Registered Charity No.1174127

The British Society for Research on Ageing Impact Report - 2023

BSRA

The Impact of your support
Published- 28/03/2024



The BSRA annual scientific meeting, University of Westminster, 2023

Foreword on the BSRA

The importance of ageing research has never been clearer than it is now. Giving researchers a community to share their work and a platform for their research has been a central goal of the society for many years. The BSRA is committed to funding, supporting and disseminating high quality research into the biology of ageing, with the aim of providing the understanding required to develop interventions to keep people healthy for longer. Support is available for active researchers with substantive posts at any UK institution or research institutes which are interested in the biology of ageing and who would normally be eligible for membership of the BSRA. Applicants must hold a PhD in a relevant subject, and be employed at their institution for the duration of the project.

Areas of research which we support include but are not limited to:

- The fundamental bioscience of ageing, including the identification of ageing mechanisms.
- The role of nutrition in ageing
- Ageing and immunity
- Neurodegeneration
- Sensory and cognitive ageing
- Development of new model systems

2023 has been one of our most active in recent years

Membership to the Association Of Medical Research Charities

Taking the time to ensure we adhere to the highest standards is a priority for the BSRA. To help us achieve this, every year we maintain registration with The Association Of Medical Research Charities. The AMRC is a membership organisation dedicated to supporting medical research charities in saving and improving lives through research and innovation. The AMRC ensures member charities fund the best research by developing guides, providing training, and carrying out an audit of their funding processes. They unite and champion the sector, helping to drive positive change in the research and health landscape.

Our Annual Scientific Meeting

In 2023, the BSRA hosted its annual scientific meeting at the University of Westminster, London. The event boasted an impressive speaker lineup, with keynotes from;

- James Kirkland – Professor of Physiology and Professor of Medicine at Mayo Clinic
- Lynne Cox – Associate Professor of Ageing and Cell Senescence, University of Oxford
- Vera Gorbunova – Doris Johns Cherry Professor of Biology, University of Rochester

The conference speaker lineup also included;

- Arne Akbar – Professor of Immunology, UCL
- David Gems – Professor of Biogerontology, UCL
- David Rubinsztein – Professor of Molecular Neurogenetics, University of Cambridge
- Eline Slagboom – Professor Molecular Epidemiology, Leiden University
- Jesus Gil – Professor of Cell Proliferation, Imperial College London
- Leigh Breen – Professor of Translational Muscle Physiology, University of Birmingham
- Lorna Harries – Professor of Molecular Genetics, University of Exeter
- Janet Lord, Director MRC- Versus Arthritis Centre for Muscular Ageing Research
- Simon Carding – Professor Mucosal Immunology, Norwich Medical School

In addition, our scientific meeting featured speakers from industrial backgrounds in order to highlight and encourage translational work. Went beyond purely academic perspectives on biological and scientific topics to cover the commercialisation routes for science with talks and a panel discussion with **Wolf Reik, David Weinkove, Lorna Harries and Artun Sukan,** giving researchers insight into how to transform their findings into profitable businesses which also benefit the health of the nation. The exciting final segment of the meeting; the joint **BSRA-MRC** Musculoskeletal Ageing Network Symposium, covered ageing of human physiology, prevention of systemic compromise, muscular anabolism in ageing, the effects of space travel and microgravity.

The Korenchevsky Award

During the 2022 Annual Scientific meeting, **Diana Marcu** won the British Society of Research on Ageing Korenchevsky Award to the sum of **£1893.30**, for best presentation by an early career researcher. As a result, this year the BSRA funded Diana's travel to Oklahoma city to attend AGE 2023, the annual American Aging Association conference as a representative for outstanding british research.



"The whole experience was absolutely amazing – travelling there, meeting in person many inspiring researchers and being part of such a unique event ... I had the chance to present my research again …I was also part of the panel discussion at the end of my session, where we answered questions about Resilience and Healthy Ageing. Again, this was such a unique experience, being able to discuss both current innovations and challenges in ageing research"

The Chernajovsky Foundation BSRA PhD award



In 2020 The British Society for Research on Ageing and The Chernajovsky Foundation **awarded PhD project funding to the sum of £67,480.10** to graduate student Kathryn Frost (left), and principal investigator Doctor Helen McGettrick at the University of Birmingham's Institute for Inflammation and Ageing.

2023 marks the end of the second year of this project and its continued support, with one more to go. The research makes progress towards **developing a new treatment for bone diseases** such as osteoporosis. Dr McGettrick's team has already identified a new molecule 'PEPITEM' that encourages new bone formation.

During the Chernajovsky Foundation/BSRA sponsored project the team will investigate whether PEPITEM can be used as a drug to improve the repair of fractured bones. Already, **two successful publications** have already come from the funding, with another in review, and one more being written. The funding from the BSRA / Chernajovsky foundation also enabled Kathryn to present her work at a number of local and national events:

Connect Immune Conference, Birmingham, UK, 2023, European Calcified Tissue Society Congress, Liverpool, UK, 2023, PEPITEM symposium, Birmingham, UK, 2023, British Society for research on ageing annual meeting, London, UK, 2023, Bone Research Society Congress, Liverpool, UK, 2023, British, Society for Inflammation Congress, Liverpool, UK, 2022, Mechanisms of Inflammation Symposium (MIDAS), University of Birmingham, UK, 2022, The World Congress of Inflammation, Rome, 2022.

In addition, **Katheryn also won the Bone Research Society New Investigator Award 2023**, and the **Bone Research Society Best Poster Prize 2023**, as well as being awarded Institute on Inflammation and Ageing Travel Bursary and the Replacement of Animals in Medical Experiments (FRAME) Training School Attendance Bursary. Speaking to the impact of the research, the team said.

> "[Our] data suggest that **PEPITEM** is an attractive therapeutic target for the treatment of bone loss in diseases such as osteoporosis. The next stages of the project are to focus on the translational aspects of **PEPITEM** as a therapeutic through testing peptide mimetics which have been modified to increase the bioavailability of the peptide."

Publications from the Chernajovsky/BSRA PhD award

1. Finlay M, Hill LA, Neag G et al. A detailed methodology for the long-term in vitro culture and analysis of three-dimensional, self-structuring bone models generated from cell lines or primary osteoblastic cell populations [version 1; peer review: awaiting peer review]. F1000Research 2023, 12:357 (https://doi.org/10.12688/f1000research.130779.1)
2. Frost K, Naylor AJ, McGettrick HM. The Ying and Yang of Sphingosine-1-Phosphate Signalling within the Bone. International Journal of Molecular Sciences. 2023; 24(8):6935. https://doi.org/10.3390/ijms24086935

Out for review –

1. Lewis, J.W.*, Frost, K.*, Neag, G., Jones, S.W., Mahmood, A., Edwards, J.R , Naylor, A.J , McGettrick, H.M (For Review) New therapeutic avenues in bone repair: Harnessing a novel endogenous molecule to boost bone growth and prevent bone loss. Cell Reports Medicine

In Progress:

1. Frost, K., Lewis, J., Edwards, J.R , Naylor, A.J , McGettrick, H.M (20??). Sphingosine-1-Phosphate involvement in homeostatic bone remodelling

In 2023, we awarded £9,985 in small grants to researchers which was comprised of

- **Vacation Studentship Grant**: Dr Nathan Hodson, Dr K Bowden-Davies, Ms. Medha Shashidharan, Manchester Metropolitan University
- **Vacation Studentship Grant**: Ms. Hannah Chapman, University College London
- **Vacation Studentship Grant**: Dr Eurico Neto, Northumbria University
- **Travel Grant:** Dr Samir J Morsli, University of Cambridge
- **Travel Grant:** Mr Bowen Xu, University College London
- **Publication Grant:** Ms Ciara Angeli Juan, Ulster University

We also saw our membership grow to 186 researchers, scientists and members.
We represented the BSRA and the ageing research community at Longevity Forum at Oxford University The launch of UKAgeNet, at the House of Commons, a visit to Mary Lyon Centre at Harwell Campus.

We did all of this with just **£4901.29** from membership fees and **£70,719.43** in donations! Just think what we can do with a little bit more!!

CHAIR'S SUMMARY

It has been another fantastic year for the BSRA, in a time when it's more important than ever that ageing research in the UK has a voice. We have an ageing population and much interest in ageing from the general public and the media. This year we intend to step up our charitable activities further and it promises to be an exciting year for the field.

We would like to thank those who have donated or supported the British Society for Research on ageing or its researchers;

- The Chernajovsky Foundation, for providing the resources and funding for a BSRA PhD studentship.

- The Seavets; The Senior and Veteran Windsurfers Association, for their continued support and donations, year or year.

- Patricia Lewis and all of the Trustees of the Henshurst Trust for their donation.

The BSRA would also like to thank its board for their constant investment of time, energy and creativity, without whom, none of this would have been possible.

- Dr Paul Morgan, Secretary for the board of trustees for the BSRA,
- Dr Neil Martin, outgoing treasurer for the BSRA,
- Adrian Cull, the trustee for Communication,
- Dr Bradley Elliott, trustee for 2023 Annual Scientific Meeting,
- Tina Woods, trustee for Policy and Governance,
- Professor Niharika Duggal, trustee for 2024 Annual Scientific Meeting,
- Professor Ira Milosevic trustee for Seminar Series 2023
- Professor Marina Ezcurra
- Dr Ana-Mishel Spiroski
- Dr Cathy Slack

We would also like to thanks the following groups and organisations for their partnership, support and advocacy

- The Associate of Medical Research Charities
- The Macular Society
- Versus Arthritis
- The Dunhill Medical Trust

Again, thank-you to all of our members, volunteers, partners, advocates and supporters. It's been a wonderful year, and we hope to do even more next year with your support.

2024 will be the year for growth for the BSRA, we are kicking off our ambitious plans for the UK ageing research space, by launching a Research Masters programme. This programme will provide vital funding to bridge the gap between Bachelor's degree and doctoral research, where there is currently a lack of support and funding. This is aimed at helping students to develop key research skills while delivering fast-turnaround research impact for ageing research. Alongside this, we will continue to host our scientific meeting, which will be in Birmingham, and offer grants and funding for smaller projects and travel.

Please take a moment to support our work, by donating whatever you can afford.

https://cafdonate.cafonline.org/23001#!/DonationDetails

Warm regards,

Professor David Weinkove
Chair for the British Society for Research on Ageing



Dr Jed Lye
Memberships and Development,
British Society for Research on Ageing

