**Summary of SDRC Conference 2025**

**Day 1**

**What’s new in SINAPSE - Dr William McGeown**

Dr William McGeown, representing SINAPSE (Scottish Imaging Network, A Platform for Scientific Excellence) provided an update on the network's activities and goals. SINAPSE is a consortium of six Scottish universities (Aberdeen, Edinburgh, Glasgow, St Andrews, Stirling, and Strathclyde) dedicated to medical and healthcare-related imaging.

The network's primary aims include training the next generation of early career researchers and fostering collaboration among universities, the NHS, and industry partners. SINAPSE researchers utilize a broad spectrum of neuroimaging technologies, such as Magnetic Resonance Imaging (MRI) for high-resolution brain images, Positron Emission Tomography (PET) for capturing neuropathologies like those in Alzheimer's disease (e.g., amyloid imaging), and Electroencephalography (EEG) for precise measurements of brain activity. The interdisciplinary nature of the research, spanning medical physics, chemistry, psychology, and computer science, allows for innovative approaches and improved employment opportunities for students.

Dr McGeown highlighted SINAPSE's strong foundations with the NHS and growing industry collaborations. He also mentioned cutting-edge imaging facilities available across the network, such as fast field cycling MRI in Aberdeen, a 7 Tesla MRI scanner in Glasgow for ultra-high resolution imaging, MR-PET in Edinburgh, and magnetic resonance-guided focused ultrasound in Dundee. The Dundee facility, the only one of its kind in Scotland, recently conducted its first trial for Parkinson's disease, offering a non-invasive method to reduce tremors.

Recent successes for SINAPSE include their assistance in securing £32 million for the National PET Information Platform (NPIP), which will include a total body PET scanner. They also support early career researchers through welcome events, tailored webinars, and training courses, and administer significant funding, such as the RS McDonald facility access fund (increased to £130,000 this year) and the Clerk Maxwell Cancer Research Fund (£89,000). The SINAPSE Early Career Researcher Exchange Fund also promotes international collaborations.

The annual SINAPSE scientific meeting will be held in Aberdeen on 9 June, with a workshop on co-production of research.

**SCONe project: Scotland-wide repository of retinal images - Professor Miguel Bernabeu**

Professor Miguel Bernabeu introduced SCONe, a pioneering project leveraging Scotland's unique retinal screening program for dementia research. Recognizing that significant brain damage occurs before dementia diagnosis, the project aims to identify early risk factors using retinal images. Since NHS Scotland offers free retinal screening for all citizens (annually for those over 60, biennially for under 60s), this initiative provides an unprecedented opportunity to gather data.

The goal of SCONe is to collect 10 million NHS-funded retinal images, link them to health records, and develop AI technology for eye-brain disease risk prediction. This ambitious project seeks to provide a scalable tool for early dementia risk estimation, potentially deployable in high-street optometrist practices equipped with retinal cameras.

The project has progressed through a proof-of-concept phase, addressing data governance and IT infrastructure, and a Scotland-wide rollout, collecting data rapidly. Currently, over one million images have been collected, with a median patient age of 70, offering a valuable historical dataset. The ability to link these images to clinical records via Public Health Scotland's National Safe Haven is crucial for identifying early signs of dementia before clinical diagnosis. Professor Bernabeu emphasized that this research, leveraging Scotland's unique data infrastructure, is arguably unparalleled globally. He invited collaborations to expand data collection and replicate studies.

**Alzheimer Scotland Student Research Programme**

The recipients of Alzheimer Scotland Student Research Programme provided updated on their Masters research projects. Speakers introduced by members of Alzheimer Scotland’s Active Voice members, who were all part of the panel who chose these projects: Elaine Deehan, Kenny Moffat and Joanna Boddy. Here is a summary of each of these presentations:

**Sarah-Jayne Hamilton**

Sarah-Jayne Hamilton, a Masters student at the University of Strathclyde, is conducting crucial research into the implementation of digital tools for early Alzheimer's detection within Scottish primary care settings. Her addresses the significant issue of delayed Alzheimer's diagnoses. Currently, standard cognitive tests often fail to detect early cognitive changes, leading to prolonged uncertainty for patients and their families, limiting opportunities for timely intervention and support.

To combat this, Sarah-Jayne's research focuses on integrating the Four Mountains Test (4MT), a validated digital spatial memory task sensitive to early Alzheimer's-related brain changes. The 4MT assesses allocentric spatial memory, a function of the hippocampus often affected early in the disease. Its app-based format allows for brief administration both in clinic and at home, with automatic scoring to save clinician time.

Her research process is multi-faceted, employing the Engineering Better Care framework to consider not just the tool itself, but also its impact on people, systems, design, and potential risks. This involves three key activities: mapping the patient and carer journey across Scotland and England, understanding diverse GP workflows through process mapping, and gathering feedback on the 4MT prototype from clinicians and the public. To date, she has engaged over 70 stakeholders, including clinicians, developers, policy leads, and individuals with lived experience of dementia and their carers.

Initial findings from patient and carer interviews consistently highlight confusion, difficulty finding support, and the emotional toll of a slow, unclear diagnostic journey where concerns are often initially dismissed. Clinicians, while finding the 4MT appealing for its simplicity and clear scoring, emphasized the need for guidance and auditability, requesting an adapted version with less text for broader accessibility.

Future plans include continued process mapping with GPs and a pilot test of the 4MT in a primary care clinic this month to observe its integration into real-world workflows. This project directly contributes to the larger SABRE programme at UCL, aiming to lay the groundwork for a future where dementia detection is designed to fit the realities of both patients and healthcare systems, enabling earlier and fairer diagnoses across the UK. Sarah-Jayne stresses that successful implementation goes beyond technology, requiring a relational approach built around people and their existing practices.

**Katie Robertson**

Katie Robertson at the University of Edinburgh presented her project on the neurostructural underpinnings of the Traumatic Brain Injury (TBI)-Dementia Association. TBI is a known dementia risk factor, linked to altered white matter and cognitive impairment. However, current imaging markers are unreliable, partly due to small study sizes.

Katie's project utilizes the large UK Biobank data (around 40,000 participants with brain MRI data) to identify subtle brain hallmarks of TBI that may relate to cognition. She uses three definitions of TBI history: self-reported, narrowband hospital records for head trauma, and a broader list of head-related injuries. By analyzing brain scans Katie is comparing people who have a history of head injury to those who don't.

The research question focuses on how head injuries, even seemingly mild ones, increase a person's risk of developing dementia later in life. Her research specifically looks at what happens inside the brain after a traumatic brain injury (TBI). Katie is using advanced brain scanning techniques, specifically a method called Diffusion Tensor Imaging (DTI), to look at the health of white matter pathways. DTI can tell us about the tiny structures within these pathways, like how tightly packed the nerve fibres are or if there's any damage. She's looking for subtle differences in the "mean diffusivity" of their white matter – essentially, how freely water molecules can move within these brain pathways. Changes in this measurement can indicate damage or changes in the brain's delicate structure.

Ultimately, Katie's project seeks to understand the specific brain changes that occur after a TBI that might lead to dementia. This knowledge is crucial because if we can identify these changes early on, we might be able to develop ways to protect the brain and reduce the risk of dementia for people who have experienced head injuries. It's about getting ahead of the curve and offering better protection for brain health in the long run.

**Kelly Kelly**

Kelly Kelly from the Alzheimer Scotland Centre for Policy and Practice at the University of the West of Scotland, is undertaking vital research into the diagnostic experience of individuals with young-onset dementia (YOD). Her project specifically investigates whether "trauma-informed approaches" are evident during the diagnosis process for this group. This is particularly important because people with YOD often face a longer and more challenging journey to diagnosis compared to those with late-onset dementia, which can lead to significant psychological distress and potential trauma.

Kelly's research aims to fill a crucial knowledge gap, as there's not enough understanding about how trauma-informed care is, or isn't, applied in dementia diagnosis. Her methodology involves exploring the experiences of not only individuals with young-onset dementia but also their families and the healthcare professionals involved in their diagnostic journey. By gathering these diverse perspectives, she hopes to identify both the existing challenges and opportunities for improving the diagnostic pathway.

The preliminary findings from her work are expected to highlight areas where the diagnostic process might inadvertently cause distress or trauma, as well as instances where supportive, trauma-informed practices are already in place. The implications of this research are significant: by providing a trauma-informed interpretation of the diagnostic process from the patient and family perspective, Kelly's project can directly inform improvements to how young-onset dementia is diagnosed in Scotland.

Kelly also described how this project has been incredibly beneficial for her personally, allowing her to contribute to innovative research in a field she is deeply passionate about. As a registered mental health nurse specializing in dementia care with a background in psychology, this MRes studentship allows her to advance her nursing career by focusing on enhancing the quality of life for individuals with dementia and their caregivers.

**Mythbusting: We know how many people who have dementia – Dr Katerine Walesby**

Dr Katherine Walesby, a geriatrician and epidemiologist from the University of Edinburgh, delivered a insightful talk on the prevalence of dementia in Scotland, challenging common assumptions and highlighting the power and complexities of routinely collected data. Her recent PhD research focused on dementia lessons from geography and routinely collected data.

Dr Walesby tackled three myths about dementia statistics. First, she debunked the idea that Scottish dementia estimates are based purely on Scottish data. In reality, like many countries, Scotland relies on research data from other European cohorts (like Eurocode) and English research cohorts for these predictions. While these methods are rigorous and standardized, she emphasized the growing need for countries to use their own specific data for more accurate estimates.

The second myth addressed the belief that everyone living with dementia has received a formal diagnosis. This, as she explained, is untrue due to the complex diagnostic process, the lack of a single definitive biomarker (unlike, for example, diabetes), and systemic barriers to accessing timely diagnoses. She used an iceberg analogy, illustrating that only the tip represents diagnosed individuals, with a large undiagnosed population below the surface, and an even larger group with dementia risk factors.

Finally, Dr Walesby discussed the myth that "we already have the data, and we can use it." While billions of bits of data are routinely generated every time an individual interacts with healthcare or social services, leveraging this data for dementia prevalence is complex. She provided examples from hospital discharge letters, prescription data, and death certificates, explaining how dementia diagnoses might not always be comprehensively or consistently recorded due to limitations in coding systems and prioritization of medical conditions. Her work in New Zealand, using a Venn diagram of multiple datasets, clearly showed that individuals with dementia don't always appear in every relevant dataset, underscoring the need for multiple data sources to accurately identify cases.

The solution, Dr Walesby concluded, lies in moving towards country-specific estimates using national routinely collected data. This aligns with Scotland's National Dementia Strategy and the development of a dementia index led by the Scottish Government and Public Health Scotland. This significant initiative will utilize various routinely collected data, including post-diagnostic support data, to ascertain who has dementia in Scotland, with initial outputs expected later this year.

**Mythbusting: New dementia drugs, hope or hype? – Dr Catherine Pennington**

New anti-amyloid drugs like Lecanemab and Donanemab are generating both hope and myths around dementia treatment. These drugs specifically target amyloid plaques in the brain, which are associated with Alzheimer's disease. It's crucial to understand that these treatments are for Alzheimer's disease dementia, not all forms of dementia.

A key myth is that these drugs cure dementia or significantly improve symptoms. In reality, they have been shown to slow down the worsening of memory and thinking in individuals with very mild Alzheimer's dementia or mild cognitive impairment due to Alzheimer's. The observed clinical benefit is relatively small compared to placebo. The clinical meaningfulness of the difference, specifically, whether it impacts daily living or independence, remains a significant debate.

Accessibility is another major concern. Despite regulatory approvals in some regions (e.g., MHRA in the UK for Lecanemab), these drugs are not widely available on public healthcare systems like the NHS due to their high cost and the need for significant infrastructure for diagnosis and ongoing monitoring. Many people are excluded from treatment due to advanced dementia, co-existing health conditions (like being on strong blood thinners or having had a previous stroke), or inability to undergo required diagnostic tests such as PET scans or lumbar punctures to confirm amyloid pathology.

The narrow population studied in clinical trials—carefully selected individuals with specific Alzheimer's pathology and mild symptoms—means their effectiveness in a broader, more complex real-world patient group is unknown. For instance, in typical memory clinics in Edinburgh, a significant portion of patients would be excluded based on current criteria due to more moderate or severe dementia, mixed dementia (e.g., with vascular components), or other health issues.

Furthermore, administering these drugs, currently via intravenous infusions every two to four weeks, presents immense logistical challenges, particularly in remote areas. Patients require regular MRI brain scans to monitor for serious side effects like ARIA (amyloid-related imaging abnormalities), which include brain swelling and bleeding. While most ARIA cases are asymptomatic, the risk is higher in individuals with certain genetic profiles such as the APOE4 genotype.

The NHS faces immense pressure, with long waiting times for memory clinics and MRI scans. Delivering these treatments broadly would necessitate substantial additional government resources. Long-term safety and effectiveness data are still accumulating, and it will take years to fully understand the drugs' true impact and how they compare to older, cheaper medications like donepezil, whose clinical trials are outdated. Many patients express a desire for these drugs to slow progression, even with the commitment involved, reflecting a strong public demand for any available treatment. However, these current drugs are likely just the beginning, paving the way for future, potentially more effective therapies.

**BioHermes Data Challenge Winners**

Professor Terry Quinn introduced the BioHermes Data Challenge, which provided researchers with a comprehensive dataset a global database with over 1,000 participants including blood-based biomarkers for amyloid and tau, alongside cognitive assessments. The challenge invited researchers across Scotland and the UK to analyze this data and explore how these novel biomarkers could advance dementia diagnosis and treatment. The session features the award winners who demonstrated the most impactful findings from this initiative.

**Austin Dibble and Connor Dalby**

Connor presented research on cognitive resilience and resistance to Alzheimer's dementia. Traditionally, individuals are categorized as healthy, having mild cognitive impairment (MCI), or Alzheimer's disease (AD). This study investigated two additional groups: resilient individuals with good cognition despite high AD pathology, and resistant individuals with good cognition and low pathology, even with high risk factors.

Using the BioHermes dataset, which includes numerous blood biomarkers, they developed a method to define high versus low pathology and risk. Their analysis identified a significant number of resilient (108 out of 1000) and resistant (64 out of 1001) participants. Notably, these groups were not simply younger, suggesting true biological differences. The findings indicate that while resilient individuals show high levels of amyloid and tau in their blood (similar to AD patients), their cognition remains intact. Resistant individuals, on the other hand, show low levels of these pathology markers despite high risk. The research aims to further profile these groups to understand the factors contributing to their unique status.

**Angelina Kancheva**

Angelina, a PhD student at the University of Glasgow, presented her research on cardiovascular risk as a moderator in the relationship between plasma Alzheimer's disease (AD) biomarkers and cognitive impairment.

While PET and CSF biomarkers have advanced understanding of dementia, they are costly, invasive, and inaccessible to most as less than 1% of the British population has access. Therefore, blood plasma biomarkers offer a revolutionary alternative.

Angelina's core question was whether cardiovascular risk moderates the link between blood AD biomarkers and cognitive decline. Using various biomarkers (Aβ42/Aβ40, p-tau181, p-tau217, APOE4) and the atherosclerotic CVD risk score, she found that both plasma AD biomarkers and cardiovascular disease risk are independently associated with cognitive impairment. However, cardiovascular risk did *not* moderate the biomarker-cognitive impairment relationship, suggesting independent synergistic effects.

The findings emphasize that CVD risk assessment should complement dementia biomarker assessments. Targeting modifiable CVD risk factors like hypertension, diabetes, high BMI, and poor diet offers a significant preventive strategy for dementia. This research provides hope for dementia prevention efforts in Scotland and worldwide.

**Katie Birditt**

Katie Birditt from the University of Cambridge discussed her research on neuroinflammation in Alzheimer's disease (AD). While amyloid-beta and tau are recognized culprits, the role of immune cells (astrocytes and microglia) and inflammation is gaining attention. Her study aimed to identify inflammatory signatures in the blood of people with AD.

She compared 173 individuals with AD/MCI (with amyloid pathology) to 173 age and sex-matched healthy controls (amyloid-negative). Analyzing 37 cytokines using principal component analysis, she found that specific inflammatory profiles differed significantly between the groups, with higher inflammation associated with worse cognitive function. Notably, individuals of African American descent exhibited higher inflammatory profiles than Asian or White individuals, highlighting the importance of considering ethnic differences. Katie emphasized that measuring blood inflammation could revolutionize AD diagnosis, prognosis, and treatment development, advocating for a focus on inflammatory pathways rather than individual cytokines.

**Priority setting in research**

**Prof Terry Quinn**

This session of the SDRC Conference was an interactive session led by Prof Terry Quinn.

The session looks to discuss the abundance of unanswered questions in dementia and brain health, making it challenging to prioritize research. To address this, a priority-setting exercise for research questions in dementia and brain health is being launched in Scotland. This initiative involves a diverse group of experts, including academics, clinicians, and individuals with lived experience.

Previous global efforts to prioritize dementia research varied significantly based on the participants (e.g., biomedical focus from academics vs. care focus from those with lived experience) and country-specific healthcare systems. Furthermore, past exercises often lacked a plan for implementing the identified priorities.

This new Scottish initiative, supported by funding agencies, aims to rectify these shortcomings. It will collect research questions from various stakeholders, filter out already answered questions, and then rank them to identify a top 10. Crucially, the project has an implementation strategy to ensure these priority questions lead to commissioned research calls, actualizing the research. The steering group, a multidisciplinary team, will coordinate this effort.

**Priorities for people living with dementia**

**Dr Lucy Stirland, University of Edinburgh and David Ross, Partners in Research**

Dr Lucy Stirland discusses a project identifying key research outcomes for people with dementia and other co-occurring conditions, a common but under-researched area. Most people living with dementia also manage other health issues, which significantly impact their overall well-being, healthcare use, and quality of life. Current research often isolates dementia, neglecting these complex interdependencies, including medication management and how physical conditions can affect brain health.

Through focus groups with people with dementia and their carers, the project co-produced 23 essential outcomes for research. Top priorities included mobility, timely dementia diagnosis, and dementia progression/prognosis. Other crucial areas were communication, self-management of symptoms across all conditions, and maintaining independence. The groups emphasized the importance of social interaction and identity, as well as the mental health of both patients and carers. A key finding was the desire for research to focus on positive outcomes like maintaining or improving skills, rather than solely on deterioration. These findings aim to inform future dementia research, ensuring it addresses the holistic needs of individuals living with multiple health conditions.

David Ross, a carer and member of Partners in Research, emphasizes the crucial role of personal experience in dementia research. He highlights the difficulty in understanding early dementia signs due to a lack of knowledge about co-occurring health conditions, which often delays diagnosis and intervention. Ross shares his own two-year struggle to get a diagnosis for his late wife's frontotemporal dementia and later ALS, noting how her other health issues and environmental factors were overlooked. He advocates for greater public and GP awareness of how other conditions impact dementia and stresses that early diagnosis is vital for potential treatments. Ross firmly believes that lived experience, like "a university of life," offers invaluable, often untapped knowledge that can complement academic research, leading to more successful outcomes by embracing diverse perspectives and ensuring authentic, sustained involvement of patients and carers.

**Early Career Researcher Presentations**

**Yating You, University of Glasgow**

Yating You is a second-year PhD student in Public Health at the University of Glasgow, with a background in epidemiology and nursing. Her research focuses on investigating the role of modifiable lifestyle factors in dementia. In a recent presentation, she discussed her work on associations and interactions between the APOE4 genotype and lifestyle on structural brain health, utilizing data from the UK Biobank.

Her study, involving approximately 25,000 individuals without dementia, revealed that unfavourable and moderate lifestyles are independently linked to poorer brain health, affecting areas like grey matter and hippocampal volumes. While the APOE4 genotype was also associated with worse brain structure, no significant interaction was found between lifestyle and the APOE4 genotype. This suggests that maintaining a healthy lifestyle can offer brain health benefits, even for individuals with the APOE4 genetic risk factor. She acknowledged limitations of the cross-sectional study design and is currently working on longitudinal analyses.

**The AMPER Digital Reminiscence App: Rekindling Memories in Dementia**

**Matthew Jamieson, University of Strathclyde**

Matthew Jamieson from the University of Strathclyde introduced the AMPER Digital Reminiscence App, a collaborative project with Heriot-Watt University. The app aims to address the decline of autobiographical memory in Alzheimer's disease, which can lead to a loss of identity. Traditional reminiscence therapy, often using old photos, can be limited by the availability of personal materials.

AMPER tackles this by providing a tablet-based solution that draws on thousands of BBC archive photos, videos, and audio files. It utilizes the concept of the reminiscence bump (memories from ages 10-30 are often more vivid) by allowing users to select preferred topics and decades, ensuring generationally relevant content. A virtual character within the app provides prompts to facilitate conversations between the person with dementia and their caregiver.

A pilot study with healthy older adults and their companions showed that longer engagement with the app's "stories" correlated with higher quality reminiscence interactions. User feedback is being used to refine the app's design and navigation, with plans for a future trial involving individuals with Alzheimer's disease. The project highlights the potential of technology to support memory and connection for those living with dementia.

**Enhancing Patient and Public Involvement in Dementia and Neuroprogressive Research**

**Denise Munro, NRS Neuropressive and Dementia Network**

Denise Munro discussed two patient and public involvement (PPI) groups: Partners in Research (part of the Neuro Progressive and Dementia Network) and Rich Voices (focused on care home research within Enrich Scotland).

Partners in Research primarily operates online, facilitating monthly drop-ins, providing feedback to researchers, and supporting members to develop their own research interests. A new "Familiar FACES" scheme pairs established members with new ones to ease their transition into the group. The dementia subgroup is surveying reasons for PPI involvement to better support participants, while the Parkinson's group is creating a clinical guide for trial participants to improve support and understanding throughout their research journey.

Rich Voices specifically targets care home research, a crucial area given that 63% of care home residents in Scotland and approximately 70% across the UK have dementia. They offer input request meetings for researchers and co-create outputs like a film and podcast on care home research. A key initiative is developing an accessible research platform for care home staff, recognizing their time constraints, and including diverse voices like those from the LGBTQ+ community.

Munro emphasized the need for a flexible and tailored approach to PPI, acknowledging that the online model of Partners in Research doesn't fully suit the care home community. Future directions involve building relationships on participants' terms, including underrepresented voices (e.g., from minority backgrounds, rural areas, and different socioeconomic statuses), and identifying and removing systemic barriers like time and resource constraints. The ultimate goal is to involve people with lived experience as early as possible in research projects.

**Exploring Information Access for Older Adults and Dementia Populations: The Role of AI**

**Claire Rogers, University of Strathclyde**

Claire Rogers from the University of Strathclyde presented her research on how older adults, including those with dementia and mild cognitive impairment (MCI), access information using traditional web search and generative AI (GenAI) tools like chatbots. With the increasing prevalence of dementia, there's a growing need for technology that supports independent living, including independent information seeking.

Her online survey, involving 286 participants (including 92 with MCI/dementia), revealed that while almost all participants use online search systems (98%), only 14% currently use GenAI. However, a promising 60% of non-GenAI users expressed interest in using it in the future.

Key findings indicate that the MCI/dementia group found both traditional web search and GenAI slightly more difficult to use independently. Thematic analysis identified three main themes for GenAI: lack of knowledge/understanding, mistrust (concerning security, privacy, and accuracy), and a strong willingness to learn. For online search, themes included long-term use/simplicity, challenges with keywords, and issues with the relevance of commercialized results.

This study highlights the need to design future technologies with these groups in mind, providing better training and addressing concerns to facilitate broader adoption and challenge stereotypes about older adults' ability to use advanced digital tools.

**Mythbusting: People with dementia shouldn’t exercise**

**Lianne McInally- East Ayrshire HSCP**

Lianne McInally, an Allied Health Professions Senior Manager at East Ayrshire Health and Social Care Partnership, with a background in occupational therapy and lived experience of dementia, aimed to dispel the myth that people with dementia shouldn't exercise. She emphasized that physical activity is crucial for everyone, regardless of a dementia diagnosis, to combat age-related muscle mass decline and maintain functional independence.

McInally highlighted research demonstrating the positive impact of exercise on physical health, including muscle mass and bone density, citing an MRI comparison of two 75-year-olds with vastly different activity levels. She explained that exercise helps individuals stay on the "optimal functional curve," delaying the loss of independence in daily activities. She also linked frailty in dementia to reduced functional ability and worse outcomes after illness, stressing that exercise is key to maintaining function and improving recovery.

While acknowledging some conflicting evidence, McInally underscored the numerous benefits of exercise for people with dementia, including enhanced brain performance, reduced behavioural symptoms, improved physical health, social interaction, better sleep, and enhanced quality of life. She challenged the misconception that falls prevention means restricting movement, advocating for integrating exercise into falls prevention plans. Her work in East Ayrshire, inspired by national and international initiatives like the Senior Sporting Games, demonstrates successful community-based exercise programs for care home residents, showcasing significant improvements in well-being and a strong desire for continued participation. She concluded by promoting Alzheimer Scotland's "Physical Activity at Home" booklet as a resource.

**Mythbusting: Movement doesn’t matter**

**Dr Donncha Mullin- University of Edinburgh**

Dr Donncha Mullin from the University of Edinburgh presented on the crucial link between movement and cognitive health, particularly in the context of dementia. Challenging the misconception that movement doesn't matter in dementia, he drew parallels with Parkinson's disease, which was initially considered a purely motor disorder but is now understood to have significant non-motor symptoms appearing years before motor ones.

Mullin's PhD research focused on "Motoric Cognitive Risk" (MCR), a syndrome defined by slow walking speed and a self-reported cognitive complaint in individuals without dementia or functional impairment. He explained that MCR is a simple, non-invasive screening tool, easily incorporated into clinical practice, and not dependent on language or intellectual background.

His systematic review and meta-analysis revealed that MCR significantly increases the risk of developing dementia (by 112%) and cognitive impairment, as well as falls. In a Scottish cohort study, he found that one in 20 older adults had MCR, with increased prevalence in older individuals and those with lower socioeconomic status or poorer executive function. Notably, a manual job in earlier life more than tripled the likelihood of developing MCR. Mullin's research in the Lothian Birth Cohort demonstrated that MCR more than doubles the 10-year risk of dementia, highlighting movement as a vital early indicator and a potential target for interventions.