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Director’s Update

Welcome to this update on activities within the Lydia Becker. I hope you are all well and enjoying the semi freedom from relaxation of lockdown rules. We have recently enjoyed stupendous success in obtaining funding from the MRC amongst our members. Andy Greenhalgh was awarded his MRC fellowship, Kevin Couper his MRC project grant, Hannah Durrington her MRC fellowship, Judi Allen her MRC programme grant. A brilliant outcome and congratulations to all.

Since the last newsletter the Geoffrey Jefferson Brain Research Centre has also been launched, which is an exciting new partnership between The University of Manchester, Northern Care Alliance and Manchester Academic Health Science Centre. This centre will combine outstanding discovery science and experimental medicine to rapidly translate neuroscience research into new treatments and interventions. The activities of this centre incorporate the neuro-immunology branch of the Lydia Becker Institute, which fits perfectly with our aim of all branches turning into areas of recognised expertise. The launch was a fantastic display of collaboration thanks to the efforts of Andrew King, Stuart Allen and David Brough.

Tracy Hussell.

Deputy Director’s Update

On behalf of John Grainger:

We hope with the current easing of restrictions that life is beginning to return to normal and we look forward to seeing more people in person. It also hopefully means we will be able to go ahead and start planning some face-to-face meetings and workshops to continue to identify cross branch collaborative opportunities and build on the strengths of the Institute.

Bill Ford Friday (BFF) Forum

In honour of Professor Ford the Bill Ford Chair of Cellular Immunology was created at the University, which was recently held by Professor Werner Muller prior to his retirement and is currently held by Professor Richard Grencis. Bill Ford started the first immunology seminar series in Manchester, and these were held on Fridays – so it is only fitting that the new forum for scientific discussions on anything immunological is named after him – the Bill Ford Friday (BFF) forum.

The BFF forums have been continuing via Zoom (4 pm) and now include a virtual ‘Pub BFF’ (6 pm) on the last Friday of each month. There have even been some discussions not revolving around COVID-19! If you would like to join in please contact Fiona or Lisa who can send you the meeting link.
Congratulations

Congratulations to the MacDonald lab for the recent awards at the recent Woods Hole Immunoparasitology meeting (April 11th-14th, virtually this year). Lab members Alice Costain and Emma Houlder both presented posters. Alice won second prize for her poster titled ‘Inflammation at the interface: interplay between intestinal schistosomiasis and the host microbiota’, while Emma received a special commendation for her poster titled ‘Definition of the pulmonary immune response in human and murine schistosomiasis’.

Congratulations to Karen Garcia Rodriguez from the Bulfone-Paus lab for passing their PhD viva. Their thesis, entitled “Anti-bacterial mast cell activities and their role during Mycobacterium tuberculosis infection” was examined by Jennifer Cavet (UoM) and Gunner Pejler (Uppsala University).

Congratulations to Alexandros Karampatzakis from the Davis lab who passed their PhD viva. Their thesis, entitled ‘CD16 shedding regulates serial killing and responses to immunotherapies’ was examined by Martin Goodier at the LSHTM and Gloria Lopez-Castejon (UoM).

Congratulations to Sheila Macharia from the Cruickshank and Else labs for passing their PhD viva. Their thesis entitled ‘Determining the role of eosinophils in barrier function’ was examined by Craig Roberts (U of Strathclyde) and Andrew Macdonald (UoM).

Congratulations to Abdulelah Aljuaid who passed his PhD (supervisors Mark Travis and Dave Thornton) on 14 April. Abdulelah was examined by Richard Grenchis (UoM) and Tony Corfield (Bristol). Abdulelah’s thesis was entitled “Investigating the immunological role of intestinal mucin during steady state and acute pulmonary infection”

Invited Seminars

Professor Tracy Hussell presented the Becker’s work on COVID-19 at a GSK workshop on the 7th of April.

Dr Doug Dyer gave a seminar on the 19th April at Imperial entitled “Investigating the collaboration between the extracellular matrix (glycocalyx) and chemokines in leukocyte trafficking”

Dr Verena Kaestele presented her work on immunophenotyping and functional analysis of neutrophils in acute and convalescent COVID-19 patients at the UK-CIC conference on the 28th of April.

Dr Joanne Konkel has been asked to present at Department of Health round table event on the 30th of April.

Professor Tracy Hussell and Dr John Grainger took part in a public webinar presented by UK-CIC, on the 4th May discussing COVID-19 and your immune system.

Professor Kathryn Else was an Invited Speaker at the Brazilian Society for Parasitology Annual Congress May 2021 and gave a talk entitled: “Immunity to Trichuris muris: the importance of context.”

www.manchester.ac.uk/lydia-becker-institute
Upcoming Seminars of Interest

MIG Seminar Series
A new series of the MIG seminars will be starting up soon with more presentations by our very own Immunologists updating us on the research going on in their labs. Details will be circulated weekly. Please contact matthew.hepworth@manchester.ac.uk or john.soffe@manchester.ac.uk if you do not receive the circular with the Zoom details.

iMATCH Conference: Scaling up delivery of Advanced Therapies

Scaling up delivery of Advanced Therapies: An iMATCH Experience
Thursday 6 May 2021, 10:00-15:00

Overview
This event will provide an overview of achievements of the iMATCH programme in scaling up the delivery of advanced therapies in Manchester and beyond.

Delegates will have the opportunity to broaden their knowledge in respect to the different work streams of the programme, and how each of these feeds into the bigger picture of cell and gene therapy development and delivery.

Through highlighting iMATCH successes and sharing learning from all teams involved in the process, we will prepare areas for potential future collaborations.

Intended Audience
This day would be suited for Nurses, Doctors, Bio-Medical Research and Development, PhD, MPhil, Pharmacists and Governance.

What to expect
• Achievements so far from an iMATCH perspective
• Utilization of iMATCH to improve patient safety
• The送料P rule of engagement in the context of ATMPs
• Educational projects and work streams from MSc dissertation to runaway projects
• The future of iMATCH and Per-UK working

Register your free place here: https://ismatch.eventbrite.co.uk
ICIS meeting (Cytokine 2021)
The [Cytokine 2021] meeting will be held in Cardiff this October. The meeting is to be a hybrid meeting but aiming for as much in person attendance as possible.

The deadline for abstracts is June 1st.

In particular, there are some nice awards for early career researchers (deadline 15 May):

https://cytokinesociety.org/icis-young-investigator-and-abstract-awards/

LBIII in the press
An update to date list on all the press coverage of COVID-19 related research going on in the institute can be found on our [website].

An article in the [Mail] (via MSN) cites Dr Julie Gibbs, who explains how our biological clock can affect functions such as inflammation, which may be why conditions such as rheumatoid arthritis worsens while we sleep.

Dr Wendy Thompson is quoted in the [Mail], where she discusses the findings of a study she led that found antibiotic prescriptions from dentists increased by 25% during the first lockdown, as other treatments were restricted. Dr Thompson said we must “guard against” this happening again, due to the risks it poses around antimicrobial resistance.

People with psoriasis could soon find relief from a new drug reports the [Mail on Sunday], The drug was developed by University of Manchester scientists, including Professor Richard Warren. Saturday’s I [p6] on the 24th of April also shares this recent research from the University, where scientists have developed a “game changing” treatment for psoriasis. Prof Richard Warren said the 62% cure rate is “unprecedented”.

Prof Sheena Cruickshank is quoted in a piece in the April New Scientist [p53], where she discusses the work of the Britain Breathing app that she helped to develop, which collects data from allergies and asthma from across the country.

Public Outreach and Patient Engagement
Congratulations to Professor Sheena Cruickshank who has been shortlisted for the Dr Katharine Giles Award for this year’s ABSW (Association of British Science Writers) Awards for the piece in wrote in the conversation “Inflammation: the key factor that explains vulnerability to severe Covid”

Grants
Since inception PIs in the Lydia Becker Institute have been awarded over £85M in grants.

www.manchester.ac.uk/lydia-becker-institute
Publications

Since the institute started, 194 papers have already listed the institute as an affiliation.

Below are the papers published since our last newsletter.
March 2021


April 2021


Pure

Pure automatically pulls through any papers to your research explorer page. However your papers will not pull through to the Lydia Becker Institute Research Explorer page unless the Institute is listed as your main affiliation. If it is not your main affiliation in Pure, you will need to manually edit the metadata for each paper and add the Lydia Becker Institute as an organisational unit. It is important to have all relevant papers pull through to the Institute research explorer so that we can generate metrics on publications for the Institute. Instructions on how to do this are below.

Affiliating your Pure records to your Institute
If you work as part of one of the University Institutes, you may wish to affiliate relevant records in Pure to that Institute. Records you could affiliate could include publications, activities or datasets for example.

By affiliating records to your Institute, you help to populate your Institute’s page on the Research Explorer portal, which gives an overview of all activities in the Institute.

The steps below illustrate how to affiliate a publication record to your Institute, but the same steps apply to any type of record in Pure.

To affiliate a record -

- Open any record in Pure you are named on to edit it.
- Where you are named on the record, click ‘edit’.
- Under the section entitled ‘Affiliation on the research output’ click the box labelled ‘Lydia Becker Institute of Immunology and Inflammation’
- Click the ‘update’ button.
- When the editor window closes, click the ‘save’ button.

If you do not see the option for your Institute please contact your Institute Manager.

Business Engagement

SimpleX Molecular

Congratulations to Karen Garcia Rodriguez from the Bulfone Paus group, who along with her friend Marible Montufar-Martinez a fellow PhD student, was awarded £2.5K from AcclerateME (a student accelerator programme in which they receive business mentorship) and £2.5K for the lean Launch programme which is supporting their market research to help set up their start-up company.

To find about more about this, please read this blog post from Karen.

www.manchester.ac.uk/lydia-becker-institute
Karen and Marible have also just been selected winners at Venture Further 2021 competition at the University organised by the Masood Entrepreneurship Centre. They were granted £10K to develop their business idea around developing a device for rapid detection of genes that can be used to diagnose infections and other diseases.

Branch News

Neuroimmunology Branch

Geoffrey Jefferson Brain Research Centre Scientific Launch Event

**When:** Friday 30th April 2021, 13:00 – 16:00

The Geoffrey Jefferson Brain Research Centre (GJBR) had its scientific launch on Friday 30th April. This virtual showcase event featured a series of short talks from researchers on brain tumours, imaging and stroke, with the role of immune/inflammatory mechanisms a key focus. Professor Audrey Bowen also presented on exciting plans for Patient, Carer & Public Involvement & Engagement (PCPIE) in neuroscience. Over 200 people attended the event which was introduced by Raj Jain, Chief Executive of the Northern Care Alliance NHS Group and Professor Dame Nancy Rothwell. The GJBR is a joint venture between the Northern Care Alliance, University of Manchester & Manchester Academic Health Science Centre, working in partnership with Manchester Cancer Research Centre, The Christie NHS Foundation Trust, and Royal Manchester Children’s Hospital. The ambition of the Centre is to ‘Discover and develop new treatments and implement optimal care pathways that provide better outcomes and transform the lives of patients’. Further details on the GJBR can be found at: [www.ncaresearch.org.uk/gjbrainresearch/](http://www.ncaresearch.org.uk/gjbrainresearch/)

A recording of the event is available at:

[https://zoom.us/rec/share/6hoNrGVfaMy8e0UxfQV2OltbC0udGiy9gkJqH4529lVxwJvi5bgzImkL3kaKZGjVJi4d0511D2F_SfNX?startTime=1619784029000](https://zoom.us/rec/share/6hoNrGVfaMy8e0UxfQV2OltbC0udGiy9gkJqH4529lVxwJvi5bgzImkL3kaKZGjVJi4d0511D2F_SfNX?startTime=1619784029000)

MRC funding success in the Neuroimmunology branch

The branch is celebrating the recent success of members Dr Andy Greenhalgh and Dr Giuseppe “Peppe” D’Agostino in obtaining highly competitive early career awards in neuroimmunology from the Medical Research Council (MRC).

Dr Greenhalgh, a current Presidential fellow in the branch, has obtained an MRC Career Development Award that will allow him to establish an independent lab group studying the long-term impact of concussion on brain health. As indicated by Dr Greenhalgh “concussion, or mild traumatic brain injury, affects millions of people world-wide each
year. There is now intense public interest in this area due to high-profile cases in professional sport that highlight the subsequent risks of developing anxiety, depression, and neurodegenerative disease post-concussion. Andy’s research will aim to identify the immunological mechanisms that underlie the negative effects of concussion on neurological function, in particular how inflammation is propagated from the outer meninges upon concussive injury into the deeper brain tissue. In his research programme, Andy will employ new in vivo models of concussion and he will expand collaborations with experts in neuroimaging in the Salford Royal NHS Foundation Trust and Geoffrey Jefferson Centre for Brain Research to perform ground-breaking neuroimaging of concussive injury in humans. The ultimate goal of Andy’s research is the development of new treatments to prevent the long-term neurological effects of concussion.

Dr D’Agostino, a current MRC Career Development Fellow in the branch, has obtained an MRC Neuroimmunology Data Generation Award, which is a new grant scheme specifically for early career investigators to develop high risk and high reward interdisciplinary projects. Peppe’s project will investigate whether the neuronal circuits that control feeding activity also act as direct regulators of the immune system. As Peppe states “Changes in diet or availability of nutrients can have profound effects on the activity of the immune system to keep us healthy and to prevent infections, yet the mechanisms through which this is achieved remain poorly defined. Nutritional states are sensed by specific brain circuits, which ultimately create feelings of hunger or satiety to regulate food consumption and dietary choices.” Working extensively with Dr Matt Hepworth, the co-investigator on the project, Peppe will use a range of novel genetic technologies generated within the Lydia Becker institute to selectivity turn discrete neuronal circuits on or off whilst analysing the specific impact on the immune system during health and disease. By revealing the crosstalk between the brain mechanisms that control our feeling of hunger and satiety and the peripheral immune system, Peppe and Matt’s research will have important implications for the treatment of infectious and inflammatory disease, as well as metabolic health.

In addition to the MRC funding success of Dr Greenhalgh and Dr D’Agostino, Dr Kevin Couper (the branch lead for neuroimmunology) also recently obtained an MRC project grant to study the neuroimmune pathways that influence the recovery from cerebral malaria. These successes build upon other major MRC funding within the last year for branch members Professor David Brough (5 year MRC programme award to investigate the role of the NLRP3 inflammasome in disease), Dr Paul Kasher (MRC New Investigator Award to investigate the inflammatory regulation of cholesterol biosynthesis in intracerebral haemorrhage) and Dr Fong Wong (MRC Career Development Award to examine neuronal-microglial interactions during development in health and disease). Collectively, these awards emphasise the significant investment by the MRC in neuroimmunology research in Manchester.

Cellular Immunology branch

The Secret Body
Branch lead Professor Daniel Davis has a new book due out soon:

First Person
An interview with Daniel Friedman and Poppy Simmonds for the Davis lab featured in the latest edition of First Person which helps early career researchers promote themselves alongside their papers. Link here.
Cancer Immunology

ACED Virtual Summer School: Precision Medicine for All
Join us for the third annual International Alliance for Cancer Early Detection (ACED) Summer School, hosted virtually and organised by the ACED team at The University of Manchester.

9th – 12th August 2021
16:00 – 19:00 BST (08:00 – 11:00 EST)

Hosted via Zoom

In this year’s Summer School, our speakers and panellists will delve into the topics of early detection science set against the backdrop of the COVID-19 pandemic and the wider health inequalities it has highlighted, covering themes including:

- The science and technology behind early detection innovations and diagnostics
- Case studies of early detection in healthcare systems
- Health inequalities and the effects on early detection
- The barriers in implementing precision early detection initiatives.

Register before the 16th May to save 50% on the registration cost.

Find out more information and register on Eventbrite (https://www.eventbrite.co.uk/e/aced-virtual-summer-school-2021-tickets-148260443979)

www.manchester.ac.uk/lydia-becker-institute  @LydiaBeckerill
Manchester Immuno-oncology Network

On behalf of Prof. Fiona Thistlethwaite and Dr. Anne Armstrong:

We are pleased to invite you to the next virtual Manchester Immuno-oncology Network (MION) meeting on 25th May 2021 at 2pm.

Please register your place on Eventbrite today!

Theme: Immune approaches beyond adult oncology

We are looking forward to hearing from Prof. Robert Wynn (Consultant Paediatric Haematologist & Director of Paediatric Bone Marrow Transplant Programme) and Dr. Elizabeth Mann (Immunology Research Fellow, Lydia Becker Institute). The full agenda will be circulated in due course.

The Zoom link will be provided to registered attendees on the afternoon of Monday 24th May 2021, so please ensure your email address is correct when registering.

We look forward to you joining us for what should be an interesting event!

Best wishes,

The MION Team