Cause, cure, care and prevention
Impact of Alzheimer’s Society’s dementia research programme 1990–2012
Research programme in numbers

£10 million+ the annual investment in research we aim to reach by 2017

60% of completed Fellows have gone on to be independent group leaders in dementia research
Contents

Foreword .......................... 4
A pioneering research programme .... 6
Our impact at a glance ............. 8
Building knowledge of the causes of dementia – Untangling tau .. 10
Improving diagnosis – Early and accurate detection of dementia 14
Developing new treatments and working towards a cure ........... 17
Providing better care and support – Managing behavioural and psychological symptoms 20
Understanding risk factors and preventative strategies ........... 22
Driving forward dementia research – a five year strategy ......... 24
Our research in numbers .......... 26
Further information ............... 27
Acknowledgements ............... 28
References ........................ 30
It is with great pleasure that we present the impact and achievements from Alzheimer’s Society’s dementia research programme.

Alzheimer’s Society made its first commitments to funding research in 1990. We are the only UK research charity funding research into the cause, cure, care and prevention of all types of dementia to improve treatment for people today and to search for a cure for tomorrow.

Our achievements go beyond the publication of results in scholarly papers and scientific journals. People with dementia and their carers are at the heart of our research. They are involved throughout our research programme, ensuring we fund research that addresses the needs and concerns of people living with dementia today. We are committed to taking promising research findings and translating them into real and tangible benefits for people with dementia, through policy, campaigning, training and education.

In 2012 the UK Prime Minister announced his Dementia challenge, placing dementia in a priority position for communities, health services and research investment. We will continue to work alongside the government to safeguard this commitment and further galvanise investment in research.

We are proud of the academic achievement of the scientists and researchers we have supported. To date we have invested £20 million in research. Much has been achieved but there is so much more to do. Dementia remains desperately underfunded compared to other major diseases of the Western world such as cancer and cardiovascular disease.

Alzheimer’s Society has pledged to an ambitious programme of research in the next five years. A substantial increase in funding will allow us to support more research, build the community of dementia researchers in the UK, fund larger projects including clinical trials of promising new treatments and drive forward tangible change and benefits in the fight against dementia.

Professor Clive Ballard

Director of Research, Alzheimer’s Society
Research programme in numbers

9,500 hours given by carers and people with dementia to support our research programme in the last 12 months

102 completed research projects
Since Alzheimer’s Society made its first commitments to funding research in 1990, we have invested in cutting edge research into cause, cure, care and prevention of all forms of dementia. The research programme covers the full scope of dementia research, from laboratory-based investigative science and clinical research to studies into social interventions and quality care for people with dementia.

Alzheimer’s Society’s innovative research programme combines the expertise of leading scientists and clinicians with the experience of people living with dementia. All funded research is approved by experts in the field as well as people with dementia to ensure that we fund high quality research that influences practice and transforms lives.

Who we work with

• Our Research Advisory Committee provides overall guidance to the research programme and includes researchers and clinicians specialising in basic, clinical, public health and care research.

• We work with over 500 scientists and clinicians in the dementia research community who provide robust peer review and participate in grant selection panels.

• We consult with specialists who advise on specific streams of our work such as public health research.

• Our Research Network, a group of over 200 people with dementia, carers and former carers, ensures that the views of people affected by dementia are reflected in everything we do.

The research funding process

1 Development of research idea
Volunteers participate in grant writing and ideas workshops, and are consulted on their priorities for research.

2 Researchers submit grant application to Alzheimer’s Society

3 Parallel grant review and selection processes
Volunteers provide lay review of all applications received in parallel with scientific peer review. Volunteers and researchers have equal representation on funding selection panels.

4 Delivery of research project
Funded projects have three volunteers assigned as project ‘monitors’ or as lay members of clinical steering groups.

5 Publication and implementation
We work to support our researchers. Volunteers speak at events to disseminate research and campaign for the implementation of research findings.
Involving people with dementia and carers

Alzheimer’s Society’s philosophy is that people with dementia and carers can make a unique and valuable contribution in every stage of research. We have continually pushed the boundaries of patient and public involvement.

Research Network volunteer roles include:

• setting priorities for research
• reviewing funding applications
• contributing to funding panels
• monitoring research
• working with researchers, professionals and lay audiences to ensure outcomes are translated into tangible benefits for people with dementia.

Research Network volunteers contribute valuable insight into the design and delivery of research and influence dementia research funding at a national level.

‘The monitors on our project were able to give us a unique insight into the sort of difficulties people with dementia experience and provide constructive feedback to our research plans, enabling us to tailor our research appropriately.’
Professor Sergio Della Sala, Professor of Human Cognitive Neurospsychology, Edinburgh University

In 2010/11 Research Network volunteers:

• provided 4,160 personal reviews on the relevance of research proposals to people affected by dementia
• participated in 800 hours of training to enable them to fully engage in research
• gave over 9,500 hours of their time to support Alzheimer’s Society’s research programme
• contributed to 30 funding applications from UK researchers to the National Institute of Health Research (NIHR) dementia themed call as co-applicants and consultants
• influenced national priorities for research by playing a major role in the UK Ministerial Advisory Group for Dementia Research including individuals reporting directly to the Minister of Care Services
• were involved in over 20 different steering groups, board committees or patient representative groups.

‘I found the workshop incredibly helpful. I came away from the day feeling it was a long time since I’d been to such a useful and productive meeting.’
Researcher attending a patient and public involvement (PPI) workshop
Our impact at a glance

Alzheimer’s Society research has contributed key evidence in the fields of aetiology, diagnosis, treatment, care and prevention.

Building knowledge of the causes of dementia
- Extensive contribution to the field of tau pathology in Alzheimer’s disease (profile page 10).
- Defining the link between brain inflammation and Alzheimer’s disease (Gentleman et al, 1993).
- Investigations into the potential role of cerebral emboli in the causation of dementia and cognitive decline (Purandare et al, 2007).

Improving diagnosis
- Forging new directions in diagnosis and detection of dementia (profile page 14).
- Improved diagnosis of dementia through decision support software for GPs (Downs et al, 2006).
- Development of new diagnostic tools for people who are Deaf with suspected dementia, and the creation of the first specialist memory referral clinic (Atkinson et al, 2011).

Developing new treatments and working towards a cure
- Delivering clinical trials that have helped define the use of anti-dementia drugs (profile page 17).
- Discovery of new, potentially disease modifying drugs, that are ready to be tested in patients (profile page 17).
- Identification and characterisation of glial stem cells in the brain, which in future could be the target of therapies to promote neurogenesis (Rivers et al, 2008).

Providing better care and support
- Leading pioneering research into the management of neuropsychiatric symptoms of dementia (profile page 20).
- Supporting a large cohort study to develop the first specialist psychology service in the UK for people with Down’s syndrome and dementia (Oliver et al, 1998).
- Creation of a Cognitive Behavioural Therapy package that reduces burden and depression in carers (Marriott et al, 2000).

Understanding risk factors and preventative strategies
- Systematic evidence review of the risk and protective factors for dementia (profile page 22).
- Delivering the largest ever online clinical trial of brain training games, which were found to have no benefit in people under 60 (Owen et al, 2010).
Building knowledge of the causes of dementia – Untangling tau

Studying the underlying changes that occur in the brain to cause Alzheimer’s disease and other dementias is critical to the development of new drugs and therapies. Thirty-nine per cent of our total research investment has been dedicated to understanding the causes of dementia.

Alzheimer’s Society has consistently supported research into the tau protein over the last two decades. Having been originally overlooked by many researchers and funders, tau is now recognised as a key mediator in the onset and progression of the disease. We are proud to have supported this dynamic and expanding field of research.

In context
Tau is essential for maintaining the shape and stability of neurons and for synaptic stability and axonal communication. During Alzheimer’s disease and numerous other tauopathies, tau is modified at multiple sites by kinases. Modified tau aggregates into neurofibrillary tangles, one of the pathological hallmarks visible in post-mortem Alzheimer tissue. Disruption of tau function results in cell death and neurodegeneration. Prevention of tau modification and restoration of tau function are now promising avenues for new therapies.

Our achievements
• Mapping modification sites on tau led to the identification of over 15 new phosphorylation sites. Phosphorylation is key to formation of neurofibrillary tangles.

• Identification of the role of kinases in tau modification and their role in Alzheimer’s pathology.
Discovery that exposure to amyloid-beta triggers early neurodegenerative processes including tau phosphorylation.

Discovery that tau drives degradation of structural proteins following amyloid exposure.

Ongoing work
Brains for Dementia Research:
A gold standard in brain donation

Research into tau and other aetiologies relies on high quality human brain tissue. Brains for Dementia Research was established in 2007 to promote brain donation in the UK and provide high quality tissue for dementia research. The initiative prospectively recruits donors age 60 and above both with and without cognitive impairments. The unique value of Brains for Dementia Research lies in monitoring every donor regularly, ensuring that tissue is accompanied by a full medical history to maximise its value for research. The standardised donation and preparation protocols ensure consistent quality across the brain banking facilities.

Brains for Dementia Research is funded jointly by Alzheimer’s Society and Alzheimer’s Research UK, and now includes six functional brain banking facilities in London, Oxford, Cardiff, Bristol, Manchester and Newcastle. Further information is available at www.brainsfordementiaresearch.org.uk

Key references


Targeting tau as a therapy

Emerging evidence indicates that tau is a promising target for drug treatments for Alzheimer’s disease. Alzheimer’s Society has supported key research that has underpinned the evidence base in this area.

- Research found that inhibition of tau kinase GSK-3beta reduces tau phosphorylation and reduces neurodegeneration in cultured nerve cells, Drosophila models and mouse models with defective axonal transport. This has led to a Medical Research Council clinical trial platform investigating lithium in people with dementia. (Lovestone et al, 1999; Noble et al, 2005, Mudher et al, 2004).

- Treatment with the oral antibiotic, minocycline prevents the development of tau pathology and amyloid-induced nerve cell death through mediation of inflammation in the brain. The feasibility of conducting clinical trials of minocycline in Alzheimer’s disease is currently being considered. (Noble et al, 2009, Garwood et al, 2010; Garwood et al, 2011).

A word from the researcher

Mapping modifications on tau

Diane Hanger, MRC Centre for Neurodegeneration Research
King’s College London, Institute of Psychiatry

I was awarded an Alzheimer’s Society Fellowship in 1995 which, together with support from other funding agencies, enabled an extensive analysis of tau phosphorylation in Alzheimer and control human brain. This led to further studies of the kinases that act on tau and possibly damage nerve cells in Alzheimer’s disease. At this time, most Alzheimer researchers were searching for means to block amyloid plaque formation and my findings highlighted the importance of tau in Alzheimer’s disease. This work encouraged testing of compounds that block tau phosphorylation to see if they slow tangle formation and the progression of dementia.

I became a senior lecturer in 2000, and more recently progressed to reader at King’s College London. The focus of our research group has turned to a novel role for tau at the outer membrane of nerve cells, including how this is influenced by tau phosphorylation in relation to Alzheimer’s disease. Important and novel findings concerning tau in Alzheimer’s disease have made this an exciting time for researchers interested in tau biology and we are hopeful that effective therapies might soon emerge from this new knowledge.
Improving diagnosis – Early and accurate detection of dementia

Making a timely and accurate diagnosis of dementia is essential to enable people to gain access to the information, support and advice they need and to access treatments that can slow the progression of symptoms.

Alzheimer’s Society has supported a wide and varied portfolio of research towards improving diagnosis. This ranges from the identification of biomarkers and diagnostic tools to establishing effective educational resources to support diagnosis in primary care settings.

In context

Research has established that Alzheimer’s and dementia-related pathologies develop many years before emergence of symptoms. There is a need to identify biomarkers sensitive enough to predict at-risk individuals, and enable earlier diagnosis and a clearer differentiation between subtypes of dementia. This is particularly critical in the identification of suitable participants for clinical trials. Priority areas include development of neuropsychiatric tests, neuroimaging techniques and refinement of biomarkers in cerebral-spinal fluid and blood.
Our achievements

- Development of a pioneering new neuroimaging technique utilising MRI to measure changes in brain volume. This technique was used to detect significant atrophy in the hippocampus in at-risk asymptomatic individuals over time. Professor Nick Fox, Institute of Neurology. Research Fellow 1994–1997 (Fox et al, 1996; Fox et al, 1998).


- Identification of novel blood biomarkers for Alzheimer’s disease, including the Clusterin protein which has recently been identified as a risk gene for Alzheimer’s. Dr Madhav Thambisetty, Institute of Psychiatry. Research Fellow 2003–2006 (Thambisetty et al, 2008; Thambisetty et al, 2010).

- Robust demonstration that decision support software and educational training for GPs improves diagnosis and management of dementia. Professor Murna Downs, Bradford University and Professor Steve Iliffe, University College London. Grantholders 1999–2003 (Turner et al, 2004; Downs et al, 2006).
A word from the researcher
Harnessing the power of MRI
Dr Jonathan Schott, Dementia Research Centre, Institute of Neurology, University College London

I was awarded an Alzheimer’s Society Fellowship in 2003 which, alongside industrial support, enabled me to investigate the role of MRI brain scans acquired six months apart in the diagnosis of Alzheimer’s disease and as a tool for monitoring progression for clinical trials.

This work proved to be very productive, resulting in more than a dozen journal publications. The extensive database of scans that were collected as part of my Fellowship continue to be used to evaluate new computer based methods for measuring the extent of brain shrinkage. This work has directly informed further larger studies, and is beginning to influence how MRI scans are used to evaluate the efficacy of new therapies in clinical trials.

After my Fellowship, I completed my clinical training as a neurologist, and returned to the Dementia Research Centre at the Institute of Neurology, University College London, as a Clinical Senior Lecturer in 2009. I am continuing my work investigating MRI and other techniques both for early diagnosis and as outcome measures in clinical trials, with the express aim of translating research findings into clinical practice.

Translating research into practice
Our research into better diagnosis of dementia has resulted in tangible improvements in clinical practice.

- **A standard neuroimaging approach**
  Detection of brain atrophy by MRI is now a recommended approach for diagnosing early changes in dementia and is increasingly beginning to be used in clinical settings.

  ‘Magnetic resonance imaging (MRI) is the preferred modality to assist with early diagnosis and detect subcortical vascular changes.’
  National clinical guideline on supporting people with dementia and their carers in health and social care.

- **A multi-faceted approach to supporting GP diagnosis**
  Decision support software and educational materials are now in use among GPs, and our research has also informed a large pragmatic trial of educational resources for practitioners in primary care, funded by the National Institute of Health Research. Our Worried about your memory? campaign has dramatically increased the number of people who approach their GP for a diagnosis.

Key references


Developing new treatments and working towards a cure

Over the time Alzheimer’s Society has funded research, there have been four new drugs licensed for treatment of Alzheimer’s disease. Research funded by the Society has been important in determining the stage of the disease when these drugs are most effectively administered. Funded research is also identifying new types of therapy that are entering clinical trials.

In context

There are two main types of medication that are licensed to treat Alzheimer’s disease – cholinesterase inhibitors and NMDA receptor antagonists – which work in different ways. Cholinesterase inhibitors include Aricept (donepezil hydrochloride), Exelon (rivastigmine) and Reminyl (galantamine). The NMDA receptor antagonist is Ebixa (memantine). These treatments slow the progression of symptoms in some people with Alzheimer’s disease. There are no drug treatments available that target the underlying disease pathology. Currently, there are very limited treatment options for other forms of dementia.

Our achievements

• Discovery that high levels of the inflammatory molecule TNF-alpha is a predictor of increased cognitive decline in patients with dementia. This work has attracted industrial investment for a phase II clinical trial of a TNF-alpha inhibitor Etanercept in patients with Alzheimer’s disease.

• Development of a new antibody that blocks amyloid-beta production by binding a novel target site in the amyloid precursor protein. This innovative approach could overcome previous difficulties encountered with immunotherapies for the disease.

• Demonstration that the diabetes treatment liraglutide, a GLP-1 agonist, decreases Alzheimer pathology and improves cognitive function in pre-clinical studies. This has led to Alzheimer’s Society funding a clinical study to investigate if these benefits are also seen in patients with early Alzheimer’s disease.

• Provided robust evidence that the popular over-the-counter remedy ginkgo biloba, is not effective for patients for mild to moderate dementia.
A word from the researcher

Preventing cognitive decline in dementia – not just about drugs

Professor Linda Clare, University of Bangor

With funding from Alzheimer’s Society, we have been able to complete the first randomised controlled trial of cognitive rehabilitation – an approach whereby people with Alzheimer’s disease work with healthcare professionals to set personally relevant goals and develop strategies to reach them. Our trial showed that cognitive rehabilitation therapy could improve the quality of life of both people with early-stage Alzheimer’s disease and close family members.

We believe that cognitive rehabilitation can help people in the early stages to maintain quality of life and potentially delay the need for further specialist care or needing to leave their homes. We have now received a grant for £3 million from the National Institute of Health Research to fund a larger clinical trial to provide robust evidence of the benefits, and how cognitive rehabilitation can be integrated within clinical practice. Within a short time of such trials being completed, cognitive rehabilitation could be recommended as a routine part of care, as has happened with other non-pharmacological therapies.

Alzheimer’s Society is pioneering an exciting new approach to develop better, cheaper treatments for Alzheimer’s disease. The Drug Discovery programme draws on the highly successful approach of drug repositioning to identify existing off-patent compounds with the potential to act as disease-modifying treatments.

The shortlisted drugs identified through our robust prioritisation process will be taken forward to clinical trial in people with Alzheimer’s disease. The Drug Discovery programme will fund phase III trials with the aim of developing cheaper, more effective treatments that could be available in less than 10 years.
Influencing practice and improving access to drugs

Alzheimer’s Society has funded research and lobbied for change to improve access to drugs for people at all stages of dementia.

- **Making treatments available in early stages of Alzheimer’s disease**
  
  In 2001, The National Institute for Health and Clinical Excellence (NICE) approved the use of three anticholinesterase inhibitors in early and moderate stages of Alzheimer’s, but in 2006 NICE recommended that these drugs were used in the moderate stages only. Alzheimer’s Society commissioned important research that looked at the views and experiences of patients and carers in using these drugs, and creating novel patient-defined outcome measures. This evidence was crucial in Alzheimer’s Society’s campaigning work against the decision of NICE, and contributed to a reversal of their decision in 2011.

  ‘It’s absolutely fantastic that NICE has changed its guidelines on Alzheimer’s drugs. Within six months of taking Aricept my memory had improved to how it had been two years previously. That is a measure of the difference it has made to me.’
  
  Heather Roberts, who has Alzheimer’s disease and was heavily involved in the campaign.

- **Evidence for continuing use of donepezil in the late stages of Alzheimer’s disease**
  
  A clinical trial funded with the Medical Research Council definitively showed that combined treatment with the anti-dementia drugs donepezil and memantine are beneficial to patients in the later, severe stage of Alzheimer’s disease. To date, usual practice has been for clinicians to halt prescriptions when patients enter later stages of the condition. This work, published in 2012, indicates that the default position should be to continue prescribing donepezil to these patients.

  ‘It’s not so much the NICE guidance that needs to change – but how clinicians interpret it.’
  
  Professor Clive Ballard, Alzheimer’s Society Director of Research and co-investigator

  ‘For the first time, we have robust and compelling evidence that treatment with these drugs can continue to help patients at the more severe stages. It means a lot to doctors and carers to see differences like that.’
  
  Professor Rob Howard, King’s College London and principal investigator

**Key references**


Providing better care and support – Managing behavioural and psychological symptoms

Alzheimer’s Society has funded pivotal research to understand the underlying causes of behavioural and psychological symptoms of dementia and clinical trials to test new treatment approaches. We have led the way in translating evidence into practice to improve quality of life, campaigning to reduce the use of harmful antipsychotic drugs and promoting person-centred care.

In context

Around 90 per cent of people with dementia will experience behavioural and psychological symptoms (BPSD) such as aggression, agitation or psychosis (delusions and hallucinations) at some point, which severely impact on quality of life. These symptoms can cause extreme distress and risk for the person and their carers, and are frequently the primary reason for moving a person into a care home. The neurological causes of BPSD are not fully understood although they frequently arise due to unmet need or practical issues in care practice. BPSD therefore represent a significant clinical challenge. There are few treatment options and people are often prescribed antipsychotic drugs despite their limited effectiveness and severe side-effects when they are used in the long term. Developing better treatment and care approaches to manage and prevent BPSD is a major priority.

Our achievements

- A 10-month training programme for care home staff reduces the use of antipsychotic drugs in residents with dementia (FITS trial).

- Definitively showed that the Alzheimer’s disease drug donepezil, or aromatherapy with lavender oil are not effective treatments for management of agitation in dementia, highlighting the need to find novel alternatives (CALM-AD trial, ESSENCE-AD trial).

- Identification of genetic risk factors for aggression and agitation through one of the largest population studies in this field at the time.
  Professor Peter Passmore, Queen’s University Belfast. Grantholder 2000–2003 (Craig et al, 2005).

- Confirmation that neuroleptic drugs cause severe side effects in people with frontotemporal dementia, leading to recommendations that these drugs are not prescribed to these patients.
Translating research into practice

Alzheimer’s Society is a key player in the fight to reduce the use of antipsychotic drugs. Our research has influenced practice and government policy and led to valuable resources for health and social care professionals.

- **A best practice guide for health and social care professionals**
  We have published an evidence-based guide to support effective management of BPSD without the use of antipsychotics. The government-endorsed guide is online at [www.alzheimers.org.uk/bpsdguide](http://www.alzheimers.org.uk/bpsdguide) and is in use internationally. It is being translated into several European languages for global use.

- **Training for care homes across the UK**
  We are leading a national early adopter initiative to roll out the FITS training programme to 150 care homes to support better care for people with dementia in the future. (Fossey et al, 2006).

- **Better understanding of treatment approaches for managing BPSD**
  Evidence from Alzheimer’s Society funded clinical trials, including the ESSENCE-AD, CALM-AD and FITS trials, have been integrated into UK guidelines for treatment of dementia.

- **Improved support for carers**
  Alzheimer’s Society is leading an important trial to deliver cognitive behavioural therapy over the internet, raising the possibility of providing effective support for large numbers of carers across the UK and further afield. (Marriott et al, 2000).

- **A national call to action on antipsychotics**
  Our Research and Policy teams built on published research by Prof Sube Banerjee to lobby against the use of antipsychotics. This was critical in setting up an All Party Parliamentary Group addressing this issue.

Ongoing work

**Supporting large-scale clinical trials**

Clinical trials in dementia are critical to understand the effectiveness of new and existing treatments for addressing symptoms. Alzheimer’s Society staff and Research Network volunteers have provided expertise for large clinical trials funded by Alzheimer’s Society and others. This galvanises research and puts the voice and opinions of patients at the centre of clinical research in the UK.

[The Research Network volunteer] was critical to our ensuring that the voice, experience and preferences of people with dementia and carers were effectively incorporated into the trial at all stages from the design, to its conduct and analysis. I am very pleased that she is a co-author on our Lancet paper and she and the Society richly deserve this.’ Professor Sube Banerjee, Lead Investigator HTA-SADD trial (funded by National Institute of Health Research).

Key references


Understanding risk factors and preventative strategies

Public health research is the youngest branch of Alzheimer’s Society’s research programme. It is essential to understand what strategies can be taken to reduce the risk of dementia on an individual and a population level. Alzheimer’s Society research has consolidated evidence about the known risk factors for dementia, which can be used to inform future research looking at the prevention of dementia through lifestyle change or drug treatments.

Our achievements

- Confirmation that stroke and hypertension increase the risk of dementia and physical activity reduces the risk of dementia. (Savva et al, 2010; Sharp et al, 2011; Aarsland et al, 2010).

- Alzheimer’s Society carried out the largest ever trial into the effectiveness of brain training, performed in collaboration with the BBC. The study found no benefit of brain training games to people under 60. Studies are ongoing in older patient groups. (Owen et al, 2010).

- A major partnership with The Stroke Association to fund a trial of different blood pressure management regimes following a stroke to prevent development of vascular dementia.

Think smart: Reducing the risk

In 2010 Alzheimer’s Society convened an expert panel in partnership with the BBC to review the evidence for lifestyle factors in reducing the risk of dementia. Based on this consensus process the following lifestyle factors were highlighted:

<table>
<thead>
<tr>
<th>Lifestyle factor</th>
<th>Level of evidence</th>
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<tbody>
<tr>
<td>Obesity in mid-life</td>
<td>Probable</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Probable</td>
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<tr>
<td>Smoking (current)</td>
<td>Probable</td>
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<tr>
<td>Alcohol use</td>
<td>Probable</td>
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<tr>
<td>High blood pressure in mid-life</td>
<td>Probable</td>
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<tr>
<td>Elevated cholesterol in mid-life</td>
<td>Probable</td>
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<tr>
<td>Mediterranean diet</td>
<td>Possibly protective</td>
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<tr>
<td>Social networks</td>
<td>Possibly protective</td>
</tr>
<tr>
<td>Cognitive stimulation</td>
<td>Good evidence for modest but significant impact on cognition, but insufficient evidence regarding dementia risk</td>
</tr>
<tr>
<td>Vitamin supplements</td>
<td>Insufficient evidence</td>
</tr>
<tr>
<td>Oily fish</td>
<td>Insufficient evidence</td>
</tr>
<tr>
<td>Dietary vitamins</td>
<td>Insufficient evidence</td>
</tr>
</tbody>
</table>

For more information visit alzheimers.org.uk/smartthinking
Hearts and brains initiative

In 2004, Alzheimer’s Society launched a highly successful three-year initiative to raise awareness of vascular dementia and to develop a roadmap of research priorities. Since the completion of the project, Alzheimer’s Society has funded new research projects investigating the causes and diagnosis of vascular dementia and launched a major clinical trial co-funded with The Stroke Association.

Public health priorities for dementia research

A new Dementia Priority Setting Partnership between Alzheimer’s Society and the NIHR-funded James Lind Alliance is underway. The robust prioritisation process involves extensive consultation with people affected by dementia, clinicians, professionals and stakeholder organisations to identify uncertainties in evidence around the prevention, diagnosis, treatment and care of dementia. Our ambition is to provide researchers with an evidence-based framework within which to position their work.
Driving forward dementia research – a five year strategy

Alzheimer’s Society research is poised to deliver a new generation of high impact, valuable research which will influence practice and transform lives. In 2012 we committed to significantly increase our investment in new research in the next five years. We aim to increase our annual investment in research to more than £10 million by 2017. This represents a tripling in our research spend.

This step change in investment will drive forward our commitment to build capacity in dementia research and to support innovative, exciting new avenues of research that will lead the way in the cause, cure, care and prevention of dementia.

Key elements of our innovative five year strategy include:

- **Building capacity and increasing investment**
  Through increased investment we will support world class research across the UK. We are committed to building the dementia research community of the future. Our virtual institute will provide our young researchers with support, resources, networking and opportunities for career development.

- **Preventing dementia at a population level**
  We will explore the best way to maximise epidemiological work and utilise innovative technology to build our knowledge of how dementia might one day be prevented.

- **Developing better, cheaper treatments**
  We will develop our innovative Drug Discovery programme as well as funding clinical trials in priority treatment areas including vascular dementia and behavioural symptoms.

- **Building evidence to drive priority research**
  Our comprehensive public health perspective will combine our robust desk-based research with digital platforms to enable researchers to position their future research within the highest priority areas in the field.

- **Translating research into services**
  We will build on our unique combination of research and service delivery to support innovation in our dementia services. Our aim is to provide effective, gold standard services for people with dementia through our own localities across England, Wales and Northern Ireland.

- **Creating a better world for people with dementia**
  We will work with people living with dementia and their carers, health and care professionals, researchers and like-minded organisations to ensure our research continues to influence practice and transform lives.
Our research in numbers

Key figures
In the last 20 years Alzheimer’s Society has awarded over 100 research grants:
- 36 research fellowships
- 20 PhD studentships
- 44 project grants
- 12 randomised controlled trials through high profile partnerships
- £20 million invested in research to date.

Alzheimer’s Society-funded research has produced over 250 peer-reviewed publications, resulting in:
- citations in 7,500 journal articles
- 40 publications of impact factor 7 or higher
- Hirsch index number of 46 (46 publications that have been cited 46 times or more).

Distribution of research funding
We fund research into all types of dementia.

Amount of research funded into different types of dementia

We are the only charitable organisation that funds research into the cause, cure, care and prevention of dementia.

Areas of dementia research funded

39% Building knowledge of aetiology of dementia (£8.1m)
20% Developing new treatments and working towards a cure (£4.0m)
20% Providing better care and support (£4.0m)
11% Improving diagnosis of dementia (£2.1m)
5% Understanding risk factors and preventative strategies (£1m)
5% Brain banking (£1.1m)
Further information

Alzheimer’s Society’s Research team produces the following publications which are available in print and online:

- **Alzheimer’s Society Research** – An introduction to our research
- **Research e-journal** – Our quarterly publication for researchers and professionals, alzheimers.org.uk/ejournal
- **Annual round-up** – Our review of the research year 2010–11
- **Research newsletter** – Our monthly publication for lay audiences
- **Involving people with dementia and carers in research** – Our leaflet outlining our commitment to Patient and Public Involvement
- **Brains for Dementia Research: Who we are and what we do** – An introduction to BDR.

Further information about our research programme is available at alzheimers.org.uk/research or by emailing research@alzheimers.org.uk
Dementia research in the UK is funded by a variety of other sources, including the Medical Research Council (MRC), National Institute of Health Research, Wellcome Trust, and Alzheimer’s Research UK. Grant holders are often in receipt of multiple awards from different funders to support their work, and we acknowledge the funding of other bodies that may have contributed to the research presented here.

We directly acknowledge organisations that we have collaborated with on projects including the funding of two large clinical trials with the MRC, nine project grants with Bupa Foundation, the PODCAST clinical trial co-funded with The Stroke Association, and the Brains for Dementia Research initiative with Alzheimer’s Research UK. Our partners for the Priority Setting Partnership are: James Lind Alliance, Social Care and Workforce Unit, DeNDRoN, NeuroDem, University of Cambridge, NIHR CLAHRC, Cardiff University, Warwick Medical School, Bupa and Cambridgeshire and Peterborough NHS Trust.

We are grateful to the our Research Advisory Council and Public Health Steering Group who advise our research strategy and direction, and peer reviewers and members of grant panel selection committees who have freely provided their time to supporting the research programme. Our Research Network volunteers work tirelessly to review, monitor and disseminate our research, and play a vital role more widely in promoting and supporting dementia research.

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Research programme in numbers

255 publications acknowledging Alzheimer’s Society funding

50% reduction in antipsychotic prescriptions shown in an Alzheimer’s Society-funded study following a programme of training and support for care home staff


Alzheimer’s Society is the UK’s leading support and research charity for people with dementia, their families and carers. We provide information and support to people with dementia and their carers through our publications, National Dementia Helpline, website, and more than 2,000 local services. We campaign for better quality of life for people with dementia and greater understanding of dementia.

Alzheimer’s Society is dedicated to defeating dementia through research. We fund research into the cause, cure, care and prevention of dementia, including Alzheimer’s disease, to improve treatment for people today, and search for a cure for tomorrow.