

Prof. Sebastian Zeissig, MD

1 | General information

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Current position: Associated Professor of Molecular Gastroenterology (W2), Medical Department I, University Hospital Carl Gustav Carus and Center for Regenerative Therapies Dresden (CRTD)

Researcher unique identifier(s): ORCID-ID: 0000-0001-5124-0897, Researcher ID B-6297-2012

2 | Academic education

1998 – 2004 Medical School, Charité Berlin, Campus Benjamin Franklin, Berlin

3 | Advanced academic qualifications:

2005 MD thesis, Gastroenterology, “*Crohn’s disease: Mechanisms of epithelial barrier*”, Charité, Berlin (Supervisor: Jörg-Dieter Schulzke)

4 | Postgraduate professional career:

Since 2015 Associate Professor (W2) and Consultant Gastroenterologist, Department of Medicine I, University Medical Center Dresden, Technical University Dresden

2012 Assistant Professor (W1), Christian-Albrechts-University Kiel, Kiel

2010 – 2015 Research Group Leader and Trainee in Internal Medicine and Gastroenterology, Department of Internal Medicine I, University Medical Center Schleswig-Holstein Kiel, Kiel

2006 – 2010 Postdoctoral Fellow, Gastroenterology Division, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, USA

2005 – 2006 Postdoctoral Fellow, Department of Gastroenterology, Charité, Campus Benjamin Franklin, Berlin

2004 – 2005 DFG Research Training Group 276/3, Department of Gastroenterology, Charité Berlin

2004 German physician license (Approbation)

5 | Other:

Awards/Honors

- Frerichs Award, German Society for Internal Medicine (2017)
- Thannhauser Award, German Society for Gastroenterology (2015)
- Friedmund Neumann Award, Schering Foundation (2013)
- Hensel Award, Hensel Foundation (2012)
- Rising Stars Award 2011, United European Gastroenterology (UEG) (2011)
- Research Fellowship Award, Crohn’s & Colitis Foundation of America, Brigham and Women’s Hospital, Harvard Medical School, Boston, USA (2008 – 2009)
- Research Fellowship, German Research Foundation (DFG), Prof. Dr. R. S. Blumberg, Brigham and Women’s Hospital, Harvard Medical School, Boston, USA (2006 – 2008)

6 | Selected publications:

1. Peuker K, Strigli A, Tauriello DVF, Hendricks A, von Schönfels W, Burmeister G, Brosch M, Herrmann A, Krüger S, Nitsche J, Južnić L, Geissler MM, Hiergeist A, Gessner A, Wirbel J, Ponnudurai RP, Tunger A,

- Wehner R, Stange DE, Weitz J, Aust DE, Baretton GB, Schmitz M, Röcken C, Hampe J, Hinz S, Zeller G, Chavakis T, Schafmayer C, Batlle E, **Zeissig S**. Microbiota-dependent activation of the myeloid calcineurin-NFAT pathway inhibits B7H3- and B7H4-dependent anti-tumor immunity in colorectal cancer. **Immunity** 2022; accepted
2. Strigli A, Gopalakrishnan S, Zeissig Y, Basic M, Wang J, Schwerd T, Doms S, Peuker K, Hartwig J, Harder J, Hönscheid P, Arnold P, Kurth T, Rost F, Petersen BS, Forster M, Franke A, Kelsen JR, Rohlf M, Klein C, Muise AM, Warner N, Nambu R, Mayerle J, Török HP, Linkermann A, Muders MH, Baretton GB, Hampe J, Aust DE, Baines JF, Bleich A, **Zeissig S**. Deficiency in X-linked inhibitor of apoptosis protein promotes susceptibility to microbial triggers of intestinal inflammation. **Sci Immunol** 2021; 6(65):eabf7473
 3. Južnić L, Peuker K, Strigli A, Brosch M, Herrmann A, Häsler R, Koch M, Matthiesen L, Zeissig Y, Löscher BS, Nuber A, Schotta G, Neumeister V, Chavakis T, Kurth T, Lesche M, Dahl A, von Mässenhausen A, Linkermann A, Schreiber S, Aden K, Rosenstiel P, Franke A, Hampe J, **Zeissig S**. SETDB1 is required for intestinal epithelial differentiation and the prevention of intestinal inflammation. **Gut** 2021; 70(3):485-498
 4. Melum E, Jiang X, Baker KD, Macedo MF, Fritsch J, Dowds CM, Wang J, Pharo A, Kaser A, Tan C, Pereira CS, Kelly SL, Duan J, Karlsen TH, Exley MA, Schütze S, Zajonc DM, Merrill AH, Schuchman EH, **Zeissig S***, Blumberg RS*. Control of CD1d-restricted antigen presentation and inflammation by sphingomyelin. **Nat Immunol** 2019; 20(12):1644-1655
 5. Brosch M, Kattler K, Herrmann A, von Schönfels W, Nordström K, Seehofer D, Damm G, Becker T, **Zeissig S**, Nehring S, Reichel F, Moser V, Thangapandi RV, Stickel F, Baretton G, Röcken C, Muders M, Matz-Soja M, Krawczak M, Gasparoni G, Hartmann H, Dahl A, Schafmayer C, Walter J, Hampe J. Epigenomic map of human liver reveals principles of zoned morphogenic and metabolic control. **Nat Commun** 2018; 9(1):4150
 6. **Zeissig S**, Peuker K, Iyer S, Gensollen T, Dougan SK, Olszak T, Kaser A, Blumberg RS. CD1d-Restricted pathways in hepatocytes control local natural killer T cell homeostasis and hepatic inflammation. **Proc Natl Acad Sci U S A** 2017; 114(39):10449-10454
 7. Peuker K, Muff S, Wang J, Künzel S, Bosse E, Zeissig Y, Luzzi G, Basic M, Strigli A, Ulbricht A, Kaser A, Arlt A, Chavakis T, van den Brink GR, Schafmayer C, Egberts JH, Becker T, Bianchi ME, Bleich A, Röcken C, Hampe J, Schreiber S, Baines JF, Blumberg RS, **Zeissig S**. Epithelial calcineurin controls microbiota-dependent intestinal tumor development. **Nat Med** 2016; 22(5):506-15
 8. Zeissig Y, Petersen, BS, Milutinovic S, Bosse E, Mayr G, Peuker K, Keller A, Kohl M, Laass M, Billmann-Born S, Brandau H, Feller AC, Röcken C, Schrappe M, Rosenstiel P, Reed JC, Schreiber S, Franke A, **Zeissig S**. XIAP variants associated with NOD1/2 dysfunction in pediatric-onset Crohn's disease. **Gut** 2015; 64(1):66-76
 9. Olszak T, Neves JF, Dowds CM, Baker K, Glickman J, Davidson NO, Lin CS, Jobin C, Brand S, Sotlar K, Wada K, Katayama K, Nakajima A, Mizuguchi H, Kawasaki K, Nagata K, Müller W, Snapper SB, Schreiber S, Kaser A, **Zeissig S***, Blumberg RS*. Protective mucosal immunity mediated by epithelial CD1d and IL-10. **Nature** 2014; 509(7501):497-502
 10. **Zeissig S**, Murata M, Sweet L, Publicover J, Hu Z, Kaser A, Bosse E, Iqbal J, Hussain MM, Balschun K, Röcken C, Arlt A, Günther R, Hampe J, Schreiber S, Baron JL, Moody DB, Liang JT, Blumberg RS. Hepatitis B virus-induced alterations in hepatocyte CD1d lipid antigens activate natural killer T cells and contribute to protective immunity. **Nat Med** 2012; 18(7):1060-8

*contributed equally