

# **THE SCIENCE OF AGEING GLOBAL PROGRESS**



**11<sup>TH</sup>-14<sup>TH</sup> JULY 2011**

**HILTON BRIGHTON METROPOLE  
BRIGHTON, UK**

***61<sup>st</sup> Annual Scientific Meeting of the British Society  
for Research on Ageing  
14<sup>th</sup> Congress of the International Association of  
Biomedical Gerontology***

## OUR SUPPORTERS

The British Society for Research on Ageing is delighted to be hosting the first joint meeting of the society with the International Association for Biogerontology. We would like to thank our supporters for their continuing assistance, without which this meeting would not have been possible.

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## OUR EXHIBITORS

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# THE SCIENCE OF AGEING- GLOBAL PROGRESS

All Sessions are in the Regency Suite unless otherwise stated

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Monday 11th July</i>    | 09.30-09.45 Welcome address<br>09.45-10.30 Keynote Lecture: Elizabeth Mills OBE<br>10.30-11.00 COFFEE BREAK<br>11.00-12.00 Selected Oral Presentations<br>12.00-14.00 LUNCH (Windsor Restaurant)<br>13.15-14.00 BSRA Annual General Meeting<br>14.00-15.00 Lord Cohen of Birkenhead Medal Lecture: Suresh Rattan<br>15.00-15.30 TEA BREAK<br>15.30-17.30 NIA-BBSRC Joint Transatlantic Symposium<br>18.00-19.00 Public Round Table Discussion<br>19.00- NIA-BBSRC Transatlantic Workshop (Osborne Room)<br>19.00 - Dinner at your own leisure                                                |
| <i>Tuesday 12th July</i>   | 09.00-09.05 Welcome<br>09.05-10.45 LLHWB Epigenetics of Ageing Session<br>10.45-11.20 COFFEE BREAK<br>11.20-12.20 <i>PROTEOMAGE</i> Session<br>12.20-12.30 <i>Charles River</i> Presentation<br>12.30-14.00 LUNCH (Windsor Restaurant)<br>12.45-13.45 <i>Biogerontology</i> Editorial Board Lunch (Library)<br>14.00-15.00 Keynote Lecture: Alexandra Stolzing<br>15.00-15.30 TEA BREAK<br>15.30-17.30 American Aging Association Symposium<br>18.00-19.00 Wine Reception, Poster Judging, & Arts Showcase<br>19.00 - Dinner at your own leisure<br>19.30-Late Scientific Speed Dating event |
| <i>Wednesday 13th July</i> | 09.00-09.05 Welcome<br>09.05-09.30 Keynote Lecture: Bhavik Patel<br>09.30-11.00 Invited talks: early career researchers<br>11.00-11.30 COFFEE BREAK<br>11.30-12.30 Keynote Lecture: Graham Pawelec<br>12.30-14.00 LUNCH (Windsor Restaurant)<br>12.45-13.45 <i>Chemistry of Ageing Special Issue lunch</i> (Osborne Room)<br>14.00-15.00 Keynote Lecture: David Kipling<br>15.00-15.30 TEA BREAK<br>15.30-17.30 Funders Round Table Discussion<br>17.30-18.30 BSRA Executive Committee Meeting<br>19.00-23.00 CONFERENCE DINNER                                                              |
| <i>Thursday 11th July</i>  | 08.55-09.00 Welcome<br>09.00-11.00 Ageing muscle: mechanisms and interventions<br>11.00-11.30 COFFEE BREAK<br>11.30-12.30 Keynote Lecture: Helen Griffiths<br>12.30-14.00 LUNCH (Windsor Restaurant)<br>14.00-15.00 Selected Oral Presentations<br>15.00-16.00 Keynote Lecture: David Gems<br>16.00-16.30 Closing address and prize giving<br>16.30 MEETING CLOSES                                                                                                                                                                                                                           |

## DETAILED PROGRAMME

**Monday 11<sup>th</sup> July 2011**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>09.00-17.00</b> | <b>Registration (open all day)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 09.30-09.45        | Welcome address by the Chair, Professor Richard Faragher                                                                                                                                                                                                                                                                                                                                                                                                           |
| 09.45-10.30        | 1. <b>Keynote Lecture</b> kindly supported by <i>The Lifestar Institute</i> (Chair: Richard Faragher)<br>Elizabeth Mills OBE<br><i>The need for, and promise of, research on ageing</i>                                                                                                                                                                                                                                                                            |
| <b>10.30-11.00</b> | <b>COFFEE BREAK</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11.00-12.00        | <b>Selected Oral Presentations</b> (Chair: Elizabeth Mills OBE)                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11.00-11.20        | 2. Thomas von Zglinicki, Institute for Ageing & Health Newcastle University, UK<br><i>Cell senescence is a cause of ageing</i>                                                                                                                                                                                                                                                                                                                                     |
| 11.20-11.40        | 3. Penelope Mason, Department of Biochemistry, University of Oxford, UK<br><i>Developing in vitro tools to study ageing in human cells as a platform for drugs testing</i>                                                                                                                                                                                                                                                                                         |
| 12.40-12.00        | 4. Alex Zhavoronkov, The Russian State Medical University<br><i>Developing knowledge management systems for aging research</i>                                                                                                                                                                                                                                                                                                                                     |
| <b>12.00-14.00</b> | <b>LUNCH in the Windsor Restaurant and INFORMAL POSTER VIEWING</b>                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>13.15-14.00</b> | <b>BSRA Annual General Meeting</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 14.00-15.00        | 5. <b>Lord Cohen of Birkenhead Medal Lecture</b> kindly supported by <i>Boots plc</i><br>(Chair: Prof Richard Faragher)<br>Suresh Rattan, Aarhus University, Denmark.<br><i>Ageing – From here to where?</i>                                                                                                                                                                                                                                                       |
| <b>15.00-15.30</b> | <b>TEA BREAK</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15.30-17.30        | <b>NIA-BBSRC Joint Transatlantic Symposium</b> (Chair: Prof Richard Faragher)                                                                                                                                                                                                                                                                                                                                                                                      |
| 15.30-15.50        | 6. Nancy Manley, University of Georgia, Athens, GA & Claire Blackburn, University of Edinburgh, UK.<br><i>Steroid Receptors and the Control of Thymic Involution</i>                                                                                                                                                                                                                                                                                               |
| 15.50-16.10        | 7. Brian Kennedy, Washington University, Seattle & Dominic Withers, Imperial College, London<br><i>S6 Kinase, Aging and Age-Related Disease</i>                                                                                                                                                                                                                                                                                                                    |
| 16.10-16.30        | 8. Quee Lin Ch'ng, King's College London & Hang Lu, Georgia Institute of Technology, Atlanta<br><i>Sources, Transmission and Effects of Transcriptional Noise in C. Elegans Aging</i>                                                                                                                                                                                                                                                                              |
| 16.30-16.50        | 9. Arne Akbar, University College London & Janko Nikolich-Zugich, University of Arizona<br><i>Mechanisms of Reduced T Cell Immunity in Older Adults</i>                                                                                                                                                                                                                                                                                                            |
| 16.50-17.10        | 10. John Sedivy, Brown University & Peter Adams, Beatson Institute for Cancer Research<br><i>The WNT-Chromatin Axis in Aging</i>                                                                                                                                                                                                                                                                                                                                   |
| 17.10-17.30        | 11. Ian Ridgway, University of Bangor & Steven Austad, Univ. Texas Health Science Center<br><i>Mechanisms of Exceptional Longevity in the World's Longest Lived Animal</i>                                                                                                                                                                                                                                                                                         |
| 18.00-19.00        | <b>Public Round Table Discussion by the Honorary Life Members of the British Society for Research on Ageing</b> kindly supported by <i>AgeUK</i><br>(Chair: Prof Alan Maryon-Davis, MSc (Soc Med), FFPH. FRCP. FFSEM)<br><b>'Physiological and Ethical aspects of ageing research'</b><br>Professor Tom Kirkwood CBE, Professor Leonard Hayflick, Mrs Elizabeth Mills OBE, Professor Dame Linda Partridge DBE, Professor Arlan Richardson & Professor Sydney Shall |
| 19.00-             | NIA-BBSRC Joint Transatlantic Workshop (Initiative participants only, Osborne Room)                                                                                                                                                                                                                                                                                                                                                                                |
| <b>19.00 -</b>     | <b>Dinner at your own leisure</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Tuesday 12<sup>th</sup> July 2011

|                    |                                                                                                                                                                                       |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>09.00-17.00</b> | <b>Registration (open all day)</b>                                                                                                                                                    |
| 09.00-09.05        | Welcome                                                                                                                                                                               |
| 09.05-10.45        | <b>Keynote Session: The Lifelong Health and Well Being Epigenetics of Ageing Session</b><br>(Chair: Prof Janet Lord)                                                                  |
| 09.05-09.30        | 12. Wolf Reik, Babraham Institute, UK<br><i>Mechanisms and functions of epigenetic reprogramming in mammalian development</i>                                                         |
| 09.30-09.55        | 13. John Mathers, Institute for Ageing and Health, Newcastle University, UK<br><i>Epigenomics: understanding how nutrition modulates the ageing process</i>                           |
| 09.55-10.20        | 14. Susan Ozanne, Cambridge University, UK<br><i>Maternal diet, epigenetics and programming of adult health</i>                                                                       |
| 10.20-10.45        | 15. Jane Mellor, University of Oxford, UK<br><i>Modulators of the SAGA lysine acetyl transferase complex influence chronological ageing in yeast</i>                                  |
| <b>10.45-11.20</b> | <b>COFFEE BREAK</b>                                                                                                                                                                   |
| 11.20-12.20        | <b>PROTEOMAGE Session</b> (Chair: Prof Brian Clark)                                                                                                                                   |
| 11.20-11.40        | 16. Olivier Toussaint, University of Namur, Belgium.<br><i>From the stability of living cells to cellular stress-induced premature senescence and geriatric diseases</i>              |
| 11.40-12.00        | 17. Bertrand Friguet, Laboratory of Cellular Biology of Ageing Paris<br><i>Oxidative proteome alteration and protein maintenance during cellular ageing and upon oxidative stress</i> |
| 12.00-12.20        | 18. Pidder Jansen-Duerr, Institute for Biomedical Aging Research, Innsbruck, Austria<br><i>The role of secreted proteins in cellular senescence and ageing</i>                        |
| 12.20-12.30        | <b>Charles River Presentation</b>                                                                                                                                                     |
| <b>12.30-14.00</b> | <b>LUNCH in the Windsor Restaurant and INFORMAL POSTER VIEWING</b>                                                                                                                    |
| 12.45-13.45        | <b>Biogerontology Editorial Board Lunch Meeting</b> in the Library                                                                                                                    |
| 14.00-15.00        | <b>Keynote Lecture</b> (Chair: Prof David Kipling)<br><br>19. Alexandra Stolzing, Fraunhofer Institute, Leipzig, Germany<br><i>IPS cells in ageing research.</i>                      |
| <b>15.00-15.30</b> | <b>TEA BREAK</b>                                                                                                                                                                      |
| 15.30-17.30        | <b>American Aging Association Symposium</b> (Chair: Prof Janko Nicolich-Zugich)                                                                                                       |
| 15.30-16.00        | 20. Arlan Richardson, Barshop Institute for Longevity and Aging Studies, USA<br><i>Is Rapamycin an Anti-Aging Drug?</i>                                                               |
| 16.00-16.30        | 21. Don Ingram, Pennington Biomedical Research Center, USA<br><i>Calorie Restriction Mimetics: State of Flux</i>                                                                      |
| 16.30-17.00        | 22. Holly Brown Borg, University of North Dakota, USA<br><i>Does atypical methionine metabolism contribute to longevity?</i>                                                          |
| 17.00-17.30        | 23. Holly Van Remmen, Barshop Institute for Longevity and Aging Studies, USA<br><i>Extended Longevity in a Mouse Model of Mitochondrial Dysfunction</i>                               |
| <b>18.00-19.00</b> | <b>Wine Reception, Poster Viewing and Brighton Arts Showcase</b>                                                                                                                      |
| 19.00 -            | <b>Dinner at your own leisure</b>                                                                                                                                                     |
| 19.30-Late         | <b>Scientific Speed Dating Event for Early Career researchers</b>                                                                                                                     |

## Wednesday 13<sup>th</sup> July 2011

|                    |                                                                                                                                                                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>09.00-17.00</b> | <b>Registration (open all day)</b>                                                                                                                                                                                                                                                                                             |
| 09.00-09.05        | Welcome                                                                                                                                                                                                                                                                                                                        |
| 09.05-09.30        | <b>Keynote Lecture</b> (Chair: Prof Richard Faragher)<br><br>24. Bhavik Patel, University of Brighton, UK<br><i>Exploring the interface between chemistry and biology to understand ageing in the lower gastrointestinal tract</i>                                                                                             |
| 09.30-11.00        | <b>Invited talks from selected early career researchers</b> (Chair: Dr Bhavik Patel)                                                                                                                                                                                                                                           |
| 09.30-09.45        | 25. Megan Smithey, University of Arizona, USA (IABG Travel Award winner)<br><i>Rejuvenation strategies to rebalance the aging T-cell repertoire</i>                                                                                                                                                                            |
| 09.45-10.00        | 26. David Bartlett, University of Birmingham, UK<br><i>Inflammageing is not driven by Cytomegalovirus infection</i>                                                                                                                                                                                                            |
| 10.00-10.15        | 27. Kanchan Phadwal, University of Oxford, UK<br><i>A novel high-throughput autophagy assay for primary cells: senescent T cells show decreased levels of autophagy</i>                                                                                                                                                        |
| 10.15-10.30        | 28. Kaitlyn Lewis, Barshop Institute, USA (IABG Travel Award winner)<br><i>Hearty healthspan and lengthened lifespan: The contribution of cytoprotection in the extraordinarily long-lived naked mole-rat</i>                                                                                                                  |
| 10.30-10.45        | 29. Irundika Dias, Aston University, UK<br><i>Oxidised low density lipoprotein (oxLDL) contributes to loss of blood brain barrier integrity and directional release of inflammatory cytokines</i>                                                                                                                              |
| 10.45-11.00        | 30. Shona Wood, University of Liverpool, UK<br><i>A RNA-seq Analysis of Brain Ageing in the Brown Rat</i>                                                                                                                                                                                                                      |
| <b>11.00-11.30</b> | <b>COFFEE BREAK</b>                                                                                                                                                                                                                                                                                                            |
| 11.30-12.30        | <b>Keynote Lecture</b> (Chair: Dr Lizzy Ostler)<br><br>31. Graham Pawelec, University of Tübingen, Germany<br><i>The immune system in ageing</i>                                                                                                                                                                               |
| <b>12.30-14.00</b> | <b>LUNCH in the Windsor Restaurant and INFORMAL POSTER VIEWING</b>                                                                                                                                                                                                                                                             |
| 12.45-13.45        | <b>Chemistry Central Journal Chemistry of Ageing Special Issue lunch in the Osborne Room</b>                                                                                                                                                                                                                                   |
| 14.00-15.00        | <b>Keynote Lecture</b> (Chair: Prof Richard Faragher)<br><br>32. David Kipling, University of Cardiff, UK<br><i>Towards a cure for adult progeria</i>                                                                                                                                                                          |
| <b>15.00-15.30</b> | <b>TEA BREAK</b>                                                                                                                                                                                                                                                                                                               |
| 15.30-17.30        | <b>Funders Round Table Discussion</b> (Chair: Prof Richard Faragher)<br><br>All funding bodies represented at the meeting will be invited to nominate a representative to hold a round table discussion of co-ordinated approaches to international ageing research.<br><br><b>NiA MRC BBSRC ARC AgeUK British Council ***</b> |
| <b>17.30-18.30</b> | <b>BSRA Executive Committee Meeting</b>                                                                                                                                                                                                                                                                                        |
| <b>19.00-23.00</b> | <b>CONFERENCE DINNER</b>                                                                                                                                                                                                                                                                                                       |

## Thursday 14<sup>th</sup> July 2011

|                    |                                                                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>9.00-17.00</b>  | <b>Registration (open all day)</b>                                                                                                                               |
| 08.55-09.00        | Welcome                                                                                                                                                          |
| <b>09.00-11.00</b> | <b>Keynote Session</b>                                                                                                                                           |
|                    | <b>Ageing muscle: mechanisms and interventions</b> ( <i>Chair: Prof Anne McArdle</i> )                                                                           |
| 09.00-09.30        | 33. Susan Brooks, Ann Arbor, USA<br><i>Can exercise/physical activity prevent loss of motor units?</i>                                                           |
| 09.30-10.00        | 34. Mike Reid, University of Kentucky, USA<br><i>Aging, inflammation, and weakness.</i>                                                                          |
| 10.00-10.30        | 35. Malcolm Jackson, University of Liverpool, UK<br><i>Do oxidative damage or defective redox signalling contribute to age-related loss of skeletal muscle?</i>  |
| 10.30-11.00        | 36. Marco Sandri, University of Padova, Italy<br><i>Changes in muscle protein homeostasis with ageing</i>                                                        |
| <b>11.00-11.30</b> | <b>COFFEE BREAK</b>                                                                                                                                              |
| <b>11.30-12.30</b> | <b>Keynote Lecture</b> ( <i>Chair: Dr Michael Sherratt</i> )                                                                                                     |
|                    | 37. Helen Griffiths, University of Aston, UK<br><i>Lipid metabolism is skewed during ageing and favours a pro-inflammatory phenotype</i>                         |
| <b>12.30-14.00</b> | <b>LUNCH in the Windsor Restaurant and INFORMAL POSTER VIEWING</b>                                                                                               |
| <b>12.45-13.45</b> | <b>NiA Horizon Scanning Discussion Group</b>                                                                                                                     |
| <b>14.00-15.00</b> | <b>Selected Oral Presentations</b> ( <i>Chair: Dr Matthew Hardman</i> )                                                                                          |
| 14.00-14.20        | 38. Agustín Aranda, Instituto de Agroquímica y Tecnología de Alimentos-CSIC, Spain<br><i>Wine yeast as a novel model system to study chronological life span</i> |
| 14.20-14.40        | 39. Jan Gruber, National University of Singapore, Singapore<br><i>No role of mitochondrial ROS in ageing of <i>Caenorhabditis elegans</i>?</i>                   |
| 14.40-15.00        | 40. Sue Broughton, Lancaster University, UK<br><i>Insulin/IGF-like Signalling and Ageing-related Locomotor Decline in <i>Drosophila melanogaster</i></i>         |
| <b>15.00-16.00</b> | <b>Keynote Lecture</b> ( <i>Chair: Dr Matthew Hardman</i> )                                                                                                      |
|                    | 41. David Gems, University College, London<br><i>Probing fundamental ageing biology with model systems</i>                                                       |
| 16.00-16.30        | Closing address and prize giving by the Chair, Prof Richard Faragher                                                                                             |
| <b>16.30</b>       | <b>MEETING CLOSES</b>                                                                                                                                            |

## POSTER PRESENTATIONS

|                                                                                                                                                                                                                                                 |
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| P1. Upregulation of calpastatin may protect motor neuron death during the development of Amyotrophic lateral sclerosis. <i>Liang Li, Adu Jimi</i>                                                                                               |
| P2. A Complex Dietary Supplement Prevents Age-Related Cognitive and Motor Declines and Offsets Cellular Biomarkers of Aging in Mice. <i>Vadim Aksenov</i>                                                                                       |
| P3. Maternal diet affects the ageing trajectory. <i>Barnes S*, Yeo G, Mazzatti D, Lim F.L, Chen J-H, Ozanne S</i>                                                                                                                               |
| P4. Activity of DNA repair enzyme poly(ADP-ribose)polymerase1 directly correlates with mammalian life span. <i>S. Beneke*, A.-L. Scherr, V. Ponath, O. Popp, A. Bürkle</i>                                                                      |
| P5. Preparation of integral membrane proteins in order to evaluate cell surface protein expression in Human CD4+ T-Lymphocytes from young and mid-life adults. <i>S. J. Bennett*, C. R. Dunston and H. R. Griffiths</i>                         |
| P6. Perceptual plasticity in the peripheral visual field of older adults. <i>A Blighe*, P McGraw, B Webb</i>                                                                                                                                    |
| P7. Losartan restores skeletal muscle remodeling and protects against disuse atrophy in sarcopenia. <i>TN Burks*, E Andres-Mateos, R Marx, R Mejias, C Van Erp, JL. Simmers, JD Walston, CW Ward, and RD Cohn</i>                               |
| P8. The role of peroxiredoxin antioxidant enzymes in stress resistance, ageing and innate immunity. <i>E. L. Button*, M. Olahova, H. M. Crook and E. A. Veal</i>                                                                                |
| P9. How Well Do Sleep And Activity Behaviours Predict Lifespan In Drosophila? <i>S. Koudounas, E. Green, D. Clancy*</i>                                                                                                                         |
| P10. Using phage display to screen for protein partners of WRN, implicated in premature ageing Werner syndrome. <i>Lynne S. Cox and Ivan Boubriak</i>                                                                                           |
| P11. Saffron (crocus sativus L. <i>MH Dashti-r, F Zeinali, M Anvari* and SM Hosseini</i>                                                                                                                                                        |
| P12. Assessing the role of p38 MAP kinase activity in replicative senescence in fibroblasts from progeroid syndromes. <i>*Terence Davis, Hannah S. E. Tivey, Mark Bagley and David Kipling</i>                                                  |
| P13. Stress response profiles in ageing human cells. <i>Dino Demirovic* and Suresh Rattan</i>                                                                                                                                                   |
| P14. The effect of ageing on regulatory B cells. <i>Niharika .A. Duggal* and Janet M. Lord</i>                                                                                                                                                  |
| P15. Ab and oxidative stress in the brain of the longest-living rodents. <i>YH Edrey*(IABG), S Oddo, R Buffenstein</i>                                                                                                                          |
| P16. Estrogen protects against age-induced dermal extracellular matrix changes. <i>E Emmerson*, E Pond, X Kotsaka1, MJ Sherratt and MJ Hardman</i>                                                                                              |
| P17. Senile local eye amyloidosis risk factor for age-related macular degeneration. <i>V.V. Ermilov*, O.V. Makhonina</i>                                                                                                                        |
| P18. Open access: changing the way chemistry is published. <i>B Fallon</i>                                                                                                                                                                      |
| P19. Age-Related Increase in Nitrergic Signalling in the Mouse Internal Anal Sphincter. <i>S. Fidalgo(*), B. Patel, M. Saffrey1, R. Ranson2 and M. Yeoman.</i>                                                                                  |
| P20. Effects of mild uncoupling by 2,4-dinitrophenol on reactive oxygen species formation, oxidative damage and lifespan in <i>Caenorhabditis elegans</i> . <i>S Fong*, J Gruber and B Halliwell</i>                                            |
| P21. Computationally mapping the druggable pathways of <i>Saccharomyces cerevisiae</i> : developing a database and applying it to discover novel drugs that modulate aging. <i>K. Fortney*, W. Xie, M. Kotlyar, and I. Jurisica</i>             |
| P22. Effects of age on functionally distinct subtypes of myenteric neurons in mouse distal colon. <i>Gamage, P.P.K.M.*, Ranson R.N., Patel, B.A., Yeoman, M.S. and Saffrey, M.J.</i>                                                            |
| P23. Metabolic equivalent of a one-mile walk by older adults: implications for health promotion. <i>M Gault*, R Clements, M Willems</i>                                                                                                         |
| P24. On the role of mitochondrial fusion-fission in mitochondrial genome maintenance. <i>Zhiyang Tam and Rudiyanto Gunawan*</i>                                                                                                                 |
| P25. Impaired neutrophil extracellular trap (NET) formation: a novel defect in the innate immune system of aged individuals. <i>J. Hazeldine*, A. Livesey, E. Sapey and J. M. Lord.</i>                                                         |
| P26. Life events stress and physical activity are associated with the diurnal rhythm of dehydroepiandrosterone and the cortisol:DHEA ratio in older adults. <i>J. Heaney*, Dr A. Phillips, Professor Doug Carroll</i>                           |
| P27. The Influence of Early Nutrition on Splenic Ageing. <i>*C. Heppollette1, J.-H. Chen1, D. Palmer2, S. Ozanne1</i>                                                                                                                           |
| P28. Colonic migratory motor complex (CMMC) frequency is reduced in aged murine colon due to elevated serotonin release. <i>M. T. Honey*, R. N. Ranson, M. J. Saffrey, M. S. Yeoman &amp; B. A. Patel</i>                                       |
| P29. Analysis of changes in the innervation of mouse internal anal sphincter during ageing: implications for faecal incontinence. <i>Houghton, M.J.*, Gamage, P.P.K.M., Wang, C., Patel, B.A., Yeoman, M.S., Ranson, R.N. and Saffrey, M.J.</i> |
| P30. Ageing, inflammation and phitotherapeutic resources. <i>*JF Jiménez, J Cruz, BC Rodríguez, E Navarro, C Jiménez, FJ Hernández, R Chacón, MP Quintana.</i>                                                                                  |
| P31. Role of NF-KB transcription factor p50 in cellular senescence and possible consequences for in vivo ageing. <i>*Diana Jurk, Joao Passos, Fiona Oakley, Nicola Fullard, Derek Mann, Thomas von Zglinicki</i>                                |
| P32. A relationship exists between cellular senescence and cardiovascular health. <i>*Maria E. Karavassilis and Richard G.A. Faragher</i>                                                                                                       |

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| P33. A new <i>Caenorhabditis elegans</i> model of age-dependent neurodegeneration. <i>Sudhanva Kashyap, James Johnson, Robert Jenn, Alan Morgan</i>                                                                                                                                                                                                                                                        |
| P34. Overexpression of HSP10 in transgenic mice protects skeletal muscle against endotoxic shock-induced loss of force generation. <i>Anna C Kayani*, Claire E Routley, Maria Touramani Douramani, Wolfgang H Dillmann, Ruben Mestril, Holly Van Remmen; Malcolm J Jackson, Richard D Griffiths, Anne McArdle</i>                                                                                          |
| P35. Depletion of mTOR and mLST8 uncouples longevity from rapamycin-induced changes in glucose homeostasis. <i>Dudley W. Lamming*, Lan Ye, Pekka Katajisto, Marcus D. Goncalves, Maki Saitoh, Deanna M. Stevens, James G. Davis, Adam B. Salmon, Arlan Richardson, Rexford S. Ahima, David A. Guerti, David M. Sabatini and Joseph A. Baur</i>                                                             |
| P36. In situ detection of lysyl oxidase activity in aged tissue. <i>Abigail K. Langton*, Christopher E.M. Griffiths, Michael J. Sherratt, Rachel E.B. Watson</i>                                                                                                                                                                                                                                           |
| P37. Ethical, Social & Cultural Aspects of Anti-Ageing Science, Biomedicine and Older People. <i>Joanna Latimer, Joan Haran, Alexandra Hillman, &amp; Sophie Davies</i>                                                                                                                                                                                                                                    |
| P38. Exploring the function of progeroid WRN gene homologues in <i>C. elegans</i> . <i>H. Lees*, L. Cox, A. Woollard</i>                                                                                                                                                                                                                                                                                   |
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