IMAGE



Transvascular delivery of α -synuclein preformed fibrils, using the RVG9R delivery system, generates α -synuclein pathology in the duodenal myenteric plexus of non-transgenic rats

Wei-Li Kuan¹ · Katherine Stott² · Xiaoling He¹ · Tobias C. Wood³ · Sujeong Yang¹ · Jessica C. F. Kwok^{1,4,5} · Katie Hall¹ · Yanyan Zhao⁶ · Ole Tietz⁶ · Franklin I. Aigbirhio⁶ · Anthony C. Vernon^{7,8} · Roger A. Barker^{1,9,10}

© The Author(s), under exclusive licence to Springer Nature Limited 2021. This article is published with open access

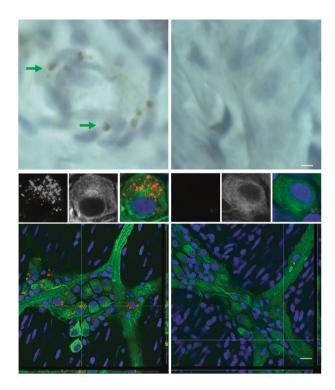


Fig. 1 Transvascular administration of α-synuclein preformed fibrils (pff) reversibly complexed with RVG9R (left column), but not pff alone (right column), generates α-synuclein pathology in the gastrointestinal tract. At 6 months after a single intravenous injection of RVG9R:pff, abnormally phosphorylated α-synuclein at serine 129 (DAB-peroxidase, green arrows, top left panel), as well as proteinase K-resistant α-synuclein inclusions (red, bottom left panel), could be detected in the duodenal myenteric plexus (peripherin, green; Hoechst, blue) in nontransgenic rats. Scale bars, 30 µm. For more information, please refer to the article by Kuan et al., https://doi.org/10.1038/s41380-019-0608-9.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.

Wei-Li Kuan wlk21@cam.ac.uk

- ¹ John van Geest Centre for Brain Repair and Department of Clinical Neuroscience, University of Cambridge, Cambridge, UK
- ² Department of Biochemistry, University of Cambridge, Cambridge, UK
- ³ Department of Neuroimaging, Kings College London, London, UK
- ⁴ School of Biomedical Sciences, Faculty of Biological Sciences, University of Leeds, Leeds, UK
- ⁵ Centre for Reconstructive Neuroscience, Institute of Experimental Medicine, Prague 4, Czech Republic

- ⁶ Wolfson Brain Imaging Centre and Department of Clinical Neurosciences, University of Cambridge, Cambridge, UK
- ⁷ Department of Basic and Clinical Neuroscience, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK
- ⁸ MRC Centre for Neurodevelopmental Disorders, King's College London, London, UK
- ⁹ Department of Neurology, Addenbrooke's Hospital, Cambridge, UK
- ¹⁰ Wellcome Trust- MRC Cambridge Stem Cell Centre, Cambridge, UK