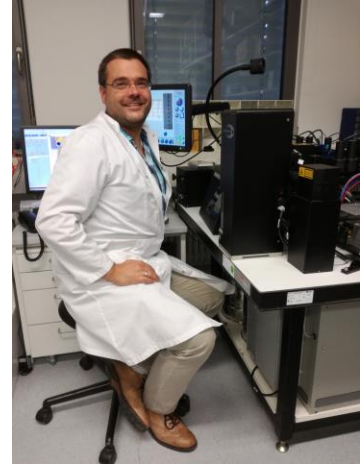


Immanuel Andrä started as Biologist and is now a member of the Flow Cytometry FACS unit CyTUM-MIH at the Institute for Medical Microbiology, Immunology and Hygiene – Technische Universität München. He has been on the faculty at Klinikum rechts der Isar since 2011. His area of interest includes quality control and hardware modifications of commercial available flow cytometric analyzers and cell sorters for special immunological applications. The major focus of his PhD work was to visualize and identify cellular effects as well as cellular responses due to purification, especially by flow cytometry cell sorting. He also investigated the manipulation of cells during sample preparation for purification, and was using new technologies to minimize these effects. These studies were designed to increase our understanding whether the purification of cells manipulates their functionality. This knowledge is of special interest in basic research and adoptive immunotherapy, e.g. T cell mediated immunity in animal single cell transfer experiments and for cell therapy approaches. He also worked on methods to improve FACS drawbacks in rare event cell sorting with special pre-enrichment settings to cell sorter instruments. He recently also co-worked with another group to successfully establish a fluorescence labeled color barcode in *in vivo* single cell transfer experiments.



Relevant Literature:

Cossarizza, A., Chang, H.D., Radbruch, A., Akdis, M., **Andrä, I.,...**, *et al.* (2017). Guidelines for the use of flow cytometry and cell sorting in immunological studies. *European journal of immunology* 47, 1584-1797.

Grassmann, S., Pachmayr L., **Andrä, I., ...**, Buchholz, V., *et al.* (2019). Single-cell fate mapping reveals clonal dynamics of adaptive NK-cell responses. Accepted in *Immunity*.

Andrä, I., Ulrich, H., ..., Schiemann, M., *et al.* (2019). p38 MAPK is activated in T cells after flow cytometry cell sorting. Submitted to *Cytometry A*.