

TARANA NIGAM

PhD student, International Max Planck Research School for Neurosciences
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EDUCATION

- 2019- now **PhD in Neuroscience**
International Max Planck Research School for Neurosciences, Georg-August University, Göttingen
Thesis: Feedback as the way forward: Sensory predictions in primate face processing hierarchy
Functional magnetic resonance imaging, in-vivo electrophysiology in awake macaque monkeys, eye-tracking, invasive electrophysiology(iEEG) in human epilepsy patients
Dr. Caspar Schwiedrzik; German Primate Center and the European Neuroscience Institute- Göttingen, Germany
- 2017 – 2019 **MSc in Neuroscience**
International Max Planck Research School for Neurosciences, Georg-August University, Göttingen
Thesis: Studying gaze and dyadic interactions in a social-decision making context in monkeys and humans
Dr. Igor Kagan, Dr. Alexander Gail; German Primate Center, Göttingen
- 2013- 2017 **B.Tech. in Biotechnology**
VIT University, Vellore Institute of Technology, Vellore, India
Thesis: Adult Hippocampal Neurogenesis in mice: Molecular regulation and implications on spatial memory
Immunohistochemistry in brain slices and mouse behavior
Dr. Hiya Ghosh; National Centre for Biological Sciences, Bengaluru, India

RESEARCH EXPERIENCE

- Oct '18 - Apr '19, Mar-May '18 **Studying gaze and dyadic interactions in a social decision making context in monkeys and humans**
Comparative investigation of social behavior in humans and monkeys, eye-tracking
Dr. Igor Kagan and Dr. Alexander Gail, German Primate Center, Göttingen
- May- July 2018 **Role of temperature and TRPV1 channel on sharp-wave ripples in hippocampus**
In-vitro electrophysiology in mice hippocampal slices
Dr. Camin Dean, European Neuroscience Institute, Göttingen
- Jan – March 2018 **Effect of transcranial alternating current stimulation (tACS) on conflict processing and conflict-based decision making models**
tACS in humans and behavioral modeling
Dr. Andrea Antal, University Medical Center, Göttingen
- June- Aug 2016 **Effect of stress and glucocorticoid receptor on prefrontal cortex behavior**
Behavioral experiments in mice and molecular neurobiology
Dr. Francois Tronche, University Pierre et Marie Curie, Paris, France
- June- July 2015 **Tissue-specific expression of a modified gene enhancer implied in muscular dystrophy in mice embryos**
Dr. Françoise Helmbacher, Aix-Marseille University, Marseille, France

PUBLICATIONS

1. **Nigam, T.**, Schwiedrzik C.M. (2022), High-level prediction signals cascade through the macaque face-processing hierarchy, Peer-Reviewed Conference Proceedings of Computational and Systems Neuroscience (COSYNE) 2022
2. Lehr, A., Henneberg, N., **Nigam, T.**, Paulus, W., & Antal, A. (2019). Modulation of Conflict Processing by Theta-Range tACS over the Dorsolateral Prefrontal Cortex. *Neural plasticity*, 2019, 6747049. <https://doi.org/10.1155/2019/6747049>

CONFERENCES ORGANIZED

May 2021- June 2022;	Neurizons 2022 – Conference , Max Planck Institute for Multidisciplinary Sciences, Göttingen <i>Main role: General coordinator, leading multiple teams, inviting speakers, organizing career fair, workshops and acquiring funds through Boehringer Ingelheim Foundation</i>
May 2019 – May 2022	Neurizons 2020 – Conference , Multidisciplinary virtual neuroscience conference, Max Planck Institute for Biophysical Chemistry, Göttingen <i>Main role: Leading the panel discussion team- Natural vs Artificial Intelligence, inviting speakers</i>
Oct 2018- Sep 2019	Horizons in Molecular Biology Symposium, Max Planck Institute for Biophysical Chemistry, Göttingen <i>Main role: Co-moderated the panel discussion with Prof. Mary Osborn on mental health awareness, work-life balance in academia and science communication</i>

ADDITIONAL TRAINING & CONFERENCES

July - Sep 2022	Exchange Program in the lab of Dr. Winrich Freiwald, Rockefeller University, New York,
March 2022	Dorothea Schlözer Mentoring Program for young women scientists (1 year program)
March 2022	Poster Presentation - Computational and Systems Neuroscience (COSYNE) 2022 , Lisbon and Cascais, Portugal High-level prediction signals cascade through the macaque face-processing hierarchy; <i>Tarana Nigam, Caspar M. Schwiedrzik</i>
August 2021	Introductory workshop to intercultural communication for graduate students
July 2021	Masters of Creativity: Online workshop series in design thinking, Stanford Design School
June 2021	Attended online symposium “Statistical learning: How does the brain learn and predict the sensory world?”, Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands Attended Online Symposium- TEX2021 - Bringing together Predictive Processes and Statistical Learning, International School for Advanced Studies (SISSA)- Trieste, Italy
March 2021	Poster Presentation - 14th Göttingen Meeting of the German Neuroscience Society (NWG) , Precise predictions lead to increased efficiency of processing in stimulus-specific visual cortex; <i>Tarana Nigam, Caspar M. Schwiedrzik</i>
April 2020	Oral Presentation – Intracranial electrophysiology symposium, Göttingen , Precision of Predictions
Nov 2019	Blackrock Microsystems European Hands-on Electrophysiology Workshop, Göttingen

July 2019	Cognitive and Computational Neuroscience Summer School, Cold Spring Harbor Asia, Suzhou, China
June 2019	Cellular, Computational and Cognitive Neuroscience Summer Program- Princeton Neuroscience Institute, Princeton, USA
May 2019	ELECTRAIN - Extended Methods Course in Electrophysiology, European Neuroscience Institute, Göttingen, Germany
Mar 2019	Primate Neurobiology Meeting and Graduate Training in Primate Neuroscience course, German Primate Center, Göttingen
May 2018	Adult Neurogenesis Conference - Center for Regenerative Therapies, TU Dresden; Neurizons- Multidisciplinary Neuroscience Conference: Max-Planck Institute for Biophysical Chemistry, Göttingen

GRANT AWARDED

Grant for Scientific Conference awarded by **Boehringer Ingelheim Foundation** (Amount: 5700 €)
Applied along with Delane Espinueva (as a part of Neurizons organizing team) for supporting junior scientists, speakers at the Neurizons 2022 conference with the aim to promote inclusivity and diversity in academia.

AWARDS AND FELLOWSHIPS

May 2022	Outgoing Fellows Grant from The Leibniz ScienceCampus Primate Cognition for Exchange Program at The Rockefeller University, New York, USA
July 2019	Full financial aid/ stipend from Cold Spring Harbor Asia for Cognitive and Computational Neuroscience Summer School, Suzhou, China
June 2019	Full financial aid/ stipend from National Institute of Mental Health (USA) and Wellcome Burroughs Funds for Cellular, Computational and Cognitive Neuroscience Summer Program- Princeton Neuroscience Institute, USA
June 2018	Part Financial aid from Abcam- Adult Neurogenesis Conference, TU Dresden, Germany
Sep 2017 – May 2019	Scholarship from International Max Planck Research School (IMPRS), Germany for Masters in Neuroscience
June - Aug 2016, June - Aug 2015	Stipend from Centre National de la Recherche Scientifique (CNRS), France for summer research internships Accepted for Summer Research Fellowship of Indian Academy of Sciences (declined)
June 2015	Young environmentalist award, Regional Museum of Natural History, Government of
2009	Madhya Pradesh, India

TEACHING EXPERIENCE

Dec 2021;	Invasive electrophysiology in humans
Dec 2020;	Tutor for methods course for MSc IMPRS Neuroscience program
Nov 2019	

SCIENCE COMMUNICATION/OUTREACH

- July 2022;
Jan 2019 Night of Science, Göttingen - Along with Cognitive Neuroscience Department at the German Primate Center, Göttingen
- Dec 2019 Invited Talk: Cognitive Neuroscience and Career-based Interaction Session for Bachelor and Graduate-level students in Cognitive Science and Psychology at Dayalbagh Educational Institute, Agra, India
- Oct 2019 Science goes City, Göttingen - Science Speed-Dating event organized by the Göttingen Campus Postdoc Network
Role: Headed a team of fellow artists; Made minimalist sketches to explain research projects of ~20 scientists from various scientific and humanities fields

LANGUAGES

English (Bilingual proficiency), Hindi (Bilingual proficiency), French (beginner), German (A2.2)

HOBBIES AND INTERESTS

Painting, Calligraphy, Chess, Badminton, Astrophysics, Improv Theatre