Annual Review 2016–17

Living better for longer

1 in 3 babies born are now predicted to live until 100.

ONS: goo.gl/Hblmrl
Welcome

Living better for longer. This is the ethos of the Newcastle University Institute for Ageing. With 1 in 3 babies born now predicted to live until 100*, medical advances are certainly enabling us to live longer. But are those extra years spent in better health? The focus of Newcastle University’s globally renowned research is not only targeted at helping older people to remain healthy and independent for as long as possible, but also to encourage and facilitate healthy ageing across the life course – starting at birth.

Early in 2016 we were delighted to hear that Newcastle University will receive the Regius Professorship in Ageing; a rare and prestigious award bestowed by the Sovereign to recognise sustained high quality research at an institution. The award is a great honour, and receiving it is a tribute to the legacy of ageing research at Newcastle University.

In September 2016 it was announced that the partnership between Newcastle upon Tyne Hospitals, NHS Foundation Trust and Newcastle University was successful in receiving over £16m of funding to host the NIHR Newcastle Biomedical Research Centre (BRC). The BRC will carry out world-class research in ageing and long-term conditions to advance the diagnosis, treatment and prevention of ageing syndromes.

Furthermore, with the National Innovation Centre for Ageing (NICA), based in the heart of Newcastle, at the much anticipated Science Central site, we look forward to further collaborations with business, local authorities, health care providers and academia. These collaborations will facilitate the translation of our research into products and services for ‘real world’ use.

The NIHR Newcastle Biomedical Research Centre and the National Innovation Centre for Ageing represent over £56 million worth of investment in ageing research and innovation; a sum which demonstrates not only the commitment to continued improvement in healthcare for older people, but also a societal ethos towards ensuring scientific knowledge enables us to ‘live better for longer.

The Newcastle University Institute for Ageing comprises a network of over 500 researchers across the University. Through this network, we bring together a wide spectrum of academics and external collaborators to contribute to the outstanding reputation Newcastle has for research into ageing.

Aging is a global challenge for society and Newcastle University is committed to supporting the UN’s Global Goals. Through the interdisciplinary work we do, we’re combining cutting edge research and experience of real world partnerships to make a difference to people’s lives across the globe. You can learn more about our work on page 10.

Our 2016/17 Annual Review can only highlight a small proportion of the work we do, but we hope it tempts you to look deeper however, and visit us at our webpage www.ncl.ac.uk/ageing for the full flavour of our work.

Professor Louise Robinson
Director, Newcastle University Institute for Ageing

Aging is not lost youth, but a new stage of opportunity and strength.

Betty Friedan (1921–2006)

*ONS: goo.gl/Hblmrl
As the gateway for ageing research, we bring together colleagues from across all three academic faculties of Newcastle University to undertake a unique, multidisciplinary approach, which focusses on; ‘how we age’, ‘how we can age better’, and ‘how we can meet the global challenge of ageing.’

Our Team
The Newcastle University Institute for Ageing brings together research from across the whole University, but we have a core team across several functions.

Core Team
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Deputy Institute Director
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Scientific Director
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Lead: Professor Doug Turnbull
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Emeritus Professor
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Lead: Professor Doug Turnbull
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Deputy: Dr Joao Passos
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Teaching Champion
Dr Ellen Tullo
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History of Ageing

Ageing research in Newcastle has come a long way and has provided us with an unparalleled legacy. In the year that we are to be awarded the Regius Professorship in Ageing – the most prestigious award bestowed by the Sovereign, we want to look back to how it all began.

1960’s – Scientists at Newcastle University identified the major brain biochemical deficit which caused Alzheimer’s disease; making the university a world leader in ageing research and age-related illness.

1960’s – Newcastle University and Manchester University came together to establish the Joint Centre on Ageing. This brought together complementary branches of gerontology (clinical disorders and the social impact of ageing, with basic biological mechanisms of ageing) to advance the scope of research in this area.

1994 – The ‘Institute for the Health of the Elderly’ was established, led by founding Director, Professor Jim Edwardson. This was the first multi-disciplinary centre to recognise the complexity of ageing research and its importance as a societal challenge.

1996 – Newcastle University and Manchester University came together to establish the Joint Centre on Ageing. This brought together complementary branches of gerontology (clinical disorders and the social impact of ageing, with basic biological mechanisms of ageing) to advance the scope of research in this area.

2002 – Renamed the Institute for Ageing and Health (IAH), the institute thrived, becoming one of the leading ageing research centres in the world.

2004 – The first purpose-built ageing research building was constructed: the Henry Wellcome Laboratory for Biogerontology Research. It was made possible with funding from The Wellcome Trust, and it was formally opened in 2004 by Dr Leonard Hayflick, one of the foremost US pioneers in the science of ageing.

2005 – In partnership with the Newcastle upon Tyne Hospitals NHS Foundation Trust, the Campus for Ageing and Vitality was created. It is a vibrant, purpose-built campus where state-of-the-art biomedical laboratories and national research centres work alongside integrated clinical research facilities.

2007 – The Newcastle upon Tyne Hospitals NHS Foundation Trust and Newcastle University partnership was successful in receiving funding from the NIHR to establish the Newcastle Biomedical Research Centre which focussed on ageing research.

2009 – Newcastle University’s research on ageing was recognised with the Queen’s Anniversary Prize for Higher and Further Education.

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2011 – Ageing research was recognised again, this time with the BBSRC “Excellence with Impact” runner-up award.

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June 2016 – Newcastle University was notified that they would receive the Regius Professorship in Ageing, in recognition of world-leading ageing research.

September 2016 – The Health Secretary announced five years funding of £16,208,633 for the leading NHS clinicians and top university researchers at the NIHR Newcastle Biomedical Research Centre (BRC). The BRC is a partnership between Newcastle upon Tyne Hospitals NHS Foundation Trust and Newcastle University, and will carry out translational research to study the causes, therapies and prevention of long-term health conditions.

2012 – The NIHR Newcastle Biomedical Research Centre was successful in receiving another five years of funding to continue groundbreaking translational research in ageing and long-term conditions.

2014 – With an annual ageing research income of £40 million and in acknowledgement of its broadening portfolio, the IAH expanded into the interdisciplinary Newcastle University Institute for Ageing, with a focus on Living better for longer.

Later in 2014 – Newcastle University was visited by then Chancellor of the Exchequer George Osborne to announce the University’s successful bid for the National Innovation Centre for Ageing (NICA). NICA is a £40m investment by Newcastle University and the Government to build a world-leading centre in ageing and innovation – bringing together academics, the NHS, public and private sector to collaborate on challenges and opportunities presented by an ageing population.
Newcastle University is committed to working across national borders and academic disciplines to help address the grand challenges facing the world today; one such global challenge is ageing. Building on our impressive history of research excellence and the planet by 2030. Newcastle University is also a member of the UN Academic Impact Initiative.

The challenges associated with ageing are experienced across the globe. Depending on where a person was born, where they grow up and receive care, nourishment and education, as well as where they spend their later years, the experience of growing older will vastly differ from one person to the next. Such inequalities exist between countries and within countries.

Reminded by the quote on page one, that for some, lost youth can represent a new era from which new beginnings can emerge. For many others across the globe, however, lost youth can represent huge challenges and a poor quality of life.

According to the World Health Organisation, older people in low and middle-income countries carry a greater disease burden than those in the rich world.

They comment: “Regardless of where they live, the biggest killers of older people are heart disease, stroke and chronic lung disease. The greatest causes of disability are sensory impairments (particularly in low and lower-middle-income countries), back and neck pain, chronic obstructive pulmonary disease (particularly in low and lower-middle-income countries), depressive disorders, falls, diabetes, dementia and osteoarthritis”.

Research undertaken within, and applied to the developed world is able to turn certain aspects of ageing into opportunities: enriching our extra years and creating a society that accepts and celebrates all ages. But in developing countries where basic survival for many is the primary concern, the commitment we make as a University will address how to vastly improve the experience of ageing in countries where access to sufficient healthcare, medical care and social equalities is lacking.

From page 10 onwards, we give you a snapshot of some of the research and activity we’re engaged in. You’ll see an icon like the ones below, which will tell you which of the UN Global goals this research is supporting.

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**The Global Goals for Sustainable Development**

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life below Water
15. Life on Land
16. Peace and Justice and Strong Institutions
17. Partnerships for the Goals

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**Working with Brussels**

In November 2016, Professor Tom Joyce accepted an invitation to join an MEP as part of the “Brussels Week” scheme. Professor Joyce, who is the lead for the Institute for Ageing’s “enabling environments and technologies” theme, was paired with MEP Eva Kall.

The scheme offers scientists the opportunity to get acquainted with the work of EP committees and research services, shadowing their MEP counterparts in their daily activities. It is hoped that both sides will find out how they can best profit from each other’s knowledge and experience. It was also an excellent opportunity for Professor Joyce to talk science, medical implants and EU regulations with MEPs and their staff.

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**Contribution in Ageing Research Award**

Emeritus Professor Tom Kirkwood, has been formally recognised by the National Institute on Aging, part of the U.S. National Institutes of Health, by being awarded the Nathan Shock Award. The Nathan Shock Award, named after the founder of the NIH Gerontology Research Center, recognises individuals who make an outstanding contribution to ageing research and is voted on by the NIA scientific staff. The award is testament to the high international esteem of Newcastle University research in the field.

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**Newcastle’s Expertise in Ageing Awarded**

Following a bid submitted by Newcastle University, the North East was one of four northern health collaborations to receive international recognition for their excellence in active and healthy ageing. The award was given at a ceremony on 7th December, as part of the European Summit on Digital Innovation for Active and Healthy Ageing in Brussels. The North East was one of four regions in the north, including Liverpool, Manchester, and Yorkshire & Humber.

Following the meeting and ceremony, the four winning regions will now work together for the next three years to address some of the most pressing health issues relating to the growing older population in the northern regions.

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**An International Role for Oral Health Expert**

In December 2016, The International Association for Dental Research (IADR) announced that Professor Paula Moynihan had been elected to the role of Vice President. Moynihan is Professor of Nutrition and Oral Health at Newcastle University and is dedicated to advancing research and increasing knowledge for the improvement of oral health worldwide; supporting and representing the oral health research community and facilitating the communication and application of research findings. With this appointment, Professor Moynihan will have an opportunity to influence a global audience through her research.

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For more information on the work of Newcastle University and their contributions to the United Nations Sustainable Development Goals, please visit their website at: [www.un.org/members/unitednations/sustainabledevelopmentgoals](http://www.un.org/members/unitednations/sustainabledevelopmentgoals)
Ageing Research in the Spotlight

Making our Work Count
Some significant highlights occurred over the course of 2016/17:
- the beginning of the partnership with the International Longevity Centre
- the five year Biomedical Research Centre funding from the National Institute for Health Research
- formal establishment and growth of the National Innovation Centre for Ageing
- Regius Professorship in Ageing

Their significance to the Newcastle University Institute for Ageing lies in the part they play as catalysts for change in medicine and society.

As a global population, we will continue to see a marked increase in the proportion of over 65s globally. The graph, taken from a presentation delivered by the Newcastle University Institute for Ageing’s Deputy Director, Carol Jagger – AXA Professor of Epidemiology of Ageing, outlines the growth so far, and projected growth of life expectancy. For example, a woman reaching 65 in 2030 will enjoy over six more years of life, on average, than one who reached 65 in 1981. As an Institute for Ageing we have a responsibility to use our knowledge to futureproof services, care, scientific discoveries and attitudes towards ageing in order to ensure that we all have a chance to live better for longer.

Biomedical Science and Healthcare
Receiving over £16m of funding from the NIHR was a hugely positive step for our ageing research. The NIHR Newcastle Biomedical Research Centre is a clinical research partnership between the Newcastle upon Tyne Hospitals NHS Foundation Trust and Newcastle University. This partnership is one of 20 NIHR Biomedical Research Centres in England; the aims of which are to improve lives of patients through world-class, translational research. The NIHR Newcastle Biomedical Research Centre focuses on research in ageing and long-term conditions. The funding is spread across five years and will target priority areas of unmet need in the NHS. See more on page 16.

Expected Years of Life

<table>
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<td>2030</td>
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Source: ONS 2014 population projections

Policy
Our partnership with the International Longevity Centre will ensure that the research reaches the right audience in order to drive real changes and make improvements in people’s lives. Through this partnership we also seek to build on our influence on national policy and legislation.

Innovation in Ageing
It was 2014 when the Government at the time announced that Newcastle University was to host the National Innovation Centre for Ageing (NICA). While it has been fully operational since then, 2017 sees the strong team of 15 move into temporary accommodation in Central Newcastle whilst the build of the brand new Science Central site moves forward. As a national centre, NICA will work with ageing researchers across the country, taking expertise in social, medical, clinical and environmental gerontology and turning it into direct benefits for society. NICA’s role is to bring together business, academia and the public to stimulate innovation of products and services that make older lives better.

It is a testament to the legacy of ageing research in Newcastle that the city was selected to host the national centre.

Recognition for Ageing Research
Being awarded the Regius Professorship in Ageing this year was a huge accolade for Newcastle University, but also a fantastic opportunity to continue our outstanding work. The Professorship will be awarded to an individual whose experience in ageing is unparalleled, and it will go to extending Newcastle University Institute for Ageing’s ground-breaking research in this area. The recipient of the Professorship is yet to be announced, but is expected to be revealed mid-2017.

These key spotlight areas will act as vehicles for major progress in the field of ageing research. This progress is designed to change lives and highlight the impact that the Newcastle University Institute for Ageing has locally, nationally and globally.
In the last Research Excellence Framework, Newcastle University was ranked 16th for global research power. We continually seek to challenge what we know through research and continued learning.

Within the Newcastle University Institute for Ageing, research into ‘how we age’, ‘how we can age better’ and ‘how we can meet the global challenge of ageing’ is at the forefront of our purpose. We seek to help others ‘live better for longer’ through our research. Below is a small selection of the work we have done throughout 2016/17.

**Current Research**

**Preventing Falls Through Virtual Reality**

In August 2016, research published in The Lancet shared details of an intervention which could potentially be used in gyms, rehabilitation centres or nursing homes to improve safe walking and prevent falls in older adults, or with people who have disorders which affect movement, such as Parkinson’s. The authors, including experts from Newcastle University, created tests that combined the physical and cognitive aspects of walking, using a treadmill. This research is crucial in improving the lives of people with the highest risk of falling. Falls in adults aged 65 and over account for 1–2% of all healthcare expenditure in high-income countries. As many as 30% of older adults living in the community, and 60–80% of older adults with mild cognitive impairment, dementia, or Parkinson’s, fall at least once a year.

While the team still have further to go in evaluating the variety of results that came from the study, the work undertaken so far by the international consortium of researchers, is a positive step in establishing interventions to help vulnerable adults from incurring further injury.

**Our Brains Get Slacker as We Age**

Losing the youthful firmness and elasticity in our skin is one of the first outward signs of ageing. But research published in October 2016 from Newcastle University, in collaboration with the Federal University of Rio de Janeiro, investigated the way the human brain folds and how this ‘cortical folding’ changes with age. This research, led by Dr Yujiang Wang shed light on the underlying mechanisms which affect brain folding and could be used in the future to help diagnose brain diseases.

**New Hope for Stroke Patients**

In October 2016, stroke patients started a trial of a new electronic device to recover movement and control of their hand. The study involved a device developed by neuroscientists at Newcastle University, which delivers a series of small electrical shocks followed by an audible click to strengthen brain and spinal connections. Experts, including Stuart Baker, Professor of Movement Neuroscience, believe this could revolutionise treatment for patients, providing a wearable solution to the effects of stroke. Following successful work in primates and healthy human subjects, the Newcastle University team are now working with colleagues at the prestigious Institute of Neurosciences, Kolkata, India, to start the clinical trial. Involving 150 stroke patients, the aim of the study is to see whether it leads to improved hand and arm control.

**The World’s First Mitochondrial Licence**

In 2016, the team based at the Campus for Ageing and Vitality, working on the science behind the biology of ageing, established the Ageing Biology Centre. The Centre is embedded within the Newcastle University Institute for Ageing and highlights the legacy, as well as current biology of ageing research.

Going forward, the Ageing Biology Centre will support recognition of Newcastle as the leading institution, globally, for ageing research; attracting further funding and scientific talent to Newcastle University, as well as supporting transmission of novel results into translational science, especially into interventions to extend human health span.

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**Representations of Older Women in the Media**

Based in the School of Arts and Cultures, Karen Ross is a Professor of Gender and Media with research interests around the relationships of gender and media, with a focus on female politicians and journalists.

She has recently been working on a community-engagement project with older women to create images of themselves which reject normative social expectations of older age. The project involved several phases of activity, all designed to illicit a response from members of the public. The final phase was a flash-mob event in the centre of Newcastle whereby all participants joined together to sing.

**Detecting Dementia**

In August 2016, it was announced that experts at Newcastle University were involved in a new multimillion pound study which would help produce the most thorough tests to detect Alzheimer’s disease. The test would be used in a study, performed on volunteers. Funded by the National Institute of Health Research (NIHR) and the Medical Research Council (MRC), the study, entitled Deep and Frequent Phenotyping is aimed at dramatically improving the success rate of clinical trials for treatments of the condition.

This landmark £6.9m research project has been designed to identify measurable characteristics, known as biomarkers, which can detect the occurrence of Alzheimer’s disease very early on - when a person may have no obvious symptoms.
Medicine as an Art Form

Newcastle University Institute for Ageing hosted an event to bring together art and science with a series of talks on ageing related medical matters, described through the works of Leonardo da Vinci.

The public event, which took place in Newcastle City Library on 19th April 2016, was the result of an invitation received by the Institute for Ageing from the Royal Collection, who held an exhibition to highlight ten specially selected drawings of da Vinci’s at the Laing Art Gallery between 13th February and 24th April 2016.

The connection between the artist and the Institute for Ageing raised some fascinating parallels which allowed for a highly engaging afternoon, praised by one participant as “an excellent event which fostered a greater public understanding of science”.

Ageing Research on BBC Television

BBC Look North hosted a special feature on ageing over a week in May 2016. The segment, entitled, Living Life Longer shared some expert comments on ageing and some of the challenges, and opportunities surrounding a growing older population. They came to Newcastle University Institute for Ageing and interviewed Director, Professor Louise Robinson and colleagues on topics such as; ways to try to prevent dementia, the importance of eating well and exercising in old age, how the brain ages, the impacts of loneliness on health, and research that can tell how well people are living on the inside.

Reaching out to People with Diabetes

Professor Roy Taylor’s ground-breaking research on the reversal of diabetes was the subject of this inspirational documentary about the journey two sons took to ensure their dad’s diabetes didn’t leave a permanent mark on his life.

With the full support of his GP, along with the determination and support of his two sons, Geoff Whitington was able to combine a strict diet and regular exercise to set the wheels in motion of a reversal of diabetes. They visited the Magnetic Resonance Centre at the Campus for Ageing and Vitality and in motion of a reversal of diabetes. They visited the Magnetic

Creating Age-Friendly Housing and Communities

Professor Rose Gilroy leads on the exciting ‘Future Homes’ project, which is an initiative that is developing new housing exemplars for an ageing society. Future Homes brings together academic, government, commercial, public and voluntary sectors in order to collaborate on the creation of innovative and future-focused homes that meet the needs of the growing older population for the future. The project won £1.12m from the Homes and Community Agency in December 2016 to construct four demonstrator units in Newcastle, which are expected to be on site April 2018.

Healthy Ageing in the Older Population

With a view to improving the lives and experiences of the older workers in the UK and Europe, Dr Matt Flynn from the Newcastle University Business School was awarded a £300,000 research grant by the European Commission Employment, Social Affairs and Inclusion Division. The grant will fund a project that supports social partners (trade unions and employers) in promoting healthier workplaces so that older employees, can lead productive and valuable careers.
The aim is to create a training programme for social partners; helping to promote active ageing in the workplace with a blueprint that takes experiences of all stakeholders involved.

A Celebration of Public Participation

In November 2016, Newcastle Academic Health Partners (partnership bringing together Newcastle Hospitals and Northumberland, Tyne and Wear NHS Foundation Trusts with Newcastle University) hosted Patient Month – a series of events aimed at the public in order to inform and engage with research and current practice for certain clinical areas.
The Newcastle University Institute for Ageing for Ageing kicked off the month’s events with ‘Ageing Well in Newcastle’ – an event that celebrated the legacy of ageing research in the city. The audience heard about longitudinal studies that have been underway since the 60s which have enabled such detailed and progressive research into ageing and the public was celebrated for their invaluable part in the reputation we have for this research across the region.

Communicating Care Home Experiences

From October to December 2016, the Newcastle University Institute for Ageing hosted an exhibition which showcased some of the work that was created by residents of care homes across the North East. The artwork, which was produced with Equal Arts and the Hen Power Project, was on display throughout the public areas of the Biomedical Research Building on the Campus for Ageing and Vitality. The artists, their fellow residents, carers and colleagues from Equal Arts and Hen Power, were invited to the Campus to launch the exhibition officially.

Taking Part in ‘Free Thinking’ with the BBC

Director of the Newcastle University Institute for Ageing, Professor Louise Robinson, took part in BBC Three’s Free Thinking Festival which was held at The Sage Gateshead in March 2017, Professor Robinson was part of the ‘My Body Clock is Broken’ segment which looked at how depression affects our sense of time and the rhythms of daily life and what happens when mental illness disrupts or even stops our body clock, looking closely at how this is altered as we age.

Working with the Public and Business

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The Newcastle University Institute for Ageing for Ageing kicked off the month’s events with ‘Ageing Well in Newcastle’ – an event that celebrated the legacy of ageing research in the city. The audience heard about longitudinal studies that have been underway since the 60s which have enabled such detailed and progressive research into ageing and the public was celebrated for their invaluable part in the reputation we have for this research across the region.

Communicating Care Home Experiences

From October to December 2016, the Newcastle University Institute for Ageing hosted an exhibition which showcased some of the work that was created by residents of care homes across the North East. The artwork, which was produced with Equal Arts and the Hen Power Project, was on display throughout the public areas of the Biomedical Research Building on the Campus for Ageing and Vitality. The artists, their fellow residents, carers and colleagues from Equal Arts and Hen Power, were invited to the Campus to launch the exhibition officially.

Taking Part in ‘Free Thinking’ with the BBC

Director of the Newcastle University Institute for Ageing, Professor Louise Robinson, took part in BBC Three’s Free Thinking Festival which was held at The Sage Gateshead in March 2017, Professor Robinson was part of the ‘My Body Clock is Broken’ segment which looked at how depression affects our sense of time and the rhythms of daily life and what happens when mental illness disrupts or even stops our body clock, looking closely at how this is altered as we age.
STEM for BRITAIN

Gemma Roberts, Alzheimer’s Society Clinical Fellow was selected to present at the STEM for Britain poster event at Westminster in March 2017. The aim of the event was to raise the profile of junior researchers in STEM amongst an audience of Parliamentarians. MPs were invited to join the event and talk to the presenters about their work. The presenters hoped to promote their research, their institution and the excellent work ongoing in their field, in order to highlight the expertise in STEM subjects throughout Britain.

Gemma presented in the physics session on diagnosing dementia using a nuclear medicine heart scan, part of her PhD work funded by the Alzheimer’s Society.

Chi Onwurah, MP for Newcastle Central came to all of the sessions and spoke to Gemma about her work here at Newcastle University.

Mitochondrial Donation

As outlined in the research section, researchers in Newcastle have been successful in pushing forward changes to the law for use of mitochondrial donation in people wishing to have a child and prevent the transmission of mitochondrial disease. While the science behind this change is of a globally recognisable standard, it is also worth noting that the impact this will have on women around the world is significant and this research has led to a change in the way people who are affected by mitochondrial DNA will live.

Changing Lives for People with Dementia

At a meeting hosted by the Dementia Innovation Hub at Newcastle University, academics and health practitioners were brought together to discuss topics surrounding dementia and incontinence. Researchers, specialist dementia and incontinence nurses, patient and care organisations and business joined forces to share insights on incontinence: looking at key challenges for carers and people living with dementia, and discussing where to go next to put research into practice for real-life benefit to society.

Sharing Dementia Knowledge with the Public

For the second time, Newcastle University’s Learning and Teaching Development Service worked with Future Learn to host the online course, ‘Dementia Care: Staying connected and Living Well’. The course was free and aimed at public, carers, families and anyone interested in learning more about dementia. The content was designed for people without prior scientific and medical knowledge and therefore was a great way to reach a large audience affected by dementia.

New NIHR Senior Investigator Appointed

Professor Louise Robinson, Director of the Newcastle University Institute for Ageing and NIHR Professor, was appointed Senior Investigator to the NIHR College in March 2017. Senior Investigators are the NIHR’s senior leaders. They are critical to augmenting success and developing the health research capability, fit for the challenges we must meet in order to improve the future health of the nation. Within their roles, NIHR Investigators are expected to provide advice on research issues within their expertise, including by serving on review panels and by carrying out peer review.

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Making an Impact on Society (cont.)

Funding Boost for Dementia

Newcastle University has an outstanding reputation for research into dementia. As well as looking into the causes and potential cures of all forms of dementia, research into how to live better with dementia and create a society where people living with dementia, their friends and their families are better supported, is a key area for researchers in Newcastle.

All dementia research in Newcastle takes place to change lives, and in May 2016, it was announced that researchers Dr Luis Peraza Rodriguez and Dr John-Paul Taylor would receive £205,000 from Alzheimer's Research UK to support a pilot study to unravel the reasons for such varied and distressing symptoms in dementia with Lewy bodies (DLB).

The NIHR Newcastle Biomedical Research Centre, a partnership between Newcastle upon Tyne Hospitals and Newcastle University was the forerunner for establishing a differential diagnosis for DLB - something that has led to faster diagnoses and better treatment.

With the Alzheimer’s Research UK funding, Drs Peraza-Rodriguez and Taylor will not only better understand the symptoms of the disease, but develop more accurate a differential diagnosis for DLB- something that has led to faster diagnoses and better treatment.

In September 2016, the Health Secretary announced five years of funding of £16,208,633 for leading NHS clinicians and top university researchers at the NIHR Newcastle Biomedical Research Centre (BRC). The Biomedical Research Centres are part of a record £316 million investment in NHS research, and Newcastle is amongst twenty NHS and University partnerships across England to have been awarded this funding, through the National Institute for Health Research.

Given the expertise in ageing through the Newcastle upon Tyne Hospitals NHS Foundation Trust’s clinical care, as well as the outstanding research in ageing undertaken throughout Newcastle University, the NIHR Newcastle BRC has the aim of improving lives through world-class research in ageing and long-term conditions. The purpose is to build on and harness experimental medicine expertise in individual long-term conditions, to advance the diagnosis, treatment and prevention of ageing syndromes such as sarcopenia, frailty and multimorbidity.

Specific areas of research will include:
- Dementia
- Liver Disease
- Musculoskeletal Disease
- Neuromuscular Disease
- Skin & Oral Disease

Investment into Biomedical Research

We’re looking forward to announcing the recipient of the Regius Professorship in Ageing who will be instrumental in bringing about exciting research developments in key areas of ageing at Newcastle University.

In recent months, the Newcastle University Institute for Ageing has been successful in receiving grants from third party charities and funding bodies. Whilst news of these are yet to be announced externally, they signal exciting and ground-breaking developments in ageing research at Newcastle University.

We have been successful in receiving an award from the Alzheimer’s Society, to host their Centre of Excellence in dementia care and prevention. From June 2017, we will be funded for a four year programme looking at post diagnostic dementia care.

Newcastle University has also recently entered into a partnership with The James Lind Alliance (JLA). The JLA is an initiative funded by the National Institute for Health research that seeks to develop a better understanding of the effects of treatments for patients, researchers and clinicians. They provide evidence of research priorities through practical information that is needed day-to-day by patients and health professionals.

The JLA has created Priority Setting Partnerships (PSPs) that enable this practical information to be gathered. Newcastle University is leading on Health with Multiple Conditions in Old Age, which will provide ample opportunities for future research projects related to the older person and health experiences as we age.

We’re involved in many significant global meetings throughout summer 2017. Following on from the Active and Healthy Ageing Award given in Brussels at the end of 2016, we will be attending a showcase event which brings together fellow award winning Reference Site partners from the Northern Regions to showcase their activity and look at ways to work together.

The 21st IAGG World Congress of Geriatrics and Gerontology will take place in July 2017. Newcastle University ageing researchers have had several abstracts selected and will host a number of symposia at the event.

We will also host an event to celebrate 70 years of the Newcastle Thousand Families Study (NTFS). NTFS was a cohort study of all children born in the city of Newcastle upon Tyne in May 1947. As a group, they have taken part in Newcastle University research for the past 70 years, and data from the study has resulted in groundbreaking research about life course influences on health and wellbeing.

Looking Ahead

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- Cambridge University
- CFAS Study
- Digital Institute
- Economic and Social Research Council
- EIT
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- Engagement team
- Federal University of Rio de Janeiro
- Future Homes
- Government Office for Science
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- Institute for Genetic Medicine
- Institute for Cell and Molecular Biosciences
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- Institute for Health and Society
- Institute for Neuro and Mental Health
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- Medical Research Council
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- Newcastle University Business School
- Newcastle University Institute for Social Renewal
- Newcastle University Institute for Sustainability
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