



BRAIN HEALTH: INTERDISCIPLINARY APPROACHES TO IMPROVING OUR UNDERSTANDING AND PRACTICE

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BACKGROUND

- Maintaining a healthy brain during one's life is the uppermost goal in pursuing health and longevity
- Human ageing increases the burden of brain dysfunction and neurological diseases and demands for medical resources¹
- There is strong and growing evidence that nutrition throughout the life-course has a profound impact on brain health, cognition and age-associated cognitive decline²
- Developing interdisciplinary approaches to research in brain health is key to inform recommendations and practice across the life course



CASE STUDY 1: NUBRAIN

- The NuBrain consortium has been designed to accelerate research in the role of nutrition in brain development and ageing²
- NuBrain is a collaboration of academics with global reputations for research in nutrition, brain sciences, ageing, clinical psychiatry, health psychology, public health and policy and translational epidemiology who will work with partners in industry, charities, public health and policy and public engagement



CASE STUDY 2: CONCUSSION

- The PREVENT dementia study aims to identify risk factors for dementia in mid-life
- BrainHOPE (Optimising Brain Health Outcomes in former Professional and Elite footballers) compares brain health in mid-life former footballers/ soccer players to general population control subjects already recruited to the PREVENT Dementia study
- Interdisciplinary team of scientists, clinicians and practitioners with backgrounds in clinical psychiatry, brain health, genetics, sports science, cognitive neurology, biostatistics, brain imaging
- Interdisciplinary and multi-stakeholder approaches are required to better understand brain health
- Further large-scale preventative interventions are needed – when do we intervene? For how long?
- Advancements in technology and data analysis will enable new methodologies and techniques to assess brain health in research studies e.g., imaging techniques, metabolomics, AI, development of new biomarkers of brain health
- Education and awareness is key – how to do promote the importance of brain health to the general public – particularly at-risk groups?

REFERENCES

1. Moore, K et al (2018) *Proceedings of Nutrition Society*; 77 152-163

2. Stevenson, E et al (2020) *Nutrition Bulletin*; 45 223-229

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