Lifelong Health and Wellbeing Phase 3

Pilot Studies

Additional Information on each award, including a list of the co-investigators and an abstract of the proposal, can be found by clicking the name of the Principle Investigator.

Name	Institution	Award Title
Professor Pascal Belin	University of Glasgow	Lifelong changes in the cerebral processing of social signals
Professor Linda Clare	Bangor University	Behaviour change to promote health and well-being in later life: a goal-setting intervention
Professor Eric Grahame Nicol Cross	Newcastle University	Ageing Creatively - a pilot study to explore the relation of creative arts interventions to wellbeing in later life
Dr Christopher McKevitt	King's College London KCL	Resilience after Stroke: An Intervention to Promote Mental Health and Quality of Life among Older Stroke Survivors
Dr Andrew Morris	Loughborough University	Improving Safety for Older Public Transport Users
Professor John Tiernan O Brien	Newcastle University	A monitoring device to objectively assess functional/ psychosocial impairment in older-age adults with major depression
Professor Marcus Ormerod	University of Salford	Going Outdoors: Falls, Ageing and Resilience (Go Far)
Dr Dana Rosenfeld	Keele University	Experiencing and Managing HIV/AIDS in Later Life: Social Support, Mental Health and Quality of Life
Dr Afroditi Stathi	University of Bath	Project ACE: Active, Connected and Engaged Neighbourhoods
Dr Katherine Walters	University College London UCL	Multi-dimensional Health Risk Appraisal for Older People: embedding promotion of health and well-being in practice

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Professor Pascal Belin	**University of Glasgow**	**Lifelong changes in the cerebral processing of social signals**

Co-Investigators		Abstract
Dr M Grosbras	(University of Glasgow)	
Dr G Rousselet	(University of Glasgow)	

Wellbeing is grounded in rewarding social interactions that in turn depend on accurate signal perception from others (e.g. identity, affect). Whereas the mechanisms of these key components of social cognition are being characterized in the young adult, their potential changes and associated effects on social interactions during aging remain unknown.

We propose to characterize lifelong changes in the perception of other persons in a cross-sectional sample spanning a wide age-range. Our primary aim is to identify perceptual domains and age ranges particularly affected by aging to be further investigated in a larger study.

Specifically, we propose:
(i) to investigate lifelong changes in the perception of socially-relevant information (gender and affective expression) from the voice, face and body;
(ii) to quantify the cerebral correlates of lifelong changes observed at the behavioural level by measuring cerebral activity across sensory domains at controlled levels of task performance;
(iii) to test whether these cerebral correlates are compatible with the compensation and the de-differentiation theories of aging.

60 healthy adults with age ranging between 20 and 80 years-old, equally distributed across the whole age-range (10 per decade) and balanced for gender will be recruited. Participants will perform behavioural tests evaluating their performance at tasks tapping into three complementary aspects of social perception:
(i) face perception;
(ii) voice perception;
(iii) body motion perception (using point-light displays of body motion). Cerebral activity will be measured using functional magnetic resonance imaging (fMRI) while they perform the above tasks at controlled performance levels.

Our design and methodology follow recommendations of recent meta-analyses on cognitive aging which highlight the need for studies that: (i) investigate a wide age-range rather than concentrating on a small number of age groups; (ii) investigate several cognitive domains for meaningful comparisons;
(iii) control for task difficulty across tasks and participants.

Results will characterize general patterns of change across different modalities, specific sensory domains in which changes are more important, as well as an age range at which changes are more marked. The endpoints will be brought into a wider, more detailed study with the aim of permitting a better, earlier diagnostic of potential age-related impairments in social interactions.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Professor Linda Clare	**Bangor University**	**Behaviour change to promote health and well-being in later life: a goal-setting intervention**
Co-Investigators		Abstract
Dr J Hindle	(Bangor University)	Lifestyle factors including increased levels of cognitive and physical activity and social engagement are associated with maintenance of function and well-being, and reduction of health risks, in later life. It is now timely to establish the effects of interventions that aim to encourage sustainable behaviour change in these domains in order to promote good health and prevent, delay, or reduce the severity of age-related cognitive and physical disability. The proposed feasibility study forms the initial stage of a cross-disciplinary programme of work intended to lead to a full-scale randomised controlled trial (RCT) of a multi-component lifestyle intervention for over 50s, with longitudinal follow-up. We aim to establish the feasibility of an innovative approach to bringing about behaviour and lifestyle change among over 50s, based on social cognitive theory. We will develop a resource centre for over 50s to provide a context that supports behaviour change and encourages desired behaviours through provision of facilities, activities and social support. Within this context, we will conduct a preliminary RCT of a goal-setting intervention with all centre attendees willing to participate. Goal-setting will involve a structured interview in which up to five specific, realistic and achievable goals are identified in the domains of physical activity, cognitive activity, social engagement and health. Following initial assessment and health screening, we expect to randomise 75 individuals to one of three conditions: control (a general discussion encouraging participation in the centre), goal-setting, and goal-setting with mentoring (a goal-setting interview followed up with bi-monthly telephone mentoring). Reassessment after 12 months will examine changes in participation in physical, cognitive and social activity, and extent of goal attainment. Physical, cognitive, psychological and social functioning, health, and quality of life will also be assessed, together with factors that may influence participation and outcome. In-depth qualitative interviews with a subset of participants, analysed using a biographical narrative approach, will provide insights into motivations and expectations. The findings will allow us to assess the acceptability of the approach, identify the most appropriate outcome measures, and estimate the critical parameters for a large-scale RCT with long-term follow-up. The research will shape our understanding of how best to develop studies aimed at promoting well-being in ageing and preventing, reducing or delaying the onset of cognitive disability and disease, and will lead directly to a proposal for a full-scale RCT.
Professor I R Jones	(Bangor University)	
Dr J Thom	(Bangor University)	
Mr C Whitaker	(Bangor University)	

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Professor Eric Grahame Nicol Cross	**Newcastle University**	**Ageing Creatively - a pilot study to explore the relation of creative arts interventions to wellbeing in later life**
Co-Investigators		Abstract
Professor L R Anderson	(Newcastle University)	Life expectancy is currently increasing by over two years with every decade, but with this comes the challenge of improving health and wellbeing in later life. The therapeutic use of the creative arts, especially music, poetry and the visual arts, to foster human development and healing has a long history. In recent years, various projects have focussed on the value and impact of the arts to particular groups of older people, especially those suffering from dementia, but the results from many of these studies are primarily anecdotal, lacking a rigorous methodology and systematic analysis. 'Ageing Creatively' will establish a more robust range of methodologies, enabling future research projects to collect meaningful data to evaluate the relative benefits of creative arts interventions on the wellbeing of older people.
Dr K R Brittain	(Newcastle University)	
Dr C Degnen	(Newcastle University)	
Professor M Freeston	(Newcastle University)	
Mr A Newman	(Newcastle University)	There is a need to explore systematically some fundamental research questions: can the creative arts really foster a sense of wellbeing, reducing the sense of isolation for many older people? Are there greater benefits from active participation rather than more passive experiences? Are some creative disciplines more effective than others, and are the benefits significantly different from those of other regular social contact? In order to proceed with this research and identify potential benefits, it is first vital to achieve greater understanding of the processes and potential therapeutic outcomes of creative activity and especially to evaluate the appropriateness of different methodologies in measuring this impact. This is the fundamental aim of this pilot proposal.
Professor A L Robinson	(Newcastle University)	

An initial critical literature review around the perceived benefits of the creative arts on wellbeing in older people will examine quantitative methodologies alongside more traditional qualitative approaches. This review will draw not only on Newcastle University's recent relevant experience and a range of methodologies developed within our medical research institutes, but on the latest international research.

Secondly, a series of weekly 2-hour interventions involving groups of around 10 participants aged over 55 and not currently in the workforce will cover three creative areas: creative writing and reading, music (song-writing and concert-going), and fine art (painting/ sculpting and exhibition visits), with a further 'control' group experiencing non-creative activities.

'Ageing Creatively' will develop and evaluate the processes and methodologies around a range of creative interventions designed to promote mental health and wellbeing in later life, exploring cultural and socio-economic markers of quality of life to inform relevant future policy and practice.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Dr Christopher McKevitt	**King's College London**	**Resilience after Stroke: An Intervention to Promote Mental Health and Quality of Life among Older Stroke Survivors**

Co-Investigators		Abstract
Dr A Bhalla	(Guys and St thomas NHS Foundation Trust)	Stroke is a long term condition affecting a significant proportion of adults in the UK, with the risk of stroke increasing with age and in black ethnic groups (Heuschmann et al 2008). It is the leading cause of adult disability (WHO 2009) and associated with substantially raised risk of depression (Hackett et al 2005). Resilience among older adults, defined as an ability to adapt positively, thrive or 'bounce back' from adversity such as loss and illness (Netuveli et al 2008) is associated with improved mental health and quality of life (Nygren et al 2005, Hildon et al 2009). However, it is currently not known what resilience resources, strategies and contexts may promote or hinder older stroke survivors' ability to cope with the adverse consequences of stroke. This study aims to investigate the meaning and role of resilience after stroke among older stroke survivors and their carers from white and black ethnic groups. The study uses qualitative interviews and focus group discussions to identify user and service providers' understandings of resilience and its relationship to recovery and adaptation after stroke. Using the Medical Research Council's (MRC) guidance framework for complex interventions (MRC 2008), this information will then be used to develop a culturally appropriate intervention fostering resilience and thereby mental health and quality of life after stroke. We anticipate that this pilot work will lead in the future to the development of a larger randomised controlled trial to promote resilience after stroke for older stroke survivors and their carers.
Professor A McGrath	(King's College London)	
Dr E Sadler	(King's College London)	
Dr R Stewart	(King's College London)	
Professor A Tinker	(King's College London)	
Professor C Wolfe	(King's College London)	

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Dr Andrew Morris	**Loughborough University**	**Improving Safety for Older Public Transport Users**

Co-Investigators		Abstract
Dr S Conroy	(University of Leicester)	
Dr A Drummond	(University of Nottingham)	
Professor D Kendrick	(University of Nottingham)	
Dr P Logan	(University of Nottingham)	
Dr R Marshall	(Loughborough University)	
Dr C Quinn	(University of Nottingham)	
Dr S Summerskill	(Loughborough University)	

The increasing general age of the UK population coupled with enhanced life expectancy will have an impact on transport-user demographics and in turn will impact on transport planning in the years ahead. Whist personal car use is seen as the ultimate means of independence, at some point the physiological and psychological impact of age-related conditions will inevitably remove people out of their vehicles and onto the public transport system. Overall, public transport is seen to be vital for social inclusion (Lucas et al 2008, Rowntree Foundation) and it is generally considered as a safe means of mobility. However, it is extremely important that the public perceive it to be so. This is particularly the case for the elderly who may be especially reliant on it to function normally within society if they reach the point whereby personal car-use is no longer an option.

However, injuries to older public transport users do occur and sometimes these may be severe. These in turn can impact on the public perception of public transport. Therefore, this is a multi-disciplinary pilot study which aims to look at the feasibility of developing a tool for assessing the mechanisms of injuries to older public transport users and how they can be mitigated.

The overall outcome will be a pilot database whose capability will be demonstrated as an injury surveillance system for older public transport users. Once the value of a system has been highlighted, the long-term intention is that the surveillance system can be used to determine injury mechanisms during public transport usage and how they can be addressed through design or operational changes.

The study will involve the use of record-linkage involving medical records from the Accident and Emergency Departments of the Leicester Royal Infirmary (LRI) and the Queens Medical Centre in Nottingham. These medical records will be linked to accident reports from the UK Police, the Local Service Operators, the Health and Safety Executive and other authorities.

The study will also include the piloting of an investigation protocol for accidents involving older public transport users to assess the feasibility of a widespread activity. The study will also undertake cost-benefit analyses in respect of regulatory actions and design changes that may be introduced as a result of the data analyses.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Professor John Tiernan O Brien	**Newcastle University**	**A monitoring device to objectively assess functional/ psychosocial impairment in older-age adults with major depression**

Co-Investigators		Abstract
Professor S Dlay	(Newcastle University)	Depression is one of the most common psychiatric disorders, with at least one in six adults meeting the criteria for a major depressive episode at some time in their life. In later-life depression has a huge negative impact on quality of life and is directly associated with functional impairment. Although the illness is defined by the occurrence of low mood, over recent years there has been an increasing understanding of the profile and magnitude of neuropsychological impairments in mood disorders. These have been shown to be of greater magnitude in older age individuals. One of the most important consequences of neuropsychological and emotional processing deficits is their impact on social and everyday functioning and disability. To date, most studies in older age individuals have utilised questionnaire-based measures of everyday function which have major problems with accuracy and validity as they either rely on informant accounts or are self-report. Technological advances such as the actigraph have enabled more precise assessment of locomotor activity and circadian rhythms in normal, everyday living, while within the pervasive computing community, social informatics technologies based on auditory signal processing have been developed that can measure aspects of social interaction using situated measures of spoken communication. The aims of this pilot study are to develop a truly novel, sensitive worn monitoring device that integrates direct measures of both physical activity and social interaction, to use these measures to examine daily activity and social interaction in older age individuals. The instrument will be piloted in older healthy individuals and then depressed patients and the relationship between the device output and illness features, clinical characteristics and neuropsychological performance explored. These results will be compared to those achieved using current measures of social function and activity.
Professor I N Ferrier	(Newcastle University)	
Mr P Gallagher	(Newcastle University)	
Mr J A Neasham	(Newcastle University)	

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Professor Marcus Ormerod	**University of Salford**	**Going Outdoors: Falls, Ageing and Resilience (Go Far)**

Co-Investigators		Abstract
Professor P Aspinall	(Heriot-Watt University)	
Dr C Ballinger	(Southampton University Hospital Trust)	
Mr R Codinhoto	(Oxford Brookes University)	
Ms R Newton	(Oxford Brookes University)	
Dr S R Nyman	(Bournemouth University)	
Dr J Pearce	(University of Edinburgh)	
Professor J E Phillips	(Swansea University)	
Dr D A Skelton	(Glasgow Caledonian University)	
Professor C Ward-Thompson	(Heriot-Watt University)	

Going outdoors is a key factor in preserving good physical, mental and social health in all age groups, but particularly as people move into older age. Approximately one third of people aged 65+ living in the community fall at least once per year, with many suffering multiple falls which can lead to disability and decreased mobility. Also, fear of falling is a key inhibitor of getting outdoors for older people. The Department of Health Prevention Package (2009) identified a need for research to prevent outdoor falls and decrease the barriers to physical activity that the environment poses. Many of the environmental risk factors (pavement quality, dilapidation, kerb height) associated with outdoor falls appear to be preventable through better design and maintenance. However, research to date has neglected outdoor falls and focused on the indoor environment.

This pilot study explores features of the outdoor environment which shape older people's resilience to falls. This aim is achieved through a series of research objectives:

1. To consider the role of the outdoor environment in shaping social and local geographical inequalities in health;
2. To explore older people's perceptions on, and, experiences of, falling (and fear of falling) outdoors;
3. To develop and test innovative methods, tools and techniques to evaluate the relationship between the person who falls (or who has a fear of falling) and the outdoor environment;
4. To develop a clear road map for future, cross-disciplinary research that will be both robust and practicable, to address the most important issues related to ageing, falls, and the outdoors.

The study is 12 months with 4 work packages which bring together a multi-disciplinary group across 7 UK Universities plus AGE UK, Toronto Rehab, Marshalls paving, and the Health and Safety Laboratory. These work packages involve mapping of geographical 'hotspots' where older people fall most often; focus groups with older people to identify risk factors for falling; the development of a person-environment fit audit tool to identify environmental interventions; and the development of a pilot protocol to test surface slip of pavement materials.

The synergy of knowledge generated by this pilot testing will allow for the development of a greater understanding of the many factors involved in outdoor falls, with the potential for this to feed into a research agenda and practical tools which will significantly impact on older people's health and wellbeing.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards		
Grant Holder	Institutions	Title of Award
Dr Dana Rosenfeld	**Keele University**	**Experiencing and Managing HIV/AIDS in Later Life: Social Support, Mental Health and Quality of Life**
Co-Investigators		Abstract
Professor J Anderson	(Homerton University Hospital NHS Trust)	Effective antiretroviral medications and growing rates of HIV infection among those aged 50+ have produced an ageing population of people living with HIV/AIDS (PLWHA), with estimates that by 2015, 50% of PLWHA will be aged 50+. This rapidly ageing PLWHA population is also vastly more diverse than the PLWHA population of earlier years, comprised of two distinct cohorts distinguished by age and historical era in which HIV infection occurred, with very different personal histories and circumstances whose effects on social support, mental health, and quality of life (QoL) are currently unknown.
Dr J Catalan	South Kensington & Chelsea Mental Health	
Dr V Delpech	(Health Protection Agency)	
Dr D Ridge	(University of Westminster)	These cohorts are (a) the long-term infected, mainly men who have sex with men (MSM), who experienced high mortality rates among their communities in the 1980s-1990s, and (b) those infected and/or diagnosed in later life. Within this later group, in the UK, 33% are heterosexual men (half of whom are Black African), and 25% are heterosexual women (of whom 68% are Black African), while 40% are MSM, most of whom are White. Older PLWHA generally experience higher rates of mortality, morbidity, and depression than do younger PLWHA and, unlike the uninfected, do not see their 'rates of depression' decrease with age? (HARS 2009). This is likely due to older PLWHA's relatively smaller and more fragile social support networks, which have been shown to cause poor health among other populations.
Ms R Smith	(Health Protection Agency)	

For PLWHA, 'elevated distress and low social support take on added importance because they can accelerate disease progression' (Chesney et al. 2003). Despite increasing awareness about this ageing PLWHA population, we still know little about how the experience, management and impact of HIV/AIDS in later life are filtered through these individuals' different histories and circumstances, and about their quality of life (QoL), mental health and social support needs.

To understand these issues, and to ground a larger study designed to develop interventions to improve this population's social support, mental health, and QoL, the multidisciplinary team (representing social science, clinical medicine, and service provision) will interview stakeholders, including clinicians, policy makers and HIV/AIDS activists, conduct interviews and obtain mental health survey data from a purposefully sampled group of PLWHA aged 50+, covering the current older PLWHA UK population's demographic composition and recruited through two key HIV clinics in London. The project will be guided by a diverse advisory board led by iBase, an HIV-treatment activist organization, and the projects findings will be disseminated to the academic, clinical, and HIV/AIDS communities.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Dr Afroditi Stathi	**University of Bath**	**Project ACE: Active, Connected and Engaged Neighbourhoods**

Co-Investigators		Abstract
Mr M Davis	(University of Bristol)	
Professor K Fox	(University of Bristol)	
Professor S Gray	(University of the West of England)	
Dr L Lloyd	(University of Bristol)	
Professor G Parkhurst	(University of the West of England)	
Professor J Thompson	(University of Bristol)	

BACKGROUND/AIMS: Programmes that effectively increase physical activity in older people will yield large improvements in quality of life, independence, social activity and health and care costs related to cardiovascular disease, diabetes, dementia. Unfortunately, little evidence exists for effective interventions and at a national level, resources for prevention are scarce. The Active, Connected and Engaged (ACE) neighbourhoods project will develop and pilot a low cost, pragmatic, and sustainable intervention programme in which retired volunteers promote physical activity. The specific objectives are to: a) refine and manualise the intervention; b) monitor recruitment, retention, attendance and adherence rates; c) determine participant reactions to the intervention; d) estimate the variance in outcome measures to enable calculation of sample size for a future multi-centre RCT and e) estimate resource use/costs and develop methods for economic evaluation.

METHODS: We will conduct a two phase, 24-month pilot study involving two paid neighbourhood coordinators, 20 activity promotion volunteers [ACE activators] and 100 participants. In Phase 1, we will refine the ACE programme, develop the activator training manual and refine the role of the ACE co-ordinators. In Phase 2, 100 sedentary older adults aged 65-85 years will be recruited in two neighbourhoods in Bristol and will be randomised to the intervention and control groups. In the intervention group, the ACE activators will deliver up to five individual sessions over six months to engage and motivate participants and support maintenance, following a theoretically-driven behaviour change model. Controls will receive a booklet with information about local physical activity opportunities and will be offered the ACE programme at the end of the study.

The main outcomes (on which the study is powered) are: Recruitment rate and study completion rate. Intervention concordance (the proportion attending =3 of the 5 individual sessions) and intervention fidelity will also be assessed. To pilot the trial measures, we will assess physical activity (by accelerometry), well-being, neighbourhood quality of life, perceptions of competence, autonomy, relatedness, and resilience, for both intervention participants and volunteers. Focus groups will explore topics related to recruitment, training and delivery of the ACE programme and discuss strategies that facilitate the lifestyle change process and that might improve the programme or the delivery of the research.

OUTPUTS: The main output will be a well-informed and grounded intervention that has potential for generalisation throughout the UK and is ready for evaluation in a definitive effectiveness and cost effectiveness trial.

Lifelong Health and Wellbeing Phase 3 - Collaborative Grant Awards

Grant Holder	Institutions	Title of Award
Dr Katherine Walters	**University College London**	**Multi-dimensional Health Risk Appraisal for Older People: embedding promotion of health and well-being in practice**

Co-Investigators		Abstract
Professor M Cattan	(University of Northumbria)	
Professor C Goodman	(University of Hertfordshire)	
Professor S Iliffe	(University College London)	
Professor J Manthorpe	(King's College London)	
Professor S Morris	(University College London)	

This project evaluates a Multi-dimensional Risk Assessment in Older people (MRAO) expert system that encompasses health, social, economic and environmental domains. It considers its effectiveness as a tool that promotes self care and fosters cross sector working to promote community well-being. It has relevance across Research Councils including the MRC, ESRC and EPSRC.

Study objectives are to:

1) Assess feasibility and costs of locally adapting/embedding the MRAO system

2) Identify factors helping/hindering older people and professionals from using MRAO recommendations that promote well-being

3) Evaluate areas of effective joint working across agencies (health, social care, housing/environment/transport, voluntary sector, social enterprises) based around meeting locally identified needs using MRAO.

4) Feasibility data for a future trial.

Design: Mixed method evaluation of the MRAO system

Setting: Two localities (urban London, rural Hertfordshire).

Intervention: This incorporates 3 stages:

1) Locally adapting/embedding the MRAO technology: Researchers will facilitate working groups including older people, General Practices/GP commisioners, Community Nursing, Social Care, Housing/Transport/Environment, Social Enterprises and Voluntary/Community Organisation to tailor the MRAO system for local needs and incoporate local strategies for responding to older people using MRAO.

2) MRAO assessments with older people: By postal questionnaires with a random sample of 1:3 older people at participating general practices. Participants receive automated tailored feedback based on responses to MRAO. Feedback includes information on resources to support self-care/promote well-being, with individualised reinforcement from primary care, social care or voluntary sector practitioners as locally agreed.

3) Utilising aggregate data to inform commissioning/service delivery: Aggregated data on patterns of local need are fed back to working groups which will make recommendations to local policymakers, commissioners and services.

Measurements/outcomes:

1) Quantitative evaluation:

a) Data on multi-dimensional needs, health behaviours, function/disability, distress, quality of life, social inclusion and well-being will be collected from older people at baseline and 3 months.

b) Cost of the intervention

c) Feasibility data: defining ?usual care?; method of randomisation/recruitment; uptake and recruitment rate; adherence; missing data; effect sizes and SDs of outcomes; major cost components, methods of collecting data on costs of service provision..

2) Qualitative evaluation:

a) Participant observation of working groups and in-depth interviews with participants. This will identify factors relevant to MRAO development, adaption and implementation, optimal use of aggregate data and multi-agency working to promote well-being.

b) In depth interviews with older people will explore experiences of undertaking the MRAO assessment and factors that facilitated/hindered them from engaging in actions to promote well-being