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GSK, UK Dementia Research Institute (UK DRI) and Health Data Research UK (HDR UK) to collaborate on first-of-its-kind dementia research initiative¹¹

- New collaboration aims to deepen understanding of neurodegeneration using the UK's health data ecosystem
- The first-of-its-kind study¹¹ will evaluate potential association between GSK's shingles vaccine and reduced dementia risk, building on growing body of evidence from observational and retrospective studies^{1,2,3,4}
- Collaboration could serve as blueprint for population level health data research and reinforce UK position as a leading life science R&D destination

GSK plc (LSE/NYSE: GSK) today announced a major new research collaboration with the UK Dementia Research Institute (UK DRI) and Health Data Research UK (HDR UK) to advance understanding of neurodegeneration with a first-of-its-kind dementia study¹¹.

The innovative project aims to use the UK's health data ecosystem to explore a potential association between GSK's shingles vaccine, Recombinant Zoster Vaccine (RZV), and a reduced risk of dementia. If successful, this could serve as a blueprint for population level health data research models, reinforcing the UK's position as a leading destination for scientific research.

More than 55 million people worldwide have dementia⁵, with cases increasing as the global population ages. Research to identify potential opportunities to reduce the risk of dementia is much needed but challenging given the multiple, complex factors which may contribute to the development of the disease⁶.

Data from several retrospective observational studies show potential association between shingles vaccination, including with RZV, and a reduced risk of dementia^{1,2,3,4}. However, the retrospective and observational nature of these studies means they are susceptible to unmeasured confounding factors and determining causal association has not been possible.

The new research collaboration aims to overcome this by using high quality, deidentified, population-level electronic health data from the UK's National Health Service (NHS) to assess the impact of RZV vaccination on dementia risk reduction. There are around 1.4 million 65 and 66 years olds in the UK⁷ and their eligible electronic health records are expected to give a robust and comprehensive dataset which will account for factors such as RZV vaccination, age, sex and co-existing medical conditions. The research will take 4 years to complete.

Tony Wood, Chief Scientific Officer, GSK, said: "GSK has a long-standing commitment to advancing science that tackles the most challenging health issues. The UK's national scale health data resources provide a significant opportunity for cutting-edge research. We hope this world-class research collaboration will not only answer key questions to help reduce dementia risk but also pave the way for future data-led research to unravel the underlying causes of complex diseases so we can get ahead of them."

Science Secretary Peter Kyle said: "Dementia is one of the biggest challenges to health in our time, touching so many lives – which is why research to combat its devastating effects is so important. This is a wonderful example of

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the private sector working hand-in-hand with the public and third sector, leveraging the power of health data, to drive a greater understanding of how we might reduce the risk of dementia.”

Professor Andrew Morris, Director of Health Data Research UK, said: “Dementia represents one of the greatest challenges of our time, affecting millions of families across the UK and beyond. By working closely with the NHS in the four UK nations to ensure data privacy and security, we can enable prevention-focused research, deepen our understanding of disease and support the NHS in shifting from treating sickness to keeping people healthier for longer – helping them live better lives.”

Professor Siddharthan Chandran, Director of UK Dementia Research Institute, said: “Through cross-disciplinary collaboration that combines cutting-edge research capabilities with data at scale, we hope to showcase the potential of UK health data to improve not only our fundamental understanding of dementia but to identify potential interventions that could have a transformational impact.”

About EPI-ZOSTER-110

EPI-ZOSTER-110 is a quasi-experimental, real world evidence analysis of adults aged 65 and 66 years at the time of the expansion of the UK Shingles National Immunisation Programme (NIP) on 1 September 2023⁸.

From that date, adults turning 65 years old became eligible to receive GSK’s Recombinant Zoster Vaccine (RZV). As part of a phased implementation plan, adults aged 66 years at the point of the expansion will become eligible for vaccination when they turn 70. This has created a natural randomisation, allowing for a comprehensive comparison of dementia risk by RZV vaccination status, while accounting for factors such as age, sex and other medical conditions which are expected to be broadly similar at a national level in this population.

The data will be collected from deidentified electronic health records (EHR) comprising information from multiple linked health datasets, including primary care, secondary care, medication records, and death records, from England, Scotland, Wales, and Northern Ireland. These data provide information on health outcomes across all age groups, ethnicities, geographic locations, socioeconomic and personal characteristics. Following a feasibility assessment, EHRs will be securely analysed for around four years until the 66-year-olds turn 70 and become eligible for RZV.

Deidentified health data are held by National Health Services and may only be accessed via trusted and secure research environments complying with data privacy and security regulations. The study data will not be owned by GSK, nor accessible for purposes outside the scope of this study.

Usage of RZV in this study population will be in accordance with the UK product label and NIP.

About Recombinant Zoster Vaccine

Recombinant Zoster Vaccine (or RZV) is a non-live, recombinant subunit vaccine indicated for the prevention of shingles in adults aged 50 years and over. It combines an antigen, glycoprotein E, with an adjuvant system, AS01B, and may help overcome the natural age-related decline in responses to immunisation that contributes to the challenge of protecting adults aged 50 and over from shingles^{9,10}. RZV is not indicated to prevent primary varicella infection (chickenpox). In several countries, RZV is also approved for adults aged 18 years or over at increased risk for shingles. The use of RZV should be in accordance with official recommendations and local product label.

Please refer to the Product Information for important dosage, administration, and safety information available at this link: <https://www.ema.europa.eu/en/medicines/human/EPAR/shingrix>.

About GSK

GSK is a global biopharma company with a purpose to unite science, technology, and talent to get ahead of disease together. Find out more at [gsk.com](https://www.gsk.com).

About Health Data Research UK

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Health Data Research UK is the national institute for health data science – accelerating trustworthy use of health data to enable discoveries that improve people’s lives. It is a charity funded by UK Research and Innovation, the Department of Health and Social Care in England and equivalents in Northern Ireland, Wales and Scotland, and leading medical research charities. Find out more at <https://www.hdruk.ac.uk/>

About UK Dementia Research Institute

The UK Dementia Research Institute (UK DRI) is a globally leading multidisciplinary research institute principally funded by the Medical Research Council. The UK DRI is dedicated to changing the outcomes of people living with or at risk of neurodegenerative conditions, by accelerating the discovery, development and delivery of interventions that will help diagnose, treat, and ultimately prevent dementia. www.ukdri.ac.uk

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Cautionary statement regarding forward-looking statements

GSK cautions investors that any forward-looking statements or projections made by GSK, including those made in this announcement, are subject to risks and uncertainties that may cause actual results to differ materially from those projected. Such factors include, but are not limited to, those described in the “Risk Factors” section in GSK’s Annual Report on Form 20-F for 2024.

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11. [COALESCE - HDR UK](#)