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Appointments & Affiliations

2021–
2021– **Assistant Professor** of Biology, and Anatomy & Neurobiology, Boston University, Boston, MA, USA
Faculty, Center for Systems Neuroscience, Graduate Program in Neuroscience, Graduate Program in Molecular Biology, Cell Biology & Biochemistry, Boston University
2020–2021 **Associated Expert**, DFG Research Training Group MeInBio-BioInMe (GRK 2344)
2019–2020 **FRIAS Junior Fellow**, Freiburg Institute for Advanced Studies, University of Freiburg
2019–2021 **Klaus Tschira Boost Fund Fellow**, German Scholars Organisation e. V., Berlin, Germany
2019–2021 **Group Leader**, Faculty of Biology (Bioinformatics & Molecular Genetics), University of Freiburg
2018–2021 **Principal Investigator**, Cluster of Excellence BrainLinks-BrainTools, University of Freiburg
2018– **Habilitation Candidate**, Faculty of Biology (Developmental Biology), University of Freiburg
2017–2021 **Lecturer** for Developmental Neurobiology, Faculty of Biology, University of Freiburg
2012–2018 **Postdoctoral Scientist**, Prinz Lab (Neuropathology), University Medical Centre of Freiburg
2011 **Postdoctoral Scientist**, Zhang Lab (Psychiatry), Columbia University Medical Centre, USA

Education

2005–2010 *Doctor rerum naturalium*, Driever Lab (Biology), University of Freiburg, Germany
2003–2005 Master of Science, Gong Lab (Biology), National University of Singapore (NUS), Singapore
1998–2002 Bachelor of Applied Science with Honours (Biotechnology), NUS

Grants

2023–2024 Lead PI, Spivack Neuroscience Pilot Award, USA (\$50,000)
2023–2025 Lead PI, Young Investigator Grant, Brain & Behavior Research Foundation, USA (\$70,000)
2020–2021 Lead PI, Research Grant, Wissenschaftliche Gesellschaft Freiburg (5,000 €)
2020–2021 Co-PI, IMBIT & BrainLinks-BrainTools Centre, Ministry of Economics, Science and Arts of Baden-Württemberg (Sustainability Programme for Projects of the Excellence Initiative II) (100% E13 PhD position ~70,000 €)
2019–2021 Lead PI, Research Innovation Fund, University of Freiburg (20,000 €)
2019–2020 Lead PI, FRIAS Junior Fellowship, Freiburg (21,000 €)
2019–2020 Lead PI, Klaus Tschira Boost Fund GSO/KT10, Berlin (80,000 €)
2019 Lead Co-PI, BrainLinks-BrainTools Project Seed Funds EXC1086, Freiburg (52,000 €)
2016–2017 Lead PI, Research Seed Capital, Ministry of Science, Research and the Arts, Baden-Württemberg, Germany (36,500 €)
2015–2018 Lead PI, Bonus Research Funds, University Medical Centre of Freiburg (50,000 €)
2014–2016 Lead PI, German Research Foundation (DFG) Individual Grant TA1029/1-1 (300,800 €)
2013 Lead PI, Research Commission Grant, University Medical Centre of Freiburg (21,000 €)

Awards & Honours

2023–2024 Patricia McLellan Leavitt Research Fund Award, Boston, USA (\$15,000)
2023 Mary Erskine Funding Award, Boston, USA (\$1,750)
2019 1st Prize, Poster & Flash Talk, 6th Venusberg Meeting on Neuroinflammation, DZNE, Bonn, Germany
2018 Helmut Holzer Research Prize, Wissenschaftliche Gesellschaft Freiburg, Germany (10,000 €)
2017 Best Poster Prize, Research Day, University Medical Centre of Freiburg, Germany (250 €)
2005–2008 DFG Research Training Programme GRK 1104 Fellowship, Freiburg, Germany
2004 Human Genome Organisation Pacific Fellowship Award, Singapore
2004 Society of Chinese Bioscientists in America Scholarship, Beijing, China
2003–2005 National University of Singapore Research Scholarship, Singapore

Teaching & Pedagogical Training

Spring 2024	Instructor, Literature Seminar, Department of Anatomy & Neurobiology, Boston University
Fall 2023	Instructor, Neuroimmunology (BI594/NE594), College of Arts and Sciences (CAS), Boston University
Fall 2023	Invited Lecturer, Frontiers in Neuroscience, Graduate Program in Neuroscience (GPN), Boston University
Spring 2023	Instructor, Professional Development Course (BI582), CAS, Boston University
Fall 2022	Instructor, Grant Writing Course (BI581/MB581), CAS, Boston University
2019–2021	Lecturer, "Gender Equality in STEM" (interdisciplinary course, BEng and MEng), Faculty of Engineering, University of Freiburg
Jul–Nov 2018	Trainee, Centre for Academic Instruction at Universities (Hochschuldidaktik Zentrum Universitäten Baden-Württemberg), "Learning in Research Projects" & "Fit for Teaching - Basics of Teaching and Learning at University Level 1 + 2"
Dec 2017	Invited Lecturer, Master course "Advanced Immunology and Diseases", Ecole Normale Supérieure de Lyon, France
2017–2021	Lecturer, Developmental Neurobiology, Faculty of Biology, University of Freiburg General & Neural Developmental Biology (MSc Biology and Neuroscience) Development of the Nervous System (MSc Biology and Neuroscience) Establishing the Nervous System (MSc Biology and Neuroscience) Methods in Developmental Neurobiology (MSc Biology and Neuroscience) Developmental Neurobiology Lab Projects (MSc Biology and Neuroscience) Aberrant signaling in human diseases: from mechanism to therapy (MSc Biology) Developmental Biology and Genetics (MSc Biology) Signaling in aging, cancer and age-related diseases (BSc Biology)
Oct 2015	Laboratory Course Trainer, 10 th Biomedical Students' Symposium, University of Freiburg
2003–2004	Teaching Assistant, Year 2 & 3 courses, Department of Biological Sciences, NUS, Singapore

Project & Thesis Advisor/Reviewer

2023	External Thesis Reviewer, Micaël Carrier, Tremblay Lab, Laval University, Canada
2023–	Thesis Advisory Committee, Ashley St. John, Davison Lab, Boston University
2023–2024	Senior Design Advisor, Xinyan Lin, Christopher Chan (Biomed. Eng.), Boston University
2023–	Work-study Undergraduate Advisor, Monica Iordanov (Neuroscience), Boston University
2023–	Bachelor Research Advisor, Angel Hoo (Neuroscience), Boston University
2023–	Work-study Undergraduate Advisor, Nyomi Inda (Elec. Eng.), Boston University
2023	Research Mentor, RISE High School Internship Program, Ellie Choi, Boston University
2023	Research Mentor, RISE High School Internship Program, Chaitanya Reddy, Boston University
2023	Bioinformatics Masters Summer Internship Program Advisor, Krupa Sampat, Boston University
2023	Honours Defence Committee, Zhenhao Yan, McCall Lab, Boston University
2023–	Thesis Advisory Committee, Samantha Calderazzo, McKee & Huber Labs, Boston University School of Medicine
2022–2023	Senior Design Advisor, Chenkai Yao (Biomed. Eng.), Yuyang Kang (Comp. Eng.), Boston University
2022–	Work-study Undergraduate Advisor, Jason Zeng (Biology), Boston University
2022–	Work-study Undergraduate Advisor, Danielle Beason (Biomed. Eng.), Boston University
2022–	Thesis Advisory Committee, Alison Brack, Cruz-Martín Lab, Boston University
2022–	Thesis Advisory Committee, Guangmei Liu, McCall Lab, Boston University
2022–	Bachelor Research Advisor, Clifton Johnson (Biology), Boston University
2022–2023	Bachelor Research Advisor, Jonathan Yoshihara (Biology), Boston University
2022–2023	Research Mentor, RISE High School Internship Program, Sofia Guerra, Boston University
2022	Research Mentor, RISE High School Internship Program, Katherine He, Boston University
2022–	Thesis Advisory Committee, Joselyne Alvarez, Rosene Lab, Boston University School of Medicine
2022	Bachelor Research Advisor, Zoe Malone (Biology), Boston University
2022	Master Research Advisor, Gerardo Sequen Rivera (Anat. Neuro.), Boston University School of Medicine
2021–	Graduate Student Advisor/Thesis Advisory Committee, Ouzéna Bouadi (Biology), Boston University
2021–	Graduate Student Advisor/Thesis Advisory Committee, Amritha V. Manjally (Biology), Boston University
2021–	Thesis Advisory Committee, Sarah A. DeVries, Rosene Lab, Boston University School of Medicine
2020–	External Thesis Advisory Committee, Jia-Di Lin, Schachtrup Lab, University of Freiburg, Germany
2020–	Thesis Advisory Committee, Rhushikesh A. Phadke, Cruz-Martín Lab, Boston University
2017–2021	Supervisor, 7 MSc (laboratory rotation/thesis) in Neuroscience or Developmental Biology programmes, 2 research assistants, 2 technical assistants, University of Freiburg, Germany

2008–2018 Co-supervisor, 2 PhD, 1 medical PhD, 1 Erasmus, 5 MSc and 7 BSc students; 3 technical assistants, University of Freiburg & University Medical Centre of Freiburg, Germany

Conference & Seminar Presentations

Jun 2024 Invited Keynote Speaker, Dutch Neuroscience Meeting, Amsterdam, Netherlands
Apr 2024 Invited Speaker, Grand Rounds, MD/PhD Student Government of BU School of Medicine, Boston, USA
Feb 2024 Invited Speaker, Division of Medical Sciences, University of Victoria, Victoria, Canada
Nov 2023 Invited Speaker, Genome Science Institute Symposium, Boston University, Boston, USA
Oct 2023 Invited Speaker, Neuroscience Symposia, Netherlands Institute for Neuroscience, Amsterdam, Netherlands (declined due to scheduling conflict)
Sep 2023 Invited Speaker, Graduate Women in Science & Engineering (GWISE), Boston University, Boston, USA
Jul 2023 Invited Speaker, AlumNode Klaus Tschira Stiftung, Heidelberg, Germany
Jul 2023 Poster, 16th European Meeting on Glial Cells in Health and Disease, Berlin, Germany
May 2023 Invited Speaker, University of Alberta Neuroscience and Mental Health Institute, Edmonton, Canada (declined due to scheduling conflict)
Feb 2023 Invited Lecturer (virtual), Doctoral Program Brain and Mind, University of Helsinki, Finland
Sep 2022 Invited Speaker (virtual), Leducq "ReVAMP" Consortium Meeting, Seon, Germany
Jun 2022 Invited Panellist (virtual), TBH-Conference Career Real Talk for Researchers, Berlin, Germany
Mar 2022 Invited Speaker (virtual), Neuroscience Seminar Series, McLean Hospital, Boston, USA
Oct 2021 Invited Panellist (virtual), EMBO Workshop Microglia 2021, Heidelberg, Germany
Dec 2020 Invited Speaker (virtual), Washington University Glia Group, St Louis, MO, USA
Sep 2020 Invited Speaker (virtual), ACTRIMS-ECTRIMS 2020 Meeting, Washington DC, USA
Jul 2020 Selected Poster Presenter, CSHL Virtual Meeting: Glia in Health & Disease, NY, USA
Apr 2020 Invited Speaker (postponed), Centre de recherche du CHU de Québec-Université Laval, Québec City, Canada
Apr 2020 Invited Speaker (postponed), Brain and Mind Research Institute, University of Ottawa, Canada
Apr 2020 Invited Speaker (postponed), Department of Immunology, University of Toronto, Canada
Apr 2020 Invited Speaker (virtual), Douglas Research Centre, McGill University, Montreal, Canada
Feb 2020 Invited Speaker, Department of Anatomy & Neurobiology, Boston University, Boston, USA
Nov 2019 Speaker, German Scholars Organisation e.V. Reception & Workshop, Berlin, Germany
Oct 2019 Speaker, Freiburg Institute for Advanced Studies (FRIAS) Retreat, Titisee, Germany
Sep 2019 Speaker, BrainLinks-BrainTools Annual Workshop 2019, University of Freiburg, Germany
Aug 2019 Invited Speaker, Theodore Koch Institute, University of Bern, Bern, Switzerland
May 2019 Speaker and Discussion Panellist, EMBO-FEBS Lecture Course "Molecular Mechanisms of Tissue Injury, Repair and Fibrosis", Spetses Island, Greece
May 2019 Speaker, 6th Venusberg Meeting on Neuroinflammation, DZNE, Bonn, Germany
Nov 2018 Key Speaker (German), Commemorative Event for Helmut-Holzer Prize Award, Freiburg, Germany
Oct 2018 Speaker, BrainLinks-BrainTools Annual Workshop 2018, University of Freiburg, Germany
Oct 2018 Invited Speaker, Wolfson Centre for Age-Related Diseases, King's College London, UK
Aug 2018 Speaker, 14th International Congress of Neuroimmunology, Brisbane, Australia
May 2018 Speaker (Habilitation), Faculty of Biology, University of Freiburg, Germany
Mar 2018 Speaker, EMBO Workshop: Microglia 2018, Heidelberg, Germany
Feb 2018 Invited Speaker, Institut du Fer à Moulin, INSERM-UPMC, Paris, France
Sep 2017 Selected Poster Presenter, Development of Tissue- and Pathogen-specific Cellular Innate Immunity International Symposium, Freiburg, Germany
Aug 2017 Speaker, ISM Satellite Meeting: Immune Cells and the CNS, Cély, France
May 2017 Invited Speaker, VIB Centre for Brain & Disease Research, Leuven, Belgium
May 2017 Invited Speaker, Neurotech Seminar, University of Strasbourg, France
May 2017 Invited Speaker, Hotchkiss Brain Institute and University of Calgary, Canada
May 2017 Invited Speaker, Department of Developmental Biology, University of Freiburg, Germany
Apr 2017 Selected Poster Presenter, Microglia Meeting: from Biology to Pathology, UMCG, Groningen, The Netherlands
Mar 2017 Invited Speaker, Spring Brain Conference, Arizona, USA
Jan 2017 Invited Speaker, 1st Microscopy and Image Analysis Platform (MIAP) BiImage Analysis Workshop, University of Freiburg, Germany
Nov 2016 Invited Speaker, Centre de recherche du CHU de Québec-Université Laval, Canada

- Sep 2016 Invited Speaker, 8th Annual Symposium on "Models of Physiology and Disease", National University of Singapore
- Sep 2008 Invited Speaker, 6th Asia Pacific Symposium on Neuroregeneration, Singapore

Conference Presentations (Trainees)

- Nov 2023 Krupa Sampat (MS Bioinformatics, 2nd year), Selected Poster: "Interactive meta-analysis web-tool for gene expression-based contextual classification of cellular phenotype", Genome Science Institute Symposium, Boston University, Boston, USA
- Oct 2023 Clifton Johnson (Undergraduate senior), **Winner of 2023 Loren E. Wold Award**, Poster: "Unraveling the Role of Microglia in Acute Neurodegeneration and Recovery: Characterizing Phagocytic Activity and Morphological Phenotypes", 26th Annual Undergraduate Research Symposium, Boston University, Boston, USA
- Aug 2023 Ouzéna Bouadi (PhD, 2nd year), Poster: "Glial responses to implantable neural devices", 16th International Congress of Neuroimmunology, Québec City, Canada
- Aug 2023 Jason Zeng (Rising junior), Poster: "Autoglijji: rapid automated pipeline for cell morphological analysis", 16th International Congress of Neuroimmunology, Québec City, Canada
- Aug 2023 Chaitanya Reddy (High school student), Poster: "Glial Responses to Neural Devices", RISE: Poster Symposium, Boston University, Boston, USA
- Aug 2023 Ellie Choi (High school student), Poster: "Microglial Fate in Neurodegeneration", RISE: Poster Symposium, Boston University, Boston, USA
- Jun 2023 Jason Zeng (Undergraduate sophomore), **Winner of Best Contributed Talk**: "Batch Automated Cell Morphological Analysis", Computational & Systems Biology Annual Symposium, Quantitative Cell & Molecular Biology Program, Colorado State University, Fort Collins, USA
- May 2023 Yuyang Kang and Chenkai Yao (Undergraduate seniors), Talk: "Integrated Platform for Cell Quantification and Morphometric Analysis", 38th Annual Biomedical Engineering Senior Design Projects Conference, Boston University, Boston, USA
- Mar 2023 Danielle Beason (Undergraduate junior), Poster: "Autoglijji: Automated Morphological Analysis of Microglia", 49th Annual National Society of Black Engineers Conference, Kansas City, Missouri, USA
- Oct 2022 Zoe Malone (Undergraduate senior), Poster: "Autoglijji: An Automatic Pipeline for Microglial Morphological Analysis", 25th Annual Undergraduate Research Symposium, Boston University, Boston, USA
- Aug 2022 Katherine He (High school student), Poster: "Microglial Fate Mapping in Acute Neurodegeneration Using a Facial Nerve Axotomy Model", RISE: Poster Symposium, Boston University, Boston, USA
- Aug 2022 Sofia Guerra (High school student), Poster: "Assessing Astrocyte Reactivity to an Opsin-carrying Viral Vector", RISE: Poster Symposium, Boston University, Boston, USA

Scientific Outreach & Mentorship

- 2023– Organiser & Moderator, Summer Writing Clinic for Graduate Students, Boston University
- 2023– 2022– Medical Campus Program Coordinator, GROW (Greater Boston Area Research Opportunities for Young Women) Program, Departments of Biology and Anatomy & Neurobiology, Boston University
- 2022– Research Mentor, Research in Science and Engineering (RISE) Program, Boston University
- 2022–2023 Neurobiology Co-host, Emerging Scholars in Integrative Biology 2023, Boston University (details below)
- 2022–2023 Organiser, Microglia Symposium & Women in STEM Forum, Boston University (details below)
- 2021 Instructor (virtual), Upward Bound Math Science Programme for High School Students, Department of Anatomy & Neurobiology, Boston University School of Medicine
- 2020 Academic Mentor, CyberMentor Programme for High School Female Pupils, Germany
- 2019– Workshop Trainer: "Scientific Writing", "CV Writing", "Project Management", "Leadership", "Team-building", "Time Management", Scientific Communication", "Career Planning & Negotiation"
- 2018–2019 Young Scientist, BrainLinks-BrainTools R3 Coaching Programme, University of Freiburg
- 2018–2022 Founder & Mentor, Diversity in STEM Postdocs peer mentoring group (formerly "Women in STEM Postdocs"), Freiburg, Germany
- Jan 2017 Organiser, Speaker & Panellist, "Do I believe in the 'glass ceiling'? Women in STEM" full-day workshop for undergraduates, graduates and postdocs, University of Freiburg, Germany
- 2012–2020 Mentor, Singapore Students' Association in Germany (SSAG)

Scientific Management & Service

- Spring 2024 Seminar host (Department of Biology): Dr. Dori Schafer, UMass Chan Medical School
- Spring 2024 Seminar host (Department of Anatomy & Neurobiology): Dr. Lynne Chantranupong, Biology, Boston University; Dr. Marie-Ève Tremblay, University of Victoria, Canada
- Fall 2023 Seminar host (Department of Biology): Dr. Franciso Quintana, Harvard Medical School
- 2023–2024 Organiser (Neurobiology), Biology Weekly Seminar Series, Department of Biology, Boston University
- Spring 2023 Seminar host (Department of Anatomy & Neurobiology): Dr. Kimberly McCall, Biology; Dr. Angela Ho, Biology, Boston University
- Spring 2023 Seminar host (Department of Biology): Dr. Hideaki Yano, Northeastern University
- 2022–2023 Member, Cell & Molecular Neurobiology Faculty Search Committee, Department of Biology, Boston University
- 2022–2023 Neurobiology host & Medical Campus Coordinator, Emerging Scholars in Integrative Biology 2023 Program, Department of Biology, Boston University
- 2022–2023 Organiser, Microglia Symposium & Women in STEM Forum (March 22nd, 2023, Boston University & Livestream, in collaboration with BU ARROWS), Guest speakers: Dr. Soyon Hong, University College London, UK; Prof. Marie-Ève Tremblay, University of Victoria, Canada; Dr. Kanchan Bisht, Purdue University, USA; Dr. Monique Mendes, Stanford University, USA
- Spring 2022 Seminar host (Department of Anatomy & Neurobiology): Dr. Alberto Cruz-Martín, Biology; Dr. Jonathan Cherry, Pathology & Laboratory Medicine, Boston University
- 2021–2023 Organiser, RLabs monthly seminar, Department of Anatomy & Neurobiology, Boston University
- Fall 2021 Seminar host (Department of Anatomy & Neurobiology): Dr. Ian Davison, Biology, Boston University
- 2020– Member, DEIJ (Diversity, Equity, Inclusion, and Justice) Committee, Department of Anatomy & Neurobiology, Boston University School of Medicine
- 2020 Member, Selection Committee for Tenure-track Junior Professorship – Plant Developmental Signalling, Faculty of Biology, University of Freiburg
- Oct 2020 Jury, Poster Competition, “Medicine – Informatics – Biology: how NGS brings us together”, University of Freiburg
- 2019–2020 Seminar Host (Biological Colloquium, University of Freiburg): Dr. Franziska Denk, King's College London, UK; Dr. Giuseppe Locatelli, Theodor Kocher Institute, Bern, Switzerland
- 2018–2019 Participant of workshops: "How to build your lab", "Storytelling in Presentations", "Effective Presentation & Rhetoric", "Funding Opportunities of the ERC", "Die erste Berufung auf eine Professur - Berufungsverhandlungen meistern", "Interactive Training & Teaching Strategies", "Sicherheit in der Gentechnik (§ 15 GenTSV)"
- 2018 Seminar Host (Neuropathology, University of Freiburg): Asst. Prof. Anne Roumier, Pierre and Marie Curie University / Institut du Fer à Moulin, Paris, France; Prof. V. Wee Yong, University of Calgary, Canada
- 2012–2021 Principal Investigator (Felasa B), animal work licences (Regional Council of Freiburg, Germany)

Professional Memberships

- 2020– Member, Federation of European Neuroscience Societies (FENS)
- 2020– Member, German Neuroscience Society (Neurowissenschaftliche Gesellschaft, NWG)
- 2018– Member, International Society of Neuroimmunology (ISNI)
- 2018– Member, SciNet, a Network for Young Scientists and Academics, Freiburg, Germany
- 2013– Member, Neurex: Neuroscience Upper Rhine Network (France, Germany, Switzerland)

Editorial Work & Grant Review

- 2022– Grant Reviewer, American Heart Association, USA
- 2019–2022 Lead Editor, *Frontiers in Immunology* Research Topic "Understanding the Roles of Glia and Circulating Leukocytes in Neurodegenerative Diseases"
- 2019– Grant Reviewer, “la Caixa” Foundation, Spain; Medical Research Council, UK; Wellcome Trust, UK; Irish Research Council, Ireland
- 2018– Reviewer, *Nature Neuroscience*, *Frontiers in Cellular Neuroscience*, *Frontiers in Immunology*, *Frontiers in Molecular Neuroscience*, *Frontiers in Neurology*, *Frontiers in Neuroscience*, *Neuroscience Letters*
- 2017– Invited Commentator, Alzforum (Alzheimer Research Forum)
- 2014–2018 Co-reviewer, *Immunity*, *Developmental Cell*, *Cell Reports*, UK BBSRC grant

List of Publications

h-index: **19**; total citations 8th October 2023: **5012** (Google Scholar)

*corresponding author, #co-first author

Bouadi O, **Tay TL*** (2023) Automated cell counting of macrophages in situ. In: Mass E (Ed) Tissue-Resident Macrophages: Methods and Protocols. Humana, New York, NY. **Methods in Molecular Biology**, 2713:505-518.

Paolicelli RC*, Sierra A*, Stevens B*, Tremblay M-È*, Aguzzi A, Ajami B, Amit I, Audinat E, Bechmann I, Bennett M, Bennett F, Bessis A, Biber K, Bilbo S, Blurton-Jones M, Boddeke E, Brites D, Brône B, Brown GC, Butovsky O, Carson MJ, Castellano B, Colonna M, Cowley SA, Cunningham C, Davalos D, De Jager PL, De Strooper B, Denes A, Eggen B.J.L. (Bart), Eyo U, Galea E, Garel S, Ginhoux F, Glass CK, Gokce O, Gomez-Nicola D, González B, Gordon S, Graeber MB, Greenhalgh AD, Gressens P, Greter M, Gutmann DH, Haass C, Heneka MT, Heppner FL, Hong S, Hume DA, Jung S, Kettenmann H, Kipnis J, Koyama R, Lemke G, Lynch M, Majewska A, Malcangio M, Malm T, Mancuso R, Masuda T, Matteoli M, McColl BW, Miron VE, Molofsky AV, Monje M, Mracsko E, Nadjar A, Neher JJ, Nenkysyte U, Neumann H, Noda M, Peng B, Peri F, Perry VH, Popovich PG, Pridans C, Priller J, Prinz M, Ragozzino D, Ransohoff RM, Salter MW, Schaefer A, Schafer DP, Schwartz M, Simons M, Smith CJ, Streit WJ, **Tay TL**, Tsai L-H, Verkhratsky A, Von Bernhardi R, Wake H, Wittamer V, Wolf SA, Wu L-J, Wyss-Coray T (2022) Microglia states and nomenclature: A field at its crossroads. **Neuron**, 110(21): 3458-3483.

Tay TL*, Locatelli G*, Constantin G*, Yong VW*, eds. (2022) Understanding the Roles of Glia and Circulating Leukocytes in Neurodegenerative Diseases. **Lausanne: Frontiers Media SA**, doi: 10.3389/978-2-88976-070-1.

Mehl LC, Manjally AV, Bouadi O, Gibson EM*, **Tay TL*** (2022) Microglia in brain development and regeneration. **Development**, 149(8): dev200425.

Manjally AV, **Tay TL*** (2022) Attack of the clones: microglia in health and disease. **Front Cell Neurosci**, 16: 831747.

Bouadi O, **Tay TL*** (2021) More than cell markers: understanding heterogeneous glial responses to implantable neural devices. **Front Cell Neurosci**, 15: 658992.

Tay TL*, Carrier M, Tremblay MÈ* (2019) Physiology of Microglia. In: Verkhratsky A, Ho M, Zorec R, Parpura V (Eds) Neuroglia in Neurodegenerative Diseases. Singapore: Springer. **Advances in Experimental Medicine and Biology**, vol 1175.

Jordão MJC, Brendecke SM, Sankowski R, Sagar, Locatelli G, Tai Y-H, **Tay TL**, Schramm E, Armbruster S, Hagemeyer N, Mai D, Çiçek Ö, Falk T, Kerschensteiner M, Grün D, Prinz M (2019) Single-cell profiling of the myeloid compartment identifies new cell populations with distinct fates during neuroinflammation. **Science**, 363: eaat7554.

Falk T, Mai D, Bensch R, Çiçek Ö, Abdulkadir A, Marrakchi Y, Böhm A, Deubner J, Jäckel Z, Seiwald K, Dovzhenko A, Tietz O, Dal Bosco C, Walsh S, Saltukoglu D, **Tay TL**, Prinz M, Palme K, Simons M, Diester I, Brox T, Ronneberger O (2019) U-Net: deep learning for cell counting, detection, and morphometry. **Nat Methods**, 16: 67-70.

Shemer A#, Grozovski J#, **Tay TL#**, Tao J, Süß P, Volaski A, Gross M, Kim J-S, David E, Chappell-Maor L, Thielecke L, Glass CK, Cornils K, Prinz M, Jung S (2018) Engrafted parenchymal brain macrophages differ from host microglia in transcriptome, epigenome and responsiveness to challenge. **Nat Commun**, 9: 5206.

Tay TL**, Sagar#, Dautzenberg J, Grün D*, Prinz M* (2018) Unique microglia recovery population revealed by single-cell RNAseq following neurodegeneration. **Acta Neuropathol Commun**, 6: 87.

Datta M, Staszewski O, Raschi E, Frosch M, Hagemeyer N, **Tay TL**, Blank T, Kreutzfeldt M, Merkler D, Ziegler-Waldkirch S, Matthias P, Meyer-Luehmann M, Prinz M (2018) Histone deacetylases 1 and 2 regulate microglia function during development, homeostasis and neurodegeneration in a context-dependent manner. **Immunity**, 48(3): 514-529.

Weinhard L, d'Errico P, **Tay TL*** (2018) Headmasters: microglial regulation of learning and memory in health and disease. **AIMS Mol Sci**, 5: 63-89.

Tay TL*, Béchade C, d'Andrea I, St-Pierre M-K, Henry MS, Roumier A*, Tremblay M-È* (2018) Microglia gone rouge: impacts on psychiatric disorders across the lifespan. **Front Mol Neurosci**, 10: 421.

Tay TL*, Mai D, Dautzenberg J, Fernandez-Klett F, Lin G, Sagar, Datta M, Drougard A, Stempf T, Ardura-Fabregat A, Staszewski O, Margineanu A, Sporbert A, Steinmetz L, Pospisilik JA, Jung S, Priller J, Grün D, Ronneberger O, Prinz M*
October 2023

(2017) A new fate mapping system reveals context-dependent random or clonal expansion of microglia. **Nat Neurosci**, 20(6): 793-803.

Tay TL*, Savage JC, Hui CW, Bisht K, Tremblay M-È* (2017) Microglia across the lifespan: from origin to function in brain development, plasticity and cognition. **J Physiol**, 595(6): 1929-1945.

Tay TL, Hagemeyer N, Prinz M (2016) The force awakens: insights into the origin and formation of microglia. **Curr Opin Neurobiol**, 39: 30-37.

Goldmann T, Zeller N, Raasch J, Kierdorf K, Frenzel K, Ketscher L, Basters A, Staszewski O, Brendecke SM, Spieß A, **Tay TL**, Kreuz C, Timmer J, Mancini GMS, Blank T, Fritz G, Biber K, Lang R, Malo D, Merkler D, Heikenwalder M, Knobeloch K-P, Prinz M (2015) USP18 lack in microglia causes destructive interferonopathy of the mouse brain. **EMBO J**, 34(12): 1612-1629.

Prinz M, **Tay TL**, Wolf Y, Jung S (2014) Microglia: unique and common features with other tissue macrophages. **Acta Neuropathol**, 128(3): 319-331.

Goldmann T, **Tay TL**, Prinz M (2013) Love and death: microglia, NLRP3 and the Alzheimer's brain. **Cell Res**, 23(5): 595-596.

Tay TL, Ronneberger O, Ryu S, Nitschke R, Driever W (2011) Comprehensive catecholaminergic projectome analysis reveals single-neuron integration of zebrafish ascending and descending dopaminergic systems. **Nat Commun**, 2: 171.

Tay TL, Lin Q, Seow TK, Tan KH, Hew CL, Gong Z (2006) Proteomic analysis of protein profiles during early development of the zebrafish, *Danio rerio*. **Proteomics**, 6(10): 3176-3188.

Gong Z, Wan H, **Tay TL**, Wang H, Chen M, Yan T (2003) Development of transgenic fish for ornamental and bioreactor by strong expression of fluorescent proteins in the skeletal muscle. **Biochem Biophys Res Comm**, 308(1): 58-63.