Lukas Fischer

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Education

– **Massachusetts Institute of Technology** – Postdoctoral associate	Oct. 2015 - present
– **University of Edinburgh, UK** – Postdoctoral associate	Mar. – Sept. 2015
– **University of Edinburgh, UK** – PhD, Neuroscience	2010 - 2015
– **University of Bristol, UK -** BSc. Neuroscience	2007 - 2010
– **University of Central Lancashire, Preston, UK -** BSc. Computer Science	2006 – 2007

Grants & Awards

– **PhD Scholarship, 4 years, funded by the BBSRC (Biotechnology and Biological Science Research Council)** – University of Edinburgh

– **Prize for best poster in the category Systems Neuroscience** - Edinburgh Neuroscience Day 2014

– **Neuroresearchers Fund Training Grant**

– **Wellcome Trust stipend for Summer Placement** – University College London

Skill and Techniques

– **Laboratory Techniques**: quantitative behavioural data analysis; 2-photon calcium imaging, behavioural training of mice; tetrode and patch clamp data analysis; in vivo electrophysiology, *in vitro* extracellular recordings; perfusion; histology

– **Technical Skills:** Data analysis in Matlab, Python (SciPy, scikit-learn, statsmodels), R, Arduino, mbed, C/C++, Java; Electronic circuit design; 3D modelling in Autodesk® Inventor®

Teaching and related Experience

– Problem based learning sessions for medical students, University of Edinburgh

– Supervised multiple masters, undergraduate and summer students.

– Ran postgraduate seminar series (2 years).

– Representative for postgraduate students in my department.

– Trainer at Bristol University Model United Nations

Publications

— **Fischer, L.**, Mojica Soto-Albors, R., Buck, F., & Harnett, M. T. (2020). Representation of visual landmarks in retrosplenial cortex. ELife, 9, 811430. https://doi.org/10.7554/eLife.51458

— Pakan, J. M. P.*, Currie, S. P.*, **Fischer, L.***, Rochefort, N. L. (2018). The Impact of Visual Cues, Reward, and Motor Feedback on the Representation of Behaviorally Relevant Spatial Locations in Primary Visual Cortex. Cell Reports, 24(10), 2521–2528.

— Tennant, S. A., **Fischer, L.**, Garden, D. L. F., Gerlei, K. Z., Martinez-Gonzalez, C., McClure, C., Wood, E. R., Nolan, M. F. (2018). Stellate Cells in the Medial Entorhinal Cortex Are Required for Spatial Learning. Cell Reports, 22(5), 1313–1324

Conference Abstracts

— **Fischer, L.**, Mojica Soto-Albors R., Harnett M. T. Integration of Visual and Motor Information in Retrosplenial Cortex. Lisbon, Portugal: Cosyne 2019.

— **Fischer, L.**, Mojica R., Toloza E. H. S., Barnagian D., Harnett M. T. Encoding of spatial variables in retrosplenial cortex during landmark dependent navigation. San Diego, CA: Society for Neuroscience, 2018.

— **Fischer L.**, Harnett M. T. Landmark, Path Integration, and Trial Onset Encoding in A30 of Retrosplenial Cortex. San Diego, CA: Society for Neuroscience, 2017.

Invited Talks

— Title: Development of a Virtual Reality Task to Test Path Integration in Mice, Institut de Biologie Paris-Seine, Pierre and Marie Curie University, June 2015

— Title: Development of a Virtual Reality Task to Test Path Integration in Mice, MRC Laboratory of Molecular Biology, University of Cambridge, May 2015