

Anne Bertolotti – Anne obtained her Ph.D. from Strasbourg University (France), and did a post doc at The Skirball Institute of Biomolecular Medicine, NYU, New York. She has been a group leader at the MRC Laboratory of Molecular Biology since 2006, an INSERM scientist since 2001, was elected an EMBO Young Investigator in 2005, was awarded an ERC consolidator grant in 2013, became an EMBO member in 2013 and won the Hooke Medal in 2014. In 2017, she became a Fellow of the National Academy of Medical Sciences in the UK and won the 2018 GlaxoSmithKline Award from the Biochemical Society.

Anne has made seminal contributions to our current understanding of protein quality control mechanisms in cells, which represent the cellular defence systems against potentially harmful proteins. She was one of the pioneer in the discovery of mammalian unfolded protein response and more recently discovered the pathways by which cells maintain proteasome homeostasis.

She has also identified mechanisms underlying the deposition of misfolded proteins in neurodegenerative diseases and contributed to a dogmatic shift in this field with the discovery that mutant SOD1 aggregates propagate indefinitely just like prions.

With the knowledge acquired on protein quality control systems, Anne identified strategies to boost their function and is currently exploiting them for the treatment of neurodegenerative diseases. One of the strategy consists in selective inhibition of a phosphatase, an important advance because phosphatases were thought to be undruggable.