

Andreas Radbruch, PhD



Andreas Radbruch is Scientific Director of the Deutsches Rheuma-Forschungszentrum Berlin (DRFZ), in Berlin, Germany. He is also Professor of Experimental Rheumatology at the Charité University Hospital, Berlin, Germany. Andreas Radbruch received his PhD (1980) from the University of Cologne and habilitated in Genetics and Immunology (1988) at the University of Cologne. A biologist by education, Andreas Radbruch since 1976 has focussed his scientific work on the immune system, and how it provides immunity or participates in immunopathology. In particular, his work aims at a molecular understanding of the quantitative and qualitative control of immune reactions and the immunological memory, i.e. the regulation of antibody class-switch recombination in B lymphocytes and the cytokine memory of T lymphocytes. The new concept of long-lived plasma cells as the basis of humoral immunity, developed by the group, has drastic consequences for the development of vaccination strategies and for the understanding and treatment of antibody-mediated immunopathology in allergy and autoimmunity. A characteristic component of Andreas Radbruch's work is the use of cytometric technologies. His group developed the high-gradient magnetic cell sorting technology MACS, which is available to the scientific community through the spinoff Miltenyi Biotech Corp. The group has also developed magnetofluorescent liposomes for the cytometric detection of rare molecules of individual cells, and the cytometric secretion assay for the detection of viable cells according to secreted products. Another Biotech spinoff is AMAXA Corp., which is developing technologies for the efficient introduction of nucleic acids into primary eukaryotic cells.