UCL AGEING
RESEARCH EVENT:
TOWARDS
COLLABORATIVE
INTERACTION

Monday 29 February 2016
8.45–14.00

www.ucl.ac.uk/research/domains/populations-and-lifelong-health
Programme

8.45-9.15 Registration and networking

9.15-9.20 Welcome
Chair: Professor David Price
(UCL Vice-Provost (Research))
Professor Alan Thompson
(Dean, UCL Faculty of Brain Sciences)

9.20-11.05 Plenary lectures
Chair: Professor David Price
(UCL Vice-Provost (Research))
Speakers:
Professor Dame Linda Partridge
(UCL Institute of Healthy Ageing)
- Metabolism and nutrition
Professor Orazio Attanasio
(UCL Department of Economics)
- Economics
Professor Nick Fox
(UCL Institute of Neurology)
- Dementia: the challenge of our age
Chair: Professor Diana Kuh
(MRC Unit for Lifelong Health & Ageing
at UCL, UCL Institute of Epidemiology & Health Care)
Speakers:
Professor Andrew Steptoe
(UCL Institute of Epidemiology & Health Care)
- Cohorts

Dr Kate Walters
(Centre for Ageing & Population Studies
(CAPS), Department of Primary Care &
Population Health, UCL Institute of
Epidemiology & Health Care)
- Healthcare for an ageing society

Professor Arne Akbar
(UCL Division of Infection & Immunity)
- Beating the flames of inflammation

Professor Nick Tyler
(UCL Department of Civil, Environmental
& Geomatic Engineering)
- Making ageing easier through
engineering: the case of transport and
urban design

11.05-11.30 Networking break

11.30-12.30 Round table session
Chair: Professor Dame Anne Johnson
(Chair and Vice-Dean, External
Relations, Infection & Population Health,
UCL Institute of Epidemiology & Health
Care, and Chair, UCL Populations &
Lifelong Health Domain)

12.30-12.55 Round table feedback and
discussion

12.55-13.05 Closing remarks – where
we go from here

13.05-14.00 Networking lunch
Introduction

UCL has significant strength in ageing research, particularly in cohort studies, dementia, neurodegenerative disease, inflammation and biology and animal models of ageing. There is also considerable expertise in age associated cardiovascular disease, age-related and neurodegenerative disease and many other age-related syndromes. Furthermore, the UCL Crucible Centre has a cross-disciplinary research remit to facilitate the wellbeing of older people.

There are 68 researchers in 29 Institutes or Divisions identified in the IRIS ageing theme at UCL. The total active current grant income of these researchers is £98,067,960. Although not all of this income relates to ageing, these figures identify the considerable success in funding and expertise available for the investigation of ageing and age-related degenerative processes at UCL.

However, key researchers at UCL that work on ageing are unfamiliar with other scientists who work in different age-related disciplines. This is a missed opportunity, especially given the increased focus on lifelong health and wellbeing in the Government’s current priorities for research funding.

The purpose of this meeting is therefore to cross UCL Faculty and School boundaries and take the first step towards consolidating ageing research at UCL. Through bringing this diverse range of researchers together to network, this event will aim to:

- consolidate ageing research and expertise across UCL
- encourage new collaborations
- prepare possible responses for future funding opportunities.

Professor Arne Akbar
Professor of Immunology
UCL Division of Infection & Immunity

UCL Ageing Research Event
Steering Committee

Professor Arne Akbar (Chair)
Professor Orazio Attanasio
Professor Nick Fox
Cassie Harley-Boyce (Event Management)
Helen Hopkins (Strategic Coordination)
Professor Dame Anne Johnson
Professor Dame Linda Partridge
Professor Andrew Steptoe
UCL Research Domains

The UCL Research Domains are large, cross-disciplinary research communities that span UCL and our partner organisations, with the aim of fostering interaction and collaboration. By bringing together a critical mass of expertise, we believe that we can further encourage and support internationally leading research in our key areas of strength.

UCL Research Domains aim to:
• develop new research collaborations and partnerships, within and beyond UCL
• support academic communities in developing strategic ambitions that further develops UCL’s internationally leading research profile
• underpin strategic developments and attract major funding
• provide development opportunities for early career researchers
• exemplify how research communities can become greater than the sum of their parts.

The current UCL Research Domains are: Neuroscience; Personalised Medicine; Populations & Lifelong Health; Environment and eResearch. Additional Domains will be added in the future.

UCL Populations & Lifelong Health Domain

UCL encompasses arguably the greatest concentration of biomedical science and population health expertise in Europe. The Domain brings together over 800 Researchers with an interest in population health from across the university, who conduct world-leading work.

Our researchers generate 10% of the country’s contribution to the most highly cited publications in public, occupational and environmental health, and in the last five years the citations of the ten most highly cited researchers exceeded 180,000.

Populations & Lifelong Health is a strategic priority for UCL, with research in this field accounting for almost 20% of UCL’s entire research income.

Our success is built not just on world-class infrastructure but fundamentally on the people who make up the UCL Populations & Lifelong Health Domain community. Our vision is to build upon our existing excellence by supporting and investing in cross-disciplinary research teams, to become the world’s leading institution focussed on populations and lifelong health.

In addition to the six Institutes that form the UCL Faculty of Population Health Sciences, the Domain brings together activity in five research Themes. These Institutes and Themes reflect the strength of research in populations and lifelong health at UCL.

Our work ranges from studies that measure the burden of disease in populations, through to cross-sectional and longitudinal studies which seek to understand the relative influences of environmental, socio-economic, behavioural, biological and genetic factors on disease and lifelong health. We undertake clinical, behaviour change and health service interventions in community, primary and secondary care settings nationally and globally to evaluate their benefits to health in populations.

The health of populations is influenced by a wide range of factors including law, economics, culture and the environment. A key objective of the Domain is to bring together researchers across the UCL School of Life and Medical Sciences (SLMS) and beyond, whose work has a bearing on populations and lifelong health e.g. lawyers, health economists, geographers, philosophers, ethicists, anthropologists, mathematicians and those working on the built environment. We aim to build capacity by bringing together researchers working across a broad range of disciplines, and developing strategic initiatives to build the academic community and further developing novel research. We also aim to disseminate UCL’s research and support interaction with key opinion formers and practitioners to translate research into policy and practice.
Plenary lectures

Professor David Price
UCL Vice-Provost (Research),
Professor of Mineral Physics

Chair: Welcome and Plenary lectures

David has an undergraduate degree and a PhD from the University of Cambridge. He was a Fulbright-Hayes Scholar and Research Associate at the University of Chicago, and a Research Fellow at Clare College Cambridge, before moving to UCL in 1983 as a Royal Society University Research Fellow. At UCL, he was appointed Professor at the age of 34, and later served as Head of the Department of Earth Sciences, and as Dean of Mathematical and Physical Sciences, before being appointed to his current position of UCL Vice-Provost (Research) in 2007.

He was one of the first to establish the now major interdisciplinary field of computational mineral physics. He has published over 250 research papers/chapters, and his work has attracted over 10,000 citations (as reported in Google Scholar).

He is a Member of the Academia Europaea, Fellow of the Geological Society of London, and an Elected Fellow of the American Geophysical Union and of the Mineralogical Society of America.

He was formerly a non-executive Director of the North Middlesex University Hospital NHS Trust (2011-15). He is Chair of Governors of the UCL Academy School; a Council Member of the UK’s Science & Technology Facilities Council (STFC); a Member of the Knowledge Advisory Group of the World Economic Forum; Chair of the Research Policy Committee of the Leagues of European Research Universities; and is a member of the editorial board of The Conversation.

Professor Alan Thompson
Dean, UCL Faculty of Brain Science

Welcome

Professor Alan Thompson is Dean of the Faculty of Brain Sciences at University College London, Garfield Weston Professor of Clinical Neurology and Neurorehabilitation at the UCL Institute of Neurology, a consultant neurologist at the National Hospital for Neurology and Neurosurgery and Director of the Neuroscience Programme at the UCL Partners’ Academic Health Sciences Centre (AHSC).

His main area of expertise is in demyelinating disease, particularly the diagnosis, evaluation, and management of multiple sclerosis (MS), focusing on the pathological mechanisms that underpin neurological disability and recovery using structural and functional imaging.

Professor Thompson is chair of the Scientific Committee of the International Progressive MS Alliance, a Senior Investigator for the National Institute for Health Research, Editor-in-Chief for Multiple Sclerosis Journal, and a Guarantor of Brain. He received his undergraduate and postgraduate degrees from Trinity College Dublin, and an honorary doctorate from Hasselt University, Belgium.
Plenary lectures

**Professor Dame Linda Partridge**  
Weldon Professor of Biometry,  
Director, UCL Institute of Healthy Ageing,  
and Director, Max Planck Institute for Biology of Ageing, Cologne, Germany

*Metabolism and nutrition*

Professor Dame Linda Partridge works on the biology of ageing. Her research is directed to understanding both how the rate of ageing evolves in nature and the mechanisms by which healthy lifespan can be extended in laboratory model organisms. Her work has focussed in particular on the role of nutrient-sensing pathways, such as the insulin/insulin-like growth factor signalling pathway, and on dietary restriction.

She is the recipient of numerous awards, including the Royal Society’s Croonian Prize Lecture, and was honoured with a DBE for Services to Science in 2009. She is a Fellow of the Royal Society, the Academy of Medical Sciences, the European Academy of Sciences and the American Academy of Arts and Sciences. She is Director of the UCL Institute of Healthy Ageing and a founding director of the Max Planck Institute for Biology of Ageing in Cologne, Germany.

**Professor Orazio Attanasio**  
Professor of Economics,  
Head, UCL Department of Economics,  
and Research Fellow and Director of Research, Institute for Fiscal Studies (IFS)

*Economics*

After obtaining a PhD at the London School of Economics, Orazio Attanasio taught at Stanford University and the University of Bologna. He was also a National Fellow at the Hoover Institution at Stanford and visiting professor at the University of Chicago. He has been Managing Editor of the *Review of Economic Studies*, the *Journal of the European Economic Association* and *Quantitative Economics*. 
Plenary lectures

Professor Nick Fox
Professor of Clinical Neurology, Director, Dementia Research Centre, UCL Institute of Neurology, and Honorary Consultant Neurologist, National Hospital for Neurology and Neurosurgery

Dementia: the challenge of our age

Professor Fox’s first degree was in Physics and Physiology from Cambridge University. He graduated in Medicine from the University of London and subsequently specialised in cognitive neurology. He has longstanding clinical and research interests in neurodegenerative dementia. His research focus has been the use of neuroimaging to assess the earliest changes in dementia and to track progression: distinguishing pathological change from normal ageing is key to these aims. He developed novel techniques of image analysis for atrophy measurements from serial MRI. His methods have been widely used in longitudinal studies and trials in neurodegenerative and neurological disorders. His research group performed image analyses for some of the largest clinical trials in Alzheimer’s disease. He has interests in clinical and biomarker studies more generally with ongoing multimodal longitudinal cohort studies in familial AD, frontotemporal dementia and normal aging. Nick serves on the steering group of Dementias Platform UK, and has advised the European Medicines Agency, the US Food and Drug Administration and a number of clinical trials. He was a member of the Prime Minister’s Dementia Research Champions Group. He chairs UCL’s Dementia Strategy Board and co-chairs the Leonard Wolfson Experimental Neurology Centre at Queen Square, and the Alzheimer’s Society’s Research Strategy Committee. He is also a member of Alzheimer Research UK’s Scientific Advisory Board.

Professor Diana Kuh
Director and Head of Department MRC National Survey of Health and Development, MRC Unit for Lifelong Health and Ageing at UCL, UCL Institute of Epidemiology and Health Care

Chair: Plenary lectures

Diana Kuh (PhD FFPH FMedSci) is Professor of Life Course Epidemiology, Director of the MRC Unit for Lifelong Health and Ageing at UCL, and Director of the MRC National Survey of Health and Development (NSHD). NSHD is the oldest of the British birth cohort studies that has followed over 5000 individuals since their birth in March 1946. Under her leadership, the study has developed into an integrated and interdisciplinary life course study of ageing.

Diana is internationally recognised for the creation and advancement of the field of life course epidemiology which studies how biological, psychological and social factors at different stages of life, independently, cumulatively or interactively affect adult health, ageing and chronic disease risk. In a broad range of more than 300 publications she has shown the importance of childhood physical and cognitive development and lifetime socioeconomic factors, lifestyle and prior health experience on later adiposity, cardiovascular, reproductive and musculoskeletal function, quality of life and survival. Her latest co-edited book A life course approach to healthy ageing was published by Oxford University Press in 2014.
Plenary lectures

**Professor Andrew Steptoe**
Director, UCL Institute of Epidemiology and Health Care

*Cohorts*

Andrew Steptoe is British Heart Foundation Professor of Psychology and Director of the Institute of Epidemiology and Health Care. He coordinates the English Longitudinal Study of Ageing (ELSA), a large population study of older men and women living in England. His research focuses on psychosocial aspects of ageing, and on connections between psychological and biological processes in ageing and health.

**Dr Kate Walters**
Director, Centre for Ageing & Population Studies (CAPS), Department of Primary Care & Population Health, UCL Institute of Epidemiology and Health Care, Faculty of Population Health Sciences, School of Life & Medical Science

*Healthcare for an ageing society*

Kate Walters is Director of the UCL Centre for Ageing & Population Studies (CAPS), a clinical epidemiologist and GP in North London. She leads a research group focussing on health and well-being for older people in primary care, public health and community settings. This works spans both epidemiology of age-related diseases, and the development and testing of complex interventions to improve care and promote well-being for older people in primary care and the community. Topics include frailty, health promotion, neurodegenerative disease (dementia and Parkinson’s disease), health services research and end of life care. She has an interest in the analysis of routinely collected healthcare data in ageing topics, and clinical trials of complex interventions, and is a Trialist in PRIMENT Clinical Trials Unit. She is the Ageing Well Programme lead for UCL in the NIHR School for Public Health Research (SPHR).
Plenary lectures

Professor Arne Akbar
Professor of Immunology
UCL Division of Infection & Immunity

*Beating the flames of inflammation*

Arne Akbar’s research has focused on the understanding of T cell dysfunction, in particular immune dysregulation associated with chronic viral antigenic stress and ageing. His work on T cell differentiation has led to the new insights into the mechanisms that regulate dysfunction in the immune system during ageing and his group has shown that senescence and nutrient deprivation pathways converge to alter T cell function.

The Akbar group has also pioneered the use of a human antigen re-challenge model to understand the regulation of cutaneous immunity. Professor Akbar has a wide national and international collaborative network, with universities and research organisations in Europe, the United States and Singapore.

Professor Nick Tyler
Chadwick Professor of Civil Engineering,
UCL Department of Civil, Environmental and Geomatic Engineering,
Co-Chair of the UCL Environment Domain

*Making ageing easier through engineering: the case of transport and urban design*

Professor Nick Tyler CBE FREng is the Chadwick Professor of Civil Engineering at UCL. Nick was the Head of Department of Civil, Environmental and Geomatic Engineering at UCL from 2003 to 2013.

Nick is based in the UCL Department of Civil, Environmental and Geomatic Engineering, where he leads the Cities and Mobilities group within the Centre for Transport Studies. He researches the environment’s interactions with people, creating environments which are responsive to the needs of people with dementia, people with differing vision and hearing capabilities, and people using transport systems.
Round table session

Professor Dame Anne Johnson
Professor of Infectious Disease Epidemiology, UCL Institute of Epidemiology & Health Care, and Chair of the UCL Population & Lifelong Health Domain

Chair: Round table session

Anne M. Johnson (MD FMedSci FRCP FFPH FRCGP) is Professor of Infectious Disease Epidemiology at UCL. She is also Chair of the UCL Population & Lifelong Health Domain, and Vice-Dean for External and International Relations, Faculty of Population Health Sciences at UCL. She is a member of the Adaptation Sub-committee of the Committee on Climate Change and is Chair of the Academy of Medical Sciences Health of the Public 2040 Working Group. She is a Governor of the Wellcome Trust.

How the Round table session will work

The seating plan for the Round table session has been configured so that each table will have a mix of people from across the disciplines. There will be two facilitators on each table, who will chair the discussion and take notes.

Each table will take the hour to discuss the following three questions:

1. What do you see as the top three research questions in ageing?
2. How can we work across the disciplines to meet these three challenges?
3. What do you think are the three most significant barriers to cross-disciplinary ageing research?

When the hour is up, one facilitator from each table will be asked to take a few minutes each to present their tables thoughts/findings, after which there will be an open discussion about possible next steps.

The notes from each table will be collected at the end of the event. They will then be incorporated into the write-up of the event, which will be circulated by the UCL Populations & Lifelong Health Domain.

All attendees are kindly asked to turn their electronic devices off for the duration of the Round table session.