

Wellcome Trust Institutional Strategic Support Fund (ISSF3)

Changing Careers and Culture





Catalysing Research, Public Engagement and Culture Change via ISSF3

Cardiff University's five year **£3.5M** Wellcome Trust Institutional Strategic Support Fund (ISSF3) - with **£3.5M** matched funding from the College of Biomedical and Life Sciences (BLS) - is enabling new Research and Public Engagement activities, and driving cultural change across the academic career pathway.

Our new award, ISSF3, focuses on:

-  Enabling researchers to transition to the next career stage, catalysed by the successful delivery of innovative new science and public engagement
-  Building new cross-disciplinary research opportunities and teams across the College, and beyond
-  Supporting talented individuals to come back to the University, whether from other Institutions or after a career break
-  Providing our early career researchers (ECRs) with skill enhancement, engagement training and career-enabling network opportunities
-  Delivering and evaluating innovative engagement which provide high-quality experiences of mutual benefit for the recipient and researcher.



Applications and funding

249
applications
received



Equality Diversity and
Inclusion, based on

182
applications



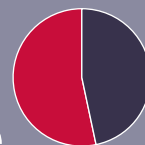
97

male



85

female



Additionally, **12** applicants did not disclose their gender. Equality, Diversity & Inclusion information was not received for an additional **55** fellowship applications

Including 22 shortlisted
for the fellowships &
clinical primer
interviews

127
applications

triaged to
panel



63
projects funded
totalling
£2,524,515



35

male

Pls awarded



28

female

Pls awarded



9

ISSF3 panels held

49

ECR panel observers
supported



15

men and

34

women



25%

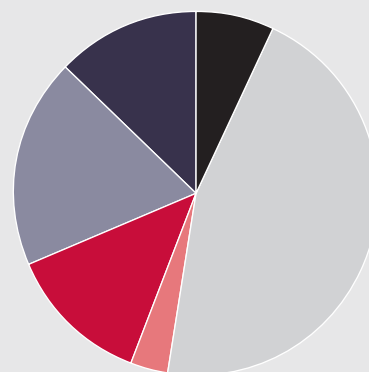
25%

average success rate
across all schemes

Broad Benefits

In ISSF3, six Schools in BLS have received ISSF funding for Research or Public Engagement activities, reflecting our ambition to invest in the very best science across the College.

- DENTL 4.6%
- BIOSI 8.13%
- PSYCH 12.19%
- PHRMY 8.13%
- HCARE 2.3%
- MEDIC 29.46%



Equality, Diversity and Inclusion



To embed equality, diversity and inclusion in the delivery of ISSF3, an Equality, Diversity and Inclusion Lead, Katherine Shelton has been appointed to the ISSF Management Board.

“Being able to interrogate our data for patterns in panel composition, applications and awards, reflects the commitment of the ISSF team at Cardiff to facilitating a scheme that is fair, giving equal opportunity to all in their respective academic endeavours.”

Key development areas for Equality, Diversity and Inclusion (EDI)

- EDI analysis of panels, awards and monitoring
- All ISSF panellists must complete two HR approved EDI training courses
- Gender balance of panels managed, where possible, across application reviews and introducing members
- An HR approved EDI form collected to enable monitoring of applications and success by protected characteristics.

Data analysis of Rounds A to C showed:

No relationship between which round candidates applied to and being made an award, nor was there imbalance by gender between rounds in number of applications.

There was **no association** between an applicant's identified gender and being made an award.

Data analysis of all schemes in rounds A to C (n=194 cases) shows that:

Women have a
37%
success rate

Men have a
36%
success rate

42% of awards to **26-35** year olds;

57% to those aged **36 and over**

Other protected characteristics are also being monitored to ensure EDI (ethnicity, declared disability). **There is no evidence of group differences in success rates.**



Public Engagement

A new Academic Public Engagement Lead, Jeremy Segrott, has been appointed for ISSF3 to develop a cohesive College Public Engagement Network and Strategy working with the College Engagement Officer.



“We are developing researchers’ skills in public engagement through provision of training courses and funding for Proof-of-Concept projects. Our new engagement strategy and cross college network will help connect, sustain and build capacity for our public engagement aspirations over the long term.”

Key priorities for Public Engagement

- Public Engagement Development Programme to boost skills and knowledge in developing, delivering and evaluating high quality public engagement
- College Public Engagement Network to bring Schools expertise and resourcing together, to identify best practice and to promote collaboration across the College
- College Public Engagement Strategy to inform and shape the direction of public engagement within the College in alignment to the College research strategy, the Cardiff University ‘Way Forward’ strategy and the Wellcome Trust public engagement strategy.

Public Engagement Development Programme

Three courses are available as part of the programme and in addition, Public Engagement Drop-in sessions take place within the Schools of the College:



93 participants

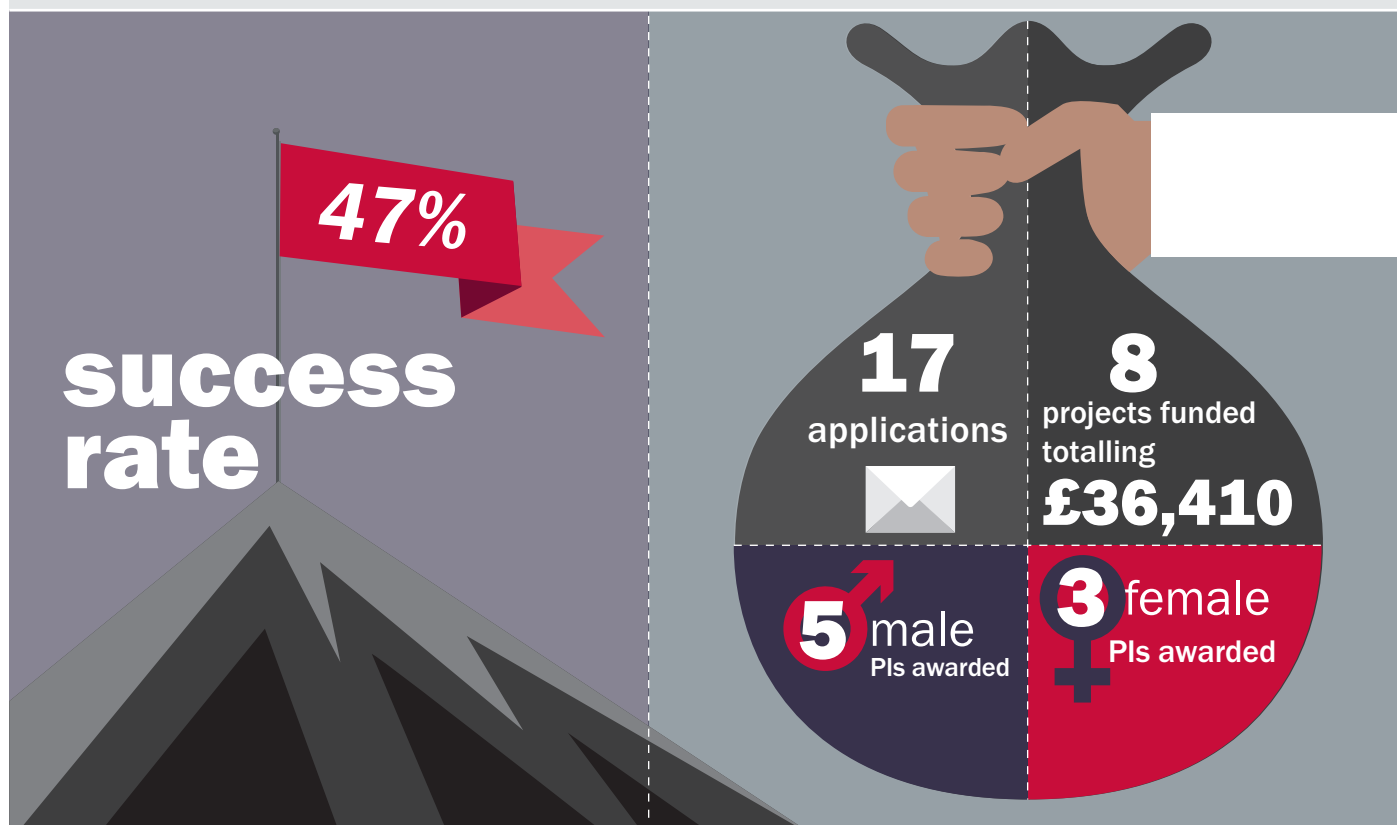
35% average increase in learning

98% POSITIVE FEEDBACK



ISSF Public Engagement **Proof-of-Concept Awards**

The ISSF3 Public Engagement Proof-of-Concept Award considers applications for innovative small-scale Proof-of-Concept public engagement up to **£7.5K**

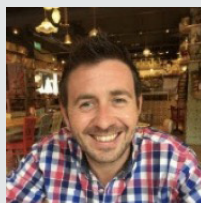




Developing a short animation on what it means to have ADHD

Dr Sharifah Agha, Honorary Lecturer, Division of Psychological Medicine and Clinical Neurosciences, School of Medicine

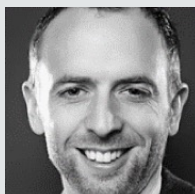
Sharifah's team will develop a short animation for children (7-11) with ADHD. They will work with children and parent support groups as they develop this new public engagement tool.



BeeSound Science Club – Computer coding and the study of nature

Dr James Blaxland, Post-Doctoral Research Associate, School of Pharmacy and Pharmaceutical Sciences

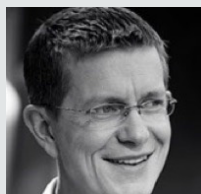
James and his team have developed a prototype system which combines computer coding with the study of nature to provide inspiration for the next generation of Welsh scientists. This work aims to help children in Wales perform better in STEM subjects.



'Brain Games' kit: to support teachers of A-level psychology and biology students in delivering the curriculum

Paul Allen, Digital Media Producer, School of Psychology

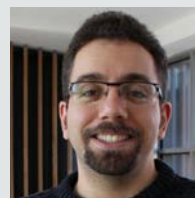
The multidisciplinary team will design, prototype and pilot a self-contained 'Brain Games Kit' for secondary schools delivering A-level psychology and biology that enables them to conduct their own lessons around the theme of neuroscience and the brain.



Swipe right for brain science: A citizen science brain imaging project

Professor Derek Jones, Cardiff University Brain Research Imaging Centre (CUBRIC)

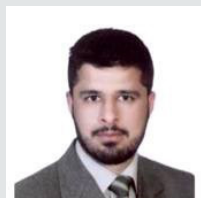
Derek and his team will collaborate with the National Software Academy to develop an online platform to teach a citizen science community to become 'armchair scientists', enabling them to interpret brain imaging and to judge brain wiring pictures.



"JAMMIND?" A weekend to develop positive mental health videogames

Dr Antonio Pardiñas, Research Associate, Division of Psychological Medicine and Clinical Neurosciences, School of Medicine

Antonio and his team will hold a weekend 'game jam' named 'JAMMIND?' where 20 developers work in teams with researchers and service users to develop positive mental health videogames. The evidence gathered will inform their day-to-day work.



Stakeholder evaluation of a sensor-based movement toolkit intervention for physiotherapy of knee conditions: an all Wales approach

Dr Mohammad Al-Amri, Research Associate, School of Healthcare Sciences

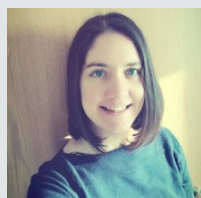
To evaluate the attitudes of end-users, (clinicians and patients) the potential benefits, barriers and facilitators to integration of a novel portable sensor-based toolkit in healthcare. They will organise drop-in sessions for patients and physiotherapists to experience the toolkit and provide feedback.



Communication is all! How to communicate science to young learners'

Dr Emma Lane, Senior Lecturer in Neuropharmacology & Director of Postgraduate Research, School of Pharmacy and Pharmaceutical Sciences

Emma and her team will consult with pupils, primary science leads and secondary school science teachers, to develop a half day STEM engagement training course to be made available to anyone at Cardiff University.

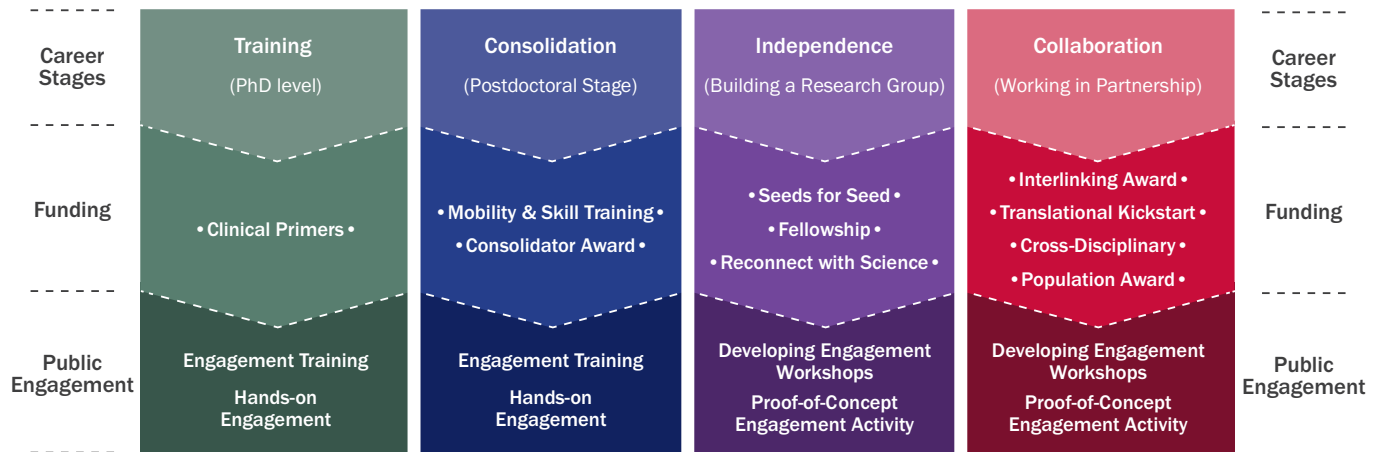


Getting animated about routine data: Engaging with the public on their understanding of routine data

Dr Fiona Lugg-Widger, Research Associate – Routine data, Centre for Trials Research

The project will work with members of the public to produce materials for researchers to use to increase public understanding of and engagement in research that uses routine data.

Examples of our ISSF3 grant holders in career stages



Career stage: Training

Name: Jack Underwood,
Clinical Research Fellow,
School of Medicine.

Funding Award: ISSF3
Clinical Primer Award

Project title: The Phenotypic Expression of Autism Spectrum Disorder in Adults

“Autism Spectrum Disorders (ASD) are a group of developmental disorders characterised by persistent difficulties in social interaction, communication, restricted interests, stereotypic behaviours and resistance to change. Most research to date has been focussed on children. This study will examine the lifestyle and other mental and physical health problems of a population of adults diagnosed with ASD.”



Career stage: Consolidation

Name: Rhiannon Griffiths,
Research student, School of
Dentistry.

Funding Award: ISSF3
Consolidator Award

Project title: The role of secreted TG2 in the development of autoimmune disease

“This project will investigate exactly how TG2 (a protein - transglutaminase 2 that has critical functions in tissue repair, but can also function abnormally and trigger an immune defence mechanism that attacks the body itself, resulting in disease.) influences the immune response, by studying its ability to cause immune activation.”



Career stage: Independence

Name: Danijela Tatovic,
Clinical Research Fellow,
School of Medicine.

Funding Award: - ISSF3
Seeds for Seed Award

Project title: A new window into the immune response
during Type 1 Diabetes

“Type 1 diabetes (T1D) is caused when cells of the immune system called T-cells attack and destroy insulin-producing cells in the pancreas. We have developed ways to monitor T-cell activity by studying organs called lymph nodes that act as ‘stations’ on the transport network that T-cells use to travel around the body.”



Career stage: Collaboration

Name: Dr Kate Langley,
Senior Lecturer, School of
Psychology.

Funding Award: - ISSF3
Population Award

Project title: Investigating the early adult outcomes of
childhood ADHD: Establishing a Wales-wide sample

“Children with Attention Deficit Hyperactivity Disorder (ADHD) are at increased risk of developing additional mental health problems in early adulthood and using A&E Departments. The reasons for this are unknown with little research on this topic. We plan to identify all children diagnosed with ADHD in Wales, then electronically track their outcomes using routine data from this population dataset to identify predictors of poor outcomes.”



Career stage: Training

Name: Chantelle Wiseman, Psychiatry Registrar, School of Medicine.

Funding Award: ISSF3 Training Panel: Clinical Primer Award

Project title: Examining whether personality traits and cognitive characteristics increase risk of developing PTSD after experiencing a traumatic event.

“At such an early stage in my research career, having a Wellcome Trust grant on my CV has been an amazing opportunity. It contributed a large part in me securing one of the GW4 clinical academic training PhD schemes.”

I'm a psychiatrist and my research is primarily in the mental health field, but I am really interested in the posttraumatic stress disorder (PTSD) and causes for that because we know that trauma is the main cause for PTSD, it is a necessary factor. Through the Wellcome Trust ISSF3 Award I have learnt how to handle a data set and use statistical software, so I have learnt a wealth of skills even before my results. It's been a really great opportunity. The analysis for the project is now done so I am just writing up and finishing off the thesis. I've been invited to present my research at the Royal College of Psychiatrist General Adult Meeting to share my research among psychiatrists.

Even though I was successful with my proposal, the ISSF team actually sent feedback, and as this was my first grant proposal having some written feedback was really useful.



Career stage: Consolidation

Name: David Stanton, Postdoctoral research Fellow, School of Biosciences

Funding Award: ISSF3 Consolidation Panel: Mobility & Skills Award

Project title: Outgoing Visit to Prof Love Dalen, Swedish Museum of Natural History

“My aims were to develop a collaboration with a world-leading ancient DNA lab, and to gain skills that will form the basis of future grant and fellowship applications. This project has given me a number of highly valuable skills in my field and opened up many opportunities for future research”

I have been developing my own independent research in recent years, it was therefore an exciting opportunity to receive an ISSF3 Mobility & Skills Award to carry out some research that I had been planning for a period of time.

I have been based in Cardiff for my entire research career and have now been able to gain experience in one of the world's leading ancient DNA labs. The visit has trained me in techniques that I am likely to use throughout my research career. It has also introduced me to a number of research collaborations and possibilities for future research that I would otherwise not have made.

The Cardiff Wellcome Trust ISSF3 Award was instrumental in me gaining my own fellowships (Marie-Curie fellowship and honorary fellowship in the Cardiff University School of Archaeology, Religion and History). The project has given me training relevant to my future research directions, forged collaborations with international researchers that will be involved in future funding applications, and generated preliminary data that will form a main part of those applications.



Career stage: Independence

Name: Aimee Grant,
Wellcome Trust Fellow,
School of Medicine.

Funding Award: ISSF3
Independence Panel:
Fellowship Award

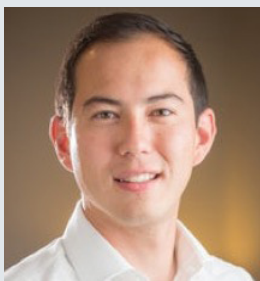
Project title: Understanding barriers to breastfeeding: a socio-ecological understanding of infant feeding within public space using participatory visual and ethnographic methods to facilitate future intervention development.

“I was obviously really pleased to receive the ISSF3 Wellcome Trust Award, it has helped stage my career. To have 18 months to do a project was so important in terms of progressing my career. It will be enough to place me in a competitive position for external funding.”

One of our big public health challenges is infant feeding, so coming at the issue from a more holistic lens is really important. I have a background in social policy focusing on health, and recently my research has focused mostly on infant feeding and pregnancy. I'm particularly interested in moving the focus away from health services and into the social environment, because that can be one of the biggest barriers.

I have collaborated with a small team from the Centre for Trials Research and the Division of Population Medicine on a qualitative systematic review and gained new methodological skills. Taking the findings from the systematic review and seeing how that works in practice, through an “urban ethnography” is a new skill for me.

The Wellcome Trust ISSF3 Fellowship Award will place me in a competitive position for external funding.



Career stage: Collaboration

Name: Wayne Nishio Ayre,
Lecturer in Biomaterials,
School of Dentistry.

Funding Award: ISSF3
Collaboration Panel:
Translational Kickstart Award

Project title: Novel antimicrobial and osteogenic laser-sintered implant surfaces using ultra short-pulsed laser ablated micro/nano-topographies.

“I've improved my grant writing skills and gained invaluable experience in co-ordinating multiple industrial collaborators as well as mentoring and line managing a post-doctoral researcher. The ISSF3 Award has also helped me reflect on where I want to focus my research direction.”

The main aim of this project was to demonstrate a proof of concept technology and to build links with specific industrial collaborators. I feel this funding stream has really helped to fulfil both these aims in terms of the funding amount and project duration.

I've always been interested in a career in academia and have been inspired and driven by the world-leading research here at Cardiff. As a recently appointed lecturer, this project has helped me develop independent links with new industrial collaborators and helped me develop my own research area. It has also been extremely helpful in developing a track record of research income, which will no doubt strengthen my applications towards larger RCUK or charity funding bids.

I think the support provided by ISSF to help early career researchers and young postdoctoral researchers with their academic career is great and I cannot think of any changes I would make.



Proof of concept engagement activity

Name: Dr Antonio Pardiñas, Research Associate, Division of Psychological Medicine and Clinical Neurosciences, School of Medicine

Funding Award: ISSF3 Public Engagement Proof-of-Concept Award

Project title: “JAMMIND?” A weekend to develop positive mental health videogames

“Setting up this game jam has given me a much clearer picture on how mental health is usually communicated, and how I might help to communicate it better.”



Before we started drafting this project, I had very little experience of public engagement related to mental health, and wasn't very confident at it. While we argued at length about the social importance of videogames in our application, we are aware they don't have this reputation across the board and it can be hard for a non-gamer to picture videogames communicating something meaningful about mental health. We have been pleasantly surprised by the amount of support we have received, not only from the Wellcome Trust in funding the application, but from collaborators such as the National Centre for Mental Health (NCMH) and Games Wales.

After the game jam is over we will release the games to the public through NCMH and Medical Research Council Centre for Neuropsychiatric Genetics and Genomics (MRC CNGG), and we'll be assessing the feedback on them. We'll also assess feedback from the jam attendees on their experience to see what they have learned and how they can apply this knowledge in their day-to-day work.



Engagement training

Name: Dr Judith Harrison, Research Associate, CUBRIC, School of Medicine

“I am a Co-Investigator (Co-I) for the ISSF3 Public Engagement Proof-of-Concept Award project ‘swipe right for brain science’, a citizen-science project based on my research which involves an exciting collaboration between CUBRIC, the National Software Academy and a citizen science community.”

I had no experience of planning, organising or evaluating public engagement. However, as a clinician I am particularly aware of the importance of communicating scientific findings to different communities. I am also keen to find ways to involve people in my research.

The Public Engagement Development Programme helped me to develop my ideas into a fully formed proposal, including detailed plans for how to communicate with our target audiences and how to monitor and evaluate the project. The Public Engagement Development Programme equipped me with essential knowledge and skills without which our team would not have gained ISSF3 funding. It has also increased my confidence to apply for public engagement funds from external sources to continue the project beyond the Proof-of-Concept.

Early Career Researcher (ECR) Observer feedback



"Being on the ISSF3 panel was probably one of the most useful training exercises I have completed at Cardiff. I am really grateful this experience was on offer especially when I am writing a lot of grants and uncertain on whether I am making common mistakes."

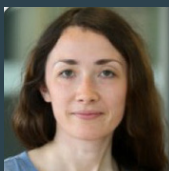
Jessica Steventon, School of Medicine. ISSF3 Consolidator Panel



"I gained a greater understanding of the grant assessment process, it was especially interesting to see the consistency of grading decisions despite the diverse research backgrounds of the panel."

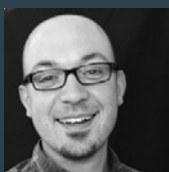
Rachel Paterson, School of Biosciences. ISSF3 Collaboration Panel

ISSF3 Awardee feedback



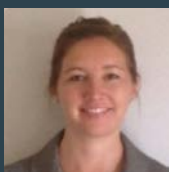
The award has significantly strengthened my track record of attracting research funding which I hope will support the transition to independence."

Tatyana Shelkovnikova, School of Biosciences, Mobility & Skills Award



"As an early career researcher, the Seeds for Seed Award gives me the chance to develop a completely new research idea and to gain valuable pilot data for future competitive fellowship and grant applications."

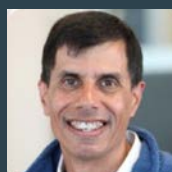
Matthias Gruber, School of Psychology, Seeds for Seed Award.



"Giving this relatively small amount of money to an established PI may sometimes be a drop in the ocean, but to an ECR such as myself it's already having a huge impact."

Jennifer Davies, School of Healthcare, Cross Disciplinary Award

ISSF3 Panellist feedback



"For several years I applied to multiple funding bodies to serve on their funding panels. I participated in the ISSF3 Wellcome Trust funding panels at Cardiff and gained valuable experience in the peer review process that mirrors the major funding bodies."

Since then, I have served on the BBSRC panel for 3 funding rounds and continue to apply the valuable assessment experience gained from working with the Cardiff University ISSF3 program."

Eshwar Mahenthiralingam, Co-Director of Research, School of Biosciences, ISSF3 Panellist.

ISSF Panellists

68 Panellists established

We routinely recruit and rotate members of ISSF3 panels to balance expertise and provide the broadest involvement. In ISSF3, we actively look for new members for our panels from across the BLS College and beyond.

33 female **35** male



58 Academic **10** Professional Services



51 online EDI courses completed

7/7 Schools, **1** Research Support Office and the College of Arts Humanities and Social Sciences represented on panel.

Top tips for your application



A good proposal should:

Clearly describe the current status of the research question, issues, problems and limitations

Describe the importance, knowledge gaps and research need

Describe the novelty in the approach

Have a clear vision/ hypothesis /aim and objectives

Feature a non-technical lay summary which gives an accessible overview to non-experts

Discuss preliminary data or demonstrate the effectiveness of the technique/ approach

Have a clear work plan: roles, responsibilities, deliverables and timelines

Provide a clear outline of the skills that each applicant will bring to the project

Address risks and offset with contingency plans

Include sufficient detail for reviewers

Discuss staff training and career development plans

Discuss achievable routes for long-term sustainability (including funding sources)

Be appropriately costed and justify why funds are needed

Show progression from data (collection) to knowledge (analysis) to action (next steps)





Career stage	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Training												
Consolidation												
Independence												
Collaboration												
Public Engagement												

Ask yourself some questions:

Do you fully understand the wider landscape and challenges?

What is your big idea? Can you explain the core of it in 2 minutes?



Why is it a problem? Why is it important to solve it?

What has been done before? How is your idea different?

What don't we know and why is it important to find out?



What are the wider implications? How could this lead to impact?

Why is it exciting? Why is it better than the current approach?

Why are you the best person/team to do it?



Is it going to the right scheme, at the right time in my career?



Is it within scheme remit, and aligned with the University and Wellcome Trust priorities?

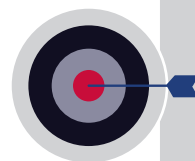
Why might it fail? What have you done to ensure it won't? (contingency plans)

How will you manage the project, team and budget?

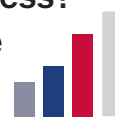


How will you train, manage and develop those researchers working for you?

How will you know if it's a success? (expected outputs /outcomes)



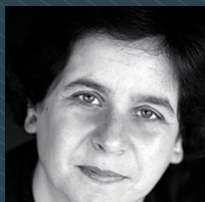
Who will know if it is a success? (Share and disseminate the findings)



Will a researcher not in my area understand what I've written and why the project is important?

Will this enhance my career and get me to the next stage?

ISSF3 Team



Professor Kim Graham
ISSF Principal Investigator and
Pro-Vice Chancellor

Kim is the ISSF Principal Investigator and the Pro Vice-Chancellor for Research, Innovation and Enterprise at Cardiff University.



Professor Gary Baxter
Chair of the Wellcome Trust
Management Board

Gary is the Chair of the Wellcome Trust Management Board, as well as Pro Vice-Chancellor in the College of Biomedical and Life Sciences.



Dr Katherine Shelton
ISSF College Academic Lead for
Equality, Diversity and Inclusion

Katherine is responsible for all aspects of Equality and Diversity in ISSF3. She reports to the University Equality and Diversity Committee.



Dr Jeremy Segrott
ISSF College Academic Lead for
Public Engagement

Jeremy will work closely with the Engagement Officer to ensure the College ambition to unite researchers around synergistic engagement goals.



Hasnae Khamlichi
ISSF Administrative Officer

Hasnae is the ISSF Administrator and Research Support Officer in the College. Hasnae manages the day-to-day running of the ISSF scheme.



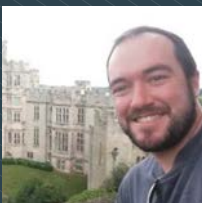
Carl Smith
ISSF College Engagement Officer

Carl can provide advice and guidance on all aspects of public engagement, training and the application process for Proof-of-Concept funding.



Dr Amanda Roberts-Jones
Acting Head of Research Development,
Research Innovation Services

Amanda manages the professional team (based within Research Innovation Services and the College) responsible for delivery of the ISSF Awards.



Dr Andrew Staphnill
Research Development Officer

Andrew is responsible for managing appropriate use of the ISSF grant in alignment with the College match funding, and providing support in identifying opportunities for grant funding.



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