

Diet & Health Innovation Early Stage Feasibility Projects Consortia Building Event

18th March 10am to noon

Welcome and Housekeeping

- Please stay on mute throughout the talks
- Please put any questions in the “Questions” Box
- Please use “Chat” to introduce yourself and organisation
- Please use “Chat” to connect with fellow attendees
- This webinar will be recorded with the exclusion of the breakout sessions
- Links to the recording will be circulated afterwards

AGENDA

- 10:00-10:05 **Welcome and Introduction**, Simon Baty, Innovate UK Business Connect
- 10:05-10:20 **Competition overview**, Paul Laniran, Innovate UK and Mary Jenkinson-Finch BBSRC
- 10:20-10:25 **OIRC Hubs Overview**, Ayela Spiro and Sarah Coe, British Nutrition Foundation
- 10:25-10:35 **Competition Q&A Session**
- 10:35 – 11:00 **The OIRC Hubs:**
- Consumer Lab
 - I-Nutrilife
 - INFORM
 - RIPEN
 - STAR – by BNF
 - Biofortification – by BNF
- 11:00-11:20 **Themed breakout 1**
- 11:20-11:40 **Themed breakout 2**
- 11:40-11:45 **Random breakout**
- 11:50-11:55 **Closing remarks**



Biotechnology and
Biological Sciences
Research Council

Diet and Health Open Innovation Research Club (OIRC)

OIRC consortium building event, 18th March
2024

Mary Jenkinson-Finch
Senior Portfolio Manager





Biotechnology and
Biological Sciences
Research Council

Agenda

- Introduction from IUK
- Introduction to the Business Interaction Unit (BIU)
- Diet and Health Open Innovation Research Club (OIRC)
 - Overview of the programme
 - Introduction to the hubs
 - Hub funding opportunities
- **Diet and health innovation: Early-stage feasibility**
 - Overview to the funding call
 - Scope
 - Timeline



Innovate UK

About Us

- We are the UK's innovation agency
- We support business-led innovation in all sectors, technologies and UK regions
- A key delivery body of the Government's Innovation Strategy

Our Mission

- To help UK businesses grow through the development and commercialisation of new products, processes, and services, supported by an outstanding innovation ecosystem that's agile, inclusive and easy to navigate.



Better Food for All Portfolio

Organisations funded



54

Projects funded

£27.1 million

Full project costs

£19.9 million

Amount of grant funding committed

£7.2 million

Pledged co-investment

Example projects



Enhancing food quality

- Improving nutritional qualities of milk
- High fibre beverages
- Improving nutrition through vertical farming
- Improving nutritional quality of baked goods and snacks
- Improving milling processes for better nutritional quality products
- Functional alternatives to sugar
- Novel salt replacement

Stratified nutrition

- Elderly
- Hospital patients
- Infants
- Postmenopausal women

Packaging & storage

- Improving nutrition through storage
- Cost effective shelf-life extension for nutritious perishable foods

Alternative proteins

- Novel seaweed and algae applications
- Innovations in plant-based meat alternatives
- Innovations in plant-based dairy alternatives

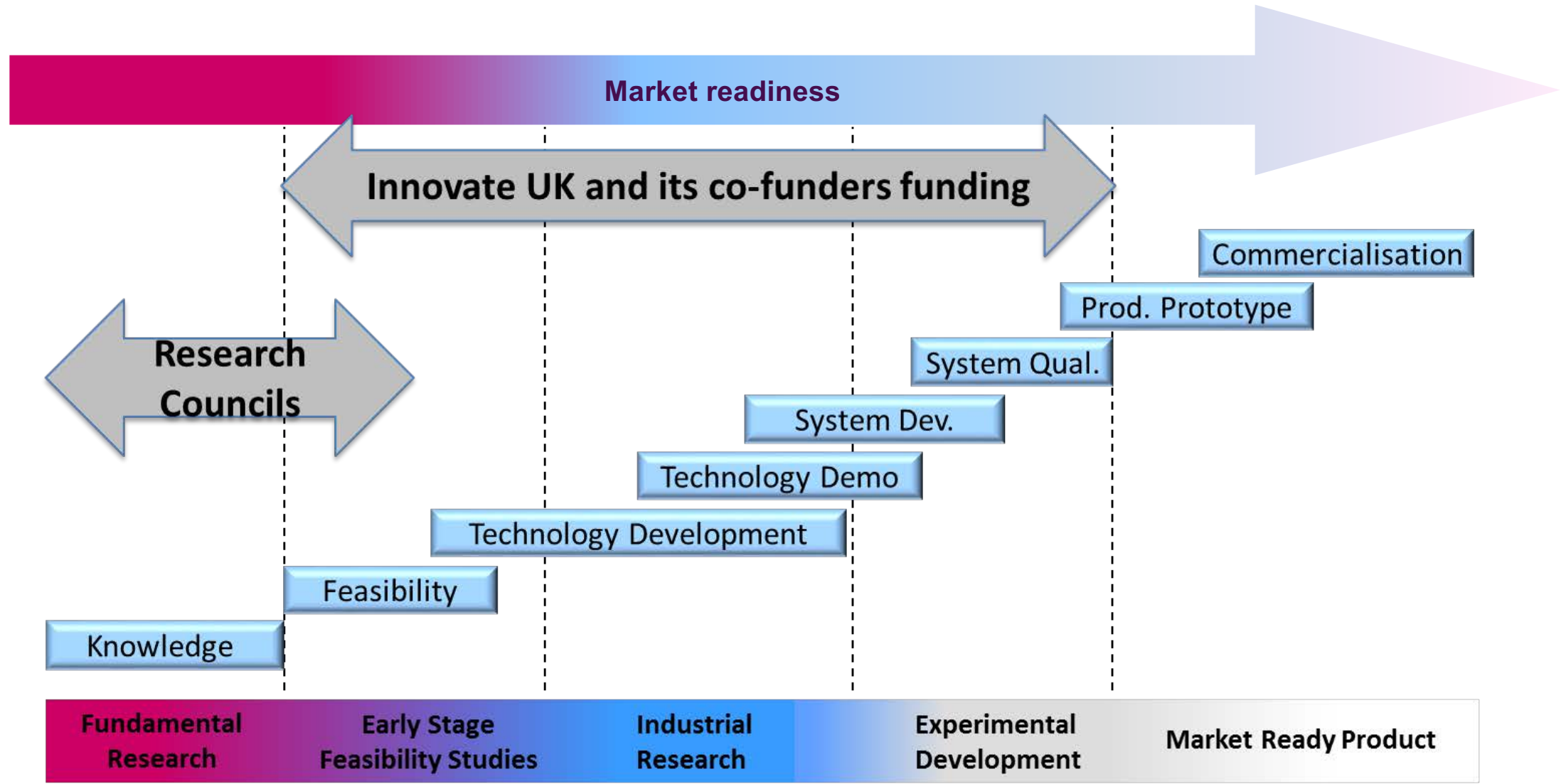
Functional foods

- Cognitive health
- Wellbeing
- Probiotics
- Healthy ageing
- Metabolic disorders

Fortification

- Fortification of meat alternative and plant-based products
- Enhancing iron content of salad vegetables
- Fortified food products for sports performance
- Fortification of beverages

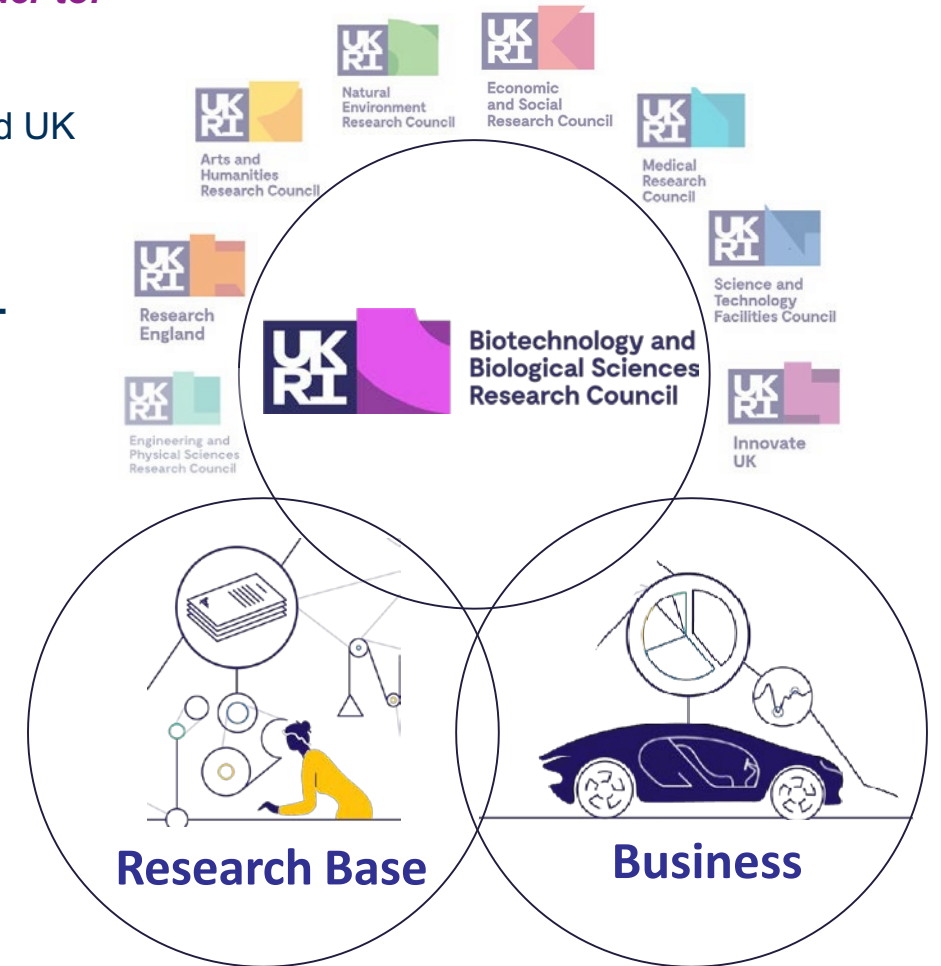
OIRC Better Food For All



Working with businesses – how?

We work with, and support others to work with, a wide range of businesses in order to:

- **Strengthen our partnerships with businesses, and engage them in helping to inform, shape and promote** national strategy and policy across BBSRC, UKRI and UK Government.
- **Help businesses to grow and thrive through co-design, co-investment and co-delivery** in strategic, industrially-relevant collaborative R&D programmes with the bioscience research base.
- **Support businesses with bespoke research and innovation insight**, and help connect businesses to world-leading expertise and facilities across the UK.
- **Enable businesses to partner, invest in, and inform** our investments in nurturing and training the next generation of diverse talent.
- **Provide businesses with opportunities to meet new academic and business collaborators** through our business engagement activities, strategic partnerships and forums.



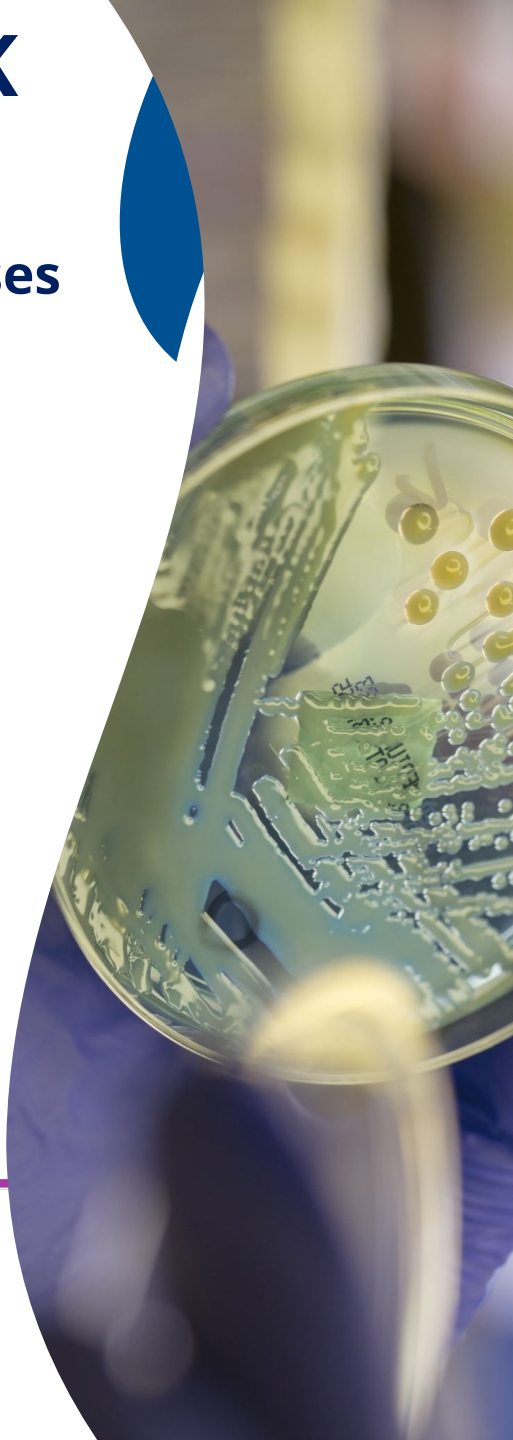
Helping businesses grow and thrive across the UK

BBSRC works with a wide range of bioscience and biotechnology businesses through:

- **Industry Partnering Awards (IPA) and LINK grants:** Include a 10% cash or 50% cash and/or in-kind contribution from the industry partner. These are more applied research with significant industry involvement.

Next application deadline: **Rolling deadlines - 2024**

- **Sector Specific Opportunities**
- **Partnering with IUK and across UKRI**



Overview

Diet and Health Open Innovation Research Club

- The food and drink sector has a **total turnover of £104 billion**
- The Government estimates that treatment of obesity-related conditions in England costs the NHS £6.1bn each year
- Diet & Health Research Industry Club (DRINC) was established by BBSRC, in partnership with EPSRC, MRC, ESRC and industry in 2007.
- Investment totalled **£22 million**, funding 43 projects over 14 years.
- Diet and Health OIRC builds upon BBSRC's track record of working and co-investing with businesses to ensure academic-business partnerships throughout the food and drink industry are supported to deliver societal and economic value through collaborative research and innovation



Overview

Diet and Health Open Innovation Research Club

- Diet and Health OIRC is a **£15 million, 5-year investment** from BBSRC, Defra, MRC, and IUK supporting collaborative R&D between businesses, academics, policy-makers and wider stakeholders
- Aims to deliver innovative solutions to diet and health challenges in the UK, in key areas identified through strategic engagement
- 6 new innovation hubs were launched through this investment in late 2022
- **The British Nutrition Foundation** is the coordinating body for the hubs



Overview

Diet and Health Open Innovation Research Club

The **key areas for the investment** were identified through assurance and strategic engagement process and based on industry needs. These themes are as follows:

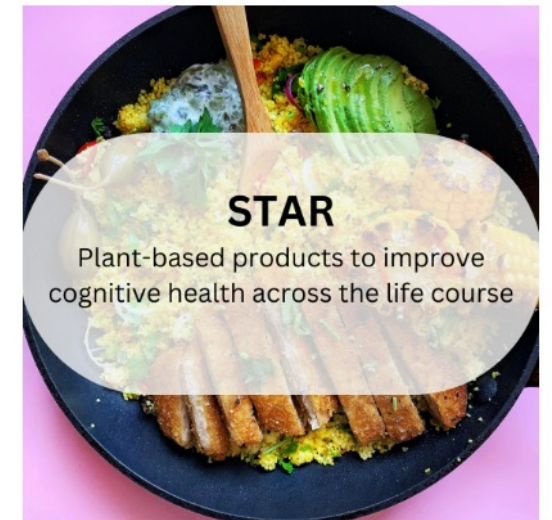
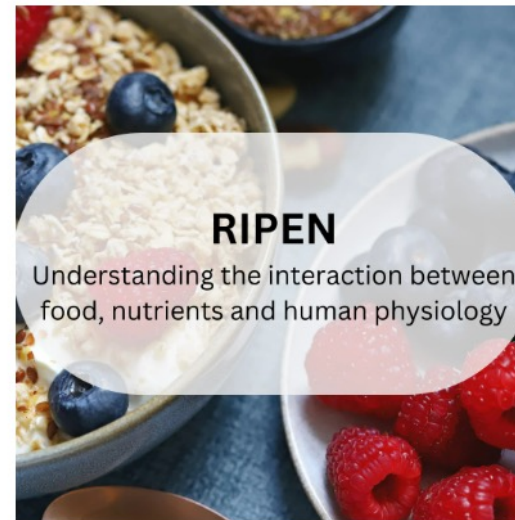
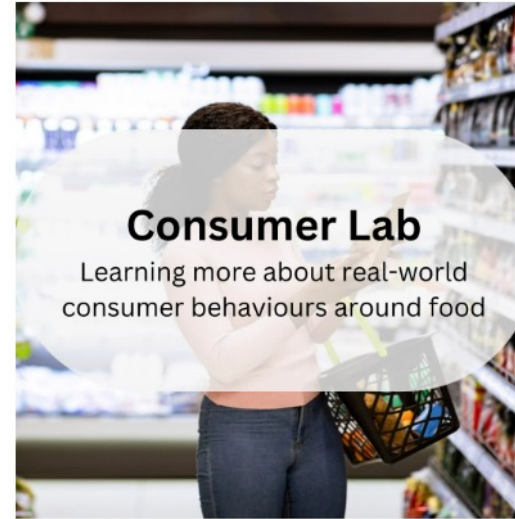
1. Understanding the interplay between food components and human physiology
2. Improving health and nutrition through biofortification
3. Biological, social, and psychological determinants of food choice and eating behaviour
4. Development of functional foods and beverages
5. Understanding how food and beverages deliver improved nutrition across the life-course.



Introduction to the hubs

Diet and Health Open Innovation Research Club

**Six hubs
established
each
tackling one
of the key
areas**



<https://www.nutrition.org.uk/our-work/who-we-work-with/diet-and-health-oirc/>

Hub Funding Opportunities

Diet and Health Open Innovation Research Club

Hubs offer three different types of funding to their communities:

Feasibility Awards

Up to £100k and
12-months.

Matched cash or in-kind
industry contribution
required.

Business Interaction Vouchers

Up to £50k and 6-
months.

Contributions from
industry not required but
encouraged.

Flexible Mobility Awards

Up to £100k and
9-months.

Industry cash or in-kind
contributions required.

Hub funding calls open throughout the year with rolling deadlines, please check the hub websites for more information

Overview

Diet and health innovation: Early-stage Feasibility Projects

Funding competition

Diet and health innovation: Early stage feasibility projects

UK registered organisations can apply for a share of up to £2.5 million for early stage feasibility projects working with one or more of the Diet and Health Open Innovation Research Club (OIRC) hubs. This funding is from BBSRC and Innovate UK.

Competition opens: Wednesday 14 February 2024

Competition closes: Wednesday 8 May 2024 11:00am



Funded by
Innovate UK
and BBSRC

Overview

Diet and health innovation: Early-stage Feasibility Projects

What support is available?

Funding type	Grant
Total Fund	£2,500,000
Award range	£100,000 - £250,000
Latest start date	1 October 2024
Expected duration	9 to 18 months
Latest end date	31 March 2026
This competition delivery is being led by IUK and can be found on the Innovation Funding Service (IFS). Applicants to this funding must be members of one of the Diet and Health OIRC hubs	



Funded by
Innovate UK
and BBSRC

Overview

Diet and health innovation: Early-stage Feasibility Projects

Eligibility

- Your consortium must include **at least one business and one research organisation**, as a minimum
- **Either can lead**, businesses can only lead on one application but can collaborate on any number
- Both project leads must be **members of a Diet and Health OIRC hub**
- Previously submitted applications can be used, however you can make a maximum of two submissions to Innovate UK with any given proposal



Funded by
Innovate UK
and BBSRC



Overview

Diet and health innovation: Early-stage Feasibility Projects



Scope

Your project must have the potential to impact the nutritional quality of food and drink products consumed by the UK population.

- Functional and novel foods to support healthy ageing across the life course
- Biofortification as an approach to target delivery of bioactive compounds
- Probiotics and prebiotics to maintain or promote a gut microbiome and metabolome that could improve health

Out of Scope

We are not funding projects that are:

- are focussed on foods that are not for human consumption, for example pet food
- are not sustainable in the context of environmental challenges



Funded by
Innovate UK
and BBSRC

Timeline

Diet and health innovation: Early-stage Feasibility Projects

14th February 2024

Funding call opens for applications on IFS.

19th February 2024

Online briefing event for potential applicants.

8th May 2024

Funding call closes for applications, assessment process begins.

1st October 2024

Latest date for projects to start.

31st March 2026

Final date for project completion



Funded by
Innovate UK
and BBSRC



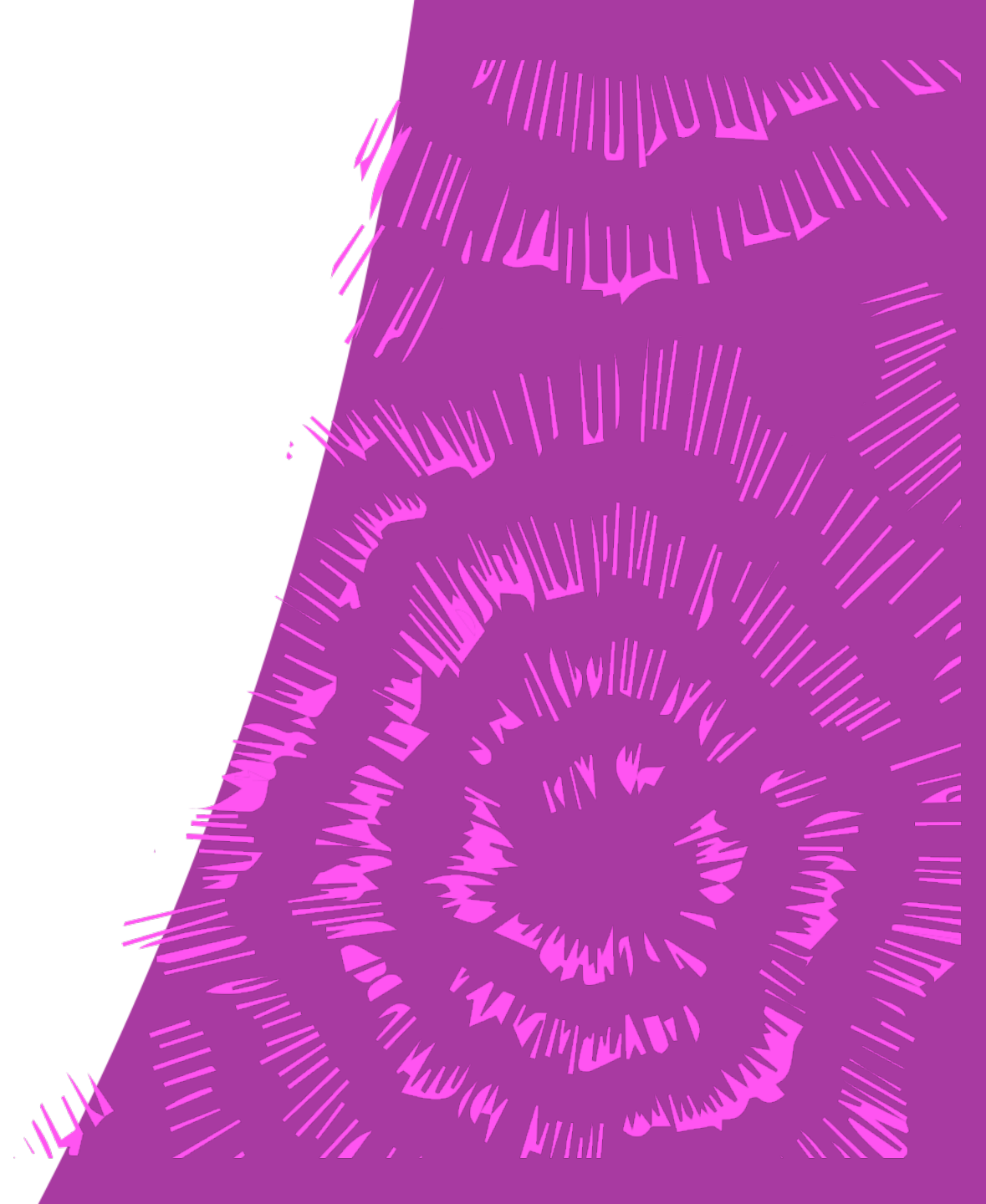
Biotechnology and
Biological Sciences
Research Council

Thank you for your attention

Mary Jenkinson-Finch

Business Interaction Unit, BBSRC

Mary.Jenkinson-Finch@bbsrc.ukri.org



Diet and Health OIRC

Get involved!



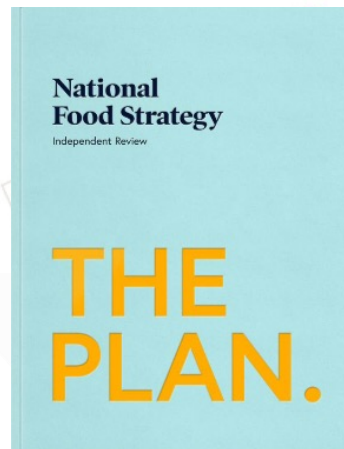
Collaborative Nutrition Research

Potential to make a profound positive impact on human health

High quality effective collaboration between academia and industry in the food sector is key to ensuring the translation of research advances into healthier and more sustainable products and improved nutrition and health



Review of
Nutrition and
Human Health
Research



National Food Strategy recommendation:
“Invest £1 billion in innovation to create a better food system.”

“...to help shift the national diet to meet the targets set out at the beginning of this chapter. This might include accelerating work to reformulate processed foods, trying out new ways of helping customers change their habits.....”

“New technology, processes and ideas must be directed towards providing more healthy food options if we are to reduce obesity and improve the nation’s health.” **Nesta**



JOIN The Diet and Health Open Innovation Research Club (OIRC)

www.oirc.org.uk

i-NutriLife

Innovative Nutrition Solutions for Lifecourse Health



STAR Hub



Innovate UK



Medical Research Council



Q&A Session



University of
BRISTOL



ConsumerLab

supporting real world healthy food choice



Department
for Environment
Food & Rural Affairs

MRC

Medical
Research
Council



Biotechnology and
Biological Sciences
Research Council



The Consumer Lab is one of six innovation hubs
- part of a Diet and Health Open Innovation
Research Club (OIRC).

Biofortification
Hub

RIPEN
Hub

INFORM
(functional
foods)

Improved
Nutrition
Across the
Lifecourse

(STAR) HUB
Start Healthy,
Stay Healthy

Consumer
Lab

The Consumer Lab Hub is part of a network of 6 BBSRC Innovation Hubs established in 2022 as part of the [Diet and Health Open Innovation Research Club \(OIRC\)](#).

It has received funding to operate for five years from the Biotechnology and Biological Sciences Research Council (BBSRC), part of UK Research & Innovation, a non-departmental public body sponsored by the government. The hub is hosted by research institutes that are strategically supported by [BBSRC](#).

Executive Committee

School of
Psychological
Science



Jeff Brunstrom
PI
University of Bristol

School of
Psychological
Science



Dani Ferriday
Co-I
University of Bristol

Division of Research,
Enterprise & Innovation



Lisa Kehoe
Head of Impact
Development
University of Bristol

Independent
Consultant



David Mela
Industry Co-I

Institute for
Sustainable Food



Louise Dye
Co-I
University of Sheffield

Funding opportunities



Flexible mobility awards

up to £100K ([click here](#))

To support the mobility of people such as technicians, early career researchers and industrialist researchers to new environments to develop new skills and understanding of different practices.



Business interaction vouchers

up to £50K ([click here](#))

To initiate, develop and enhance collaboration between academics and industrialists within diet, health and nutrition.



Feasibility awards

up to £100K ([click here](#))

Aimed at promoting more established partnerships that can leverage matched funding (cash or in-kind) from industry that are further down the translation pathway.

Funding priorities

- We encourage applications that meet one or more of the following:
 - Projects aimed at understanding and measuring real-world dietary behaviour
 - Projects that relate to underlying drivers of dietary behaviour
 - Projects that focus on dietary transition
- Projects that accommodate hard-to-reach (or seldom heard) and marginalised communities



Research quality

Ecological validity	Deliver practical solutions to longstanding limitations of acute studies that lack ecological validity
Building capacity	Building capacity to study a range of consumer groups, including under-represented and marginalised communities
Best practice	Establish a set of core guiding principles that promote Equality, Diversity, and Inclusivity (EDI), and the use of open-science platforms, data sharing, and pre-registered hypotheses and data-analysis strategies.

Delivering the kind of **actionable research** that is needed by the food industry

Understanding multi-component food-items and their influence on eating behaviour: multi-disciplinary research programme development and supporting pilot work

Funding call
October 2023

Award type
Business Interaction Vouchers



Awardee
Laura Wilkinson

Suzanne Higgs
Amanda Lloyd
Pamela Thompson

Academic Partners
Swansea University

University of Birmingham
Aberystwyth University
Aberystwyth University

Awardee
Sophie Vinoy

Non-University Partner
Mondelez International
Research and Development

General application process and timeline



Applications can be submitted at any time and will be reviewed every 2 months



Stage 1 – Expression of interest: Deadline April 15th



Stage 2 – Full application: Deadline June 3rd

Hub Membership

Email consumer-lab@bristol.ac.uk



<http://consumer-lab.bristol.ac.uk/welcome/>



Biotechnology and
Biological Sciences
Research Council

The Diet and Health Open Innovation Research Club

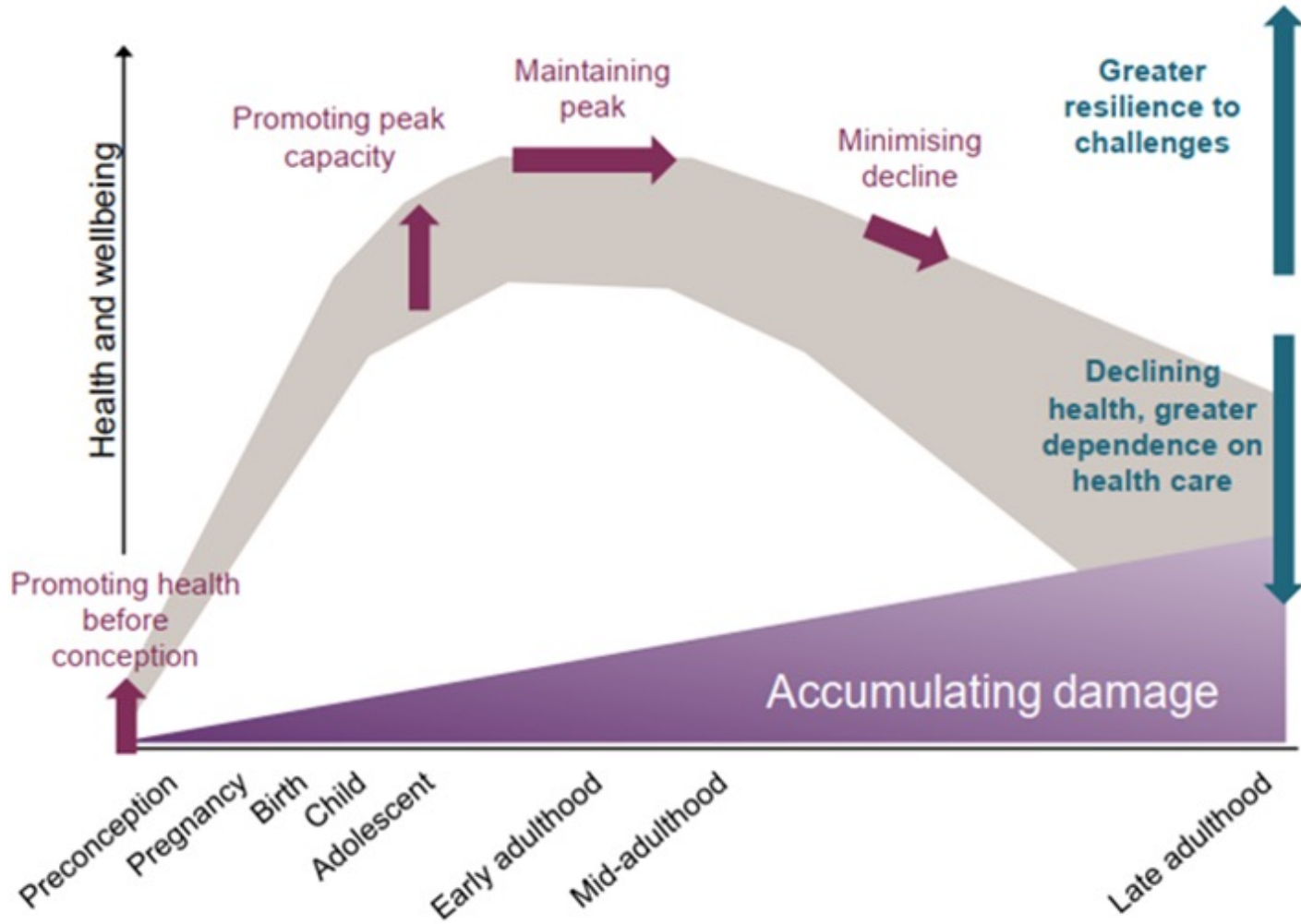
Dave O’Gorman – Senior Portfolio Manager,
Business Engagement and Intelligence, UKRI-
BBSRC

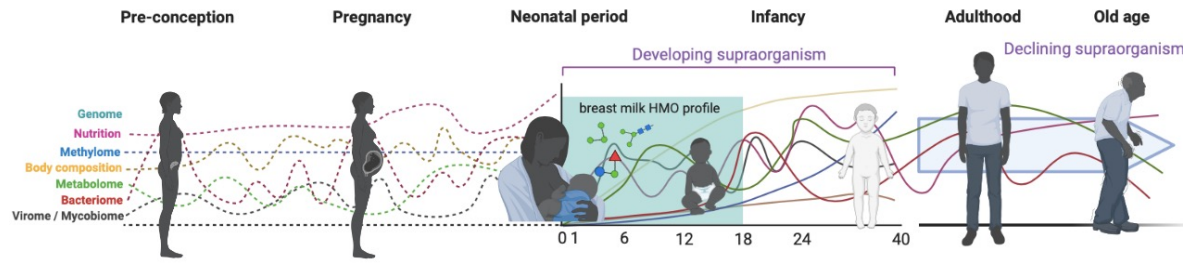
**Understanding how food and
beverages deliver improved
nutrition across the lifecycle**

**Philip Calder
Jonathan Swann**

School of Human Development and Health
Faculty of Medicine,
University of Southampton

Understanding how food and beverages deliver improved nutrition across the lifecycle





Maternal and neonatal nutrition and later life outcomes

Combating cognitive and mental health impacts through understanding nutrient effects



Innovative foods and nutritional approaches informed by metabolomic, microbiome, physiology, and epigenetic insights



Interaction between dietary components, ageing, and homeostasis and physiological function



Role of food and beverage components and healthy ageing

Mechanisms for translation

Awarded to University of Southampton

Impact account: £1,250,000 over 5 years

– to be used to support research through the tools below:

Business Interaction Vouchers – small awards (up to £50k BBSRC funding per project) to initiate, develop, and enhance collaboration between academics and industrialists within diet, health, and nutrition. These awards will not require matched funding from the business partner(s) but BBSRC would encourage contributions from business partner(s).

Feasibility Studies (up to £100k BBSRC funding per project) – to enable innovation activity to help bridge the gap towards later stage innovation. Projects will require matched cash and/or in-kind contributions from industry.

Flexible Mobility Awards – up to £100k to support the mobility of people such as Technicians, Early Career Researchers, industrialist researchers, and broader (taking an EDI approach), to new environments to develop new skills and assess how to translate research outcomes into economic impact

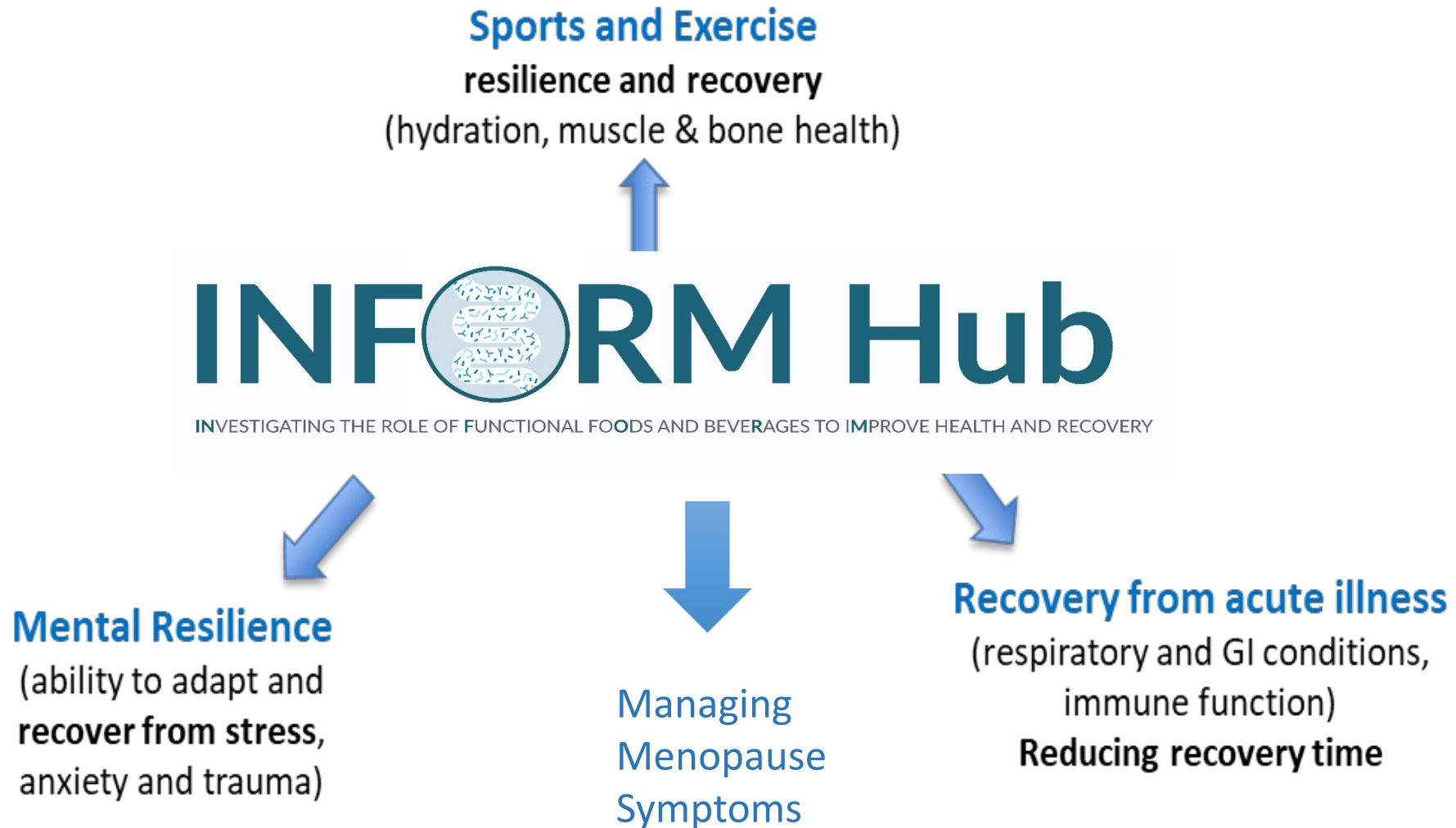
Academic Partners



Industrial Partners



INFORM - support collaborative research across sports nutrition, performance, mental resilience and recovery with a focus on functional foods and beverages that modulate the gut microbiota



INFORM Hub

INVESTIGATING THE ROLE OF FUNCTIONAL FOODS AND BEVERAGES TO IMPROVE HEALTH AND RECOVERY

- Hub management committee



Kieran Tuohy



Glenn Gibson



Kirsty Hunter



Lorraine Bailey



Sue Gatenby



Fiona Lee



Gemma Walton



Biotechnology and
Biological Sciences
Research Council

INFORM Scientific Steering Committee

Phillip Allsopp	University of Ulster	Immunological impact of plant stanols, gut-bone health
Mark Hopkins	University of Leeds	Sports nutrition, obesity and energy metabolism
Chris Gill	University of Ulster	Models of immune stimulatory effects of probiotics
Jonathan Swann	University of Southampton	Metabolomics
Frederique Ponchel	University of Leeds	Translational research in immune mediated inflammatory disease
Emilie Combet	University of Glasgow	Nutrition throughout life-course
Philip Burnet	University of Oxford	Gut bacteria and brain function
Shaunna Burke	University of Leeds	InterActiveLeeds network, sports nutrition, health & psychology
Helen Griffiths	University of Swansea	Nutrients in health and ageing, mitochondria & energy metabolism
Karen Birch	University of Leeds	Endothelial integrity, female reproductive hormones, exercise & CVD
Anne Kiltie	University of Aberdeen	Histone deacetylase inhibitors & epigenetics
James Kinross	Imperial College London	Consultant Surgeon
Emma Wightman	University of Northumbria	Cognitive performance
Susan Fairweather Tait	UEA	Mineral metabolism in humans;
Caroline Childs	University of Southampton	Immunology
Natalie Chiu	Mondelēz	
Richard Day	ADM	
Jon Farrimond	Suntory Beverage & Food Europe	
Oliver Hasselwander	International Flavors & Fragrances	
Andrea Bertocco	Herbalife	
Jessica Van Harsselaar	Beneo	
Thomas Hutton	Cargill	
Simone Pyle	Unilever	
Sonalika Jain	RSSL	



INVESTIGATING THE ROLE OF FUNCTIONAL FOODS AND BEVERAGES TO IMPROVE HEALTH AND RECOVERY

Not a member ?... join us here



INFORM Hub

INVESTIGATING THE ROLE OF **F**UNCTIONAL **F**OODS AND **B**EVERAGES TO **I**MPROVE HEALTH AND RECOVERY

*T*Ranslational *I*nnovation Hub for *P*opulation *H*Health using Food and *N*utrition approaches to enhance Positive Physiology *RIPEN*



Understanding the Interplay between
Food Components and Human Physiology

Representatives:

Prof. Gary Frost – Imperial College London

Prof. Susan Lanham-New – University of Surrey

Dr Sue Gatenby – PepsiCo

Dr Katerina Petropoulou - Imperial College London



IMPERIAL



Biotechnology and
Biological Sciences
Research Council



UNIVERSITY OF
SURREY



PEPSICO

What is THE RIPEN Hub about?



1. Support the development healthier diets, thereby enhancing the *Health of the Nation*.



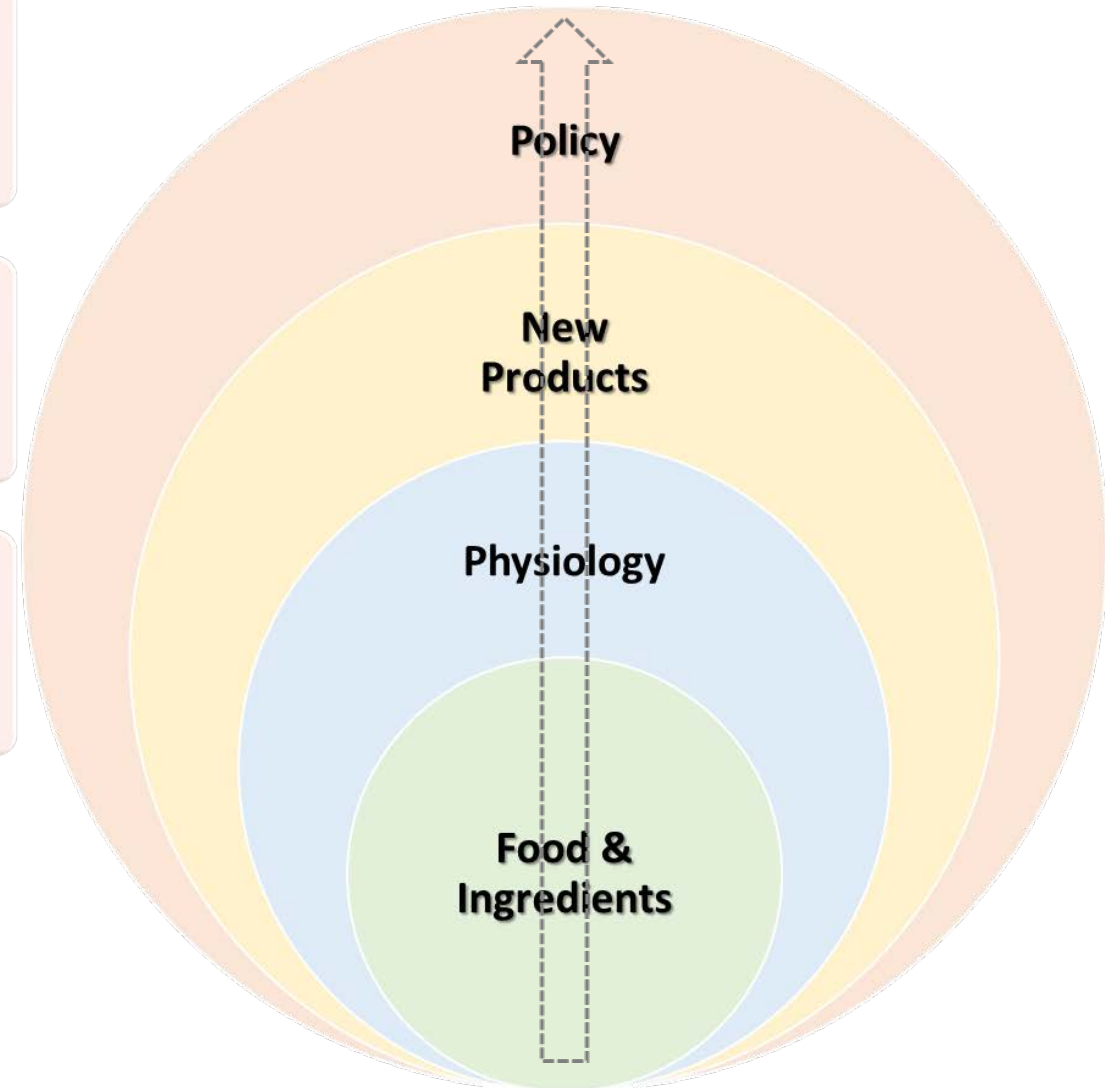
2. Create development pathways that will contribute to reducing the risk of obesity and non-communicable diseases (NCDs) in the UK population through better understanding of the interplay between food components and human physiology.



At its heart is academic, industrial and civil society partnership.



Biotechnology and
Biological Sciences
Research Council



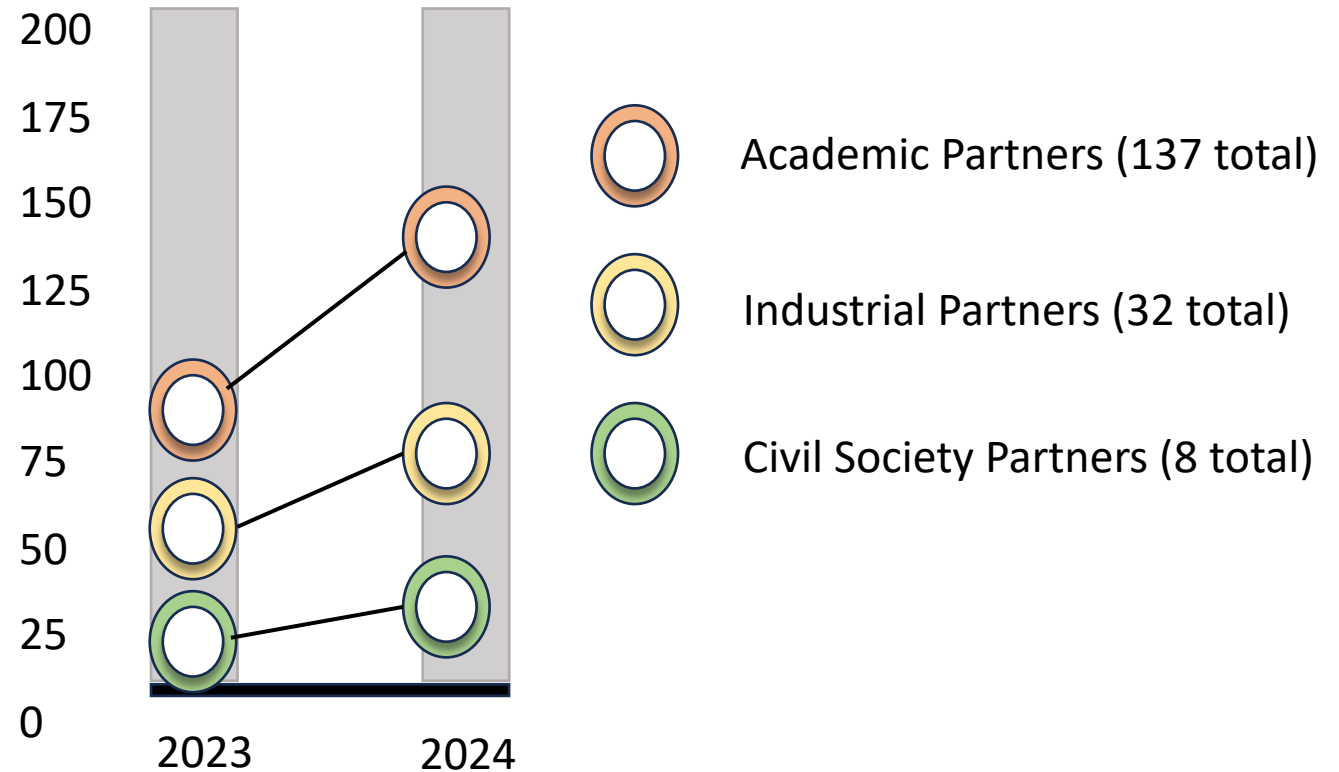
RIPEN Hub Membership

Membership Treemap



Industrial Partner Members Academic Members Civil Society

Growth since YEAR 1

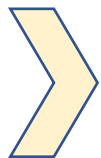


Highlights from Year 1 (2023/2024)



2023 - 2024

Call for priority area
Jan 2023



Set priority Area
Feb 2023



Call research proposals
May/ Sept 2023



Award panel met
July 2023



Awards announced
Sept 2023/Feb 2024



9 Projects started already

The RIPEN Hub Research Priority Areas 2023/24

a) Food structure (matrix effects, bioavailability)

b) Food processing (degree and type of processing)

c) Chemical constituents in foods (fibre, vitamins, additives, sweeteners)

d) Alternative food sources (plants, insects, algae)

e) Targeted nutrition (individual/grouped)

Funded Projects 2023-2024

Feasibility Awards

1. *Functional food dissemination and communication* - Dr Amanda Lloyd and Dr Thomas Wilson from Aberystwyth University

Industrial Partners: TeTrimTeas and Phytoquest

2. *Structural design of more satiating foods* - Dr Caroline Millman from Sheffield Hallam University (SHU), Service Sector Management and National Centre of Excellence for Food Engineering (NCEFE)/ Quadram Institute

Industrial Partner: New Food Innovations

3. *Food4PD - Validation of a novel functional food designed to meet the nutritional needs of People with Parkinson's* – Dr Catherine Hughes from Ulster University

Industrial Partner: ABC Nutrition Ltd

4. *An inulin supplemented food product to improve bowel frequency* Dr Edward Chambers from Imperial College London

Industrial Partner: Glatt Ingenieurtechnik GmbH Reginald Ames

Progression Awards

1. *Impact of high-fibre wheat on starch digestion of white bread* - Dr Brittany Hazard from Quadram Institute Bioscience, Rothamsted Research, Industrial Partner: Allied Technical Centre (ATC)

2. *Imaging the Bacterial Disassembly of Legume Cells* - Dr Natalia Perez-Moral from Quadram Institute Biosciences, Industrial Partner: New food Innovations

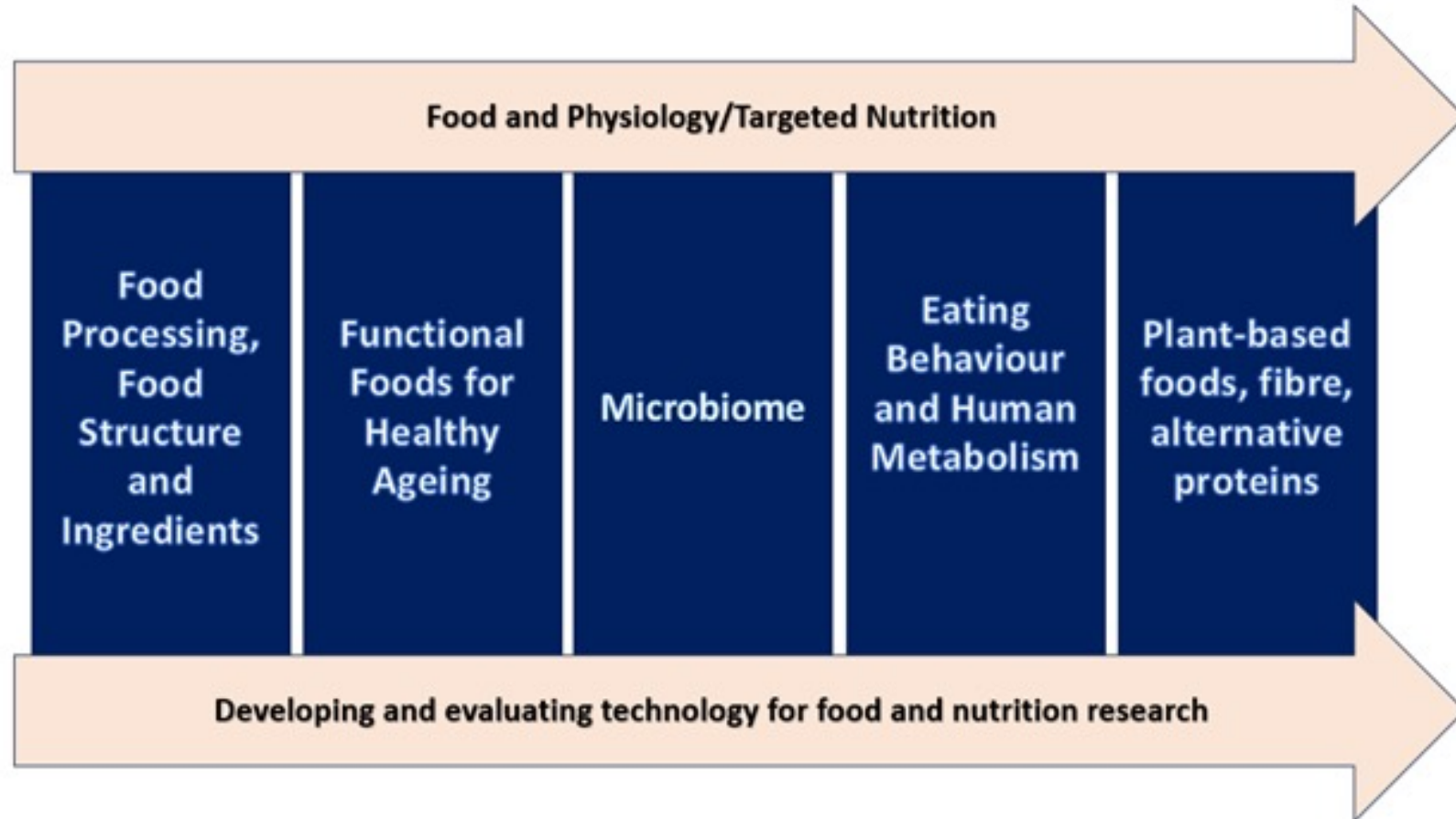
3. *Understanding the In Vitro Digestion of Oilseed Rape (OSR) Protein Hydrolysate* - Dr Aygul Dagbasi from Imperial College London, Industrial Partner: Bell and Loxton Innovations Ltd.

4. *FRUPAL - Fruit Protease Activity for health* - Dr Christine Bosch, Dr Alan Javier Hernandez Alvarez, Industrial Partner: Biopower Ltd.

Flexible Talent Mobility Award

1. *Academic research development to benefit health teas* - Dr Amanda Lloyd and Steffan McAllister from Aberystwyth University, Industrial Partner: TeTrim Teas

The REMIT for the year 2024/2025 includes 2 cross cutting themes and 5 areas



STAR Hub

<https://www.surrey.ac.uk/start-healthy-stay-healthy-star-hub>



Lead PI: Dr Kourosch Ahmadi, University of Surrey

Focus on challenge areas involving **polyphenols, fibre and resistant starch, alternative plant protein sources** and the improvement of **existing or novel plant-based foods**.

Examples of projects funded to date

- Funghi for Fortification - FUNcTION
- Development of a high polyphenol and Lion's mane mushroom tea, for improved mental well-being



Reformulation of plant-based foods, HFSS, sustainability-nutrition dual challenge

Nutritional adequacy of alternative, sustainable proteins across the life-span

Action on Fibre and Resistant Starch

Polyphenols & metabolic, cognitive and mental health



Biofortification Hub

<https://biofortificationhub.org/>



Lead by:

Prof Martin Warren, Quadram Institute Bioscience
Prof Cathie Martin, John Innes Centre

Increasing the nutritional value of food, feed or fodder by improving the plants and crops (higher nutrient levels and more accessible nutrients) used to produce them (biofortification)

Collaboratively pursue shared research priorities in biofortification of food and feed crops with farmers, food producers and retailers across the supply chain.

Combine expertise in soil, crop genetics, food innovation and human health and nutrition

Examples of projects funded 2023

5 academic groups

in collaboration with **9** companies

- Applications of high-amylose wheat flour to deliver healthier ready-to-eat sandwich bread
- Elevating Omega-3 Fatty Acid, Vitamin E and Microelement content of Eggs
- Maximising nutrient levels in seaweeds
- Sustainable biofortification solutions for Scottish soft fruit and vertical farming food production
- Omega-3 enhanced tomatoes (O3TOM)



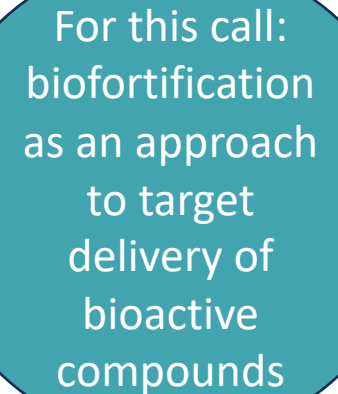
The Biofortification Hub is open to a **wide range of classic as well as sustainable, complementary and novel approaches to biofortification** to make plants, food, feed and fodder more nutritious:

Classic approaches to make plants more nutritious:

- Conventional selective breeding
- Precision breeding (gene editing)
- Genetic engineering
- Agronomic practices

Sustainable, complementary and novel approaches:

- Biofortification through controlled environment agriculture
- Fermentation
- Improved bio-availability (mixing / improving food products)
- Reformulation of existing food and feed products
- Secondary biofortification (feed & fodder)



For this call:
biofortification
as an approach
to target
delivery of
bioactive
compounds

Couple of things to highlight before we network

- **Collaboration document**

- Document containing all the participants from today who agreed to be included at registration
- Helps you to connect with others, collaborate and consortium building
- Should be out early next week



Innovate
UK

Thank you

Debbie.Tully@iuk.ktn-uk.org
Simon.Baty@iuk.ktn-uk.org

iuk.ktn-uk.org/agrifood
[@IUK_AgriFood](https://twitter.com/IUK_AgriFood)



Innovate
UK