

*Tell us about
yourself*



Represent-Connect-Inspire!

Mark Richards

Senior Teaching Fellow

Department of Physics
Imperial College London



A little about me

Hello! こんにちは

Sotaro Kita, “Kita”, (he/him)

Professor of Psychology of Language
Deputy Pro Vice Chancellor (Research)
University of Warwick

I manage the university’s strategy for research culture and research communication. I also do research on language and gesture.



Hello!

Sabrina Fleurimé

**Science Policy Officer and Corporate
Partnership Director**

I promote the interests of the biosciences and I also support Black individuals studying STEM in the UK



A little about me

Hello!

Kulbir Shergill

**Director of Social Inclusion,
University of Warwick**

I lead the development and implementation of Warwick's Social Inclusion Strategy for an inclusive student and staff experience.



A little about me

Hello!

Quassim Cassam

Professor of Philosophy,
University of Warwick

I currently research and teach on liberation philosophy, extremism, the philosophy of terrorism, and the philosophy of general practice.



A little about me

Harbinder Kaur Sandhu

Professor of Health Psychology

Associate Director, Warwick Clinical Trials Unit
Practitioner Health Psychologist, HCPC

Clinical Practice, Research, Teaching, Leadership and Mentoring



A little about me

*What are some of your
key life moments*



Mark

**Founded the Blacktt Lab Family
(BLF)**

www.theblackttlabfamily.com

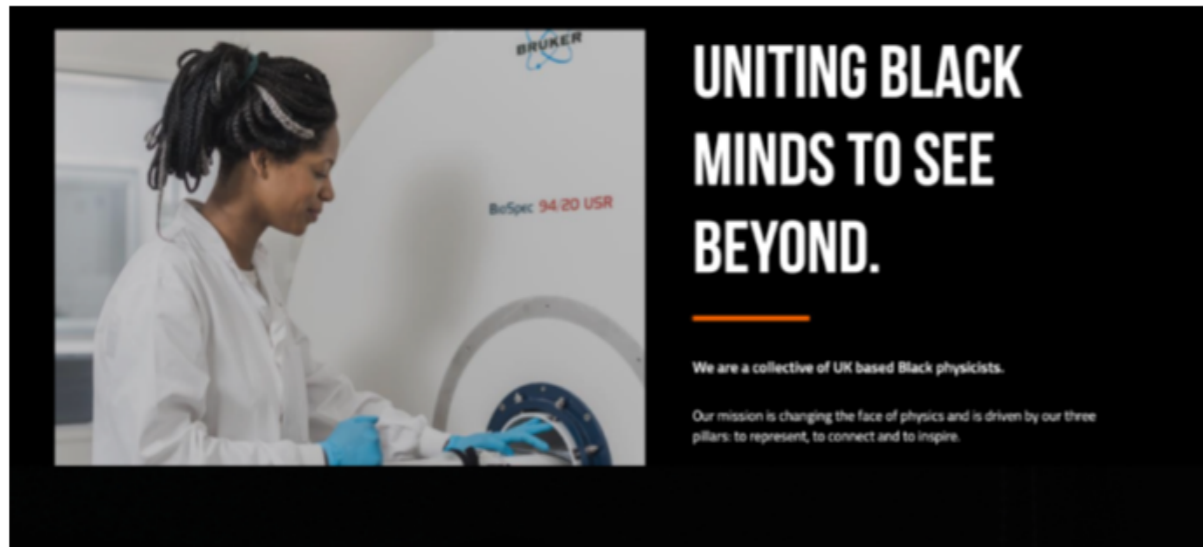
**Featured in the Mathematics
Today Journal for Black History
Month**

My awards

**Hosted the BLF Representing
Physics Conference**


**Featured in Stormzy's
Superheroes Book**

**Featured on Sky History's Evil
Genius**



@blackettlabfam

Royal Society awards Imperial physicist for his dedication to equity in science
 by Hayley Dunning
 24 August 2022



Dr Mark Richards is recognised in the Royal Society's annual awards for his commitment to increasing equity in physics.

- ❖ Elected Fellow of the City and Guilds Institute, 2019
- ❖ Presidents award for Excellence in Culture and Community, 2022
- ❖ Inaugural Royal Society award for Research Culture, 2022
- ❖ Awarded Hon. Fellow of Institute of Physics, 2023

Inclusive research in the future..?

MATHEMATICS TODAY
 Institute of mathematics & its applications

BLACK HISTORY MONTH

The Ubiquity of Sampling Theory
 Probing mobile air pollution sensor networks with the Nyquist-Shannon theorem

Building a Powerful Mathematical Identity!
 Nira Chamberlain on promoting mathematics and being Proud to be a Mathematician

Urban Maths: The Ubiquity of Sampling Theory
 Mark D. Richards, Imperial College London

This is a short piece on how, among other things, sampling theory has determined an integral role in providing all the mobile sensors on our mobile sensor networks, which are not just for understanding our new ubiquitous data streams really.

Introduction
 While visiting Stephen Alexander, a then postdoc Imperial physicist and visiting lecturer at Imperial, we met up with his good friend Bill Murray, a mathematician, for lunch. The discussion was about all manner of things, including the under-representation of Black scientists and mathematicians in the US and UK. Bill was the founder of CAABIM, the Campaign for African American Black Scientists in the Mathematical Sciences, which had been meeting for many years, while Stephen explained what he had learned from networking and making connections in these conferences and others like the British Society of Black Physicists provide. At one point, the discussion turned to research and to practice, my first use of research to inform practice and what

I explained a problem I was encountering in getting the optimal sampling rate for the same high throughput air pollution sensors we were developing as the one I had already tried down to probe sampling time to make a small and hard to see sensor sample sufficiently well, such that doing the calculations that otherwise would have been obtained from some network of sensors were could be recovered. It this could be achieved, then I had low cost sensors of local pollution mapping would be possible. Towards the end of our lunch conversation, Bill wisely said: "It seems like you need sampling theory", to which Stephen made it an agreement, and the my journey began.

What Bill had indicated was that the problem in recovering use of recovering is agreed on the basis of a continuous function over time that is a sequence of discrete samples (think of the use of sampling theory) applied over the full bandwidth (or sampling period), but that the discrete samples that are reconstructed (or sampled) are discrete samples from the continuous function, in this case, real-time values of pollution monitoring.



Article Combines:
 ○ EDI
 ○ Research
 ○ Mathematics
 ○ Sound / Music

Illustration, Jess Wade

Russel Kane's – Evil Genius
 on Sky History
 launch 20/11/2023



Kita

2023, I served as an external examiner for PhD for the 30th time.

2022 Warwick Award for Teaching Excellence for inclusive supervision

2021, I got the first senior manager job as Academic Director

2020, I led the REF submission for Psychology

2017-2023, Editor of the journal, GESTURE

2012-2014, President of International Society for Gesture Studies

2004, Gave a keynote speech in an international conference for the first time

Sabrina

**Landing my first job at a
big pharma company**

**My first publication in a
scientific journal**

**Being the youngest Drug
Product Lead on 2 projects**

**Supporting early career Black
researchers during Covid**

**BBSTEM partnership with a
big tech company**

**Not being afraid to pivot
out of the lab**

**Quickly adapting to my new
career**

**Supporting students via
BBSTEM mentoring scheme**

My favourite moments

Kulbir

Having my daughter

The lift moments

**Warwick Social Inclusion
Strategy**

**Seeing the impact of
influence**

The INspire programme

**Getting my first role in the
corporate sector**

At Genesis: Moving **female representation** on board from 25% to 47% and on senior management teams from 17% to 36%

My first national role at NACRO & winning a national award for my strategy (followed by others)

My favourite moments

Quassim

Getting my first academic job

Publishing my first book

Getting a Chair at UCL

Getting a Chair in Cambridge

**Being elected a Fellow of the
British Academy (2022).**

**Moving from Cambridge to
Warwick**

Elected an Honorary Fellow of Keble College, Oxford.

Harbinder

I-WOTCH Study Awarded 2016

Promotion to Professor

**International Hero of Hope
Award (Healthcare)**

**Conference and Media
(ITV News live, BBC Radio 4)**

**Asian Woman of the Year
Finalist 2022**

**Completing the Aurora
Women in leadership
programme**

**Visiting Downing Street
Round table discussion**

**Opportunity to mentor early
career researchers and take
leadership role in CTU**

What **advice** can you
give?



1 Audience. Bring your Authentic SAelf to the workplace

2 Audience. You're never too old to learn from others, and never too young to mentor others

3 Audience. Ultimately the skills we need to address global challenges are a combination of Innovation, Creativity and Enterprise

4 Institutions. Support special conferences like this one!!!

5 Institutions. Extend targeted scholarships and other support across the pipeline.

6 Institutions. Hear from researchers from underrepresented groups & develop an evidence based approach towards inclusion strategies.

1 Audience. Network with your peers

2 Audience. Look out for opportunities and be prepared to move.

3 Audience. Be mindful of your own bias.

4 Institutions. Do not over-rate "relevant experiences". Value the vision and the ambition.

5 Institutions. Do not tap on the shoulder. Solicit self nominations.

6 Institutions. If somebody is "a great fit", they probably will not add much.

1 Audience. Know your 'what' and your 'why'

2 Audience. Keep an open mind

3 Audience. Don't be afraid to start small

4 Institutions. Ask and listen

5 Institutions. Support by branching out

6 Institutions. Foster more academia-industry relations

1 Audience. Make friends with your fears

2 Audience. Don't ever let anyone tell you what you can and can't do – you're the best judge of that

3 Audience. Don't be like anyone – be like you!

4 Institutions. Be accountable for your actions & ensure others are too

5 Institutions. Inclusion requires work and effort it doesn't just happen – be prepared for what that takes

5 Institutions. Start with checking your own behaviours and biases

Quassim

1

Audience. You need luck and talent to succeed in academia.

2

Audience. Whatever your career path, the feeling of being an outsider is difficult to overcome..

1

Audience: whether personal and/or professional development it's rarely a clear path and that's okay. The key thing to remember is that sometimes setbacks will help you learn and think of new and more exciting paths to take.

2

Audience: take the time to reflect and celebrate achievements, however big or small. This will help enhance your motivation and learning and could help inspire others.

3

Audience: mentorship can be highly valuable, either giving or receiving, consider these and explore what options apply to you.

4

Institutions: Communication and bringing together groups across the institution to have a safe space to discuss and plan action for a positive research culture.

5

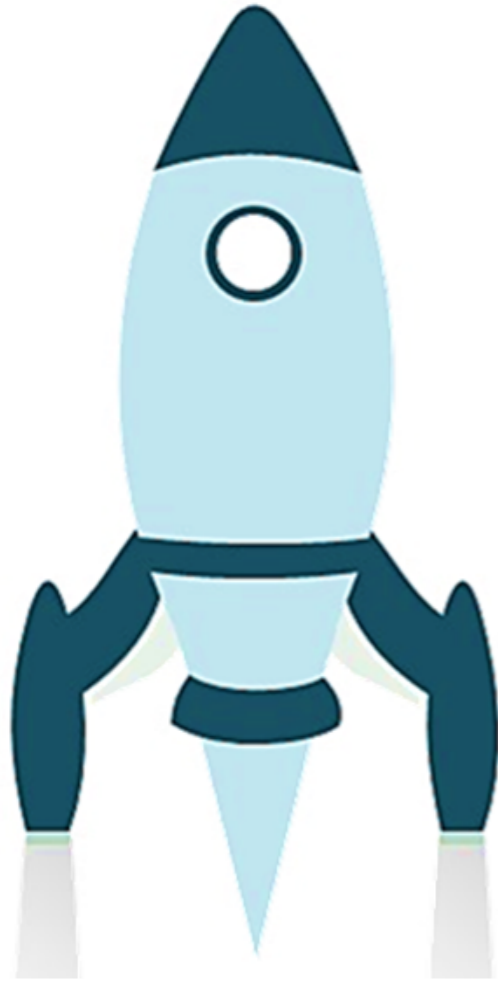
Institutions: More visibility of strategic action planning across departments and representation in senior leadership meetings.

6

Institutions: opportunities, support and training which is ongoing.

Do you have any
updates?



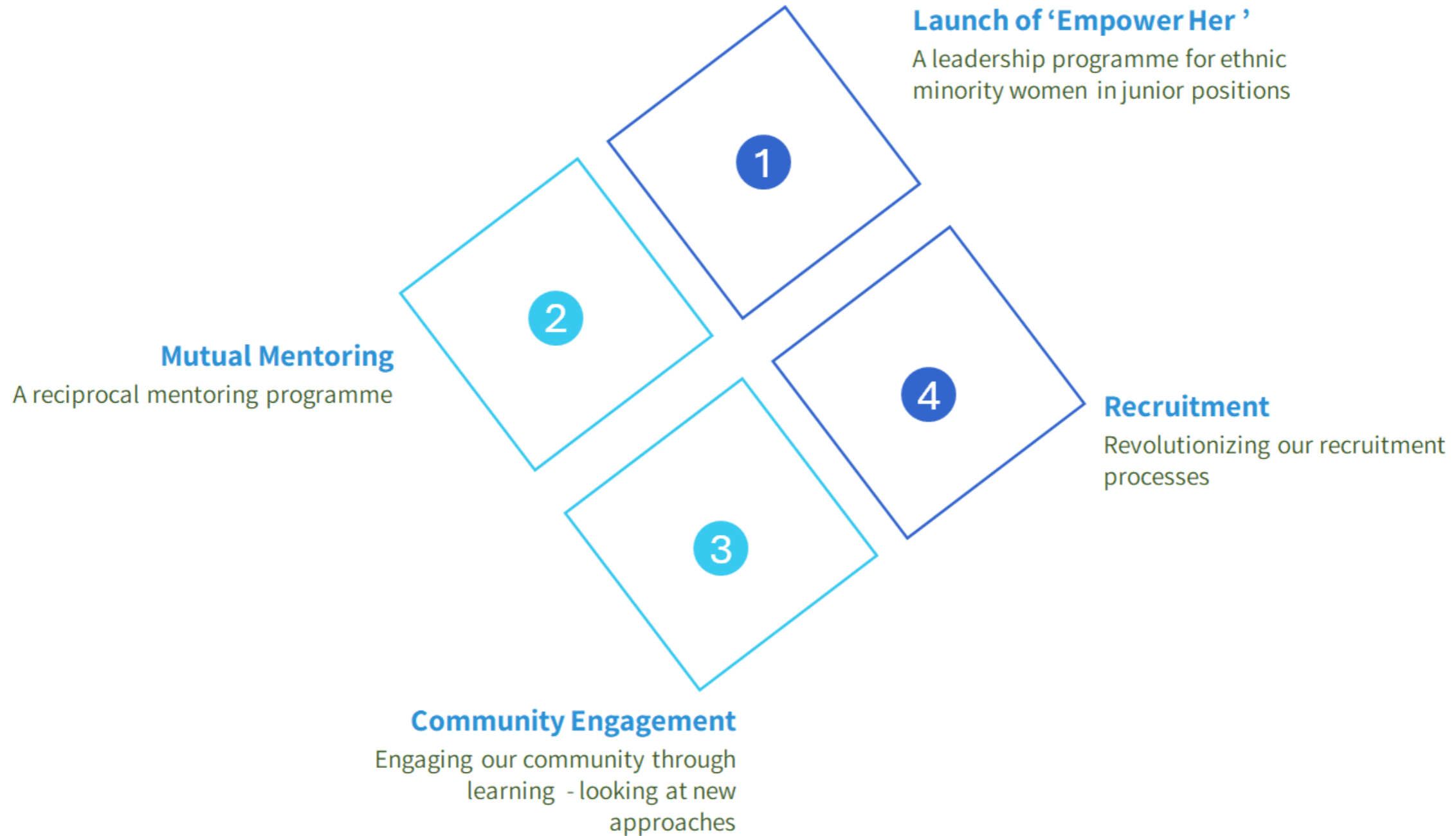


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Warwick PATHWAY programme

The launch event on the 22nd of November

A positive action scheme to facilitate research careers for black students and researchers



Harbinder

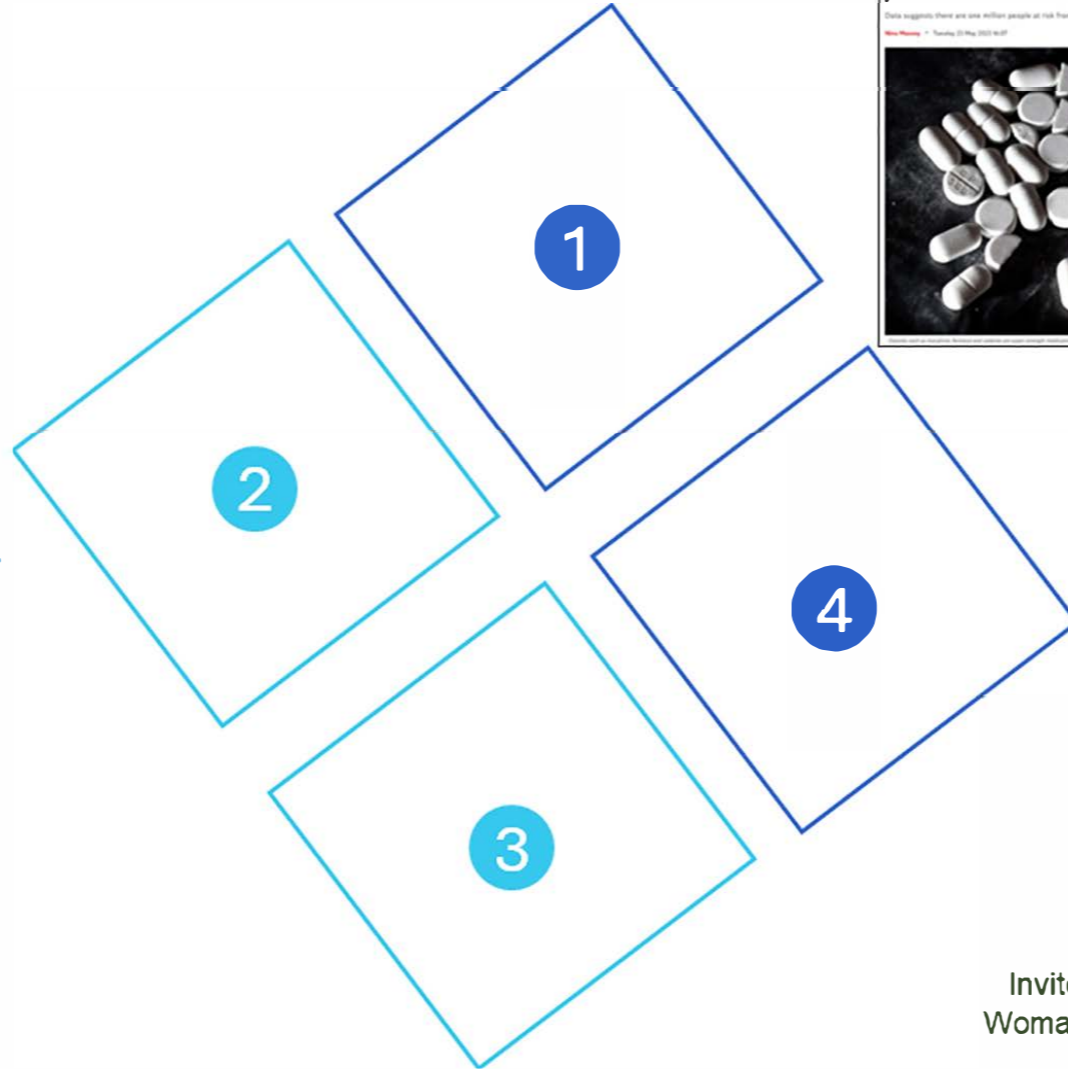


Update 2

Warwick Innovations and Impact
NHS England
Canada and the US



Update 1



Update 3

Developing group for behaviour change
interventions in clinical trials

New clinical trials funded by the NIHR

Update 4

Professional development and application
Ambassador for the Endometriosis Foundation
Invited talks such as leadership and Imposter Syndrome
Woman of the Future: continued support and Ambassador

