

Rudi Beyaert



Current Position: Professor of Molecular Biology in the Department of Molecular Biology at Ghent University in Belgium; and Adjunct Director of the Department for Molecular Biomedical Research of the VIB at Ghent University in Belgium

Education: Ph.D. in Biotechnology (1992) from Ghent University in Belgium

Non-scientific Interests: Gardening and horses

I did my Ph.D. on TNF signaling leading to cell death, and I was fortunate to have Walter Fiers, one of the pioneers of TNF research, as my mentor. It is also during this period that I became interested in A20, which was originally identified as a TNF-induced novel protein that could protect cells against TNF cytotoxicity. The presence of seven novel zinc fingers in A20 fascinated me because it suggested that A20 might function as a DNA-binding protein. This hypothesis eventually turned out to be wrong. However, in the meantime, A20 was found to also inhibit TNF-induced NF- κ B activation, which further kept me busy during my postdoctoral training and led to the identification of several A20-binding regulatory proteins.

For more than 10 years, I have led a research group that is currently comprised of 17 enthusiastic people. Our main goal is to unravel the molecular basis of inflammation and autoimmune disease, with a particular interest in NF- κ B activation by pro-inflammatory cytokines and Toll-like receptors. A20 is still one of our pet molecules and we are using several molecular and biochemical approaches to study the mechanisms that regulate its recently identified ubiquitin-editing function. In addition, the physiological role of A20 is further investigated using genetic engineering and different mouse models of autoimmune disease.

Read Dr. Beyaert's article entitled: A20: Central Gatekeeper in Inflammation and Immunity

<http://www.jbc.org/cgi/content/full/284/13/8217>