

ALUISI, FLAVIA

EDUCATION

- PhD** University of Haifa, Sagol department of Neurobiology. Israel.
Dissertation: “Network activity in Dorsolateral Striatum during multidimensional learning.”
Committee: Prof. Hagai Bergman and Prof. Dori Derdikman
June 2019
- MS** Chemistry and pharmaceutical technology (CTF),
Alma Mater Studiorum University of Bologna,
Faculty of Pharmacy. Bologna, Italy
Thesis: “Mapping the Superior Colliculus through the identification of connections and peculiarities.”
Advisor: Dr. Patrizia Fattori and Prof. Yiannis Dalezios
October 2012

RESEARCH EXPERIENCE

Postdoctoral Fellow

Northwestern University – Feinberg School of Medicine
Department of Physiology.

July 2022 - present

Advisor: Dr. Mark D Bevan

- My project focuses on studying neural mechanisms underlying basal ganglia-related psychomotor function and dysfunction in mouse models of Parkinson’s disease. Using mouse models mimicking the progression of Parkinson's disease, we want to understand how the basal ganglia circuit modulates the firing pattern during the spontaneous locomotion. Therefore, I will pursue cell specific study, using optogenetic manipulation, to identify how subpopulation of dopamine neurons are involved in the generation and abortion of spontaneous locomotor movement.
- Acute, vivo recording, optogenetic approaches.
- Funded by NIH and ASAP.

Postdoctoral Fellow

Integrative Neuroscience and Cognition Center CNRS,
“Spatial Orientation” group.
Université de Paris, 45 rue des Saints-Pères, 75006 Paris

September 2019 - June 2022

Advisor: Dr. Desdemona Fricker

- Presubicular bursting and visual anchoring of the head direction signal.
- Funded by ANR (<https://anr.fr/Project-ANR-18-CE92-0051>)

Visitor Researcher

Lab of Physiology and Pathophysiology of Executive Functions

Institut des Maladies neurodégénératives (IMN) - UMR 5293 – CNRS
Université de Bordeaux - Centre Broca Nouvelle-Aquitaine
33076 Bordeaux cedex – France.

June 2019 – July 2019

Advisor: Thomas Boraud, MD, PhD

PUBLICATIONS

Publication

Aluisi, F., Rubinchik, A., & Morris, G. (2018). Animal Learning in a Multidimensional Discrimination Task as Explained by Dimension-Specific Allocation of Attention. *Frontiers in Neuroscience*, 12(June), 1–10. <https://doi.org/10.3389/fnins.2018.00356>

Manuscripts

Aluisi, F. (2019). Network activity in Dorsolateral Striatum during multidimensional learning. University of Haifa, Israel, (PhD thesis submitted and approved for the degree “Doctor of Philosophy”), 1–121.

Poster Presentation

09-13/07/2022 Characterization of directionally tuned signal in mouse Presubiculum during passive rotation using high-density probe. FENS Forum 2022 | International Neuroscience Conference

26-30/03/2017 Dorsolateral striatum neurons respond to different events according to task demand in a multidimensional set task, The International Basal Ganglia Society (IBAGS) 2017, Merida, Mexico.

3-6/12/2016 A novel paradigm for multidimensional set shifting in rats, Israel Society for Neuroscience (ISFN) 2016, Eilat, Israel