Curriculum Vitae

Tobias Volker Lanz, MD

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SUMMARY

Assistant Professor of Medicine at Stanford University. Immunologist with medical training and research expertise in neurology, rheumatology and translational immunology. Scientific focus on fundamental mechanisms underlying autoimmune and neuroimmunological diseases. Interested in B cell biology, autoantigen discovery, biophysical properties of antigen-antibody interactions, and viral triggers of autoimmunity. Expertise in adaptive immunology, B-lymphocytes, antibodies, immune repertoires, in-vivo disease models, single cell sequencing, proteomics, and structural biology.

EDUCATION AND DISSERTATION

Eberhard-Karls Universität Tübingen, Germany
Medical School 05/2003 – 06/2010
USMLE Step 1 03/2015
Medical License (Germany) 06/2010

Hertie Institute for Clinical Brain Research Tübingen, Germany
Medical Dissertation 03/2011

- Subject: “Mouse Mesenchymal Stem Cells Suppress Antigen-Specific Th-Cell Immunity Independent of Indoleamine 2,3-Dioxygenase 1 (IDO1)”
- Supervisor: Prof. Dr. Michael Platten
- Grade: Summa cum laude

CLINICAL TRAINING

Ruprecht-Karls Universität Heidelberg, Germany
Resident, Department of Neurology 10/2010 – 01/2015

- Clinical focus: neuroimmunology, neuro-oncology, stroke

University College London (Queen Square) and Eberhard-Karls Universität London, UK
Practical Year and Tübingen, Germany

- Electives: internal medicine, surgery, neurology 02/2009 – 01/2010

RESEARCH EXPERIENCE

Stanford University Stanford, USA

Assistant Professor, Institute for Immunity, Transplantation, and Infection and Division of Immunology and Rheumatology, Department of Medicine 03/2023 – present

Instructor, Division of Immunology and Rheumatology, Department of Medicine 05/2022 – 02/2023

Academic Research Scientist, Division of Immunology and Rheumatology, Department of Medicine, and Palo Alto Veterans Institute for Research (PAVIR), and the Geriatric Research, Education, and Clinical Center (GRECC), VA Palo Alto 01/2020 – 05/2022

Postdoctoral Fellow, Division of Immunology and Rheumatology, Department of Medicine, and Palo Alto Veterans Institute for Research (PAVIR), and the Geriatric Research, Education, and Clinical Center (GRECC), VA Palo Alto 04/2015 – 01/2020

- Clonally Expanded B Cells in Multiple Sclerosis Bind EBV EBNA1 and GlialCAM. (Lanz et al., *Nature*, 2022)
- Divergent anti-EBV antibody responses in systemic lupus erythematosus (SLE), Sjögren’s disease, and rheumatoid arthritis (RA)
- RA plasmablast-encoded anti-citrullinated protein antibodies bind the molecular mimicry ‘hotspot’ region in EBV EBNA1, suggesting EBV molecular mimicry contributes to RA pathogenesis

- BNT162b2 vaccine induces divergent B cell responses to SARS-CoV-2 S1 and S2 (Brewer, … and Lanz, *Nat Immunol, 2021*)
- Limited Neutralization of Omicron by Antibodies from the BNT162b2 Vaccination against SARS-CoV-2 (Lanz et al., *ResearchSquare* 2022, *under review* at *Scientific Reports*)
- Immunomodulatory receptors are differentially expressed in B and T cell subsets relevant to the autoimmune diseases RA, SLE, and MS. (Murphy, … and Lanz, *Clin Immunol*, 2019)

German Cancer Research Center (DKFZ) Heidelberg, Germany

Postdoctoral Fellow, Clinical Cooperation Unit Neuroimmunology and Brain Tumor Immunology 10/2010 – 01/2015

- Immunosuppressive and neuroprotective effects of tryptophan metabolism in mouse models of neuroinflammation (Lanz et al., *Sci Rep*, 2017; Lanz et al., *Amino Acids*, 2017)
- Impact of the aryl hydrocarbon receptor (AhR) on metabolism and toxicity of Teriflunomide (Redaelli and Lanz et al., *Biochem Pharmacol*, 2015)
- Inhibition of protein kinase C-β stabilizes the blood-brain barrier in a mouse model of MS (Lanz et al., *PNAS*, 2013)

Stanford University Stanford, USA

Research Scholar, Department of Neurology 10/2007 – 07/2008

- Angiotensin II sustains brain inflammation in mice via TGF-β (Lanz et al., *J Clin Invest*, 2010)

ADVANCED EDUCATION

SLAC National Accelerator Laboratory Stanford, USA

Rapidata 2019 05/2019

- Intensive course in X-ray crystallography and structural biology

Stanford Graduate School of Business Stanford, USA

Stanford Ignite 01/2017 – 03/2017

- Intensive course for business and entrepreneurship

SCHOLARSHIP AND AWARDS

- Postdoctoral Mentorship Award from the Immunology Program at Stanford for excellence in supervising and teaching of PhD students 2017
- Oppenheim Award for Multiple Sclerosis Research 2017
- Postdoc Scholarship by the German Research Foundation (DFG) 2015 – 2017
- Postdoc Scholarship of the Medical Faculty Heidelberg 2010 – 2012
- Carl-Liebermeister Award from the Eberhard-Karls Universität Tübingen for an outstanding medical doctoral thesis 2011
- German National Academic Foundation (Studienstiftung des Deutschen Volkes) 2007 – 2010
- Scholarship from the Interdisciplinary Center of Clinical Research (IZKF), Tübingen 2006 – 2007
- IZKF Poster Award 2007

SCIENTIFIC PUBLICATIONS

Full Publication List: https://www.ncbi.nlm.nih.gov/myncbi/tobias.lanz.1/bibliography/public/

A. Peer-reviewed journal articles (original research)

1. Brewer RC, **Lanz TV,** Hale CR, Sepich-Poore GD, Martino C, Swafford AD, Carroll TS, Kongpachith S, Blum LK, Elliott SE, Blachere NE, Parveen S, Fak J, Yao V, Troyanskaya O, Frank MO, Bloom MS, Jahanbani S, Gomez AM, Iyer R, Ramadoss NS, Sharpe O, Chandrasekaran S, Kelmenson LB, Wang Q, Wong H, Torres HL, Wiesen M, Graves DT, Deane KD, Holers VM, Knight R, Darnell RB, Robinson WH, Orange DE. Oral mucosal breaks trigger anti-citrullinated bacterial and human protein antibody responses in rheumatoid arthritis. *Sci Transl Med.* 2023 Feb 22;15(684):eabq8476. doi: 10.1126/scitranslmed.abq8476. Epub 2023 Feb 22. PMID: 36812347.

2. Abu Hejleh AP, Huck K, Jähne K, Tan CL, **Lanz TV,** Epping L, Sonner JK, Meuth SG, Henneberg A, Opitz CA, Herold-Mende C, Sahm F, Platten M, Sahm K. Endothelial Indoleamine-2,3-Dioxygenase-1 is not Critically Involved in Regulating Antitumor Immunity in the Central Nervous System. *Int J Tryptophan Res.* 2023;16:11786469231153111. doi: 10.1177/11786469231153111. eCollection 2023. PMID: 36798537; PMCID: PMC9926378.
3. Zhao X, Younis S, Shi H, Hu S, Zia A, Wong HH, Elliott EE, Chang T, Bloom MS, Zhang W, Liu X, **Lanz TV,** Sharpe O, Love ZZ, Wang Q, Robinson WH. RNA-seq characterization of histamine-releasing mast cells as potential therapeutic target of osteoarthritis. *Clin Immunol.* 2022 Nov;244:109117. doi: 10.1016/j.clim.2022.109117. Epub 2022 Sep 13. PMID: 36109004.
4. Chunder R, Weier A, Mäurer H, Luber N, Enders M, Luber G, Heider T, Spitzer A, Tacke S, Becker-Gotot J, Kurts C, Iyer R, Ho PP, Robinson WH, **Lanz TV,** Kuerten S. Antibody cross-reactivity between casein and myelin-associated glycoprotein results in nervous system demyelination. *Proc Natl Acad Sci U S A.* 2022 Mar 8;119(10):e2117034119. doi: 10.1073/pnas.2117034119. Epub 2022 Mar 2. PMID: 35235454; PMCID: PMC8916005.
5. **Lanz TV,** Brewer RC, Ho PP, Moon JS, Jude KM, Fernandez D, Fernandes RA, Gomez AM, Nadj GS, Bartley CM, Schubert RD, Hawes IA, Vazquez SE, Iyer M, Zuchero JB, Teegen B, Dunn JE, Lock CB, Kipp LB, Cotham VC, Ueberheide BM, Aftab BT, Anderson MS, DeRisi JL, Wilson MR, Bashford-Rogers RJM, Platten M, Garcia KC, Steinman L, Robinson WH. Clonally expanded B cells in multiple sclerosis bind EBV EBNA1 and GlialCAM. *Nature.* 2022 Mar;603(7900):321-327. doi: 10.1038/s41586-022-04432-7. Epub 2022 Jan 24. PMID: 35073561; PMCID: PMC9382663.
6. Jarrell JA, Baker MC, Perugino CA, Liu H, Bloom MS, Maehara T, Wong HH, **Lanz TV,** Adamska JZ, Kongpachith S, Sokolove J, Stone JH, Pillai SS, Robinson WH. Neutralizing anti-IL-1 receptor antagonist autoantibodies induce inflammatory and fibrotic mediators in IgG4-related disease. *J Allergy Clin Immunol.* 2022 Jan;149(1):358-368. doi: 10.1016/j.jaci.2021.05.002. Epub 2021 May 8. PMID: 33974929; PMCID: PMC8573062.
7. Brewer RC, Ramadoss NS, Lahey LJ, Jahanbani S, Robinson WH[#], **Lanz TV[#].** BNT162b2 vaccine induces divergent B cell responses to SARS-CoV-2 S1 and S2. *Nat Immunol.* 2022 Jan;23(1):33-39. doi: 10.1038/s41590-021-01088-9. Epub 2021 Nov 30. PMID: 34848871; PMCID: PMC8776031.
[#]*equal contribution.*
8. Mohapatra SR, Sadik A, Sharma S, Poschet G, Gegner HM, **Lanz TV,** Lucarelli P, Klingmüller U, Platten M, Heiland I, Opitz CA. Hypoxia Routes Tryptophan Homeostasis Towards Increased Tryptamine Production. *Front Immunol.* 2021;12:590532. doi: 10.3389/fimmu.2021.590532. eCollection 2021. PMID: 33679737; PMCID: PMC7933006.
9. Bhamidipati K, Silberstein JL, Chaichian Y, Baker MC, **Lanz TV,** Zia A, Rasheed YS, Cochran JR, Robinson WH. CD52 Is Elevated on B cells of SLE Patients and Regulates B Cell Function. *Front Immunol.* 2020;11:626820. doi: 10.3389/fimmu.2020.626820. eCollection 2020. PMID: 33658999; PMCID: PMC7917337.
10. Lercher A, Popa AM, Viczenczova C, Kosack L, Klavins K, Agerer B, Opitz CA, **Lanz TV,** Platten M, Bergthaler A. Hepatocyte-intrinsic type I interferon signaling reprograms metabolism and reveals a novel compensatory mechanism of the tryptophan-kynurenine pathway in viral hepatitis. *PLoS Pathog.* 2020 Oct;16(10):e1008973. doi: 10.1371/journal.ppat.1008973. eCollection 2020 Oct. PMID: 33045014; PMCID: PMC7580883.
11. Kuerten S[#], **Lanz TV[#],** Lingampalli N, Lahey LJ, Kleinschnitz C, Mäurer M, Schroeter M, Braune S, Ziemssen T, Ho PP, Robinson WH, Steinman L. Autoantibodies against central nervous system antigens in a subset of B cell-dominant multiple sclerosis patients. *Proc Natl Acad Sci U S A.* 2020 Sep 1;117(35):21512-21518. doi: 10.1073/pnas.2011249117. Epub 2020 Aug 18. PMID: 32817492; PMCID: PMC7474673.
[#]*equal contribution.*
12. Murphy KA, Bhamidipati K, Rubin SJS, Kipp L, Robinson WH[#], **Lanz TV[#].** Immunomodulatory receptors are differentially expressed in B and T cell subsets relevant to autoimmune disease. *Clin Immunol.* 2019 Dec;209:108276. doi: 10.1016/j.clim.2019.108276. Epub 2019 Oct 25. PMID: 31669582.
[#]*equal contribution.*
13. Sonner JK, Keil M, Falk-Paulsen M, Mishra N, Rehman A, Kramer M, Deumelandt K, Röwe J, Sanghvi K, Wolf L, von Landenberg A, Wolff H, Bharti R, Oezen I, **Lanz TV*,** Wanke F, Tang Y, Brandao I, Mohapatra SR, Epping L, Grill A, Röth R, Niesler B, Meuth SG, Opitz CA, Okun JG, Reinhardt C, Kurschus FC, Wick W, Bode HB, Rosenstiel P, Platten M. Dietary tryptophan links

encephalogenicity of autoreactive T cells with gut microbial ecology. *Nat Commun.* 2019 Oct 25;10(1):4877. doi: 10.1038/s41467-019-12776-4. PMID: 31653831; PMCID: PMC6814758.

14. **Lanz TV,** Becker S, Mohapatra SR, Opitz CA, Wick W, Platten M. Suppression of Th1 differentiation by tryptophan supplementation in vivo. *Amino Acids.* 2017 Jul;49(7):1169-1175. doi: 10.1007/s00726-017-2415-4. Epub 2017 Apr 18. PMID: 28421297.
15. **Lanz TV,** Williams SK, Stojic A, Iwantscheff S, Sonner JK, Grabitz C, Becker S, Böhler LI, Mohapatra SR, Sahm F, Küblbeck G, Nakamura T, Funakoshi H, Opitz CA, Wick W, Diem R, Platten M. Tryptophan-2,3-Dioxygenase (TDO) deficiency is associated with subclinical neuroprotection in a mouse model of multiple sclerosis. *Sci Rep.* 2017 Jan 24;7:41271. doi: 10.1038/srep41271. PMID: 28117398; PMCID: PMC5259766.
16. Keil M, Sonner JK, **Lanz TV,** Oezen I, Bunse T, Bittner S, Meyer HV, Meuth SG, Wick W, Platten M. General control non-derepressible 2 (GCN2) in T cells controls disease progression of autoimmune neuroinflammation. *J Neuroimmunol.* 2016 Aug 15;297:117-26. doi: 10.1016/j.jneuroim.2016.05.014. Epub 2016 May 20. PMID: 27397084.
17. Pilz C, Feyerabend T, Sonner J, Redaelli C, Peter K, Kunze A, Haas K, Esser C, Schäkel K, Wick W, Rodewald HR, **Lanz TV,** Platten M. Normal mast cell numbers in the tissues of AhR-deficient mice. *Exp Dermatol.* 2016 Jan;25(1):62-3. doi: 10.1111/exd.12864. Epub 2015 Nov 23. PMID: 26443189.
18. Redaelli C, Gaffarogullari EC, Brune M, Pilz C, Becker S, Sonner J, Jäschke A, Gröne HJ, Wick W, Platten M, **Lanz TV.** Toxicity of teriflunomide in aryl hydrocarbon receptor deficient mice. *Biochem Pharmacol.* 2015 Dec 1;98(3):484-92. doi: 10.1016/j.bcp.2015.08.111. Epub 2015 Sep 2. PMID: 26341389.
19. Bessede A, Gargaro M, Pallotta MT, Matino D, Servillo G, Brunacci C, Bicciato S, Mazza EM, Macchiarulo A, Vacca C, Iannitti R, Tissi L, Volpi C, Belladonna ML, Orabona C, Bianchi R, **Lanz TV,** Platten M, Della Fazia MA, Piobbico D, Zelante T, Funakoshi H, Nakamura T, Gilot D, Denison MS, Guillemin GJ, DuHadaway JB, Prendergast GC, Metz R, Geffard M, Boon L, Pirro M, Iorio A, Veyret B, Romani L, Grohmann U, Fallarino F, Puccetti P. Aryl hydrocarbon receptor control of a disease tolerance defence pathway. *Nature.* 2014 Jul 10;511(7508):184-90. doi: 10.1038/nature13323. PMID: 24930766; PMCID: PMC4098076.
20. Ochs K, Sahm F, Opitz CA, **Lanz TV,** Oezen I, Couraud PO, von Deimling A, Wick W, Platten M. Immature mesenchymal stem cell-like pericytes as mediators of immunosuppression in human malignant glioma. *J Neuroimmunol.* 2013 Dec 15;265(1-2):106-16. doi: 10.1016/j.jneuroim.2013.09.011. Epub 2013 Sep 20. PMID: 24090655.
21. **Lanz TV,** Becker S, Osswald M, Bittner S, Schuhmann MK, Opitz CA, Gaikwad S, Wiestler B, Litzenburger UM, Sahm F, Ott M, Iwantscheff S, Grabitz C, Mittelbronn M, von Deimling A, Winkler F, Meuth SG, Wick W, Platten M. Protein kinase Cβ as a therapeutic target stabilizing blood-brain barrier disruption in experimental autoimmune encephalomyelitis. *Proc Natl Acad Sci U S A.* 2013 Sep 3;110(36):14735-40. doi: 10.1073/pnas.1302569110. Epub 2013 Aug 19. PMID: 23959874; PMCID: PMC3767524.
22. **Lanz TV[#],** Ding Z[#], Ho PP[#], Luo J, Agrawal AN, Srinagesh H, Axtell R, Zhang H, Platten M, Wyss-Coray T, Steinman L. Angiotensin II sustains brain inflammation in mice via TGF-beta. *J Clin Invest.* 2010 Aug;120(8):2782-94. doi: 10.1172/JCI41709. Epub 2010 Jul 12. PMID: 20628203; PMCID: PMC2912186.
[#]*equal contribution.*
23. **Lanz TV,** Opitz CA, Ho PP, Agrawal A, Lutz C, Weller M, Mellor AL, Steinman L, Wick W, Platten M. Mouse mesenchymal stem cells suppress antigen-specific TH cell immunity independent of indoleamine 2,3-dioxygenase 1 (IDO1). *Stem Cells Dev.* 2010 May;19(5):657-68. doi: 10.1089/scd.2009.0385. PMID: 19886804; PMCID: PMC3377946.
24. Platten M, Youssef S, Hur EM, Ho PP, Han MH, **Lanz TV,** Phillips LK, Goldstein MJ, Bhat R, Raine CS, Sobel RA, Steinman L. Blocking angiotensin-converting enzyme induces potent regulatory T cells and modulates TH1- and TH17-mediated autoimmunity. *Proc Natl Acad Sci U S A.* 2009 Sep 1;106(35):14948-53. doi: 10.1073/pnas.0903958106. Epub 2009 Aug 19. PMID: 19706421; PMCID: PMC2736463.
25. Opitz CA, Litzenburger UM, Lutz C, **Lanz TV,** Tritschler I, Köppel A, Tolosa E, Hoberg M, Anderl J, Aicher WK, Weller M, Wick W, Platten M. Toll-like receptor engagement enhances the immunosuppressive properties of human bone marrow-derived mesenchymal stem cells by inducing indoleamine-2,3-dioxygenase-1 via interferon-beta and protein kinase R. *Stem Cells.* 2009 Apr;27(4):909-19. doi: 10.1002/stem.7. PMID: 19353519.

B. Pre-prints

1. **Lanz TV,** Brewer RC, Jahanbani S, Robinson WH. Limited Neutralization of Omicron by Antibodies from the BNT162b2 Vaccination against SARS-CoV-2. *Res Sq.* 2022 Apr 14;. doi: 10.21203/rs.3.rs-1518378/v1. PMID: 35441169; PMCID: PMC9016652.

C. Reviews and Editorials

1. **Lanz TV,** Robinson WH, Ho PP, Steinman L. Roadmap for understanding mechanisms on how Epstein-Barr virus triggers multiple sclerosis and for translating these discoveries in clinical trials. *Clin Transl Immunology.* 2023;12(2):e1438. doi: 10.1002/cti2.1438. eCollection 2023. Review. PMID: 36815946; PMCID: PMC9933111.
2. Brewer RC, Robinson WH, **Lanz TV.** SARS-CoV-2 infection of monocytes: balancing acts of antibodies and inflammasomes. *Signal Transduct Target Ther.* 2022 Jul 23;7(1):250. doi: 10.1038/s41392-022-01112-w. PMID: 35871170; PMCID: PMC9308028.
3. Platten M, **Lanz T,** Bendszus M, Diem R. [Clinically isolated syndrome]. *Nervenarzt.* 2013 Oct;84(10):1247-59. doi: 10.1007/s00115-013-3845-1. PMID: 24081277.
4. **Lanz TV,** Pröbstel AK, Mildenberger I, Platten M, Schirmer L. Single-Cell High-Throughput Technologies in Cerebrospinal Fluid Research and Diagnostics. *Front Immunol.* 2019;10:1302. doi: 10.3389/fimmu.2019.01302. eCollection 2019. PMID: 31244848; PMCID: PMC6579921.

FUNDING

Current awarded grants

Stanford University Stanford, CA, USA

Title: Deciphering the Role of EBV Molecular Mimicry and B cell Transformation in MS 01/23 – 12/27

Project goals: Aims 1-3 investigate the impact of B cell transformation by EBV infection by single-cell B cell sequencing, by investigating the antigen-specificity of EBV+ B cells, and by investigating antigen presentation of EBV+ B cells. Aim 4 uses Luminex for analysis of anti-EBNA1 and anti-GlialCAM antibodies in sera from large cohorts (>20,000 patients) of MS and comparator patients, to determine the association of anti-GlialCAM and anti-EBNA1 antibodies with (i) the onset of MS, (ii) clinical features of MS, and (iii) the HLA and whole genome genotype of patients.

Principal investigators: Tobias Lanz and William Robinson (Co-PIs)

Funding mechanism: National Institutes of Health (NIAID) R01

Title: Structural Characterization of Autoantibodies against Proteolipid Protein (PLP) 03/23 – 02/24

Project goals: Aims 1 and 3 investigate the structure of Proteolipid Protein (PLP) using Cryo-EM and develop tools to screen large MS patient cohorts for serum antibody reactivity against PLP.

Principal investigator: Tobias Lanz

Funding mechanism: Stanford Chem-H Institute

Pending grants

Stanford University Stanford, CA, USA

Title: EBV-Mediated B Cell Activation in Systemic Lupus Erythematosus and Sjögren's Syndrome 10/2023 – 09/2027

Project goals: To understand how Epstein Barr Virus (EBV) contributes to the pathogenesis of La-positive systemic lupus erythematosus (SLE) with secondary Sjögren's Syndrome. To decipher the role of EBER1 RNA in complex with La-antigen and its effect on B cell activation, T cell stimulation, and autoantibody secretion.

Principal investigators: Tobias Lanz and William Robinson (Co-PIs)

Funding mechanism: National Institutes of Health (NIAID) R01

Title: Analyzing EBV Genomes and Epigenomes and EBV-Dependent B cell Proteomes to Identify Fundamental Viral Triggers of MS 07/2023 – 06/2026

Project goals: To sequence EBV genomes and epigenomes from MS patients and healthy individuals to determine characteristic differences that correlate with disease. To connect the genetic and

epigenetic information with gene expression patterns observed in B cells of MS patients and healthy individuals.

Principal investigators: Tobias Lanz and William Robinson (Co-PIs)

Funding mechanism: US Department of Defense MSRP FY23

Past awarded grants

German Cancer Research Center (DKFZ) Heidelberg, Germany

Bayer-ISS-Platten-2010-1, Bayer HealthCare 1/1/2009 – 1/1/2010

Title: IFN-β-mediated tryptophan catabolism as a therapeutic target in multiple sclerosis

Major goals: To elucidate the mechanism of action for IFN-β efficacy in MS therapy.

Principal investigators: Tobias Lanz and Michael Platten

SFV, Novartis Pharma GmbH 1/1/2013 – 12/31/2013

Title: TGF-beta dependent expression of tryptophan-2,3-dioxygenase (TDO) in the CNS is an important neurogenic factor suppressing the immune response in multiple sclerosis

Major goals: To understand the role of brain TDO2 expression on the immune response in MS.

Principal investigators: Tobias Lanz and Michael Platten

Oppenheim Award, Novartis Pharma GmbH 1/1/2018 – 12/31/2018

Title: Lipid-specific autoantibodies in multiple sclerosis

Major goals: To utilize B cell repertoire sequencing and lipidomics to identify novel pathogenic lipid autoantigens in MS patients.

Principal investigator: Tobias Lanz

PATENTS

Stanford University Stanford, USA

Targeted Reduction of Activated Immune Cells 2020
(provisional application # US 63/008,423)

Diagnostics and Therapeutics for EBV in MS and other Autoimmune Diseases Stanford, USA
(provisional application # US 63/131,581) 2021

EDITORIAL SERVICE

Review Editor 01/2022 – present

Frontiers in Immunology

Peer Reviewer

Biochemical Pharmacology, BMC Neurology, Frontiers in Immunology, Frontiers in Neurology, GLIA, International Journal of Molecular Sciences, Journal of Clinical Medicine, Multiple Sclerosis and Related Disorders, Nature Immunology, Nature Communications, PLOS One, Signal Transduction and Targeted Therapy

SCIENTIFIC SOCIETIES

The American Association of Immunologists (AAI)	2023 – present
American Association for the Advancement of Science (AAAS)	2019 – present
The Antibody Society	2018 – present
Federation of Clinical Immunology Societies (FOCIS)	2016 – present
International Society of Neuroimmunology (ISNI)	2015 – present
German Neurological Society (DGN)	2010 – present

SELECTED SCIENTIFIC PRESENTATIONS

The Third ITI Human Immune Monitoring Technology and Bioinformatics Conference — Stanford, USA, 03/2023
The B Cell Repertoire in Multiple Sclerosis Reveals Molecular Mimicry between EBV EBNA1 and GlialCAM

Midwinter Immunology Conference — Asilomar, USA
Viral Triggers of Autoimmunity: EBV in Multiple Sclerosis — 01/2023

The 51st Annual Meeting of the Japanese Society of Immunology — Kumamoto, Japan
Single-cell Sequencing of the B Cell Transcriptome and Repertoire Reveals Divergent Vaccine Responses to SARS-CoV-2 S1 and S2 — 12/2022

European Conference on Neuroinflammation (ECN) — London, UK
Epstein Barr virus (EBV) as an environmental risk factor for MS — 05/2022

Stanford Autoimmune and Allergy Supergroup Conference — Stanford, USA
The B cell repertoire in multiple sclerosis reveals molecular mimicry between EBV EBNA1 and GlialCAM — 05/2022

Stanford Immunology Scientific Conference — Asilomar, USA
Clonally Expanded B Cells in Multiple Sclerosis Bind EBV EBNA1 and GlialCAM — 11/2021

Research Day MS — Berlin, Germany
Lipid-specific antibodies in multiple sclerosis — 01/2018

Stanford Immunology Scientific Conference — Asilomar, USA
The antibody repertoire in multiple sclerosis — 11/2017

Forschungswerkstatt MS — Cologne, Germany
Indolamin-2,3-dioxygenase (IDO) – a mediator of IFN-β in experimental autoimmune encephalomyelitis? — 05/2014

Neurowind e.V. Annual Conference — Motzen, Germany
Endothelial protein kinase C-β as a therapeutic target stabilizing blood brain barrier disruption in experimental autoimmune encephalomyelitis — 10/2013

European Committee for Treatment and Research in MS (ECTRIMS) — Copenhagen, Denmark
Protein kinase C-β as a therapeutic target stabilizing blood-brain barrier disruption in experimental autoimmune encephalomyelitis — 12/2013

10th Conference of the Working Group Neuroimmunology — Seeon, Germany
Indolamin-2,3-Dioxygenase (IDO) mediates the therapeutic effect of IFN-β in EAE — 02/2012