

# Immunology News

March 2023 | ISSN 1356-5559

## In the spotlight

a showcase of stellar  
immunologists

**BSI committee  
elections:**  
have your say

**Bioinformatics:**  
top training courses

**Vaccine  
engagement:**  
working with community  
champions

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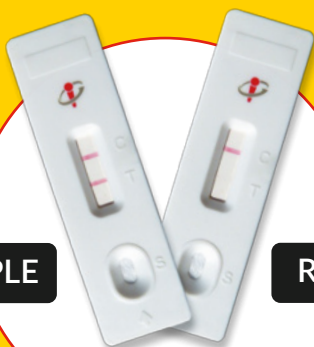


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Welcome to the spring edition of *Immunology News*. We have started the year with exciting preparations...soon we will welcome many of you to a unique event 'Transforming the immunology landscape'. It is the first BSI event of its kind with influential speakers looking at the future of our field, our inaugural awards ceremony and lots of networking opportunities. If you haven't already, you can still book your place (turn to page 6 to discover how).

We have also been busy with our vital committee election process. Thank you so much to everyone who has put themselves forward for a position. Our committees play a crucial role in shaping our work and the field, and you can still get involved and cast your vote!

In addition, we pay tribute to the late Professor Av Mitchison, a pioneer in the field and one of the Society's founding members. We have compiled recollections from his colleagues and peers to remember and celebrate his life and legacy.

Lastly, we are pleased to share our bioinformatics training programme, designed specifically for those of you working in wet-lab research. In this issue, BSI member Imran Howell shares his goals and learnings from the first course, which you can sign up to.

Thanks for your continued support.  
And, happy reading!

**Teresa Prados**

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## A MESSAGE FROM ... OUR NEW PRESIDENT



*At our AGM on Tuesday 6 December during BSI Congress 2022, Professor Tracy Hussell became President of our organisation, taking over from Professor Arne Akbar after his four-year term of office. To mark the start of her Presidency, Professor Hussell has written an open letter to the membership about her aims for the organisation.*

"I am incredibly honoured to start my role as the new President and Chair of the Board of Trustees of the British Society for Immunology (BSI). I am Professor of Inflammatory Disease at the University of Manchester and Director of the Lydia Becker Institute of Immunology and Inflammation, and I have been an active BSI member for many years. In that time I have been involved with the Society's activities in a range of ways, including as Education Secretary and as a Trustee. I also sat on the BSI Board before COVID-19 and saw the impact of the Coronavirus pandemic on our field. I am excited now to be taking on in this important role, in which I hope to ensure an increased exposure of the science of immunology and the benefits it brings to health.

"The BSI plays a critical role connecting and supporting our community and being a positive force for immunology. We are currently half way through our strategic plan which runs until 2025 and I am keen to build on our achievements so far to enhance collaboration between immunologists from all sectors, attract and retain talent, and enable immunology to thrive.

"I would like to express my heartfelt thanks to Professor Arne Akbar, the outgoing BSI President, for his outstanding leadership and dedication to the BSI during his term. Under his guidance, the BSI made

remarkable achievements, and we will build on his legacy in the years to come.

"During his presidency, BSI Congress grew considerably, both in terms of quantity and quality, and last year was no exception. In December 2022, over 1,700 immunologists came together in Liverpool to share and discuss cutting-edge science. It was wonderful to be there to engage with numerous members and see new connections begin, as well as fruitful collaborations continue to develop. As we move forward, we will aim to make BSI Congress even better and ensure it provides opportunities for all.

"Another notable transformation in the last few years has been the increase in team science in immunology. The substantial efforts in this area especially during COVID-19 have not only benefited the pandemic response with the creation of effective vaccines and therapeutics in record time, but also provided us with innovative ways of working. As I witnessed through working closely with the BSI staff team on the delivery of the UK Coronavirus Immunology

Consortium, the Society has been playing an important role supporting team science. We have strengthened collaborations between immunologists with a broad range of expertise, for example with the BSI COVID-19 Taskforce, but have also reached beyond COVID-19 to facilitate new research infrastructures in other areas. It is crucial that we leverage this and build strong partnerships between academia, industry, NHS and charities.

"I have a passion for supporting career progression across the full range of immunology. Following a 50% increase in the Society's membership over the past four years, the BSI now represents over 4,300 members acting as a powerful focal hub for our community and therefore, has an important responsibility in easing challenges and identifying opportunities to attract, retain and support those working in immunology. This is why a main focus of my presidency will be to catalyse this work and, in particular, develop initiatives to support those earlier in their careers.

"Over the next four years, I will build

**'Over the next four years, I will build on the success of the BSI and ensure we continue going from strength to strength. I am very much looking forward to working alongside the BSI Trustees, committees, our fantastic membership and BSI staff team to further advance our mission.'**



Professor Tracy Hussell at BSI Congress 2022

on the success of the BSI and ensure we continue going from strength to strength. I am very much looking forward to working alongside the BSI Trustees, committees, our fantastic membership and BSI staff team to further advance our mission. As well as supporting career progression and the establishment of collaborative efforts in our field and with other disciplines, I am also committed to securing the financial future of the BSI. This is why we are working hard to identify and secure new sources of income which will ensure our financial stability. We have already generated new income streams that are enabling us to preserve and boost our support for current and future generations of immunologists, and I anticipate this will bloom if we cultivate it carefully.

"It is a privilege to be leading the BSI in the years to come, and I am looking forward to working with all of you to maintain the BSI as a sector-leading organisation, working with and for our members."

#### Tracy Hussell

President,  
British Society for Immunology  
Email: [president@immunology.org](mailto:president@immunology.org)



Current BSI President Professor Tracy Hussell with former BSI Presidents Professor Arne Akbar and Professor Peter Openshaw

## VIEW FROM ... THE CHIEF EXECUTIVE



Welcome to another bumper issue of *Immunology News* and the first issue with our new President – Professor Tracy Hussell – in place! It is fantastic to have Tracy in post, and you will have seen on the previous page that she has an ambitious vision of where to take the BSI in the next few years, a journey which we are excited to embark on. Supporting immunologists

throughout their careers and our income diversification work are two priorities that particularly stand out for me, and we will continue to work our socks off to make it all a reality. Huge thanks again go to Professor Arne Akbar, our now past President, whose vision has brought the Society to where we are today, as well as establishing a legacy we will continue to build on.

Talking of BSI committees, you will all no doubt be aware that we have been recruiting new members to our Board, our Member Representative Forum and our Congress Committee. In the voting stage we will again ask all of you to take part and have your say – you will have the opportunity to pick your representatives who will make important decisions on your behalf. Please do look out for those emails inviting you to cast your votes for the next cohort of new committee members that play such a crucial role in the running of the BSI.

We would also like to invite you all to our brand new event 'Transforming the immunology landscape', which also features our very first BSI Immunology Awards Ceremony (see p6-7 for more information). It has been so inspiring to see the award nominations coming in! In addition to that ceremony, we have an afternoon of discussion, debate and networking with leaders in the field – do register for the event asap so that you don't miss out!

It feels like a distant memory now, but it would be remiss of me to not acknowledge how awesome the BSI Congress was in Liverpool in December – it was our biggest ever and was a super-charged four days of immunology! The atmosphere was incredible, with such energy and excitement for the research and networking opportunities. Excitingly, preparations are underway for our next BSI Congress which is only eight months away and will be held in Belfast. I went with a couple of the team on a site visit recently and not only is the ICC Belfast the perfect venue for our Congress, but so is the city. With the programme being of our usual high quality, it promises to be another fantastic Congress!

I hope you enjoy reading this issue and I encourage you all to get involved with our numerous activities, not least our new training programme on bioinformatics, starting with courses for complete beginners and moving to cater to those looking to hone their skills (p18-19). As always, I'd be delighted to hear any ideas, feedback or reflections from you; please don't hesitate to get in touch.

#### Doug Brown

Chief Executive,  
British Society for Immunology  
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## SOCIETY NEWS

# Join us for a celebration of immunology & our first awards ceremony

2023

BSI IMMUNOLOGY  
**AWARDS**

You are invited to attend  
**Transforming the  
immunology landscape**

A celebration of immunology within the wider life sciences sector  
*featuring the inaugural BSI Immunology Awards Ceremony*

**14:00–20:00, Thursday 20 April 2023**  
Royal College of Physicians, London, UK

## Programme

Our new 'Transforming the immunology landscape' event features an exciting line-up of world class and influential speakers to celebrate and discuss the current and future impact of immunology within the wider life sciences sector, alongside exceptional networking opportunities. Highlights include:

- Keynote talk from Dr Melanie Lee, CEO of LifeArc
- Panel discussion on 'Delivering on opportunities and addressing the challenges in UK life sciences'
- Multiple networking opportunities with attendees from across the immunology research spectrum to build your contacts and exchange ideas
- And, of course, the BSI Immunology Awards Ceremony



Dr Melanie Lee, CEO of LifeArc

## How to book your place at the event

You can register online at [www.immunology.org/events](http://www.immunology.org/events). For BSI members, tickets for full members are £48 and for all other membership categories are £30. For non-BSI members, tickets are £60 per person.

## Why should you attend?



### Be part of our community.

Build your network and meet with leaders from across the spectrum of immunology research and application



### Be part of the discussion.

Get involved with conversations on the future opportunities for immunology



### Be part of the celebration.

Join us to champion and recognise the hugely significant positive impact of immunology on human and animal health

'With this unique event and the BSI Immunology Awards we want to bring our community together in a one-of-a-kind showcase of stellar contributions shaping the future of immunology.'



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## Inaugural awards

The winners will be announced for the following awards:

- BSI Early Career Research Excellence Award
- BSI Immunology Research Excellence Award
- BSI Outstanding Team Award
- BSI Diversity and Inclusion Award
- BSI Immunology Teaching Excellence Award
- BSI Public Engagement Award
- BSI Outstanding Leadership Award
- BSI Outstanding Ambassador for Immunology Award
- Outstanding Contribution to the BSI Award

## Book your ticket today!

Keep up with the latest news:

[www.immunology.org/awards](http://www.immunology.org/awards)



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If you have any questions, please email [awards@immunology.org](mailto:awards@immunology.org).

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## SOCIETY NEWS

# BSI committees: have a say in your Society

Nominations for upcoming vacancies on our Board of Trustees, Member Representative Forum and Congress Committee are now open. This is a fantastic opportunity for members to have a say and get involved in the work of your Society and make a real difference to immunology in the UK.

Our Trustees have the chance to make an active and dynamic contribution to the Society through their responsibility for setting and overseeing the delivery of our strategy, governance and finances, and by working closely with our CEO and staff to support all our members.

Our Member Representative Forum is the Society's 'think tank', charged with developing policy and overseeing other areas of activity for the Society. These activities include education and careers work, public engagement, media, policy and public affairs, which includes helping to formulate responses to external consultations. The membership of this committee is designed to be representative of the Society's membership, including individuals from all career grades and immunology sectors including industry, academia and clinicians. You can read about what was discussed at the most recent Forum meeting on the next page.

## Why should I stand for election?

Joining a committee offers you exciting opportunities beyond your day job including contributing to a community of like-minded people, influencing scientific policy and developing your personal and professional skills. Being part of a BSI committee gives you a front-row seat to all the action, giving you the chance to inform how we support our members and promote and champion immunology and science to all. Ensuring our committees have a diverse membership is important to us and so we encourage nominations from across



Member Representative Forum meeting in June 2022

the spectrum of our membership, from all backgrounds and career grades.

For most positions, you don't need to have previous experience of sitting on a committee, but you do need lots of enthusiasm and a willingness to get involved to help formulate our activities and policies! Please check your emails and the BSI website for details on how to nominate yourself.

## Nominations will close on Monday 27 March.

## What we look for in our BSI committee members

If you're considering standing for one of the positions available, ask yourself:

- Are you committed to immunology and to the Society and want to help shape our future?
- Are you willing to speak your mind and contribute to the voice of immunology?
- Do you want to get more involved and use your skills and experience to make a difference?
- Are you happy giving your time, thoughts and energy to representing your fellow members?

- Can you work collaboratively to support the BSI in achieving its mission and promote equal opportunities in immunology?

## Why should I vote?

If the available positions are not for you, you can encourage others to stand and have your say by voting in the elections. Your vote really does count. Your elected representatives will make numerous decisions on your behalf, such as fees for membership and Congress registration; which issues the BSI focuses on in our policy work; how best to provide career support to immunologists; and many more areas, so engaging with the elections genuinely does make a difference.

Voting is quick and easy **and will be open from Wednesday 12 April to Friday 5 May** with the election results announced on the BSI website the following week. All current BSI members will receive a voting link so please ensure your membership is up to date and keep an eye on your inbox around this time.\*





## Vacancies

### BOARD OF TRUSTEES

- **General Trustee x3** – Trustees make active and dynamic contributions to the Board, using their wide-ranging skills, knowledge and experience to ensure good governance and the development of strategy for the Society. They feed into wider activities which help enhance the work of immunology. Trustees are appointed for four years. They are expected to attend four Board meetings per year, held both virtually and in-person in London. These roles are due to commence in July 2023 taking over from Deborah Dunn-Walters, Matthias Eberl and Allan Mowat.

### MEMBER REPRESENTATIVE FORUM

- **Early Career Representative** – This position is open to any BSI member who is up to three years into their postdoctoral (or equivalent) career. Faith Uwadiae finishes her term of office in June.
- **Industry Representative** – This position is open to any BSI member who is working in industry at all levels. Federica Villanova finishes her term of office in June.

- **PhD Representative** – This position is open to any BSI member who is in the first three years of conducting their PhD. Niamh Richmond is stepping down in June.

### CONGRESS COMMITTEE

- **General member x2** – The primary focus of the Congress Committee is the planning and delivery of the BSI's flagship event, BSI Congress. Alex Spencer and John Tregoning are finishing their terms this year. These two roles will start in 2023. After nominations, positions are elected by an in-house panel to complement the existing expertise on the committee.

We wish to extend a huge thank you to all of our committee members past and present, in particular to those named above for all their contributions to the BSI.

\*Voting is open to all paid categories of membership and honorary members. Please note, this excludes undergraduate members and low-income economy overseas members.



## Dates for your diary

Nominations close:

**Monday 27 March 2023**

Voting opens:

**Wednesday 12 April**

Voting closes:

**Friday 5 May 2023**

Results announced:

**Friday 12 May 2023**

**'Your vote really does count. Your elected representatives will make numerous decisions on your behalf.'**

## BSI Member Representative Forum: here to represent you

The BSI Member Representative Forum is the place where the voice of our membership is fed into our activities. Chaired by Professor Jim Brewer, the 18 elected members come from all sections of the Society's membership. Their role is to act as our 'think tank' on issues relating to education and careers, public engagement, policy and public affairs, and communications. The BSI Member Representative Forum aims to help the Society in implementing its strategic plan by providing a mechanism by which the views of the membership can be inputted into our activities.

Our most recent meeting in January was a first in many ways: the first one of 2023, the first with our new Chair, Professor Jim Brewer; and the first under our new name Member Representative Forum (in previous meetings we discussed and agreed to adapt the name to better showcase its purpose). This was a very productive meeting, and we covered a variety of topics.

We began talking about membership; our members are at the heart of everything we do, and we continue to evaluate the benefits that we offer to you. Members shared their ideas on how we can keep engaging with and retaining members from a broad range of careers and across the breadth of immunology.

Then we then dived into how we communicate our activities and interact with our community on social media. The Society has several different channels for two-way conversations with our members, including Twitter, LinkedIn, Instagram and

Facebook, and as they continue to evolve, so does our approach, always in response to our membership's activity.

We moved on to hear members' thoughts on BSI Congress 2022 – the attendee feedback was incredibly positive and together with the ideas from this discussion, we will work hard to make future events even better. Finally, our Member Representative Forum was given a brief overview of recent external affairs and outreach activities that the BSI has undertaken to communicate the voice of our immunology community to the wider world.

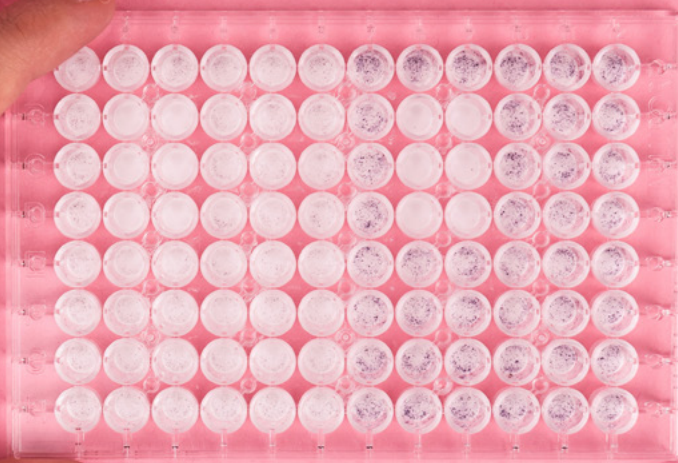
If you would like to raise any issues for your Member Representative Forum to discuss at an upcoming meeting, please contact your relevant representative – you can find a list on our website at [www.immunology.org/forum](http://www.immunology.org/forum). Alternatively, you can email our Director of External Affairs, Jennie Evans, at [j.evans@immunology.org](mailto:j.evans@immunology.org), who can pass the message on.

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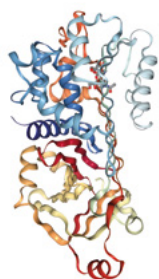


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## SOCIETY NEWS

# Women in immunology: meet some of the ECR members of our journals

We want to continue to recognise and celebrate women's contributions to the field of immunology by showcasing some of the brilliant women working with our official journals. After last year's spotlight of the editors of our journals, this International Day of Women and Girls in Science we asked the ECR Editorial Board Members to share their experiences in science and their advice to others.



**Dr Mahnaz Jamee**  
ECR Editorial Board Member,  
*Clinical & Experimental Immunology*

Dr Jamee is a Research Assistant at Shahid Beheshti University of Medical Sciences, Iran.

### What's your current research focus?

I research the clinical, immunological and molecular characteristics of patients with inborn errors of immunity. Thanks to the development of new techniques in next-generation sequencing, every year we discover more disorders are related to an abnormality in the immune system, explaining the cause of unknown diseases.

### What's your favourite part of your job?

You are always learning and amazed by the wonderful things that constitute parts of the world you are living in. In addition, the fact that what you find in research is going to somehow facilitate the diagnosis and management of future patients is very fulfilling.

### Why is gender equity in science important to you?

Society can never achieve its full potential in science when women face gender discrimination and cannot actualise their ideas. As Stephen Hawking said: "It is not scientific proof of gender equality that is required, but general acceptance that women are at least the equals of men or better."

### What would you say to women and girls who are looking to have a career in science?

Keep trying for what you believe is right! You may not receive credit proportionate to the effort you put into your work. In this situation, consistency and perseverance have the final say.



**Dr Marzena Lenart**  
ECR Editorial Board Member,  
*Clinical & Experimental Immunology*

Dr Lenart is an Associate Professor at Jagiellonian University, Poland.

### What's your current research focus?

My research area focuses on the modulation of immune responses in viral infection, mainly the alterations of natural killer cell function.

### What's your favourite part of your job?

Discovery! I am most excited when I get new results and analyse them – this is still the best part of my work.

### Why is gender equity in science important to you?

Although women make up the majority in my research area, professorships are mainly held by men. It is time for women to have equal opportunities for promotion to senior positions.

### What would you say to women and girls who are looking to have a career in science?

It is great fun and a big adventure to be a scientist, although I cannot say it is an easy job.



**Dr Dessi Malinova**  
ECR Editorial Board Member,  
*Clinical & Experimental Immunology*

Dr Malinova is a Group Leader at Queen's University Belfast, UK.

### What's your current research focus?

We are interested in how immune cells interact and pass on information to mount protective immune responses. This will influence studies of infectious diseases, autoimmunity and cancer immunology.

### What's your favourite part of your job?

The thrill around new results, new ideas, new team members... I'm also learning to love writing!

### Why is gender equity in science important to you?

Gender equity allows us to build diverse and inclusive teams. This is critical for driving science forward with creativity and innovation.

### What would you say to women and girls who are looking to have a career in science?

Be bold! Reach out to those already in science careers (they will be happy to hear from you!) and speak to mentors and colleagues at every stage.

## SOCIETY NEWS



**Dr Carolyn Nielsen**  
ECR Editorial Board Member,  
*Clinical & Experimental Immunology*

Dr Nielsen is a Senior Immunologist at the University of Oxford, UK.

**What's your current research focus?**

My current research centres around trying to understand the impact of timing between vaccine doses. I'm particularly interested in the effect of delayed booster dosing on your B cell response (the cells that make antibodies). I work mainly in Oxford, with some travel to collaborators in the USA and Tanzania.

**What's your favourite part of your job?**

The variety is great - I spend some time in lab running experiments, and then some time at my desk analysing data, reading about other research, or writing my own papers to report our findings. It's exciting to get new data and learn something no one has known before!

**Why is gender equity in science important to you?**

I've had the pleasure to work with many excellent colleagues at a range of research institutions and there's clearly no link between gender and your ability to excel in science. Equitable representation is also important to avoid gendered bias in research priorities/funding.

**What would you say to women and girls who are looking to have a career in science?**

Science gives the opportunity to combine intellectually engaging work with the potential for real societal impact, often with a lot of autonomy over your time day-to-day. There's a huge range of fields to work in so definitely look into it if you're at all curious - you'd be very welcome!



**Dr Fränze Progatzy**  
ECR Editorial Board Member,  
*Clinical & Experimental Immunology*

Dr Progatzy is a Postdoctoral Researcher at the Francis Crick Institute, UK.

**What's your current research focus?**

My research focuses on the interactions between the nervous system and the immune system in the gut. I am trying to uncover how glial cells communicate with immune cells to keep our gut healthy.

**What's your favourite part of your job?**

I love being able to learn new things every day and to continually ask new questions. I also really love interacting with so many other scientists all over the world and supervising and teaching the next generation of scientists.

**Why is gender equity in science important to you?**

Science needs everyone. Important discoveries are only made through collaboration and by recognising that all of us are individuals that think and work differently. No one should be excluded.

**What would you say to women and girls who are looking to have a career in science?**

Go for it! Believe in yourself and do what you enjoy most! Find role models and get support from mentors.

**'Science needs everyone. Important discoveries are only made through collaboration and by recognising that all of us are individuals that think and work differently. No one should be excluded.'**

**Dr Fränze Progatzy**



**Professor Eda Patricia Tenorio**  
ECR Editorial Board Member,  
*Immunotherapy Advances*

Prof Tenorio is a professor of immunology at UNAM, Mexico.

**What's your current research focus?**

I work with T cells. Membrane proteins can be decorated with different kinds of molecules, like carbohydrates. We analyse how different sugar structures help T cells to perform their job.

**What's your favourite part of your job?**

Experimental design and data analysis. These are the activities where I feel that my creativity can flow more freely.

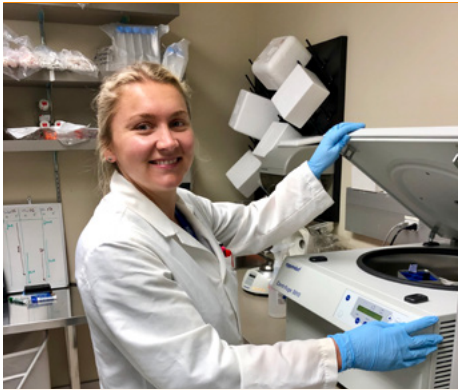
**Why is gender equity in science important to you?**

All humans have great ideas; if we do not allow all genders to participate in science, we are missing at least half of these amazing thoughts.

**What would you say to women and girls who are looking to have a career in science?**

Believe in yourself and question everything. People and social systems might try to convince you that science is too hard or that women do not belong in a lab. But consider: are these ideas about you, or old beliefs waiting to be proven wrong? Every change that you make in your life helps the world evolve.

## SOCIETY NEWS



**Dr Kirsten Ward-Hartstonge**  
ECR Editorial Board Member,  
*Immunotherapy Advances*

Dr Ward-Hartstonge is a Postdoctoral Research Fellow at the University of Otago, New Zealand.

#### What's your current research focus?

I look at immune cells from people who are in clinical trials. I want to find out if certain immune cells can help a person get better or tell us if a drug is working or not.

#### What's your favourite part of your job?

I love meeting and working with a diverse group of people who have the same overall goal as me.

#### Why is gender equity in science important to you?

I believe different genders bring unique perspectives and essential qualities to research teams, allowing science to progress more effectively. This hopefully allows more people to benefit from scientific discoveries from these diverse teams.

#### What would you say to women and girls who are looking to have a career in science?

If you love science, then go for it! It is a hard career, but totally worth it if you are in it for the right reasons. It is important to find a team of mentors that you trust, including some women.

### More inspiration

You can find an extended version of this piece at [www.immunology.org/news/celebrating-women-immunology](http://www.immunology.org/news/celebrating-women-immunology). It includes additional questions and the interviews published last year which feature Professor Sandra Amor, Professor Marianne Boes, Dr Adriana Bonomo, Professor Tao Dong, Professor Awen Gallimore, Dr Emily Gwyer Findlay, Dr Cindy Ma, Professor Kathleen McCoy, Professor Leonie Taams and Dr Meera Ramanujam.

## The ECRs behind our journals

Our dedicated Editorial Boards for ECRs within our official journals *Immunotherapy Advances* and *Clinical & Experimental Immunology* started as a new initiative to continue supporting the next generation of immunologists. They joined each journal's editorial team to develop their skills and confidence as peer reviewers, learn more about the editorial process and bring fresh perspectives to our journals.

*Clinical & Experimental Immunology* and *Immunotherapy Advances* are two of the journals which form part of the BSI publishing portfolio together with *Discovery Immunology*. With this portfolio we aim to offer a home for papers from a wide range of immunologists, while strengthening our platform to foster innovation for the benefit of society. The BSI journals are key publications for the immunology community, and the income derived from them provides major financial support for the BSI's activities – including our grants, BSI Regional and Affinity Group meetings, BSI Congress and more. Find out more: [www.immunology.org/journals](http://www.immunology.org/journals).

## The BSI family of journals



#### EDITOR-IN-CHIEF

**Professor Simon Milling**

New discoveries in cellular and molecular immunology



#### EDITOR-IN-CHIEF

**Professor Tim Elliott**

Spanning the translational pipeline for immunotherapy



#### EDITOR-IN-CHIEF

**Professor Leonie Taams**

The journal of translational immunology

## SOCIETY NEWS

# Liverpool highlights: BSI Congress 2022

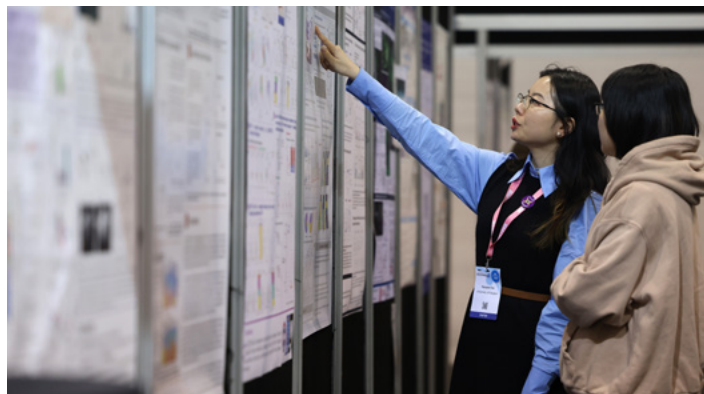
At the end of last year, over 1,700 immunologists came together in Liverpool and online for our flagship event, BSI Congress 2022. It was an amazing four days of immunology, packed with cutting-edge science, inspiring debates and those all-important opportunities to connect and start new collaborations.



Our Education & Careers Secretary, Dr Donald Palmer, announces the winners of our Bright Sparks in Immunology sessions.



"Thank you @bsicongress for these past 4 days of amazing immunology. It was a truly well organised congress, great location and a fantastic selection of speakers."



"I really enjoyed the diverse non-research based sessions and talks as well as hearing about the exciting projects people are working on."



The BSI staff team at the ACC Liverpool ready to welcome our delegates to BSI Congress 2022.



Our Annual General Meeting held during BSI Congress 2022 marked the official handover from our former President, Professor Arne Akbar, to the current President, Professor Tracy Hussell.



“Such a great week of science at @bsicongress and even better catching up with old friends and making new ones! Bring on Belfast 2023!”



“Great to spend time with current and past colleagues, discuss ongoing projects with collaborators in person, and (excitingly!) spark up new interactions that will bring forward that next big thing in immunology”

“Thanks @britsocimm for organising yet another amazing conference filled with inspiring talks! Also absolutely loved presenting my poster, meeting new people and reconnecting with old friends”



# Join us in Belfast in 2023



## Save the date!

**Plenary sessions on:**

- Immune cells and microenvironments across the life course
- Obesity, malnutrition, immunity and inflammation
- Big data and informatics to bedside
- Immune communications between tissue sites
- Predicting antiviral host immunity in the context of inborn errors
- Human genetic variation and variability of vaccine responses

**BSI CONGRESS 2023**  
4 – 7 December 2023  
**Belfast, UK**

**Follow #BSI23 for updates!**



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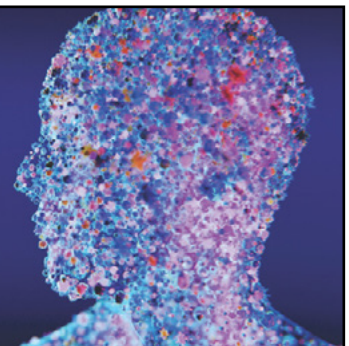
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## REIMAGINE FLOW CYTOMETRY

### 2023 Immune Profiling Grant



Standard BioTools' research award for high-throughput and high-dimensional immune profiling

Standard BioTools, will award the two most impactful proposals in immunology which aim to profile in-depth all major immune cell types present within human blood within any disease state. Submit your proposal to win a chance to analyze 20 samples of your choice using a combination of the award winning Maxpar® Direct™ Immune Profiling Assay and the new, high-throughput, CyTOF XT™ high-dimensional cytometer.

[Submit your entries here](#)

If you have any questions or need some support with your application, please contact [marketing-europe@standardbio.com](mailto:marketing-europe@standardbio.com) For full terms and conditions please visit the competition webpage. The closing date for submissions is 23:59 CET on April 7th 2023.



## SOCIETY NEWS

## Editorial change at *Discovery Immunology*



After nine years working with the BSI journals, Professor Kathy McCoy, currently a Senior Editor at *Discovery Immunology*, has decided to step down to focus on the other areas of her busy career. Professor McCoy, based at the University of Calgary in Canada, has been a significant contributor to the journals and the Society over the years, handling the peer review of hundreds of articles across both our previous journal *Immunology* and our new fully Open Access title *Discovery Immunology*, as well as assisting with review series, Editorial Board recruitment and advocating for the journal among her networks in Canada and internationally. Although she is stepping down from her role as Senior Editor, she will be joining the Editorial Board for *Discovery Immunology* where she will continue to help advocate for the journal and assist in peer review and content commissioning. The BSI would like to thank her for her brilliant contributions over the years.

## UPCOMING BSI MEETINGS

We have lots of upcoming meetings covering a vast array of immunological topics. Find out more at [www.immunology.org/events](http://www.immunology.org/events).

### BSI Oxford Immunology Group **OXFORD IMMUNOLOGY SYMPOSIUM 2023**

**20 March 2023**

Oxford, UK

*In collaboration with the University of Oxford Immunology Network*

### BSI Comparative Veterinary Immunology Group **FRONTIERS IN COMPARATIVE IMMUNOLOGY: DENDRITIC CELLS AND MACROPHAGES**

**22–23 March 2023**

Edinburgh, UK

*In collaboration with the Biotechnology and Biological Sciences Research Council (BBSRC) and the UK Veterinary Vaccinology Network (UK VVN)*

### BSI Cambridge Immunology Group **BSI CAMBRIDGE IMMUNOLOGY SYMPOSIUM**

**14 April 2023**

Cambridge, UK

*Co-hosted with the Cambridge Immunology Network*

### BSI Inflammation Affinity Group & BSI Greater Manchester Immunology Group **INFLAMMATION AT BARRIER SITES**

**26–27 April 2023**

Manchester, UK

Make sure you turn to page 25 for more details about this meeting and the Groups' activities.

## BSI meetings

### BRITISH SOCIETY FOR IMMUNOLOGY CONGRESS 2023

**4–7 December 2023**

Belfast, UK



@Shutterstock/Melanie Stachre

## Grants to support your attendance at our events

As a BSI member, did you know you can apply for grants to support your travel costs (<https://bit.ly/3Yc6L3q>) and/or costs of care arrangements (<https://bit.ly/3YaqmRj>) while attending our in-person Regional & Affinity Group conferences? Just remember to submit your application at least three weeks before the conference.

## BSI Career Enhancing Grants

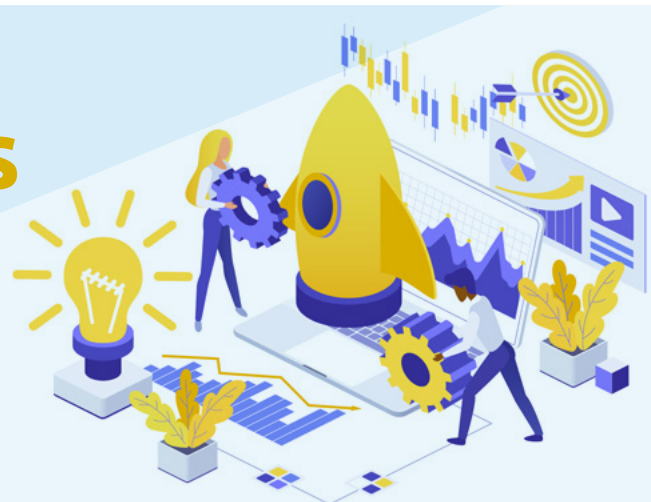
Flexible funding for any type of career-related activity

**AN EXTRA LEVEL OF SUPPORT FOR BSI MEMBERS**

**Next deadline: Monday 27 March 2023, 23:59 BST**

Give your career a boost!

[www.immunology.org/bsi-career-enhancing-grants](http://www.immunology.org/bsi-career-enhancing-grants)



@Shutterstock/Lemberg Vector studio

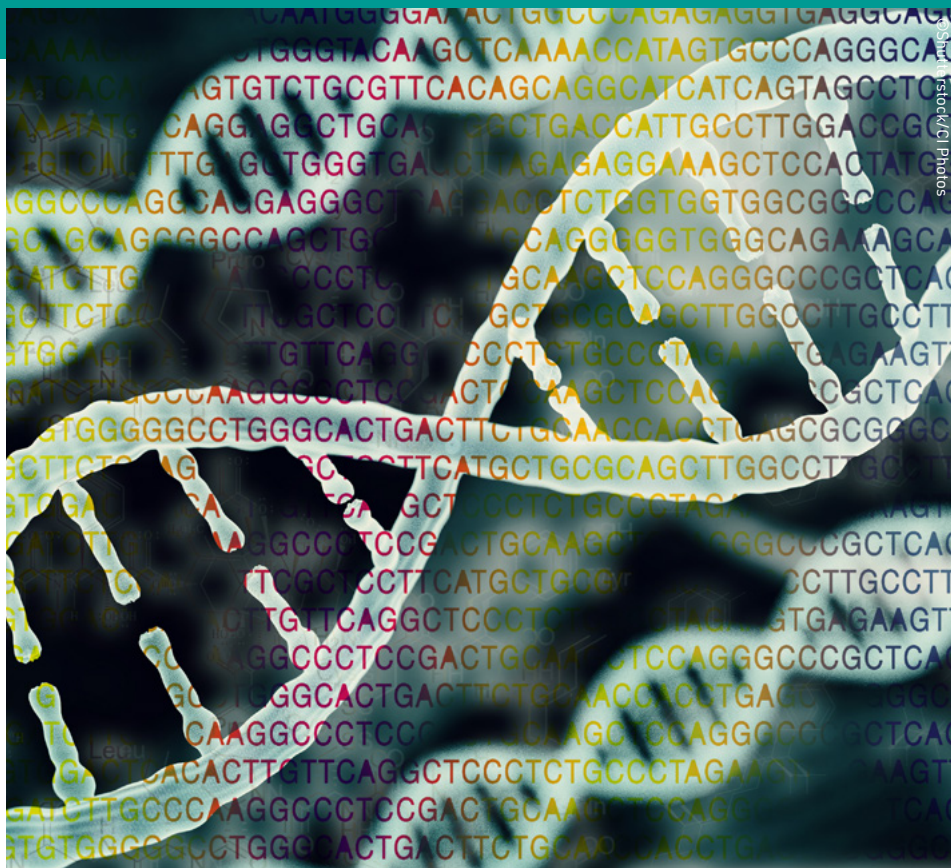
# Becoming R literate: my bioinformatics learning experience

In 2022, we were excited to start offering a new training programme, in collaboration with the Glasgow Bioinformatic Core, to equip wet-lab immunologists, biologists and other life scientists with the skills and confidence to perform their own bioinformatic data analysis. This highly rated online training programme provides essential skills for current and future generations of researchers who want to do some omics and raise the impact for their research. Here, BSI member and bioinformatics course participant, Imran Howell, shares his goals and learnings of the first course of the programme designed for complete beginners.

Diving straight into bioinformatics is daunting for a newcomer. I recently started a PhD having been a clinician for 10 years. Part of my work involved RNA extraction and transcriptome analysis of some trial samples, but techniques had moved on considerably since years ago when I had last done any lab work. Having successfully navigated the wet-lab side and RNA sequencing, I signed up to the 'Omic data analysis and visualisation using R' course to make sense of the vast data that had landed in my computer.

My goals from the course were to better understand the science underpinning bioinformatics, learn the best approach to RNA sequencing analysis and, crucially, to get to grips with the R code. The 10-day course was excellent and delivered on all these aspects. The whole course was virtual which meant we had attendees from a variety of places.

John was a clear, concise and enthusiastic teacher. He's clearly got a great deal of real-world experience handling 'Omic' data under



his belt and he had a lot of practical tips. He taught in a structured way with a good pace and regularly checked in with the group to make sure we weren't lost in a quagmire of R code. Each lecture was followed by a breakout room where we could work through coding a particular topic, for example PCA plots, with the help of a tutor to sense check. Having the recorded lectures and course materials available on Google drive was a nice touch and useful for referencing back.

I found the course really valuable, and it has set me up to do the bioinformatic analysis on my data. The course structure was comprehensive and gave me confidence to produce figures and plots ready for publication. I plan to attend the follow-up

'Functions, signatures and biomarkers' course later in the year to help with other work I am planning. Overall, I highly recommend this bioinformatics course – it finally made me R literate!

#### Imran Howell,

Nuffield Department of Clinical Medicine,  
University of Oxford

## Glasgow Bioinformatic Core

The programme has been developed and is delivered by the Glasgow Bioinformatic Core and is being offered by the British Society for Immunology.

The course has had over 600 attendees since 2020, with a mean rating of 9.4/10 for content and delivery, and 93% of participants thinking the session length and pace was 'about right', after 258 reviews.

'The course structure was comprehensive and gave me confidence to produce figures and plots ready for publication.'

# Do you want to do some omics and raise the impact of your research?

Bioinformatics is becoming ubiquitous to the life sciences and is now a potent driver of scientific development. Bioinformatic tools are increasingly used to complement wet-lab research in immunology but effective and affordable courses in this area are few and far between, which is why we're offering a low-cost, highly rated course in this area.

**For more information and to sign up, please visit [www.immunology.org/training/bioinformatics-training](http://www.immunology.org/training/bioinformatics-training).**

## Top skills and a strong confidence

The programme has been designed by John J. Cole, Manager of the Glasgow Bioinformatic Core, specifically for wet-lab scientists keen to learn R and bioinformatics to advance their career, who have either little or no experience in bioinformatics or want to build skills for future omic experiments. For example, as part of a specific project or to understand omics in current literature. John's background as a wet-lab biologist and decades of experience as a bioinformatician and lecturer perfectly positions him to provide the practical skills and confidence needed to raise the impact of your research.

The courses are delivered by John and his team of seasoned demonstrators, in the School of Infection & Immunity at the University of Glasgow. You will get:

- Digestible classes that fit around your lab schedule – they are mornings-only on Zoom
- Low-cost training, significantly more affordable than other courses – just £150 per week for BSI members
- Sought-after skills that will expand your career prospects – add it to your CV!
- Confidence to carry out bioinformatic data processing and analysis of your own or public datasets
- Lessons on making beautiful plots using R (e.g. PCA, heatmap, violin, MA, volcano, pathway analysis, etc.)

## Picking the right course for you

This training programme has several courses, depending on need and experience, starting with an essential course for complete beginners to set the foundations and building on those skills to help you on specific experiments. For example, allowing for specialisation into advanced topics such as single-cell RNA-sequencing. Here you can

find the confirmed dates for 2023 so far. Make sure you watch the BSI website and social media channels for more dates!

### Omic data analysis and visualisation using R

– entry-level course covering the foundations of bioinformatics, R-coding and omic data visualisation

- Monday 20 to Friday 31 March
- Monday 12 to Friday 23 June

### Functions, signatures and biomarkers

– advanced course covering specialised R techniques and methods for complex experiments with more than two groups of samples

- Monday 10 to Friday 14 July

### Command-line omics, Linux and Python

– advanced course covering common command-line bioinformatic tools, bespoke pipelines for genomics, transcriptomics and epigenetics, and the Linux and Python operating systems

- Monday 7 to Friday 18 August

Training course	Bulk RNA-seq	ssRNA-seq	Proteomics & metabolomics	Genomics & epigenomics	Complex design
Omic data analysis and visualisation using R	REQUIRED	REQUIRED	REQUIRED	REQUIRED	
Functions, signatures and biomarkers		SUGGESTED			SUGGESTED
Command-line omics, Linux and Python	SUGGESTED			REQUIRED	
Single-cell RNA-seq		REQUIRED			

“Great course! Never thought that something so complex like R could be explained in such clear and simple manner.”

“The content of the course was great and was clearly relevant to biological data analysis from start to finish. I really appreciate that each line of code and each function within the code was explained, as this has left me able to write and customise my code and plots in hundreds of ways.”

# The power of partnerships:

## training community champions to have effective vaccine conversations

In 2022, we expanded our public engagement work around training community champions to have effective conversations about COVID-19 vaccinations. Here, our Public Engagement Manager, Erika Aquino, details how the training works, the lessons that will be used for future community engagement around vaccines and the impact on those involved, showcasing short case studies from our partners and participants.

### Co-designed training with impact

Last year, we collaborated with Newcastle City Council and Birmingham City Council to co-produce tailored training programmes for local community leaders around building knowledge of vaccines and increasing confidence in having constructive dialogues with their networks and peers about vaccinations. This training was piloted with the London Borough of Bexley in 2021, and applying the experiences gained and feedback, we improved the programme for participants and expanded beyond COVID-19 to include information about childhood vaccines, vaccines for older adults and the HPV vaccine.

The training is co-designed with local authorities' public health teams and their residents, addressing specific questions and key concerns raised by participants and their communities. The programme



consists of accessible online sessions for one hour each week over four or five weeks and participants must join a minimum number to gain a certificate to encourage attendance. The sessions are led by our local members who have specialist knowledge of vaccines and honed skills in engagement and communication. Thank you to all our members involved – we couldn't deliver the training without you! The sessions focus on building understanding of how vaccines train the immune system, as well as developing skills in listening to and answering common questions and sometimes complex worries. Sessions are also supported by our public-friendly resources about vaccines that participants

can use and signpost people to.

Overall, 65 people have completed the training programme; 100% of community champions in Birmingham and 91% in Newcastle strongly agreed or agreed that they felt informed and knowledgeable about vaccines as well as confident to have effective conversations about vaccines. Encouragingly, all community champions reported an increase in the number of people they regularly talk to about vaccinations. On the next page you can read about the experiences of our partners and participants and learn how training community champions can make a difference.

**'Working in partnership greatly increased the impact of our training, as we were able to reach those holding social capital in their neighbourhoods and actively working with diverse community groups.'**

## Sharing vaccine information to support communities

The role of our community champions in Newcastle is to share public health messages and guidance through their networks, whether that be friends, family and neighbours, or community groups and colleagues.

The content of the training was excellent, with expert immunologists talking us through vaccinations and immunology in a straightforward way, and providing useful resources that we can share widely in our communities. The Q&A sessions were particularly useful as participants were able to bring up questions they have encountered in their communities and get simple answers that they can then feed back, such as understanding how the vaccine was developed so quickly.

We've seen some fantastic work by our champions following the training and many have reported that they are using their new knowledge to have effective conversations about vaccines. Several participants support community groups and have been having open conversations with those who may be hesitant about having vaccinations. We have also seen an increase in champions coming forward to take part in community events and share their learning, answering questions about how vaccines work and how we know they are safe.

The whole experience has been an absolute pleasure. The BSI remained in regular contact throughout, providing information on session content and follow-up evaluation. This has been a really positive experience and I'd encourage local authorities to pursue this opportunity to complement their COVID-19 vaccine and childhood immunisation programmes.

**Hannah Morrow, Community Champions Coordinator, Newcastle City Council**

## Empowering residents to have difficult conversations about vaccines

Over the last year we have been working with local residents in Birmingham (COVID community champions) who take up the vital role of providing valuable insights into communities to help us protect the public from COVID-19. Many used their personal and professional networks to send information where we have traditionally struggled to reach. Much of their work was to be a trusted voice where misinformation could be challenged and provide support where needed.

When I saw the British Society for Immunology was running training on vaccination for people with no prior health experience, I jumped at the opportunity to provide something like this to our residents. We spent four weeks chatting about all things immunology including conversations around COVID-19 vaccines, the HPV vaccine, flu vaccine, and the importance of vaccinations in children. One thing that was important to us at Birmingham was ensuring that participants felt confident in tackling difficult vaccination conversations; speakers at the online sessions took this into consideration and supported participants to tackle the trickier issues and questions that may come up about vaccination. The participants shared that the sessions were 'informative and useful', with information being driven by evidence and helped to 'build confidence in having discussion surrounding vaccination'.

We hope that the champions programme creates a legacy for the relationship between Birmingham City Council and its residents, particularly communities who are underserved. Communities are ready for a different type of conversation about their health and wellbeing, as proven through the interactive training with the BSI.

**Shona Okeke, Senior Engagement Office, Birmingham City Council**

## Connecting with expert scientists

I joined the training programme with the hope of building a solid foundation of knowledge about vaccines, to assist me in producing materials for a Birmingham-based community outreach campaign. Not only was I interested in strengthening my technical knowledge of how vaccines work, but I also hoped to gain an understanding of key concerns, apprehensions and public opinion on vaccines more generally. It was a relief to be in contact with scientists that have such extensive knowledge of the field and expertise in particular areas, given that the subject was largely new to me. The diversity of speakers from a range of areas provided an excellent overview of the world of vaccines, and the engagement provided a rare opportunity to gain insights that you wouldn't normally get. Outlining common questions and concerns and discussing how to respond to them was extremely useful, as well as the tips on how to tackle misinformation.

I feel much more confident having effective conversations around vaccines because the sessions have developed my understanding about different vaccines and the diseases they protect against. They gave such an excellent broad overview, with just the right amount of detail, and also informed me about how people may respond and how to approach people in different ways depending on the circumstances, their views and background. I have used the information shared during the sessions in the production of training materials for outreach workers, guidance for religious leaders, and adverts on childhood and adult vaccines which have been played on local radio stations across Birmingham and on social media.

**David Ball, training participant in Birmingham**

## Community engagement is needed now more than ever

The BSI can provide support for everyone to engage with the public about vaccinations and become positive advocates. We have expert immunologists around the country keen to get involved with their local communities. Working in partnership greatly increased

the impact of our training, as we were able to reach those holding social capital in their neighbourhoods and actively working with diverse community groups. This programme brings together the expertise of local public health teams and community leaders who have connections into regional networks and the expertise of the BSI in immunology and facilitation.

The bottom line: community champions make a difference to the people around them. To find out more about our vaccine champions training programme and get involved, please get in touch with us!

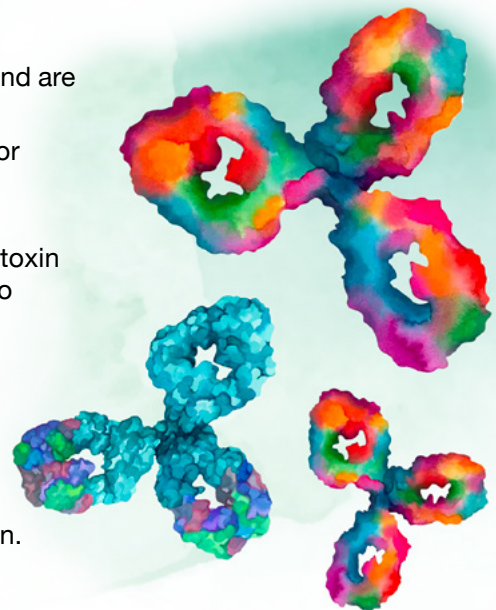
**Erika Aquino**  
Public Engagement Manager  
Email: [e.aquino@immunology.org](mailto:e.aquino@immunology.org)

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# Demonstrating the practical benefits of patient and public involvement

We were delighted to work with National Core Studies Immunity to produce a report demonstrating the impact of patient and public involvement (PPI) in COVID-19 research.

The British Society for Immunology delivers the patient and public involvement aspect of National Core Studies Immunity, and was commissioned to produce the report, entitled 'Patient and public involvement in COVID-19 research: bridging the gap between theory and practice', working closely with members of National Core Studies Immunity's PPI Panel. This panel has been meeting with researchers from the programme since April 2022 to hear about and feed back on their work, resulting in many lively and thought-provoking discussions on everything from approaches to recruiting participants to the language used when disseminating findings. It became clear during these meetings that there were some great examples of involvement from within these projects, and the panel was eager to share these widely to inspire more researchers to follow suit.

The aim of the report is to encourage as many research teams as possible to consider involving patients and the public in their work by providing practical examples of how this can be done to great effect. Four studies worked with the BSI to build these examples: EVITE Immunity, led by Professor Helen Snooks at Cardiff University, looking at the impact of the shielding policy in Wales; BE-DIRECT, led by Professor Manish Pareek at the University of Leicester, exploring whether immune responses differ according to ethnicity; The Vaccine Breakthrough Project, led by Professor Aziz Sheikh at Edinburgh University, studying the potential reasons for vaccine breakthrough; and VIBRANT, led by Professor Alex Richter at the University of Birmingham. VIBRANT is part of the wider SIREN study, and is investigating why some healthcare workers fail to mount an immune response after infection or vaccination.

The report also explores what it means to involve public contributors in research more broadly, and what is required to make sure



this is done meaningfully. By presenting the experiences of researchers and public contributors side by side, the report offers insight into the challenges overcome, the lessons learned and the positive impact of the involvement on the resulting research.

"We have some really good examples of involvement from National Core Studies Immunity – this is the evidence we need to show that it's working," says Mo Hafeez, member of the National Core Studies Immunity PPI panel. "The aim of this report is to share examples of when involving patients and the public has really worked and had a positive impact, so that others will feel empowered to do it too."

Three members of the PPI Panel worked with the BSI team to record short soundbites in which they describe why it is important to involve patients and the public in research, how this can be done most effectively, and ways to encourage more researchers to involve people in their work. These soundbites can be found on the BSI YouTube channel, and were shared widely on social media to raise awareness of the report and spark conversations about involvement.

"We wanted to give people some really practical examples of what patient and public involvement can look like when it's done well," says Erika Aquino, BSI Public Engagement Manager. "It's so important to show the huge positive impact involvement can have on the quality of research, and to inspire more researchers to take that first step to involving the public in their own work."

We hope that researchers who have already seen first-hand the benefits of

PPI will use the report to demonstrate the importance of involvement to their peers and colleagues, funders, policymakers, potential research participants and other relevant audiences. We would encourage you to share it widely among your networks.

"So much value can be added to the planning, refining and sharing of research by involving patients and members of the public, and many researchers are becoming more vocal about the need to make this an integral part of research practice," says Paul Moss, Professor of Haematology at the University of Birmingham and Principal Investigator for National Core Studies Immunity. "When done well, it can be truly transformational."

## Amy Edmunds

National Core Studies Immunity  
Communications Manager

## Find out more

You can read the full report here:  
<https://bit.ly/3QKJ9Ar>.

Listen to the soundbites from the PPI panel here: [www.youtube.com/@ImmunologyOrg](http://www.youtube.com/@ImmunologyOrg).

The National Core Studies were set up by the Government Office for Science to ensure that critical questions about COVID-19 could be answered quickly and effectively. NCS Immunity is funded by UK Research and Innovation.

# Congratulations

This is the section of the magazine where we celebrate the achievements of our members. Our congratulations to all who are mentioned here.

## The future looks bright

The BSI Congress saw the return of our very popular Bright Sparks in Immunology sessions, highlighting exceptional work from PhD students and postdocs. The judges praised the incredibly high standard of presentations across both sessions.

**Dr Lauren Evans** (King's College London) won the postdoc category for the talk entitled 'CD1d-dependent rewiring of lipid metabolism in macrophages regulates responses to innate signals'. Runners up in this session were **Dr Weidong Jing** (Australian National University) and **Dr Hannah Bradford** (University College London).

Meanwhile, the PhD category was won by **Fabian Fischer** (University of Oxford) for the presentation entitled 'TBK1 and IKKe act like a master break to limit premature



inflammatory cell death pathways in activated macrophages'. Runners up were **Chi Hao Thomas Yip** (Cancer Research UK Cambridge Institute) and **Mariana Pereira da Costa** (Francis Crick Institute). Our congratulations to all the finalists.

## New Year's Honours

Congratulations to the immunologists recognised in the New Year's Honours List:

- **Professor Janet Lord**, Director of the MRC-Versus Arthritis Centre for Musculoskeletal Ageing Research and Professor of Immune Cell Biology at the University of Birmingham, has been awarded a CBE for 'services to older people'
- **Professor Peter Ghazal**, Sêr Cymru Chair in Systems Medicine at the Systems Immunity Research Institute at Cardiff University, has been awarded an OBE for 'services to systems immunology'

## Travel grant success

We are pleased to announce that we awarded a grand total of 126 travel grants to our members to attend BSI Congress 2022 in Liverpool!

Congratulations also to the 16 BSI members who were recently awarded our general Conference Travel Grants in November. The next application deadline is midday, Monday 1 May 2023. More information at <https://bit.ly/3GJpo7v>.

## BSI Career Enhancing grant

Congratulations to those who successfully obtained funding in the latest round of the BSI Career Enhancing Grant. Over £64,000 was awarded in this round of funding to 17 BSI members from across the UK covering a wide range of projects from generating pilot data to attending training courses.

The next deadline is Monday 27 March 2023. Find out more about the awardees here: <https://bit.ly/3XtAFQo>.

## BSI Communication & Engagement grant

We are delighted to fund the following projects in the most recent round of our communication and engagement grant.

**Dr Claire Pearson** (University of Oxford) has been awarded funding for 'The bugs in your tummy'.

**Professor Jessica Teeling** (University of Southampton) will be using funds to develop the 'Snakes, ladders and your aging immune system'.

The next deadline is Thursday 1 June 2023. For more details, visit <https://bit.ly/3ZHT3LN>.

## BSI Congress poster prizes

Our congratulations to the following winners of the BSI Congress poster prizes:

**Eleni Papachristoforou** (University of Edinburgh), **Michal Zulcinski** (University of Leeds), **Anna Ahlback** (University of Edinburgh), **Sofia Hain** (University of Birmingham), **Stephanie Hanna** (Cardiff University) and **Leonor Rodrigues** (MRC Laboratory of Molecular Biology). This year's winner in our Education, public engagement and EDI category was **Hannah Bialic** (Wellcome Centre for Integrative Parasitology).

You can still read the abstracts for all the amazing posters from BSI Congress 2022 on the Congress website.



## New BSI Honorary Members

At the BSI Congress, we were delighted to award Lifetime Honorary Membership of our Society to two members in recognition of their outstanding contribution to immunology and to the Society:

- **Professor Ian MacLennan**, former Head of Division of Immunology at University of Birmingham and previously General Secretary of the British Society for Immunology
- **Professor Faith Osier**, Co-Director of Imperial College London's Institute of Infection and former President of the International Union of Immunological Societies



We would love to hear from you about your achievements. Have you or a colleague recently received grant funding, passed your PhD viva or accepted a new appointment? If so, let us know by emailing [media@immunology.org](mailto:media@immunology.org).



# Upcoming BSI Groups meeting: Inflammation at barrier sites

We are looking forward to welcoming world-leading immunologists for a two-day event on mechanisms underpinning inflammation and immunity in the gut, lung and skin. 'Inflammation at barrier sites' has been organised by the BSI Inflammation Affinity Group and the BSI Greater Manchester Immunology Group. Here, they share details about this exciting meeting.

## Star speakers

The BSI Inflammation Affinity Group is delighted to organise, in conjunction with investigators from the Lydia Becker Institute, and the BSI Greater Manchester Immunology Group, a timely and accessible meeting on the topic of 'Inflammation at barrier sites' at the Manchester Institute of Biotechnology on 26-27 April 2023.

We are thrilled to welcome Professor Dame Fiona Powrie, Director of the Kennedy Institute of Rheumatology, and Professor of Musculoskeletal Sciences at the University of Oxford, to give the opening keynote address for our meeting. Her research is focused around characterisation of the interaction between the intestinal microbiota and the host immune system and exploring how this mutualistic relationship can break down in inflammatory bowel disease.

We are also extremely lucky to welcome Professor Muzz Haniffa to give our closing keynote address. Professor Haniffa is a Wellcome Trust Senior Research Fellow, Professor of Dermatology and Immunology at Newcastle University, an Associate Faculty member at the Wellcome Sanger Institute and a winner of the Foulkes Foundation Medal. Professor Haniffa's research is centred around the use of omics technologies to study cells at single cell resolution to understand how the immune system develops and maintains health, and studying the consequences of infection, inflammation and disease.

## A gutsy start

Our exciting and diverse programme of invited speakers is split into three sessions based on target organ inflammation. In the gut session, we are grateful to welcome Dr Shai Bel, Principal Investigator of the Bel lab based within Bar-Ilan University in Israel who is focused upon understanding the roles of Paneth and goblet cells in intestinal barriers and development of inflammatory bowel diseases (IBD). We also welcome Dr Mahima Swamy, Wellcome Trust and Royal Society Sir Henry Dale Fellow and

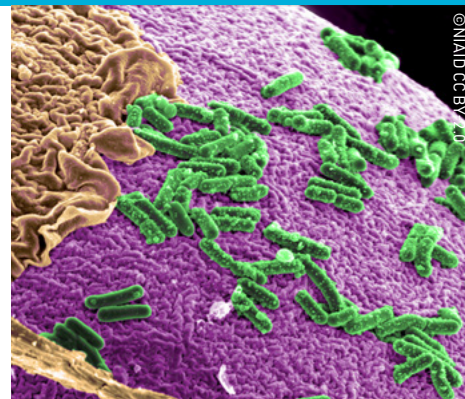
Programme Leader in the MRC Protein Phosphorylation and Ubiquitylation Unit at the University of Dundee. Dr Swamy studies the function and regulation of intraepithelial lymphocytes that reside in the intestinal epithelium, which are central to controlling infection, stress or transformation of the gut epithelium. Finally, we welcome Dr Neil McCarthy, MRC Career Development Fellow and Lecturer in Immunology from Queen Mary University of London, who is interested in how  $\gamma\delta$  T-cells protect mucosal barriers against microbial invasion and inflammation, and studying the pathological disruption of these functions in patients with IBD.

## Lung health and disease

In the lung session we will be joined by Professor Rob Snelgrove, Professor of Respiratory Science from Imperial College, London, whose group works on pathways that drive inflammation and remodelling during respiratory infection and in chronic lung disease. Dr Calum Bain, Sir Henry Dale Fellow within the Centre for Inflammation Research at the University of Edinburgh will discuss signals that dictate macrophage behaviour in healthy tissues and during successful tissue repair, with a view to promoting or targeting these signals in inflammatory/fibrotic disease. We also welcome Dr Emma Chambers, Bart's Charity Lecturer within the Centre for Immunobiology at the Blizard Institute, Queen Mary University of London, whose group is interested in understanding how stromal and immune cells change in the lung with age and the implications of these discoveries on lung health and disease.

## Skin surveillance

Finally, in our skin session, we welcome Professor Jessica Strid, Professor of Cellular Immunology in Imperial College London. Professor Strid researches immune surveillance at epithelial body surface tissues with a focus on understanding the role of tissue-resident immune cells in regulating epithelial cell homeostasis, repair and carcinogenesis. Dr Heidi Kong



is Senior Investigator and Head of the Cutaneous Microbiome and Inflammation Section at the National Institute of Arthritis and Musculoskeletal and Skin Diseases at NIH. Dr Kong's group studies the diversity and complexity of bacterial, fungal and viral communities in healthy skin and in eczema from patients with atopic dermatitis and with primary immunodeficiencies. Our final speaker here is Dr Joanne Konkel, BBSRC David Phillips Fellow within the University of Manchester, who is interested in how the immune system is tailored to the tissue microenvironment of the GI and oral mucosa, and where specialised immune cell networks have developed to help mediate effective immunological control of these dynamic barrier environments.

## Registration is open!

We're happy to provide opportunities to PhD students and early career researchers to give selected oral presentations as well as plenty of opportunities for poster presentations and engaging with other attendees. Registration for the meeting is open – we hope to see you there!

**Professor Peter Barlow**, Chair of the BSI Inflammation Affinity Group, in collaboration with the BSI Greater Manchester Immunology Group

## Get involved!

**BSI Inflammation Affinity Group:**  
[www.immunology.org/bsi-inflammation-affinity-group](http://www.immunology.org/bsi-inflammation-affinity-group)

**BSI Greater Manchester Immunology Group:** [www.immunology.org/bsi-greater-manchester-immunology](http://www.immunology.org/bsi-greater-manchester-immunology)

# How do you harness the immune system to generate novel therapies?

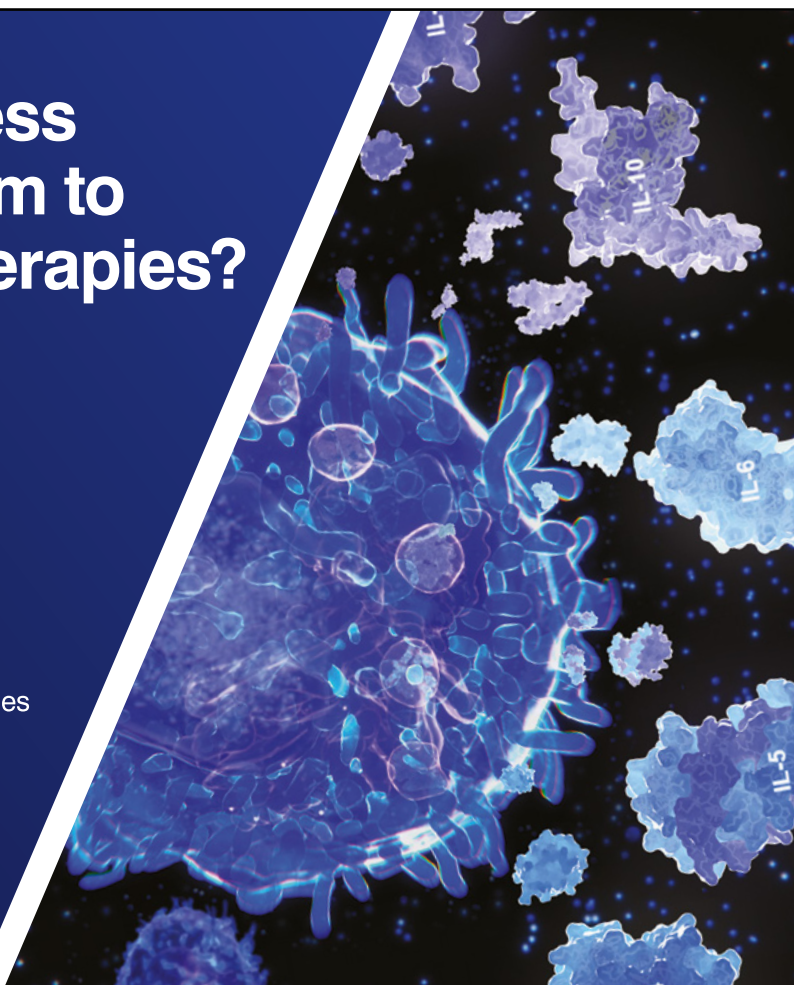
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# Professor Avrion Mitchison

## 1928–2022

The BSI was saddened to learn about the recent death of Professor Nicholas Avrion (Av) Mitchison FRS. He was a pioneering immunologist, valued colleague and mentor to many and made ground-breaking contributions within the field of immunology in understanding the role of T lymphocytes in immunological regulation and tolerance, and by crafting an environment to inspire and educate. He also played an integral role in the launch of the British Society for Immunology as one of our founding members.

His dedication to his field and his fellow scientists has meant that his legacy is felt today, through his practice of immunology, and those he trained and inspired to become the leading immunologists of the day and in the generations to come.

We invited our members, and his colleagues and peers to share their stories and recollections of Professor Mitchison. We have compiled those into this piece to remember and celebrate his life and legacy.

"In the current climate of high-tech big data science, it is difficult to conceive of immunology being performed without monoclonal antibodies, flow cytometry, genomic and proteomic analysis and engineered animal systems. Yet some major discoveries were made without these tools at a time where scientists had to rely upon their intellect and not only on technology to solve problems. This was Av Mitchison's generation and without modern tools he



Photo from DRFZ www.drfz.de

showed that lymphocytes were the cells that were responsible for graft rejection, that tolerance could be induced with high or low doses of antigen, and he also helped to shape the concept of collaboration between T and B cells.

Many senior immunologists will remember a time where one's prowess at debate, rather than the extent of data shown, carried the argument about how the immune system worked. This discourse and interaction with other scientists is something that Av cherished and is remembered fondly for by many of his past colleagues. Imagine a salon (Av's home) where individuals sat around eating and chatting about science simply for the sheer joy of doing so. This is something we should revive. Many will remember his booming voice and huge presence wherever he went. He wasn't always serious and with a twinkle in his eye he showed a

mischievous streak and used to occasionally tease squeamish individuals in the lab. This is counterbalanced with his extreme generosity to junior scientists; in short, he listened to what they had to say and encouraged rather than criticised.

His passing is a great loss to many to whom he was a role-model, mentor, colleague and friend. I was lucky to meet him when I was a junior postdoc and then interact with him as a colleague over coffee at UCL. Below you will find some reminiscences from individuals who knew him for longer and better than I did; I envy them. Finally, as a final word from myself to Av, thank you for your personal and intellectual generosity, you will be missed but not forgotten."

**Foreword by Professor Arne Akbar**, former BSI President and Professor of Immunology at University College London

'Many senior immunologists will remember a time where one's prowess at debate, rather than the extent of data shown, carried the argument about how the immune system worked. This discourse and interaction with other scientists is something that Av cherished and is remembered fondly for by many of his past colleagues.'

### Cultivating a community

During his pioneering career, Av regularly hosted his students and the most established minds in immunology in his own home and lab. Those who studied alongside him fondly recall the impact this environment and the connections made there had on them.

Professor Trevor Owens (University of Southern Denmark) was a postdoc with Av from 1981 to 1984: "My interactions with him included many pleasant and stimulating afternoons and evenings ... meeting many wonderful and inspiring people around (his) basement kitchen table."

Professor Sir Marc Feldmann (University of Oxford) was a PhD student in 1972 when he was offered a position in the ICRF Tumour Immunology Unit at UCL, which Av established. He recalled: "An exhilarating experience, for a PhD student to get taken seriously by a seminar room full of scientists – including Av, who as usual asked penetrating questions. The intellectual vibrancy was really stimulating."

"Av's qualities extended well beyond science, he was a warm and generous human being ... Thus, I was fortunate, like many others to benefit from Av's wisdom, both scientific and personal. Interacting with him changed my life."

Professor Peter Beverley (Imperial College London) worked with Av for more than twenty years and was a member of the ICRF Tumour Immunology Unit: "Wherever he worked, Av attracted brilliant people to work alongside him or pass through the lab, so that those of us working with him knew every important immunologist."

Professor Edward A Clark (University of Washington), student, colleague and friend of Av for over thirty years recalled: "I asked Av what he liked best during his long career. He replied without a hitch, 'talking science with scientists'."

"I learned from Av to follow Seneca's dictate that 'ideas belong to all mankind' and when in doubt, to share data and plans stemming from them."

Professor Luis Humberto Fabila-Castillo

**'His great gift to us, his students, was to open our intellectual horizons. He introduced me to so many remarkable people: the grandees of immunology, but also the upcoming stars, and the greats in other fields too.'**



Professor Avrion Mitchison with his colleagues Professor Eli Sercarz (left) and Professor Franco Celada (centre)

(Mexican Polytechnic, Instituto Politécnico Nacional, IPN) proudly recalled himself as Av's first Mexican postdoc student and recollected that: "The experience in the lab was also incredible, especially for all the famous immunologists of the time from all over the world that I met there."

Professor Nicolas Gascoigne (National University of Singapore), former student of Av's said: "His great gift to us, his students, was to open our intellectual horizons. He introduced me to so many remarkable people: the grandees of immunology, but also the upcoming stars, and the greats in other fields too."

### An enduring legacy

The environment Av fostered wherever he went cultivated a welcome, and excitingly rich intellectual arena for the many young scientists under his tutelage. The below words from his students, colleagues and friends are a testament to the impact Av

had within the field of immunology and the respect his guidance and encouragement had to shape the careers of those who studied alongside him.

Professor Beverley said: "He was incredibly generous with his time, his support of colleagues and unlike many modern lab heads never thought of putting his name on papers unless he had really contributed directly to the work. Apart from his contributions to transplantation immunology, mechanisms of tolerance and collaboration of T and B cells, Av will surely be remembered for the stimulus his ideas gave to so many immunologists during his time at NIMR, UCL and later as director of the German Rheumatism Research Centre in Berlin."

"Just being around him made one realise that this was a man who thought deeply about biology. It was a huge privilege to be exposed to his thinking and certainly influenced everything I did in immunology."

The result of Professor Feldmann's work at the Tumour Immunology Unit, overseen by Av, had ground-breaking consequences in the care and treatment for patients with autoimmune diseases: "While at the TIU, I developed in 1983 new ideas about the mechanism of autoimmunity, and its cytokine dependence, which led to the eventual development of anti-TNF therapy for rheumatoid arthritis and many other diseases, a significant medical breakthrough, and standard of care globally for millions."

"So, I am convinced that, while we never

published together, or worked closely together, my debt to Av is considerable: and I think this applies to a large number of other scientists; they were guided, mostly indirectly, by questions, environment and other suggestions to a productive path."

The longevity and unyielding dedication Av had to his field, his students and the immunologists of the next generation is aptly expressed by Professor Francisco Javier Sánchez-García (Mexican Polytechnic, Instituto Politécnico Nacional, IPN). He was Av's last postdoc at UCL before his retirement: "To this day and from time to time, Av's example is listened to by students in my postgraduate course, in the line of: 'Professor Av Mitchison was Head of Department, Editor-in-Chief of the *European Journal of Immunology*, served on the editorial board of a number of scientific journals, was the President of the Zoological Society of London, among other duties, and still, he had the time to perform experiments. There is no excuse for not doing some experimental work at any age, no matter how busy we think we are."

"A great scientist whom we will all miss"

We would like to conclude this piece with a few final quotes about Professor Mitchison in celebration of his life and legacy.

Professor Francisco Javier Sánchez-García and Professor Luis Humberto Fabila-Castillo treasure plenty of loving memories, and, to them, Av was "always

**'The memories our members, and the peers and colleagues of Professor Mitchison have graciously shared with us showcase not only his skill and innovation as an immunologist, but his great value and kindness as a mentor and friend.'**

kind and generous". In particular, Professor Sánchez-García cherishes a "life-long friendship" which has remained "a life changing experience".

In the words of Professor Owens, "Av was very generous with his time and ideas, and very good company".

Professor Gascoigne recalls that, "it was Av that gave me a chance and set me on my way".

The memories our members, and the peers and colleagues of Professor Mitchison have graciously shared with us showcase not only his skill and innovation as an immunologist, but his great value and kindness as a mentor and friend. First and foremost, as a scientist, Av cultivated a community of learning which allowed for inspiring and lively discussion to be had. Through this premise he engaged with the brightest minds in his field and those outside of it, encouraging his students

and peers to contribute, be inquisitive and learn. The experience of this personal touch and Av's tendency to allow his students to forge their own paths has left an enduring legacy, shaping ground-breaking research and discoveries. From the recollections compiled in this piece what shines through just as brightly as Av's pioneering and practical contribution to the future of immunology is his generosity and spirited character which has left many fondly calling upon their cherished memories of a great man. In the words of Professor Feldman, and certainly to many, Av was "a great scientist whom we will all miss".

For more details about Professor Mitchison's life and career, you can watch a collection of interviews in this YouTube playlist from Web of Stories: [bit.ly/31VPCOK](https://bit.ly/31VPCOK).

*This piece was collated by Lauren Maloney, BSI Marketing & Communications Officer*



Professor Avrion Mitchison with Her Majesty Queen Elizabeth II at the ZSL London Zoo when he led the Zoological Society of London.

# Immune Update

## The BSI journals

A round-up of new research published in the British Society for Immunology's official journals written by ECR board members of *Clinical & Experimental Immunology*. Discover the latest immunology from *Immunotherapy Advances*, *Clinical & Experimental Immunology* and our newest fully Open Access journal publishing high-quality articles describing novel mechanisms controlling the immune response, *Discovery Immunology*. Members can access these journals free of charge at [www.immunology.org/journals](http://www.immunology.org/journals) and benefit from discounted publication fees.

## Discovery Immunology

### Nur77-Tempo mice reveal T cell steady state antigen recognition

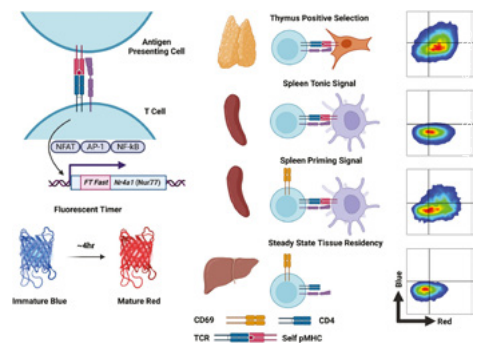
Reporters of cell signalling *in vivo* provide a critical tool for investigating the strength and dynamics of lymphocyte activation in different tissues.

Elliot *et al.* created a reporter that expresses Fluorescent Timer (FT) protein under the regulation of Nur77 – a nuclear orphan receptor family member whose expression is associated with early T cell receptor and B cell receptor signalling. This transgenic model exhibited graded reporter expression with TCR signal strength, and increased sensitivity compared with

previously established reporters.

The authors observed persistent positive selection signals in the thymus, and limited tonic response to self-antigen in non-lymphoid tissues, suggesting tissue residency is not associated with tonic TCR signalling.

Elliot *et al.* 2022 *Discovery Immunology* <https://doi.org/10.1093/discim/kyac009>  
Summary by Dr Dessi Malinova, Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast



Elliot *et al.* 2022 *Discovery Immunology* kyac009  
<https://doi.org/10.1093/discim/kyac009>

## Clinical & Experimental Immunology

### Islet autoantibody responses progressively lost after Type 1 diabetes diagnosis

Williams *et al.* hypothesised that factors that influence the development of autoantibodies before T1D onset may continue driving their persistence afterwards.

The study included 577 T1D patients, with match samples at diagnosis and post-diagnosis close-up. Autoantibody persistence showed distinct patterns according to antigen specificity. T1D-associated autoantibodies to islet antigen-2 and glutamate decarboxylase 65 (GADA) remained frequently detected during the follow-up period.

Furthermore, 80.5% seronegative conversion was observed for T1D-associated autoantibodies to zinc transporter 8 (ZnT8A) at



a diabetes duration  $\geq 15$  years. The strongest non-genetic predictor of islet autoantibody loss identified was lower closer to T1D onset.

Genetic predictors of autoantibody loss included Low-risk HLA class II genotypes and the SNPs RELA/11q13 and LPP/3q28 (associated with autoimmunity) for anti-GADA, and HLA A\*24 for anti-ZnT8A.

These results suggest that islet autoantibody responses are predominantly governed by immune memory.

Williams *et al.* 2022 *Clinical & Experimental Immunology* **210** 151–162 <https://doi.org/10.1093/cei/uxac087>

Summary by Dr Damian Perez Mazliah, Hull York Medical School, University of York

## Immunotherapy Advances

### Promising approach for treating patients with house dust mite-driven allergic asthma

Asthma exacerbations can be triggered by house dust mites (HDM) driven by the allergen Der p 1. One approach for curing disease rather than treating symptoms alone, is to selectively eliminate B cell populations involved in IgE responses to Der p 1.

Daramola *et al.* tested a novel therapeutic strategy *in vitro* using hybridomas that react to

Der p 1. They used inactive allergen (proDer p 1) fused with either the bacterial toxin Pseudomonas exotoxin A (ETA) or the small molecule toxin Auristatin F (AURIF). They found that the allergen-toxin ETA combination was superior to allergen-AURIF in achieving cell toxicity.

This therefore represents a potential

therapeutic avenue for patients with allergic asthma.

Daramola *et al.* 2022 *Immunotherapy Advances* <https://doi.org/10.1093/immadv/ltac023>

Summary by Dr Akhilesh Jha, University of Cambridge

## Around the journals

A summary of some of the latest papers from the world of immunology. Written by Edd James, Louisa James, Donald Palmer and Abbie Joyce

### Functions of iNKT cells in the skin during early life

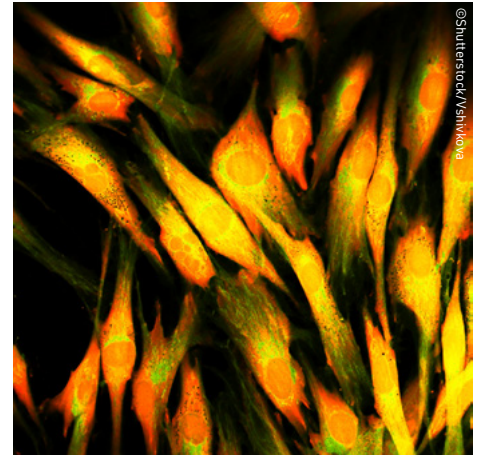
Barrier surfaces such as the skin are exposed to many potentially infectious agents, with the presence of immune cells critical for defence and tissue homeostasis, which is particularly important after birth.

Here, Wang *et al.* show that a population of invariant natural killer (iNKT) cells are preferentially directed to postnatal skin. These cells express the skin homing CCR10 and display an NKT2/NKT1 phenotype characterised by expression of T-bet and GATA3. Absence of skin iNKT cells in mice led to reduced skin regulatory T cells and increased

abundance of opportunistic bacterial species in postnatal skin. Skin iNKT cells have high expression of transferrin which regulated development of hair follicle progenitor cells through iron metabolism, suggesting important non-immune roles in skin development and homeostasis.

Further understanding of the function of skin iNKT cells in inflammatory skin disease could provide new targets for therapeutic intervention.

Wang *et al.* 2023 *Nature Immunology*  
doi: 10.1038/s41590-022-01399-5



### B cells impair stroma–epithelium cell interactions during mucosal healing

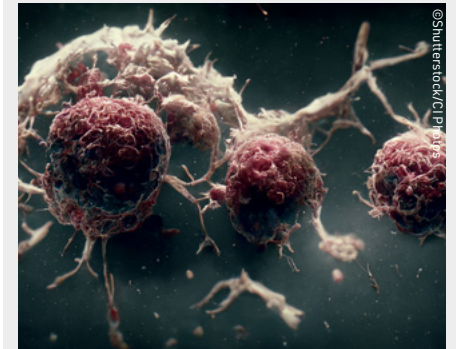
Using an inflammation-induced experimental model of acute colitis, Frede *et al.* examined the immune–stromal–epithelial interactions that regulate mucosal healing.

Following the resolution of inflammation, whereas most immune cell types reduced in number, B cells continued to expand to become the dominant population. A cluster of B cells enriched with IFN-induced genes were differentially expanded; these IFN-induced B cells correlated with disease

severity. Depletion of B cells during the recovery phase resulted in increased tissue remodelling and enhanced mucosal healing.

Activated B cells interrupted the physical interactions between stromal cells and epithelial cells needed for mucosal healing. Depletion of B cells reverses this effect, leading to accelerated epithelial regeneration.

Frede *et al.* 2022 *Immunity* **55** 2336–2351



### T cell egress via lymphatic vessels limits tumour control

Protecting antitumour T cells from inactivation via immune checkpoint inhibitors can make anticancer immunotherapy drugs more effective.

In this paper, Steele *et al.* show that CD8<sup>+</sup> T cells are escaping melanoma tumours due to chemokine signalling to nearby lymphatic vessels. The authors found that chemokine CXCL12 and receptor protein CXCR4 attract T cells toward lymphatic vessels, and by blocking either CXCL12 or CXCR4, T cells could not depart from the tumour. By limiting T cell egress, intratumoural T cells increase in both number and quality as therefore does the response to immunotherapy.

Ensuring T cells are in the melanoma tumour, in the right place and with the right signals, will increase effective immune responses. Future research will look at targeting other molecular pathways to increase T cell time within tumours.

Steele *et al.* 2023 *Nature Immunology*  
DOI 10.1038/s41590-023-01443-y



### Sleep affects haematopoietic stem cell function and diversity

There is an emerging appreciation on the importance of sleep towards immunological health with evidence suggesting that deprivation has a negative impact on immune function.

In this paper McAlpine *et al.* observed that sleep disruption in mice led to epigenetic changes in bone marrow HSC together with these cells skewing towards myeloid differentiation at the expense of lymphoid. Moreover, such changes appear to persist even after sleep disruption. Interestingly, the

authors show that sleep restriction in humans led to similar changes in haematopoietic activity, with increasing levels of circulating CD34<sup>+</sup> HSC and monocytes.

These studies highlight that sleep quality can alter haematopoietic activity which consequently can lead to immunological dysfunction.

McAlpine *et al.* 2022 *J Exp Med.* **219**  
e20220081



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