Mammalian cells secrete a large number of proteins into the extracellular space, the composition and levels of which change as result of environmental factors. However, the identity of most of these secreted proteins has yet to be determined. Recent advances in proteomic technology now allow the isolation and identification of these secreted proteins. Available evidence suggests that under excitotoxic stress, neurons secrete signals that can alter the function of neurons with which they are connected via synapses or to which they are proximate. In this study we used primary neuronal cell cultures derived from the adult rat brain, and investigated the effect of chemical excitation on secreted proteins. The conditioned medium of these cultured cells was analysed using 2D-PAGE combined with MALDI-TOF mass spectrometry.

Ry Tweedie-Cullen
Ry studied Biological Sciences at the University of Auckland, New Zealand, where he gained his BSc and MSc degrees. He then completed a PhD in neuroproteomics at the ETH in Zurich Switzerland.

9 783639 262216

978-3-639-26221-6