

# **Towards a better understanding of humoral immune responses**

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Serum antibodies play a major role in fighting pathogens. However, if directed against harmless or self-antigens they can also contribute to pathology, e.g. in allergic or inflammatory immune diseases and in autoimmunity. Our long-term goal is to understand the formation and molecular characteristics of protective versus disease associated antibodies in mice and humans. We study the antibody repertoire on a single cell level by antibody cloning and expression. The current focus of our work is on antigen experienced memory B cells and plasma cells that are generated in response to infection or immunization or in patients with autoimmune and immune inflammatory diseases.