

**1. General Information****Prof. Dr. rer. nat. Wolfgang Schamel, Date of birth: June 7<sup>th</sup> 1967, male**

W3 Professor for Immunology

Institute of Biology III, Faculty of Biology

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**2. Scientific education**

10/88–09/94 Studies in Biochemistry, Free University Berlin, Berlin

07/93–07/94 Diploma Thesis, Weizmann Institute, Rehovot, Israel

**3. Degrees**

04/10 W3 Professor for Immunology, University of Freiburg

12/06 *Venia legendi* and Habilitation in Molec. Immunology, University of Freiburg

12/99 PhD Thesis, MPI f. Immunobiology/ University of Freiburg, Prof. Dr. M. Reth

09/94 Diploma in Biochemistry

**4. Scientific career**

since 04/10 W3 Professor for Immunology, University of Freiburg

04/08–03/10 Group Leader, MPI for Immunobiology

04/02–03/08 Emmy Noether Group Leader, MPI for Immunobiology (Scholarship by the Swiss National Funds)

04/00–03/02 Postdoctoral Fellow in the group of Prof. Dr. B. Alarcon, Centro de Biología Molecular „Severo Ochoa“, CSIC, Madrid, Spain (Marie Curie Fellowship by EU)

**5. Specific achievements & activities in the scientific community**04/15 Guest editor in *BBA Molecular Cell Research*12/13 Guest editor in *Frontiers in Biosciences*

since 10/11 PI in the Excellence Cluster BIOSS

since 04/10 Executive board member of the Centre for Chronic Immunodeficiency CCI

since 07/09 Editorial board member of *Cell Communication and Signaling*

04/08-09/13 Coordinator of the large integrative EU FP7 project SYBILLA (Systems biology of T-cell activation)

01/07–08/12 Executive board member of the Spemann Graduate School (SGBM)

since 11/06 PI in the Spemann Graduate School (SGBM)

07/05–06/13 Member of the SFB620, Immunodeficiency

Memberships in: German Society of Immunology (DGfI), Signal Transduction Society (STS), Gesellschaft zur Förderung der Immunologie (GEFI)

**6. Honours, awards**

10/16 gold medal of the iGEM competition as an instructor

09/05 STS-Prize of the Signaltransduction Society

04/02–03/08 Emmy Noether Fellowship of the DFG

04/00–03/02 Marie Curie Individual Fellowship of the EU

10/00 Hans Spemann-Prize of the Albert-Ludwigs-University Freiburg

## 7. Ten Important Publications

- Swamy M, Beck-Garcia K, Beck-Garcia E, Hartl FA, Morath A, Yousefi OS, Dopfer EP, Molnar E, Schulze AK, Blanco R, Borroto A, Martin-Blanco N, Alarcon B, Hofer T, Minguet S, Schamel WW (2016) A Cholesterol-Based Allosteric Model of T Cell Receptor Phosphorylation. *Immunity* 44:1091-1101.
- Wang F, Beck-Garcia K, Zorzin C, Schamel WW, Davis MM (2016) Inhibition of T cell receptor signaling by cholesterol sulfate, a naturally occurring derivative of membrane cholesterol. *Nat Immunol* 17:844-850.
- Dufner A, Kisser A, Niendorf S, Basters A, Reissig S, Schonle A, Aichele A, Kurz T, Schlosser A, Yablonski D, Groettrup M, Buch T, Waisman A, Schamel WW, Prinz M, Knobloch KP (2015) The ubiquitin-specific protease USP8 is critical for the development and homeostasis of T cells. *Nat Immunol* 16:950-960.
- Fiala GJ, Janowska I, Prutek F, Hobeika E, Satapathy A, Sprenger A, Plum T, Seidl M, Dengjel J, Reth M, Cesca F, Brummer T, Minguet S, Schamel WW (2015) Kidins220/ARMS binds to the B cell antigen receptor and regulates B cell development and activation. *J Exp Med* 212:1693-1708.
- Dopfer EP, Hartl FA, Oberg HH, Siegers GM, Yousefi OS, Kock S, Fiala GJ, Garcillan B, Sandstrom A, Alarcon B, Regueiro JR, Kabelitz D, Adams EJ, Minguet S, Wesch D, Fisch P, Schamel WW (2014) The CD3 Conformational Change in the gamma/delta T Cell Receptor Is Not Triggered by Antigens but Can Be Enforced to Enhance Tumor Killing. *Cell reports* 7:1704-1715.
- Deswal S, Meyer A, Fiala GJ, Eisenhardt AE, Schmitt LC, Salek M, Brummer T, Acuto O, Schamel WW (2013) Kidins220/ARMS Associates with B-Raf and the TCR, Promoting Sustained Erk Signaling in T Cells. *J Immunol* 190:1927-1935.
- Kumar R, Ferez M, Swamy M, Arechaga I, Rejas MT, Valpuesta JM, Schamel WW, Alarcon B, van Santen HM (2011) Increased Sensitivity of Antigen-Experienced T Cells through the Enrichment of Oligomeric T Cell Receptor Complexes. *Immunity* 35:375-387.
- Minguet S, Swamy M, Alarcon B, Luescher IF, Schamel WW (2007) Full activation of the T cell receptor requires both clustering and conformational changes at CD3. *Immunity* 26:43-54.
- Gil D, Schamel WW, Montoya M, Sanchez-Madrid F, Alarcon B (2002) Recruitment of Nck by CD3 epsilon reveals a ligand-induced conformational change essential for T cell receptor signaling and synapse formation. *Cell* 109:901-912.
- Schamel WW, Reth M (2000) Monomeric and oligomeric complexes of the B cell antigen receptor. *Immunity* 13:5-14.

### Patents

- Alarcón B, Gil D, Schamel WW, Sánchez-Madrid F und Montoya M. Nueva estrategia moduladora de la activación de los linfocitos T basada en la regulación de la interacción CD3ε-Nck. Spanish Patent No. 200200157, January 24, 2002.
- Schamel WW und Reth M. Generelle Proteindetektion mittels Biotinilierung im Gel und anschließendem Western Blotting. German Patent No. 19913940.7. The German Patent and Trademark Office, March 20, 1999.