



Biomedicine Seminar

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Local immunotherapy of brain cancer

One of the most successful forms of immunotherapy of melanoma or lung cancer are checkpoint blocking antibodies. Unfortunately, this success is not transferable to glioblastoma, the most common and virtually incurable form of brain cancer: Clinical trials showed little benefit but substantial side effects. In mouse studies we have shown that local inflammation in the glioma tissue induced by application of the body's own messenger molecule Interleukin-12 (IL-12) boosts efficacy of above-described checkpoint blockers and can cure even late stages of disease. Moreover, we recently found out that glioma rejection can also be achieved by applying not only IL-12 but also checkpoint blockers locally. However, when local IL-12 therapy was tested in glioma patients, it leaked into the bloodstream and caused intolerable and thus dose limiting side effects. We have now developed a modified, compartment locked version of IL-12, which remains longer in the brain and is quickly degraded outside of it. These modifications allow more efficacious treatment without systemic footprint.

**Tuesday, Nov. 30, 2021, 12:00 h, seminar room Y23 K52,
Institute of Physiology, UZH Irchel - and by ZOOM:**

<https://uzh.zoom.us/j/65110053450?pwd=RVRBVWZ0cW4wTlIaZnpNR213eFo1dz09>