Dr Matthew White is a Senior Research Fellow and Group Leader at King's College London, based in the Department of Basic and Clinical Neuroscience at the Institute of Psychiatry, Psychology & Neuroscience. His research focuses on how RNA-binding protein dysfunction contributes to motor neurone disease, frontotemporal dementia and related neurological disorders.

His lab uses human stem-cell-derived neurons, forebrain organoids and assembloids to model early disease mechanisms linked to disrupted RNA regulation. A major focus of the group is understanding how disease-associated RNA-binding proteins, including TDP-43 and hnRNP family members, alter gene expression, splicing, isoform choice and cryptic exon inclusion across vulnerable human brain cell types. By combining human disease models with bulk, single-cell and long-read transcriptomic approaches, his group aims to identify early molecular signatures of neurodegeneration, nominate therapeutic targets and develop measurable RNA-based readouts for future translational studies.

Matthew began his research career at Cardiff University before moving to the Babraham Institute in Cambridge and then to King's College London. His work is supported by the Motor Neurone Disease Association, Alzheimer's Society and My Name'5 Doddie Foundation.