Rheumatoid Arthritis

Director: Kimme Hyrich

Centre for Dermatology Research

CDR Centre for Dermatology Research

Centre Lead: Richard Warren

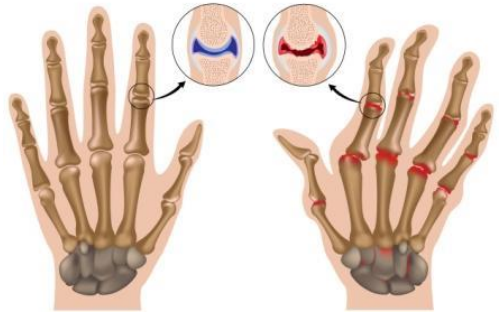
CfGG Aims

1. To combine clinical, genetic and ‘omic data to **prevent** arthritis and its complications where possible, and to **treat patients more effectively** to **improve outcomes** where prevention is not yet possible.

2. To understand **how genetic changes associated with disease act** to increase risk and contribute to the process of disease development.

Why do we do this work?

- Autoimmune diseases: inflammation and destruction of the joints
- Common, affect millions worldwide
- Cause not completely understood yet:
  - No cure
  - Lack of targeted treatments
  - Many patients do not respond to available therapies

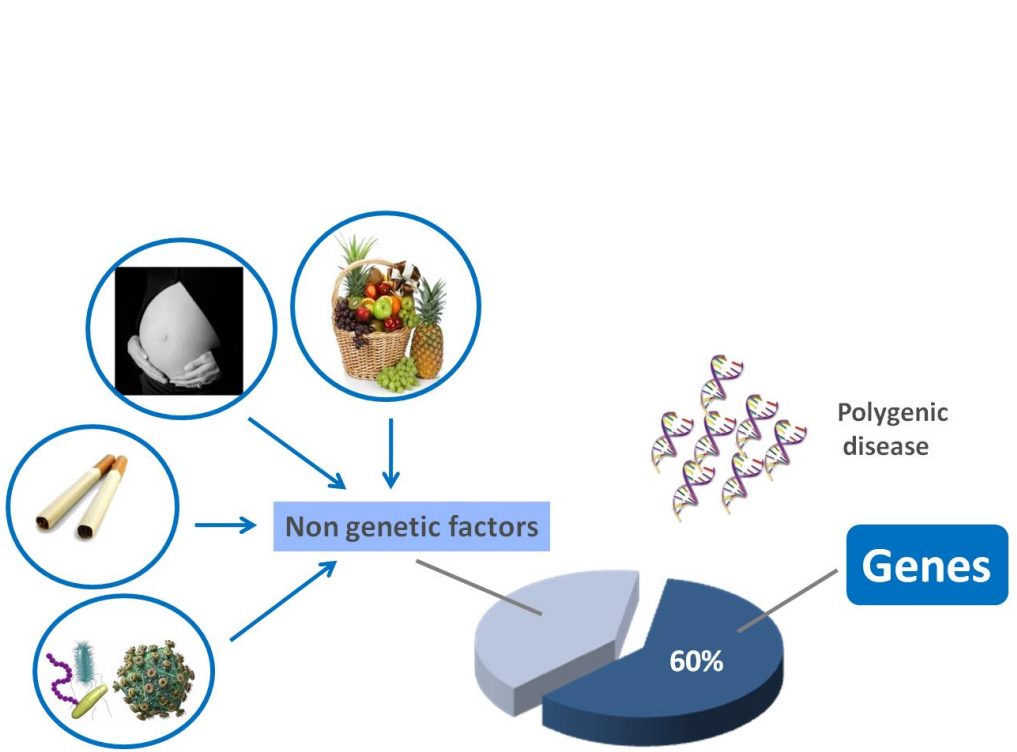


Rheumatoid arthritis (RA)

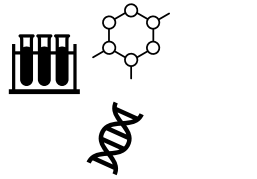
Juvenile idiopathic Arthritis (JIA)

Psoriatic arthritis (PsA)

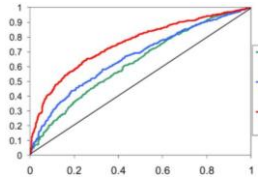
Genetics can help us understand mechanisms underlying complex diseases like arthritis



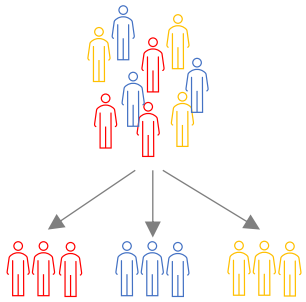
Identification of disease pathways



Biomarkers



Risk prediction

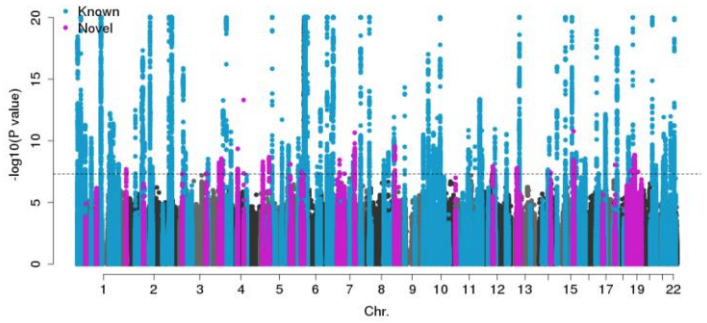


Personalized medicine

Novel treatments

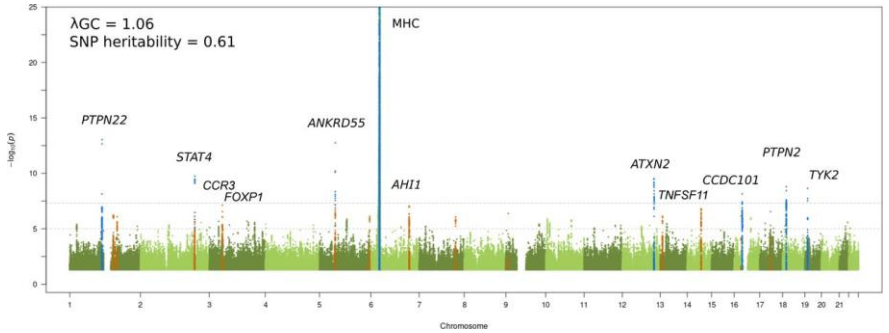
GWAS have identified multiple risk loci for RA, JIA and PsA

RA
124 loci



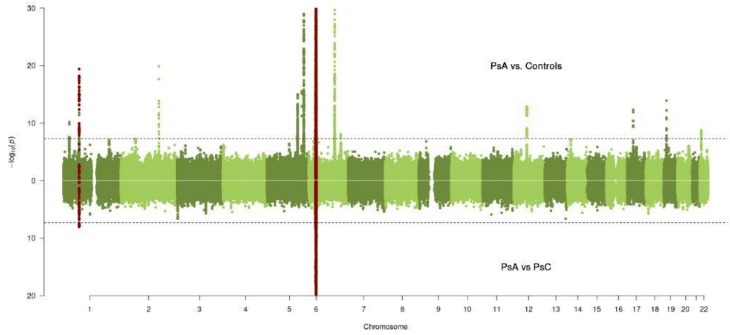
Ishigaki et al.
Nature Genetics 2022

JIA
22 loci



Elena López-Isac et al.
Ann Rheum Dis 2021

PsA
17 loci



Mehreen Soomro, Michael Stadler et al.
Arthritis and Rheumatol 2022

GWAS have not reached their full potential for clinical translation:

Translational Genetics

- Genetic variants identified so far only explain ~50% of disease risk:
  - More genetic associations to be discovered:
    - Larger GWAS, meta-analysis
    - Diverse populations
    - Rare variants
- Using genetics to:
  - Prevent disease and outcomes
  - Predict treatment response
  - Personalize treatment to individual
- Multimorbidity
- Integration of “omics”: eg proteomics
- Immunophenotyping

Anne Barton

Andrew Morris

Maya Buch

John Bowes

Darren Plant

Sebastien Viatte

James Bluett

GWAS have not reached their full potential for clinical translation:

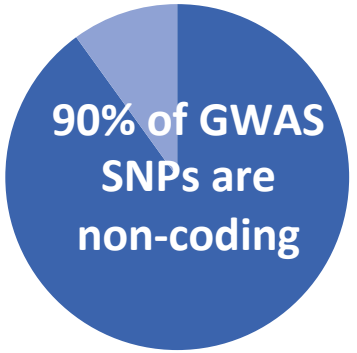
Functional Genomics


Steve Eyre

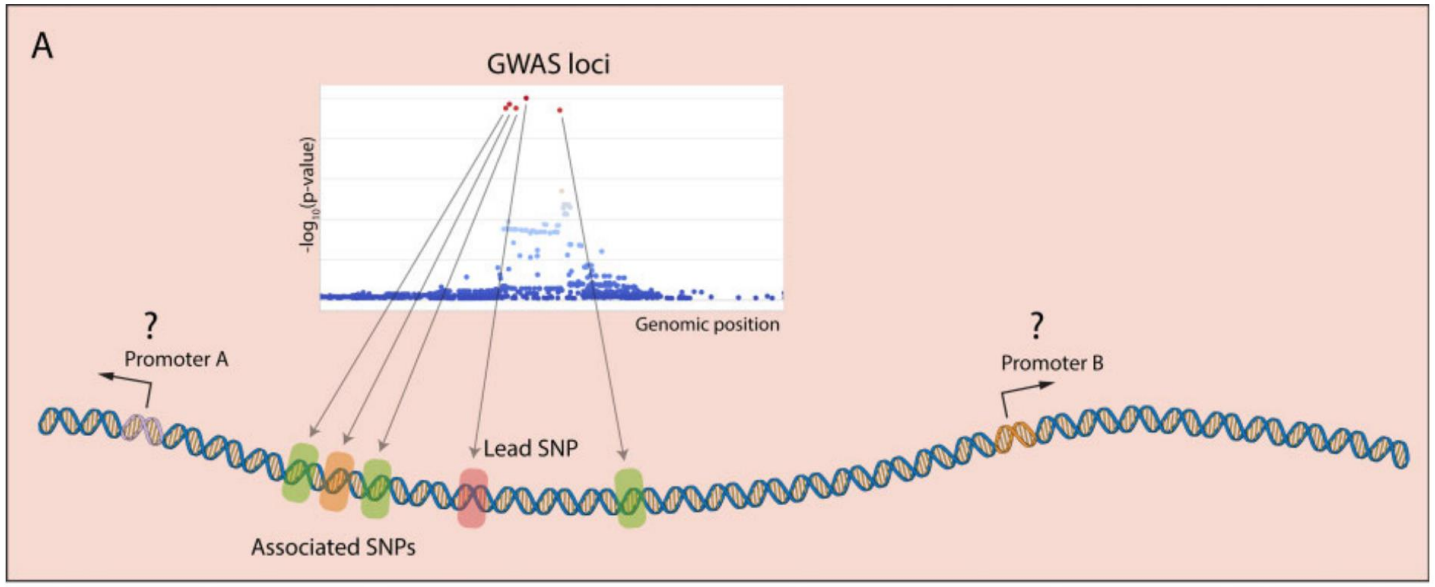

Paul Martin


Gisela Orozco

>100
Susceptibility loci



What are the genes, biological pathways and mechanisms by which RA variants act to increase risk of disease?



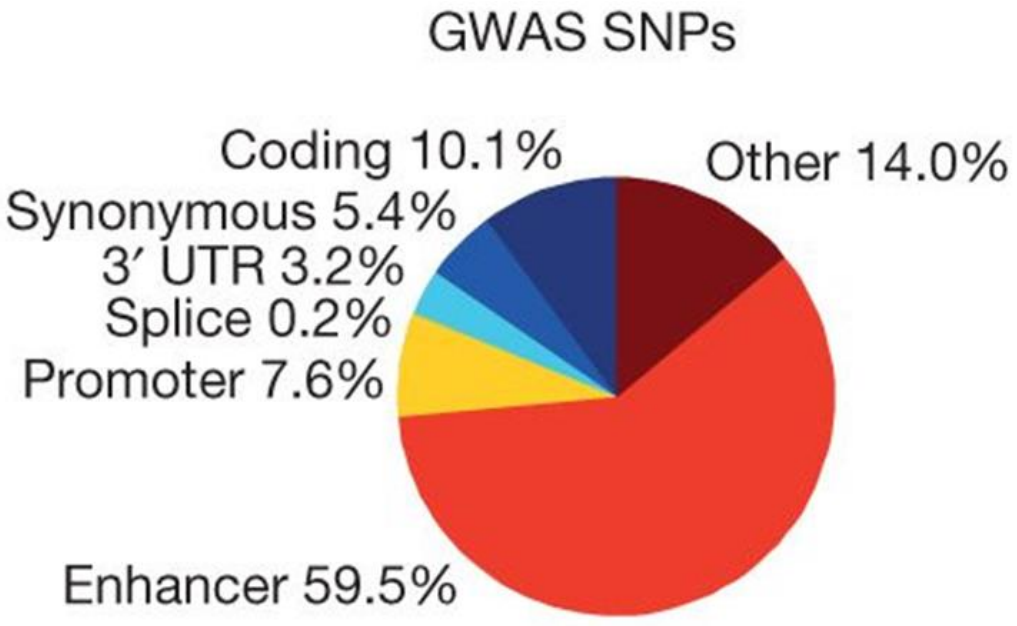
- Causal variants?
- Function?
- Causal genes?
- Causal cell types?

Chenfu Shi et al. *Rheumatology* (2020)

How can non-coding SNPs influence disease?

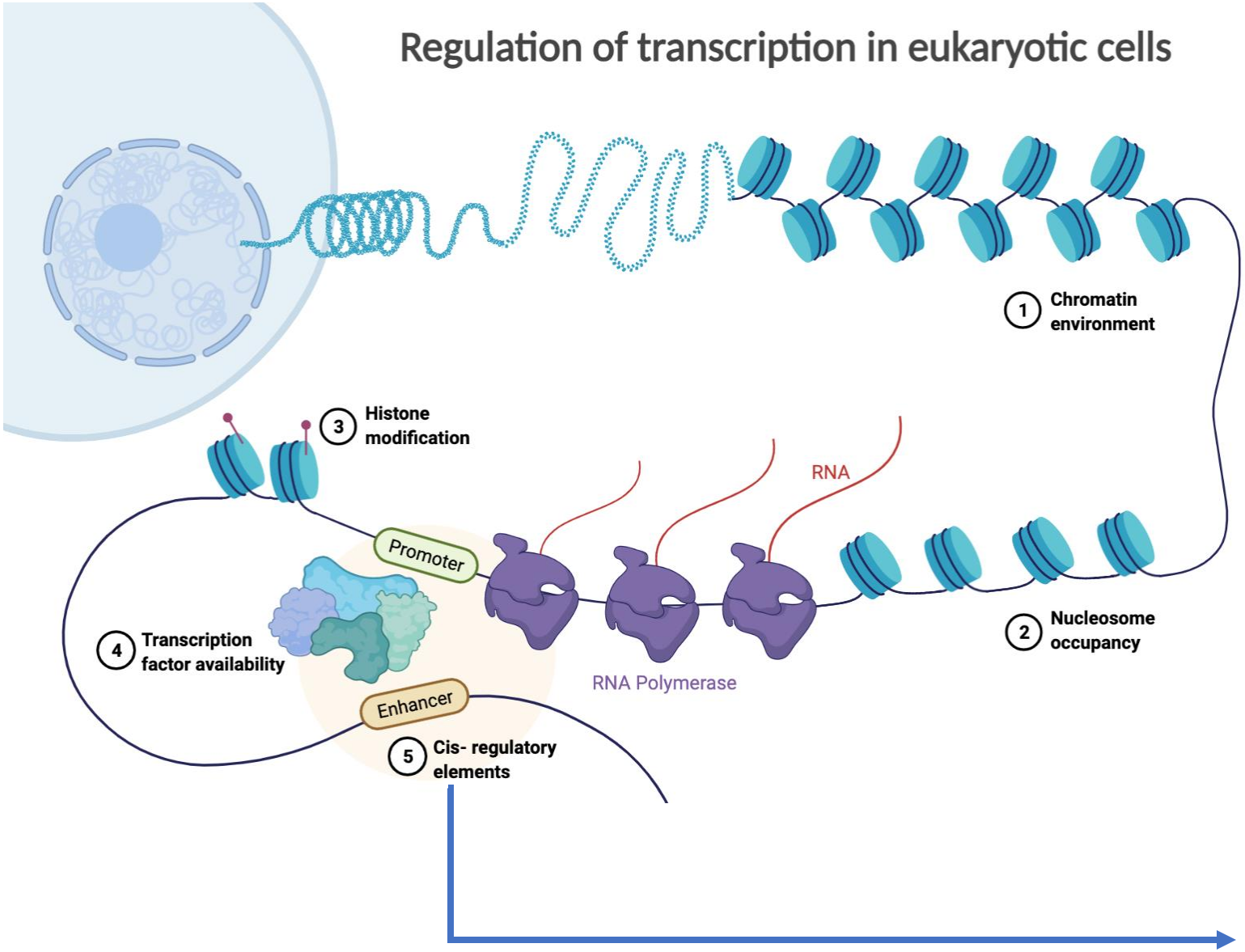
by altering the regulation of gene expression in disease relevant tissues

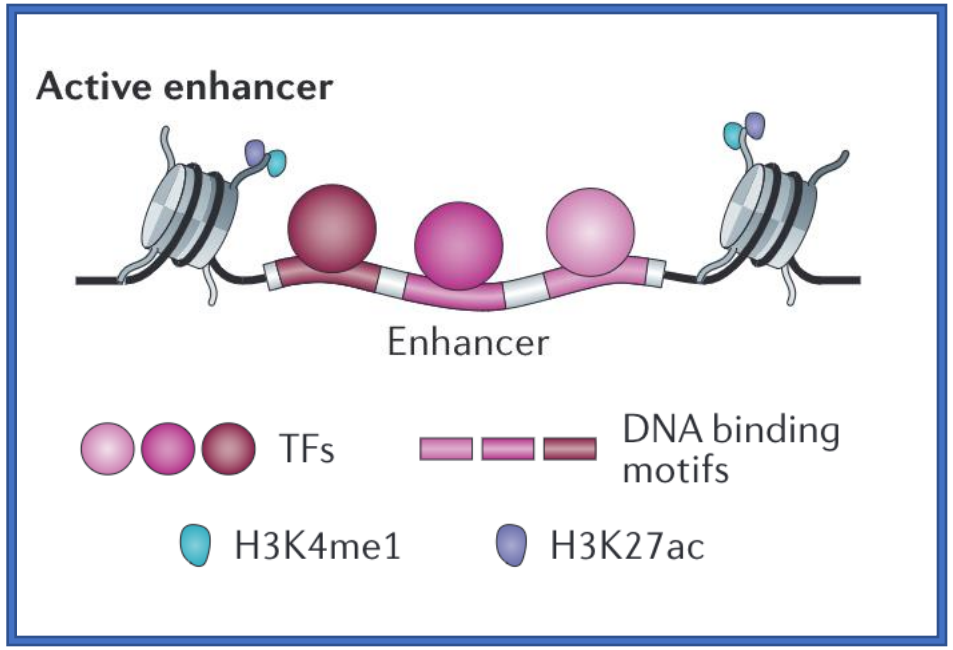
GWAS SNPs are enriched in enhancers



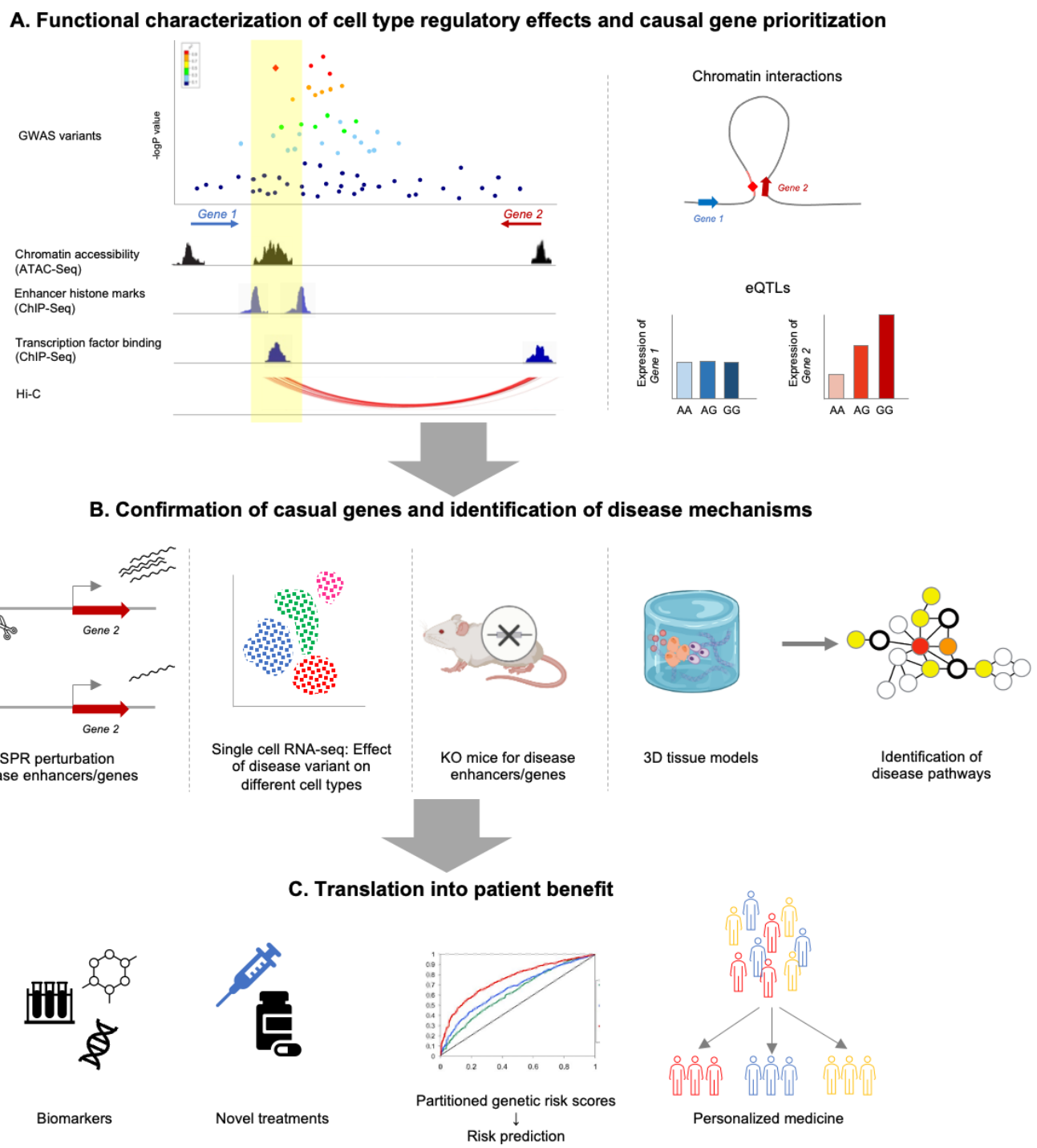
Farh *et al. Nature* 518, 337–343 (2015)

Regulation of transcription in eukaryotic cells





CfGG
"variant to gene to pathway to translation"
pipeline



MANCHESTER 1824
The University of Manchester

Combining our strengths versus arthritis

CENTRE FOR GENETICS & GENOMICS VERSUS ARTHRITIS

NIHR | National Institute for Health Research

#GMInflamShowcase

Streamlining Clinical Trial Set-Up

Dr Beatriz Duran

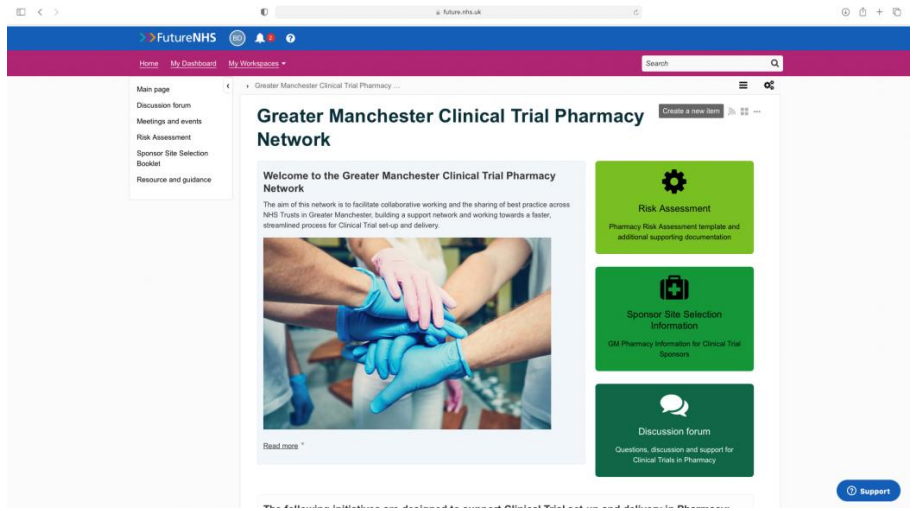
Consultant Pharmacist Clinical Trials and ATMPs

Manchester University NHS Foundation Trust

Submit questions here

Manchester University
NHS Foundation Trust

Streamlining Clinical Trial Set Up. Pharmacy



GM Inflammation Research Showcase

17th Sep 2024

Dr. Beatriz Duran-Jimenez, PhD, MReS, MPharm
Consultant Pharmacist- Clinical Trials and ATMP, MFT
Lead Sponsor Pharmacist, UoM
Honorary Pharmacy Senior Lecturer, UoM

Why Research Pharmacy?

Manchester University NHS Foundation Trust

- Make a difference to patients with new therapies.
- Working in Manchester and in an ever-changing environment for improvement and innovation is both equally challenging and rewarding.

- First in human gene therapy for a paediatric patient with a rare disease. Following this, a clinical trial is now open at the Royal Manchester Children's Hospital, sponsored by UoM.

There are always challenges in the world of academia and the NHS, but when we see the benefits of research in action – improving outcomes for our patients at MFT – everything is worthwhile.

Manchester University
NHS Foundation Trust

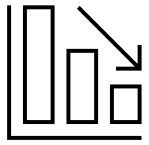
Agenda:

1. Challenges in set up- Pharmacy
2. GM Collaboratively RA for multicentre trials
3. Pan UK ATMP Pharmacy Working Group- CT
4. Future Direction

Manchester University
NHS Foundation Trust

1. Challenges in Set Up

- Bureaucratic, repetitive, time consuming
- Pharmacy Manual not part of CTA
  - Global, UK regulations, SOC, ancilliaries
- Health Research Authority (HRA): Technical Pharmacy Assurance Review- 2017
  - Feasibility
  - Not compulsory
  - Incomplete- ATMP, delivery to patient, amendments



44% Patient enrolment post-pandemic (NIHR supported studies- 2021-2022)

UK fall from 4th place to 10th place globally

Pharmacy identified as one of the constraining services which delays the set-up and delivery of CT

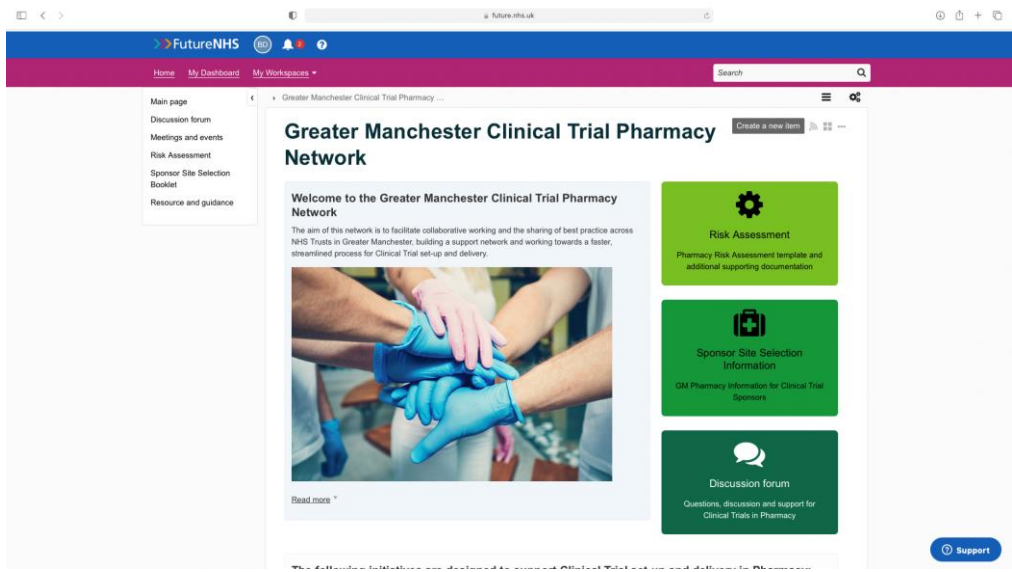
2. GM- Single Regional RA

Community of Practice Oct 2023. FutureNHS workspace launched in Jan2024 (11NHS Trust in GM)

GM-Risk Assessment available for use from Jan2024. The GM-RA covers all IMP management activities, including injectables, ATIMPs, GMO, HOMECARE…

GM-CRN providing a monthly report showing multi-centre trials taking place across GM

14 multi-centre GM trials identified since Jan 2024



EUROPEAN JOURNAL OF
HOSPITAL PHARMACY

Manchester University
NHS Foundation Trust

Short report

A single harmonised pharmacy process to improve clinical trial set-up times

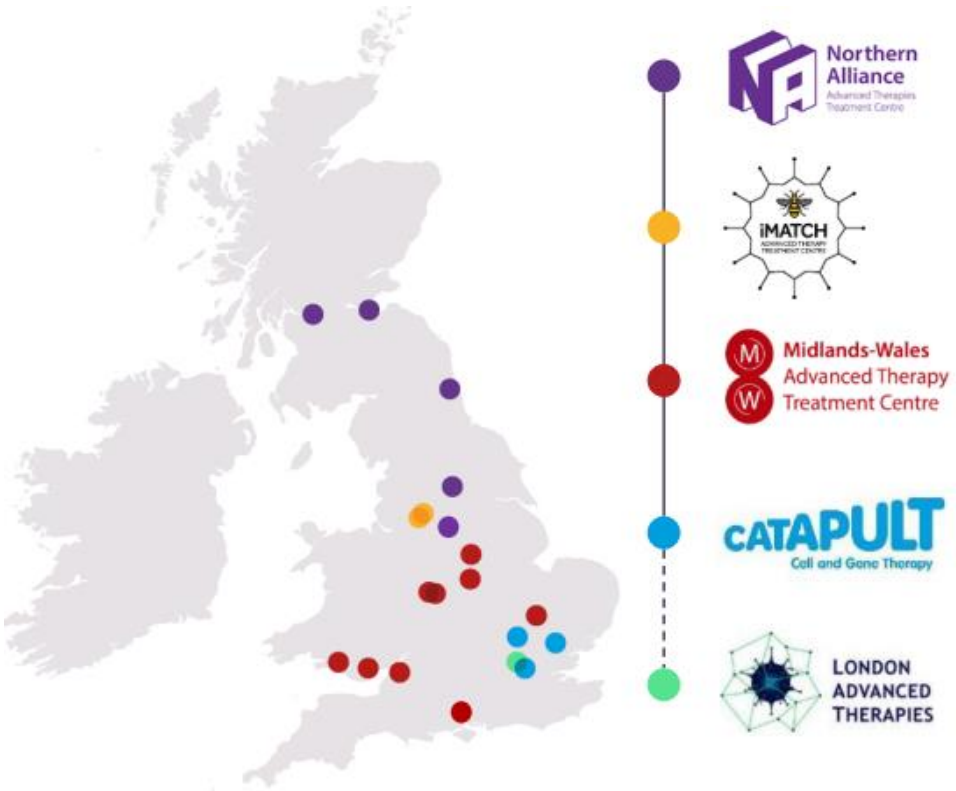
Miriam Lettieri [1], Sophia Boydell [2], Andreea Chivu [3], Sarah Fallon [4], Andrew Ustianowski [4], Monika Cien [2], Claire Cole [2], Sophia Burgess [1], Carolyn Davies [1], Claire Keatley [5], Anne-Marie Peers [5], Maxine Syme [6], Deborah Sutton [7], Nicola Hermitage [8], Lydia Sutherland [3], Michelle Beecroft [9], Ali Aghabeigi [10], Beatriz Duran Jimenez [1]

Correspondence to Dr Miriam Lettieri, Pharmacy, Manchester University NHS Foundation Trust, Manchester, UK; miriam.lettieri@mft.nhs.uk

Abstract

The UK has fallen from fourth to 10th place in the global ranking for clinical trial activities in the past 6 years. Due to the limited capacity of the clinical trial pharmacy workforce and delays in providing pharmacy approvals, pharmacy has been identified as one of the constraining services that delays the set-up and delivery of clinical trials. To tackle this problem, we developed a single pharmacy review process for multicentre trials across Greater Manchester (GM) and tested its feasibility and implementation in our region. A survey completed by each GM Trust suggests that this harmonised pharmacy review process for multicentre studies would expedite trial set-up time at each pharmacy site and standardise the pharmacy review process in GM. We therefore believe that this harmonised review process could potentially reduce pharmacy set-up time and reposition the UK in the global market for clinical trials.

3. Pan UK ATMP Pharmacy Working Group- CT



ATTCs

- 27 NHS Trust
- ATTC- Alignment with BRCs, CRFs and ARC

NIHR- ATIMP

ASU Transformation STEM

CELL LABS, NHSBT

DIGITALISATION

Nationwide reach- Integrated healthcare system- established research networks

NHSE- SPS- ATMP Pan-UK Pharmacy Working Group (governance, clinical, CT)

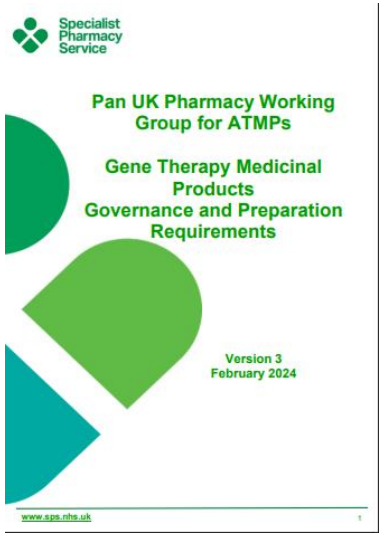
Specialist Pharmacy Service | The first stop for professional medicines advice

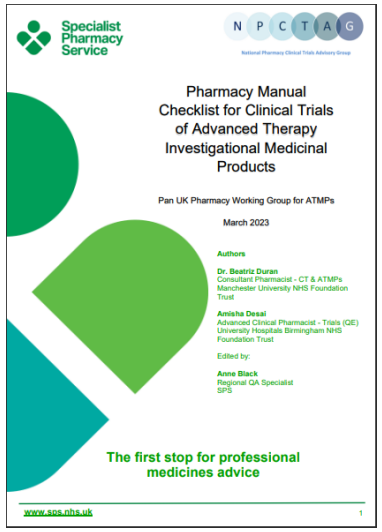
Manchester University NHS Foundation Trust

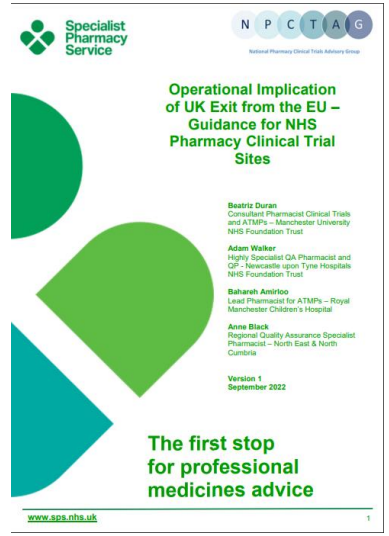
Guidance Events Planning Training Publications Tools Search

ATMP Pan-UK Pharmacy Working Group (governance, clinical, CT):

- Clear regulatory, governance and traceability pathways within the NHS- Institutional Readiness. **Institutional Readiness: Car-T, Gene Therapy**
- Efficient resource management- RA (GMSC)
- Collaboratively funding/contract model and technical agreements







4. Future Direction

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Working with NIHR and HRA

RA and set ups **Collaboratively**

R. Van- Deliver CTIMPS in **Community** Settings

NCVR

Early phase and ATMP CT- **Oct 24**

CEP Project - The role of the NHS sponsor pharmacist collaborating with industry

The role of the sponsor pharmacy in clinical trials of investigational medicinal products (CTIMPs)

Published 12 December 2022

Topics: Clinical trials · Service advice and planning

NHS CLINICAL ENTREPRENEUR PROGRAMME

Free development program aimed at NHS staff and healthcare professionals, it is part of the Accelerated Access Collaborative NHSE program, driving innovation in the NHS.

Thanks for Your Attention ☺

Any questions?

NHS
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MFT – Reshaping the future Innovations in MSK and Rheumatology Research

Visveswaran Mallayan & Sindhu John

Submit questions here

Reshaping the future
Innovations in MSK and Rheumatology Research

Visveswaran Mallayan - Research and Innovation Manager (RSU2)

Sindhu John - Nurse Manager Rheumatology Research & Cross Speciality Team.

Musculoskeletal/Rheumatology Research Performance (2024-2025)

Total Clinical workforce
6 (5.8WTE)

Total Non-Clinical workforce
2 (1.7WTE)

Studies open to recruitment
31

Number of Interventional Trial
9

Number of Medicinal Trial
7

Recruitment Target Met Studies
24

Number of Observational study
22

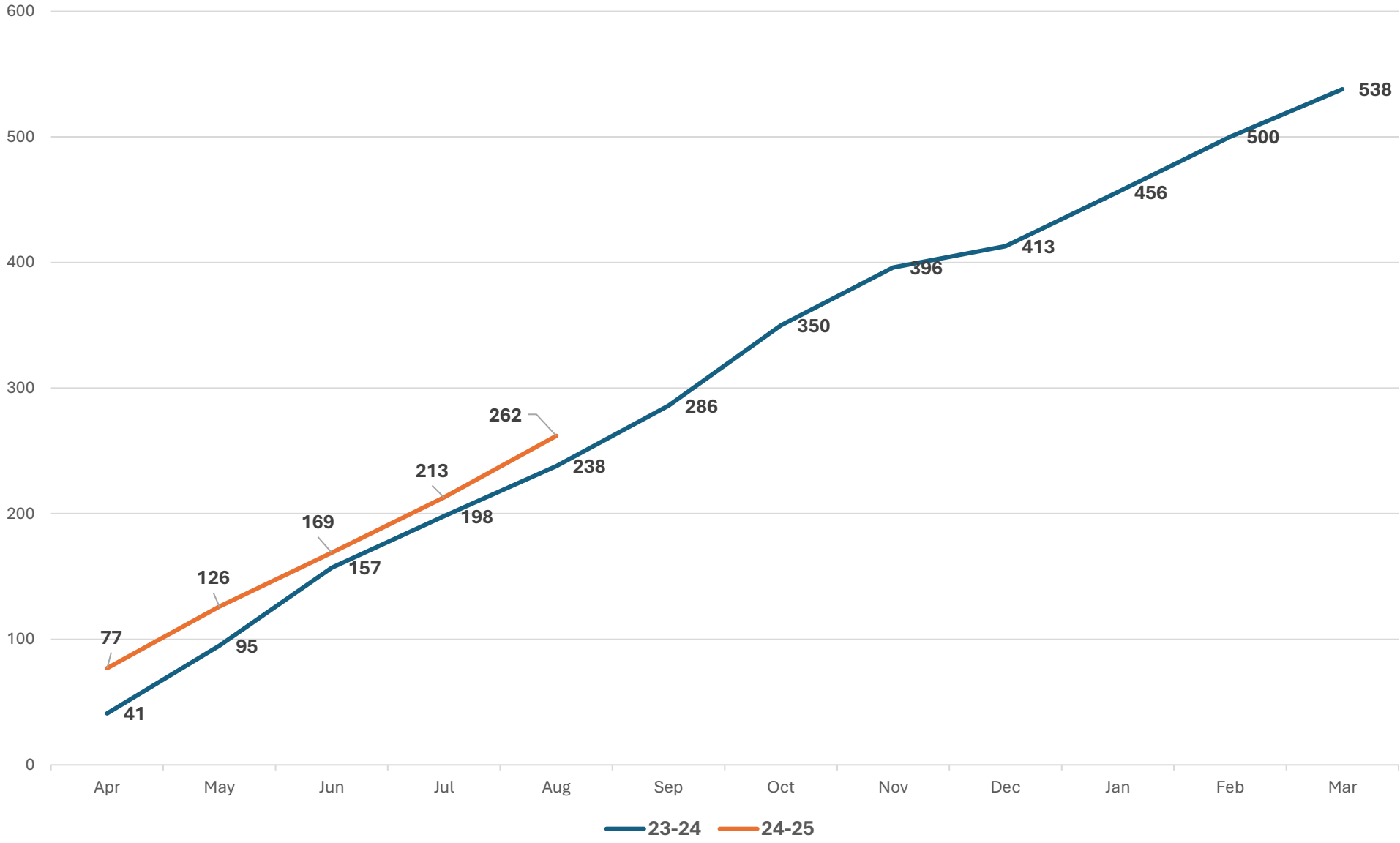
Open Commercial Trials
6

Portfolio Studies (Recruitment Target Met)
23

Recruitment Target Met Studies In percentage
77%

Open Non-Commercial Trials
25

MSK and Rheumatology recruitment comparison (23-24 Vs 24-25)

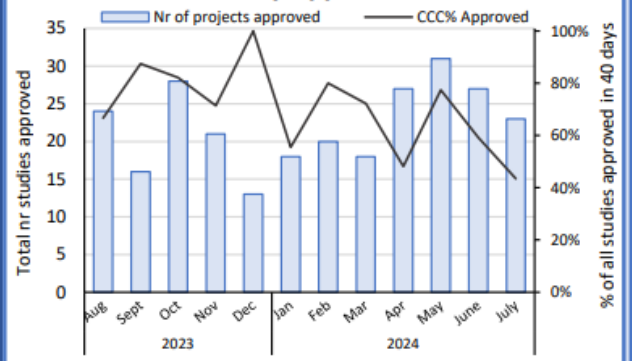


Research and Innovation
Dashboard 2024-25

NHS Manchester University NHS Foundation Trust

Study Turnover

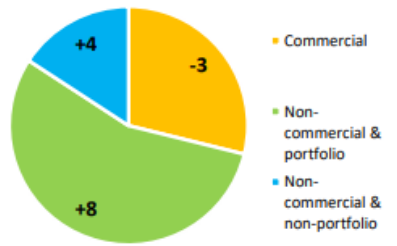
Study Approvals



Hosted studies

Studies active Aug 23- Jul 24

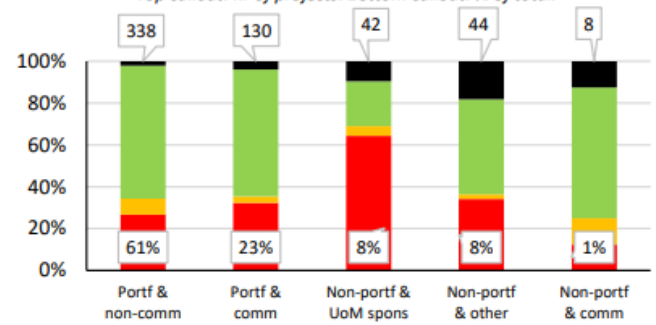
Total: 1196



Recruitment to time & target of hosted studies

Studies active Aug 23- Jul 24

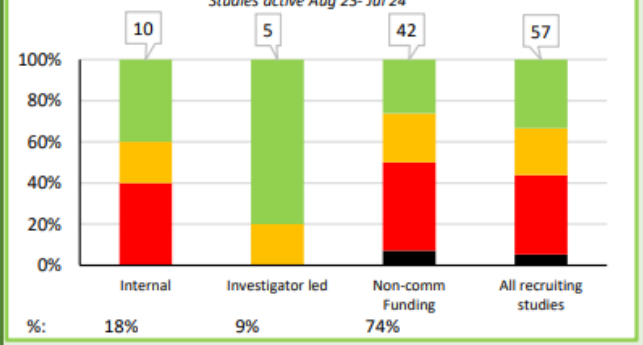
Top callout: nr of projects. Bottom callout: % of total.



Sponsored studies

Recruitment to time and target of MFT Sponsored single centre studies

Studies active Aug 23- Jul 24



Recruitment to time and target of MFT Sponsored multi centre studies

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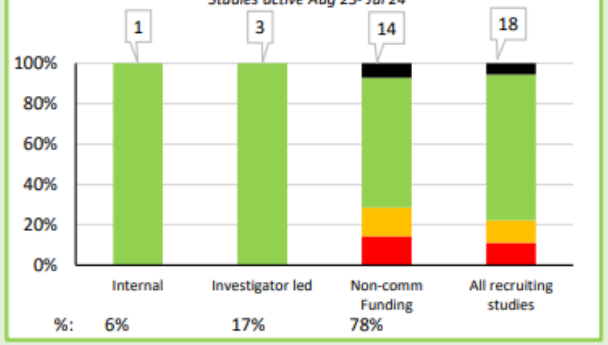
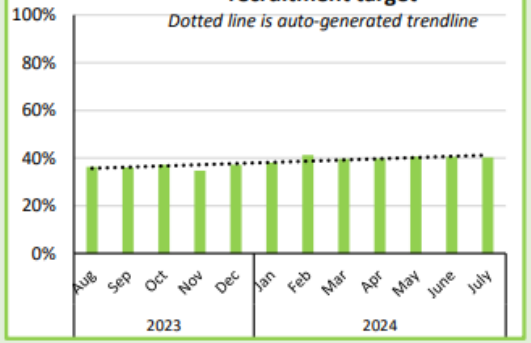


Open MFT Sponsored studies meeting recruitment target

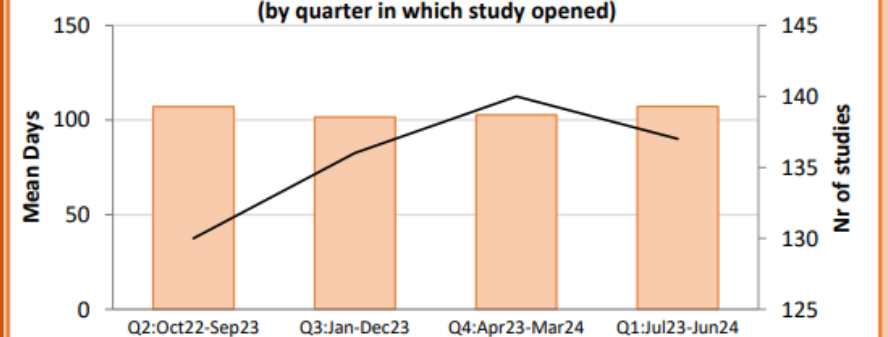
Dotted line is auto-generated trendline



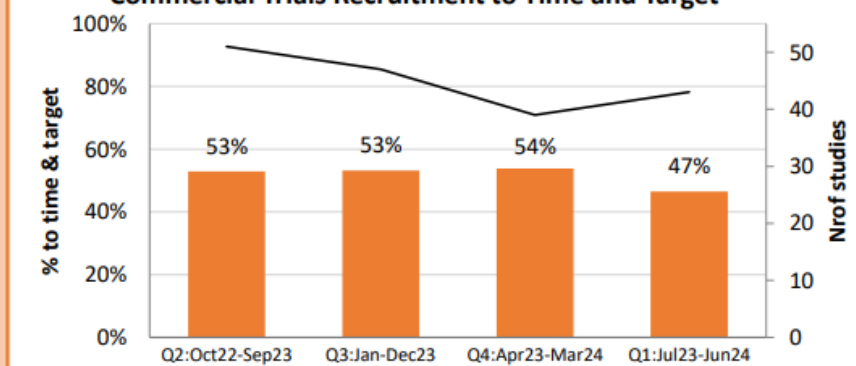
MFT PID Analysis

All trials Mean Days to First Patient

(by quarter in which study opened)



Commercial Trials Recruitment to Time and Target



High lights-Patient Response.

Taper study

- ‘’ I am happy that I have participated in this study as I hate injections, and I managed to stop my biologic injection through this study. I wouldn’t have been able to do that otherwise’’.
- ‘’ Even though I couldn’t stop my injections, I managed to get to increase the interval in between’’
- ‘’ I was relieved that I had direct contact with the research nurses if I flare throughout the study’’

PEAC study

‘’ My Joint is so much better after the Synovial biopsy, and I feel like a normal person now ‘’

DOBS Study

The participant shared that getting a comprehensive checkup including blood tests as a part of research visits every 3 months, is a great advantage to her compared to the monthly lab appointments at the GP, which do not include any clinician's review. They no longer have to go to the GP for lab appointments, as it is covered by the research visits.

LEAP Follow-Up study

During the visit participant mentioned that it's good that we do all the blood tests and arteriographs and in the future, this research might come up with something significant. Also mentioned that he is happy to participate in any other studies and help us in the future.

Was happy to come to the hospital for Research as she hardly gets out of the house due to her condition, but this visit gave opportunity to come out and it's like a day outing for her. Happy to participate in future studies.

3TRSLE Study

Happy to take part in the study saying that if in the future we come up with something significant that will identify when someone is going to go in a flare which will be great.

REMORA

The patient was delighted to know that we are going to keep a record and monitor the patient so frequently from home and especially she mentioned that she struggled to get the appointment for a long time.

If there is a way by which he can let his doctor know what he is going through. This is because he gets bad flares at home, and by the time he is seen by the doctor, the condition might have improved. “ I believe this app will communicate my issues to my doctor and would help them plan better care for me.”

What works well - Sharing good practice

Manchester University NHS Foundation Trust

- High recruitment numbers
- Recruiting across MFT sites.
- Research active PIs
- Recruit across various disease groups
- Making the most of our facilities (e.g. using CRF, opening studies across multiple sites)
- Research interested patients!

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Patient Reflections

Susannah Williams, Ini Ekang & Russ Cowper

Engagement and Involvement Specialist and Public Representatives at VOCAL

Submit questions here

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Summary Q&A and Panel Discussion

Submit questions here

slido

Please download and install the Slido app on all computers you use

Audience Q&A

ⓘ Start presenting to display the audience questions on this slide.

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Close and Open for Networking

Feedback Form