

**117634****Thomas Willis - His life and times**

Alastair Compston, *University of Cambridge, Clinical Neurosciences, Cambridge, United Kingdom*

2021 marks the quatercentenary of the birth of Thomas Willis on 27 January 1621. As a physician in Oxford, Willis's work in the 1650s provides an example of rural medical practice in early modern England. As a member of the Oxford Philosophical Club that met from the 1640s, he was central to the move from classical scholasticism to accounts of anatomy and physiology based on observation and experiment. As Sedleian Professor of Natural Philosophy in Oxford, the surviving records of his lectures from the 1660s provide an example of pedagogy in medicine at that time. And, after moving to London in 1667, Willis continued to interact with a community of scientists and physicians who transformed ideas on respiration, muscular movement, and the nervous system. Despite a busy clinical practice, Willis found time to write fourteen treatises on anatomy and physiology, clinical medicine, and therapeutics. These were published between 1659 and 1675, the year in which he died. Willis's method was to replace dogma with empirical evidence: 'I determined to believe Nature and ocular demonstrations [and] did chiefly inquire into the offices and uses of the Brain and its nervous Appendix. I addicted myself to the opening of Heads on which a more certain Physiologie [and] Pathologie of the Brain and nervous stock, might be built'. This celebratory lecture will set Willis's ideas in the context of the times in which he worked and assess their legacy for the subsequent accumulation of knowledge relating to the nervous system.

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117635**Plenary 4: Presidential address: WFN during and beyond the pandemic**

William Carroll, *Perron Institute, University of Western Australia, Department Of Neurology, Perth, Australia*

Like many organisations the WFN faced major challenges since the COVID-19 pandemic began. Paradoxically, but not uniquely, the challenges and the resulting changes have energised the Federation generating fresh focus, renewed endeavour and positive outcomes which have been overwhelmingly beneficial.

Firstly, the WFN embarked on a review of its administrative processes to update internal operations in 2018. The installation of an electronic calendar providing organisational memory and communication tools assisted the management of repetitive tasks and workflow, giving an

overview of activity and real time progress. Website and social media activities were updated after the Strategic Planning Meeting, now a biennial event.

Secondly, communicability with member societies became crucially important as the only effective way to run the WFN and its educational and advocacy activities. Additions to the London Office staff and relocation followed. The 2019 World Brain Day campaign was lengthened and bookmarked with opening and closing webinars. The 2019 WCN Opening Ceremony incorporated an inaugural e-spectacular highlighting EMINS, the WCN and the WFN.

Thirdly, member societies and specialty groups formed invaluable collaborations for a number of educational activities. Notable was the Geographical and Tropical Neurology Specialty Group in association with the Indian Academy of Neurology developing their highly regarded Neuroinfection Series. The inaugural e-Learning Day on Stroke in Africa held by AFAN and the WFN with support from the EAN and AAN was so successful it will likely continue as an annual event.

Fourthly, collaborative partnerships underpinned the involvement of the GNA with the annual World Brain Day which focused on migraine (IHS) in 2019, Parkinson's Disease (MDS) in 2020 and multiple sclerosis (MSIF) in 2021. The Discussion Paper developed as the preliminary response to the WHA 73.10 Resolution on "A Global Action Plan for Epilepsy and Neurological Disorders" also benefitted by the contribution of several members of the GNA. The Resolution represented a landmark event in the relations between the WHO and the neurological world.

Finally, as a consequence of these developments, the WFN is now sufficiently flexible to shift from physical to electronic or virtual platforms. The 2021 World Congress of Neurology, the annual extended World Brain Day, the online Needs Registry survey and the innovative Brain Health Initiative are all thriving because of this flexibility. These initiatives add to the visibility of the WFN, promote adroitly the mission of the WFN to "foster quality neurology and brain health worldwide" and provide a confident vision for the future.

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117636**New therapies for MND**

Pamela Shaw, *University of Sheffield, Sheffield Institute For Translational Neuroscience, Sheffield, United Kingdom*

Motor neuron disease (MND) is one of the 3 commonest adult onset neurodegenerative disorders with a life-time risk of approximately 1 in 400. Death in most patients results from neuromuscular respiratory failure. The heterogeneity and complexity of MND has posed a challenge for neuroprotective therapy development. This lecture will cover 4 areas of topical interest.