

*Systems Neuroscientist interests in Neural & Molecular dynamics,
Olfaction & Binge eating, Imaging & Ephys*

Education & Academic Position

- 2025 – present **Postdoc, Albert Einstein College of Medicine, NY, USA.**
Prefrontal neural and molecular dynamics upon drug addiction
Supervisors: [Lucas Sjulson, MD, PhD](#)
- 2017 – 2024 **PhD, Charité – Universitätsmedizin Berlin, Germany - Medical Neurosciences.**
PhD Fellowship: Einstein Center for Neurosciences Berlin
Thesis: Odor representation in mouse olfactory cortex during food intake. [Thesis link](#)
Supervisors: [PD Dr. Friedrich Jochenning](#) & [Prof. Dr. Dietmar Schmitz](#)
PhD Defense: 2024.Nov.15, graded **Summa Cum Laude**
- 2016 – 2017 **Research Assistant, Academia Sinica, Taiwan, Dr. Jun-An Chen's Lab** [Lab website](#),
Stem cell culture and ChIRP-seq.
- 2010 – 2015 **MSc/BSc, National Yang-Ming University, Taiwan-Life Sciences & Genome Sciences.**
Scholarship: Integrated 5-year MSc/BSc program, GPA: 4.0/4.0, Ranking: 2nd (MSc) | GPA: 3.84/4.0, Ranking: 2nd/37 (BSc), Achieved 9/16 credits towards a minor in **Gender Studies**, NYMU
MSc Thesis: [Study on roles of Cdk12 in basal and luminal type epithelial cells by tissue specific cKO mice.](#)
Supervisor: [Dr. Ming-Ji Fann](#)

Additional Training & Research Experiences

- 2025 **Flatiron Neural Data Analysis Workshop at SfN, San Diego, USA**, Neural modeling with GLMs.
- 2025 **NeuroMatch Academy-Deep Learning**, *On-line course*, Decoding with ANNs using visual cortices data.
- 2022 **Young Investigator Training Program for FENS, Girardeau Lab, Inserm**, [lab website](#).
3-week research stay, building Bayesian models of spatial decoding for the ephys dataset
- 2021 **NeuroMatch Academy-Computational Neuroscience**, *On-line course*.
[Behavioral uncertainty is predicted by brain states: analysis on Steinmetz Neuropixel dataset](#)
- 2019 **Linear Algebra for Neuroscientists**, *Summer School*, Radboud University, the Netherlands, [Info](#).
- 2017 – 2018 **The Multi-scale Brain MOOC, Human Brain Project**, EPFL, Switzerland, [Info](#).

Publications

- 2025 **Feeding-induced olfactory cortex suppression reduces satiation** *Neuron*.
Lo H*, Riedel WC, Tantirigama MLS, Schoenherr A, ..., Schmitz D, Jochenning FW*
*Corresponding authors | Media coverage [Charité 1](#), [2](#), [Tagesspiegel](#)
- 2023 **Ten simple rules to overcome barriers in implementing open and reproducible research practices after training** *PLoS Computational Biology*.
Heise V, Holman C, **Lo H**, ..., Weissgerber TL
- 2022 **Recommendations for Empowering Early Career Researchers to Improve Research Culture and Practice** *PLoS Biology*.
Kent BA, Holman C, ..., **Lo H**, ..., Weissgerber TL
- 2021 **Creating Clear and Informative Image-based Figures for Scientific Publications** *PLoS Biology*.
Jambor H*, Antonietti A*, ..., **Lo H**, ..., Weissgerber TL
- 2020 **Circuit-specific Dendritic Development in the Piriform Cortex** *eNeuro*.
Moreno-Velasquez L, **Lo H**, ..., Jochenning FW

Experimental & Computational Skills

Opto- & Ephys	<i>in vivo</i> imaging (head-fixed 2-photon & freely moving miniscope) & closed-loop optogenetics <i>in vitro</i> 2-photon Ca^{2+} imaging (dendritic & axonal imaging), patch clamp electrophysiology
Programming GitHub page	Python: <i>in vivo</i> Ca^{2+} imaging & neuropixel ephys analysis (CalmAn, Suite2p, kilosort), 3D image registration (Elastix, BigWarp), pose estimation (Sleap, Deeplabcut), machine/deep learning (sk-learn, PyTorch)/ R: mixed effect model (lme4)
Imaging related	serial 2-Photon tomography (Brainsaw: whole brain imaging) / brainreg & cellfinder
Tissue culture & Molecular bio	stem cell culture & spinal motor neuron differentiation, ChIRP-seq, RT-qPCR, molecular cloning, western blot, staining

Research Grants & Fellowships

2023	Deutsche Forschungsgemeinschaft: DFG, Germany , Awarded to Friedrich Jochenning & Jackie Schiller, The mediodorsal thalamus as a central hub in olfactory learning, providing preliminary results.
2021	Deutsche Forschungsgemeinschaft: DFG, Germany , Awarded to Friedrich Jochenning, Metabolic state dependence of olfactory cortex flavor representation during hedonic overeating, providing preliminary results.
2019	Charité PhD Scholarship (Promotionsstipendium II) , <i>declined</i> , Scholarship info .
2018 – 2020	Taiwanese Government Scholarship to Study Abroad , Scholarship info (in Chinese) .
2017 – 2020	PhD Fellowship of Einstein Center for Neurosciences Berlin , ECN PhD fellowship link .
2014, 2015	Integrated 5-year MSc/BSc Program Scholarship , National Yang-Ming University, Taiwan.
2013	National Science Council College Student Research Fellowship , <i>Undergraduate fellowship</i> , Taiwan.

Honors and Awards (selected)

Training awards	2022 - FENS Young Investigator Training Program (France) 2020 - SPOKES Wellcome Trust Funded Think Tank (Germany).
Travel awards	2025 - Flatiron Neural Data Analysis Workshop at SfN (USA) 2024 - Cosyne Meeting (Portugal) 2023 - ECRO (Netherlands), Göttingen Meeting (Germany) 2021 - SfN (USA/online, funded by Charité).
Honors	2023 - ECRO Young Investigator talk, Göttingen Meeting Young Investigator talk 2015 - Member of The Phi Tau Phi Scholastic Honor Society 2014 - Dean Award of Bachelor Thesis, First Prize Award for Poster Presentation.

Talks, Posters & Workshops (selected)

(Invited) Talks	2023 - Göttingen Meeting (Germany), ECRO (Netherlands), BNM (Germany), SfN (USA) 2022 - Inscopix European User Group Meeting (France), ECRO (Germany), SfN (USA).
Posters	2024 - Cosyne Meeting (Portugal) 2023 - Göttingen Meeting (Germany) 2022 - FENS (France), SfN (USA/online), AChemS (USA/online).
Workshops	2021 - DeepLabCut tutorial for York Winter lab (Germany) 2020 - DeepLabCut tutorial for Federico Calegari lab (Germany), Tutorial materials on GitHub .

Experiences in supporting Diversity, Equity & Inclusion (DEI)

2021	Virtual Brainstorming Day - Mental Health for ECRs During the Pandemic , Website .
2020 – 2021	Member of CCO YourSpace , <i>Preventing power abuse, sexual harassment in our research building</i> .
2019 – 2021	Member of Dragonfly Mental Health , <i>Improving mental health in the academia</i> , Website .

Experiences in promoting Science Reproducibility

2021	Virtual Brainstorming Day - Education vs Reality , published in Heise et al., 2023 .
2020	Virtual Brainstorming Day - How can ECRs change science , published in Kent et al., 2022 .
2019, 2021	Improving [Your] Science , <i>Lecturer, Charité</i> , Reproducibility course for PhDs, 2019 , 2021 .
2019 – 2020	eLife Community Ambassadors , <i>Meta-research on bio-images</i> , published in Jambor, Antonietti et al, 2021 .

Other Experiences

- 2018 – 2019 **Scientific Writer**, *Charité NeuroScience (CNS) Newsletter*, [Link](#).
- 2016 – 2018 **Scientific Writer**, *PanSci-Asia, Popular Science Media, Taipei, Taiwan*, [Publications \(in Chinese\)](#).
- 2015 – 2016 **Medic**, *R.O.C Navy, Taiwan*, Mandatory military service.
- 2014 **Teaching Assistant in Molecular Biology**, *National Yang-Ming University*, directed by Dr. C-W Luo.

Hobbies

- Sports **Rock climbing/Bouldering, (Beach-)Volleyball**
- Puzzles **Speed Cubing**, Taiwanese delegate of World (Rubik's) Cube Association (2013 - 2015), National record holder for Rubik's Clock (2010-2015), 2nd runner-up in Asian Championship 2014, Tokyo, Japan, [see profile](#)