T Cell Diversity: Separating Facts from Fiction

T cell populations are heterogeneous. Modern biomedical techniques allow insights into T cell diversity with unprecedented granularity, elucidating fine differences in cellular phenotypes, metabolic rewiring or receptor clonotype. Such fine-mapping may, on the one hand, question the fidelity of conventional subtypes of T cells. On the other hand, it may be argued that categorization of T cells into coarse, conventional "bins" still proves to be useful and allows for reproducible predictions of basic biological processes or successful immunotherapies. Modern techniques may even be criticized for producing big data that merely self-fulfill prophecies and visualize artificial heterogeneity that is of no functional relevance. In this workshop, leaders in the field of T cell research will report on different flavors of T cell diversity – and thereby try to separate facts from fiction.

Registration
Please register until November 26, 2024, under
https://forms.gle/Y5Dcg8arFfw7rj4b6
Participation is free of charge and open for the general public.

Organization
PD Dr. Kilian Schober is a medical microbiologist and research group leader at the Institute of Microbiology, University Hospital of Erlangen, and a member of the Young Academy of the Bavarian Academy of Sciences since 2022. His lab focuses on the understanding & engineering of human antigen-specific T cell immunity.
badw.de/en/young-academy

Contact
kilian.schober@uk-erlangen.de

Venue
BAVARIAN ACADEMY OF SCIENCES AND HUMANITIES
Alfons-Goppel-Straße 11 (Residence)
80539 Munich
Phone +49 89 23031-0; www.badw.de

BAdW

WORKSHOP
2/12/24

Junges Kolleg

BAYERISCHE
AKADEMIE
DER
WISSENSCHAFTEN

Programme

Session A: T cells as therapeutic agents
Chairs: Michael Hiltensperger (Erlangen) and Isabelle Serr (Munich)

9.00   **Registration and Coffee**

9.05   **Talk 1: CAR-T in cancer and beyond**
FABIAN MÜLLER (Erlangen)

9.30   **Talk 2: Engineering new CAR-T platforms**
ANDREA SCHMIDTS (Munich)

9.55   **Talk 3: Therapeutic vaccination induces T cell responses determining HBV cure**
ULRIKE PROTZER (Munich)

10.20   **Talk 4: New targets and technology for CAR T cells**
MICHAEL HUDECEK (Würzburg)

10.45   **Coffee**

Session B: T cell maintenance during chronic antigen exposure
Chairs: Anna Kosinska (Munich) and Christoph Heuser (Regensburg)

11.10   **Talk 5: CD4+ T cells producing Interleukin-22 as drivers of cancer metastasis**
SEBASTIAN KOBOLD (Munich)

11.35   **Talk 6: Dynamics and turnover of resident and exhausted T cell populations**
DIETMAR ZEHN (Munich)

12.00   **Talk 7: T cell exhaustion and beyond: lessons from chronic viral hepatitis**
MAIKE HOFMANN (Freiburg)

12.25   **Talk 8: Metabolic principles of T cell exhaustion**
MARTIN VAETH (Würzburg)

12.50   **Lunch**

Session C: Determinants of T cell memory
Chairs: Philipp Hackstein (Munich) & Maik Luu (Würzburg)

13.50   **Talk 9: Heterogeneity by T cell receptor polyclonality**
DIRK BUSCH (Munich)

14.15   **Talk 10: Phenotypic and metabolic traits of human antigen-specific T cell memory cells**
KILIAN SCHOBER (Erlangen)

14.40   **Talk 11: Studying the stem-like maintenance of T and NK cell responses to infection and cancer**
VEIT BUCHHOLZ (Munich)

15.05   **Talk 12: T cells and viral epitopes – an evolving relationship**
MAXIMILIAN MÜNCHHOFF (Munich)

15.30   **Talk 13: T memory stem cells in cancer immunotherapy**
LUCA GATTINONI (Regensburg)

15.55   **Coffee**

Session D: Regulatory T cells and T cell lymphoma
Chairs: Adrian Straub (Munich) and Ev-Marie Schuster (Erlangen)

16.20   **Talk 14: Dissecting regulatory T cells in diabetes**
CAROLIN DANIEL (Munich)

16.45   **Talk 15: Understanding regulatory T cells in tissues**
MARKUS FEUERER (Regensburg)

17.10   **Talk 16: T cell responses to CNS autoantigens**
THOMAS KORN (Munich)

17.35   **Talk 17: Heterogeneity in T-cell Lymphoma: Lessons for Immunotherapy**
JÜRGEN RULAND (Munich)

18.00   **Reception**