



## Project B08 - Humoral Immunity in Multiple Sclerosis

Subcluster: Immune-regulatory networks and disease initiation

**Project Summary:** B cells have a critical role in multiple sclerosis as seen by clinical trials. Their maintenance is largely regulated by the BAFF-APRIL system. B cells affect inflammatory diseases via their immune-regulatory capacity and via antibody production. Some MS patients have antibodies to myelin oligodendrocyte glycoprotein (MOG). Goal of this project is to characterize B-cell regulatory and effector mechanisms in MS. Therefore we

- a) Analyze membrane bound and shed isoforms of the BAFF+APRIL receptor TACI in vivo and in vitro;
- b) Determine regulation of IL-35 production by B cells;
- c) Examine functional features of antibodies to MOG using affinity purified and human recombinant antibodies in myelinating cultures and animal models.

### Principal Investigators:

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