ELSA FOURAGNAN

- Brain Research Imaging Centre •
- University of Plymouth United Kingdom •
- elsa.fouragnan@plymouth.ac.uk www.elsa-fouragnan.com

ACADEMIC CAREER AND EMPLOYMENT

University of Plymouth, UK Associate Professor in Cognitive Neuroscience

UKRI Future Leader Fellow May 2020 - Present

Head of NIBS unit at the Brain Research Imaging Centre

May 2018 - Present

University of Oxford, UK Postdoctoral Research Fellow, Decision and Action Lab

Advisor: Prof. Matthew Rushworth

May 2016 - May 2018

University of Glasgow, UK Postdoctoral Research Fellow, Philiastides Lab

Advisor: Prof. Marios Philiastides

April 2013 - May 2016

DARPA, San Diego, USA Biomedical Engineer (Research & development)

Quantum Applied Sciences & Research, DARPA research

March 2008 - June 2009

EDUCATION

University of Trento, Italy

University of Southern California,

Los Angeles, USA

PhD in Computational Neuroscience

Advisors: Prof. Giorgio Coricelli, Prof. Paolo Avesani

University of Bordeaux, France MEng (distinction) in Biomedical Engineering

Received in 2008, Polytechnic institute (INP-ENSC)

University of Bordeaux, France BA (1st class with distinction) in Maths applied to Life Sciences

Received in 2005, Victor Segalen, Bordeaux II

GRANTS, FELLOWSHIPS AND AWARDS

RESEARCH GRANTS

UKRI Future Leaders Fellow (Phase II) (£569,897) 2024-2027

PI "Towards a targeted neuromodulation intervention for substance use disorders"

BBSRC Responsive Mode Grant BB/Y001494/1/2024-2028 (£1,223,819)

PI "Multi-site and state-dependent effects of Focused Ultrasound on brain function and cognition"

Wellcome Trust Career Development Award (SIF) 2023-2031 (£2,140,669)

Co-I "Characterising the circuitry underlying simulation and how it misbehaves to create worry "

Strategic Investment Fund (SIF) 2021-2022 (£116,200)

PI "New generation of ultrasound brain stimulation device for double-blinded investigations"

UKRI Future Leaders Fellow 2020-2024 (£1,030,995)

PI "Mapping the neural basis of credit assignment for a new targeted intervention in addiction"

Leverhulme 2019-2022: Award to Patric Bach (PI) (£462,995)

Co-I "Social perception as Bayesian hypothesis testing and revision"

PhD European fellowship, 2009-2013

PhD candidate in Cognitive Neuroscience, advised by Prof. Giorgio Coricelli

SMALL RESEARCH GRANTS

Plymouth Institute of Health and Care Research (PIHR) 2022-2023 (£2,947)

PI "The effects of transcranial ultrasound stimulation of the anterior cingulate cortex in a human model of secondary hyperalgesia: a pilot study"

Multiple BRIC Pump Priming (>£40,000)

Co-I "Apathy and Reward Sensitivity with Transcranial Ultrasound Stimulation" 2023-2024

PI "Neuromodulation of hyperalgesia with TUS on the anterior cingulate cortex" 2022-2023

PI "Neurochemical and functional connectivity effects of TUS in humans" 2021-2022

PI "Effects of TUS on early visual detection" 2021-2022

Co-I "The Neuropsychological Markers of Specific Digital Harms: Highly Visual Social Media & Body Image Concern" 2022-2023

Co-I "Double dissociation of the dmPFC and TPJ in social counterfactual learning" 2022-2023

Co-I "Optimizing acquisition of prefrontal signal with multiband-multiecho fMRI" 2021-2022

Praxis Clinical Grant 2012: Award to Remi Neveu (£2000)

Co-I "The role of emotions and impulsivity in eating disorders"

Travel grant for J-1 exchange visitor (6 months), USC, Los Angeles, USA, 2010 *PhD visitor Scholar, KAP Economics Department, University of Southern California*

AWARDS

John Rothwell Award for Innovation and Excellence in Neuromodulation, BrainBox Initiative, 2024 PINS prize for Neuromodulation, followed by a Prize Essay in the journal *Science* (awarded to supervised PhD student Davide Folloni for co-authored papers)

Vice Chancellor's Award - University of Plymouth - Research and Impact Excellence, 2022

Award for best Neuroscientific contribution (~\$20,000) by the Hong Kong Polytechnic University, 2019

Best poster price, Foundation for Focused Ultrasound, Oxford University, September 2019

Best poster price, Neuroeconomics Summer School, Amsterdam University, June 2012

Award for exceptional performance in Mathematics, Atomic Energy Commissariat, Toulouse, 2006

PEER-REVIEWED JOURNAL PUBLICATIONS

* indicates equal contribution h-index (google scholar): 16 i10-index (google scholar): 19 Total number of citations: >1570

- **26-** Murphy and **Fouragnan** *Precisely interfacing with the human brain with Transcranial Ultrasound Stimulation* <u>PLOS Biology</u> (upcoming)
- **25- Fouragnan** E, Hosking B, Rushworth M*, Sel A* *Timing along the cardiac cycle modulates neural signals of reward-based learning* Nature Communications, 15 (1), 2976, 2024
- **24-** Bault N, Yaakub S, **Fouragnan** E Early-phase neuroplasticity induced by offline transcranial ultrasound stimulation in primates <u>Current Opinion in Behavioral Sciences</u> 56, 101370

- **23-** Klein-Flügge M, **Fouragnan** E*, Martin E* *The importance of acoustic output measurement and monitoring for the replicability of transcranial ultrasonic stimulation studies* Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation 2024
- **22-** Yaakub S, White T, Roberts J, Martin E, Verhagen L, Stagg C, Hall S, **Fouragnan E** *Transcranial* focused ultrasound-mediated neurochemical and functional connectivity changes in deep cortical regions in humans Nature Communications 14 (5318), 10.1038/s41467-023-40998-0
- **21-** Komarnyckyj M, Retzler C, Whelan R, Young O, **Fouragnan E***, Murphy A* Reward Dysfunction in Alcohol Dependence: An Electroencephalography Monetary Incentive Delay Task Study <u>Addiction Neuroscience</u> 8, 100116
- **20-** Yaakub S, White T, Kerfoot E, Verhagen L, Hammers A, **Fouragnan E** *Pseudo-CT from T1 weighted image for planning transcranial ultrasound study: an open-source tool* <u>Brain Stimulation</u>, Vol 16, issue 1 P75-78, 2023
- 19- Attali D*, Tiennot T*, Schafer M, **Fouragnan E**, Sallet J, Caskey C, Chen R, Darmani G, Bubrick H, Butler C, Stagg C, Klein-Flügge M, Verhagen L, Yoo, Butts Pauly K*, Aubry JF* *Three-Layer Model with Absorption for Conservative Estimation of the Maximum Acoustic Transmission Coefficient Through the Human Skull for Transcranial Ultrasound Stimulation Brain Stimulation*
- **18-** Pisauro M*, **Fouragnan** E*, Arabadzhiyska, Apps M*, Philiastides M* Neural Implementation of Bayesian mechanisms underlying the continous trade-off between cooperation and competition Nature Communications 2022, 13 (1), 1-18
- 17- Arabadzhiyska D, Garrod O, **Fouragnan E**, De Luca E, Schyns P, Philiastides M *A common neural account for social and non-social decisions* <u>Journal of Neuroscience</u> October 2022 doi:10.1523/JNEUROSCI.0375-22.2022
- **16-** Komarnyckyj M, Retzler C, Cao Z, Ganis G, Murphy A, Whelan R, **Fouragnan** E *At-risk alcohol users have disrupted valence discrimination during reward anticipation* 2022 <u>Addiction Biology</u> 27 (3), e13174, doi: doi.org/10.1111/adb.13174
- 15- Darmani G, Bergmann TO, Butts Pauly, Caskey, de Lecea, Fomenko, **Fouragnan E**, Legon W, Murphy, Nandi T, Phipps, Pinton G, Ramezanpour H, Sallet, Yaakub, Yoo, Chen R. *Non-invasive transcranial ultrasound stimulation for neuromodulation* 2022 <u>Clinical Neurophysiology</u>, 135 (51-73), doi:/10.1016/j.clinph.2021.12.010
- **14-** Folloni D*, **Fouragnan E** *, Wittmann M, Roumazeilles L, Tankelevitch L, ... *Ultrasound modulation of macaque prefrontal cortex selectively alters credit assignment-related activity and behavior* <u>Science advances</u> 7 (51), 2021 eabg7700
- 13- Trudel N, Wittmann MK, Scholl J, Klein-Flügge M, **Fouragnan** E, Tankelevitch L, Rushworth MFS, *Polarity of subjective uncertainty in ventromedial prefrontal cortex changes with behavioural adaptation across time* Nature Human Behavior. 2021 Aug 31. doi: 10.1038/s41562-020-0929-3. PMID: 32868885.
- 12- Wittmann M K, **Fouragnan** E, Folloni D, Klein-Flügge M, Chau B, Khamassi M, Rushworth MFS. *Global reward state affects learning, the raphe nucleus, and anterior insula in monkeys.* Nature Communications 11, 3771 (2020). doi:10.1038/s41467-020-17343-w
- 11- Lopez-Persem A, Roumazeilles L, Folloni D, Marche K, **Fouragnan E**, Khalighinejad N, Rushworth M, Sallet J *Differential functional connectivity underlying asymmetric reward-related activity in human and non-human primates* <u>PNAS</u> November 10, 2020 117 (45) 28452-28462 doi: 10. 1073/pnas.20007 59117

- **10- Fouragnan** E, Chau BKH, Folloni D, Kolling N, Verhagen L, Klein-Flügge M, Tankelevitch L, Papageorgiou GK, Aubry JF, Sallet J, Rushworth MFS. *The macaque anterior cingulate cortex translates counterfactual choice value into actual behavioral change*. Nature Neuroscience, 22(5), 797-808. 2019. doi: 10.1038/s41593-019-0375-6
- 9- Queirazza F, **Fouragnan E**, Cavanagh J, Steele D, Philiastides M. Neural signatures of reinforcement learning in unmedicated depressed patients predict response to Cognitive Behavioural Therapy– <u>Science Advances</u>. 2019
- 8- Folloni D, Verhagen L, Mars R, **Fouragnan** E, Aubry JF, Rushworth MFS, Sallet J. *Non-invasive and reversible manipulation of activity in deep structures of the primate brain using focal ultrasound neurostimulation*. Neuron. 101, 1109–1116. February 2019
- **7- Fouragnan** E, Retzler C, Philiastides MG. Separate neural representations of prediction error valence and surprise: Evidence from an fMRI meta-analysis. <u>Human Brain Mapping</u>. 2018;00:1–20. March 2018
- **6- Fouragnan** E, Retzler C, Mullinger K, Philiastides MG. Spatiotemporal neural characterization of prediction error valence and surprise during reward learning in humans. <u>Scientific Reports</u>. July 2017 (7):4762.
- 5- Pisauro A, **Fouragnan** E, Retzler C, Mullinger K, Philiastides MG. Neural correlates of evidence accumulation during value-based decisions revealed via simultaneous EEG-fMRI. Nature Communications. July 2017 (8): 15808.
- 4- Neveu R, **Fouragnan** E, Barsumian F, Carrier E, Lai M, Sultan J, Nicolas A, Coricelli G. *Preference for safe rather than risky options in binge eating*. March 2016. <u>Front. Behav. Neurosci</u>. doi: 10.3389/fnbeh.2016.0006
- **3- Fouragnan E**, Retzler C, Mullinger K, Philiastides M. *Two spatiotemporally distinct value systems shape reward-based learning in the human brain*. August 2015. <u>Nature Communications</u> (6):8107 doi:10.1038 /ncomms9107
- 2- Neveu R et D, Barsumian F, **Fouragnan** E, Carrier E, Lai M, Sultan J, Nicolas A, Coricelli G. *Improved planning abilities in binge eating*. August 2014. <u>PLoS ONE</u> 9(8):e105657
- **1- Fouragnan** E, Chierchia G, Greiner S, Neveu R, Avesani P, Coricelli, G. *Reputational priors magnify striatal responses to violation to trust.* February 2013. <u>Journal of Neuroscience</u> 33(8):3602–3611

PREPRINT AND UNDER-REVIEW

Yaakub SN, Bault N, Lojkiewiez M, Bellec E, Roberts J, Philip N, Rushworth M, **Fouragnan E** *Non-invasive Deep Neuromodulation of the Human Nucleus Accumbens Increases Learning from Positive Outcomes* (under review at <u>Nature Human Behavior</u>)

Murphy K, Nandi T, N'Djin, ..., Thomas A, Butts Pauly K, **Fouragnan** E, Ole Bergmann G A Practical Guide to Transcranial Ultrasonic Stimulation (TUS) for Neuromodulation: Recommendations from the IFCN-endorsed ITRUSST Consortium (under review at Clinical Neurophysiology)

Attali D, Schafer M, Fouragnan E, Caskey C, Chen R, Darmani G, Bubrick H, Sallet J, Butler C, ... *ITRUSST Consensus on Biophysical Safety for Transcranial Ultrasonic Stimulation* arXiv preprint arXiv:2311.05359 (under review at <u>Brain Stimulation</u>)

Palmer T, Kadri K, Fakra E, Scholl J, **Fouragnan** E Differential Relationship Between Meditation Methods and Psychotic-Like and Mystical Experiences PsyArXiv 2023 (under review at <u>PLOS Ones</u>)

TECHNICAL REPORTS AND DISSERTATION

Fouragnan E. The Neural Computation of Trust and Reputation. (April 2013) PhD thesis http://eprints-phd.biblio.unitn.it/970/

Matthews R, Soussou W, **Fouragnan E**, Turner P J, Shelby R A. (June, August, October, December 2008) *Wearable Electrophysiological Sensor Array for Detection of Neurotoxic Effects*. Defence Advanced Research Projects Agency Phase II [bi-monthly reports and final report submitted to DARPA]

Matthews R, **Fouragnan** E, McDonald N J, Soussou W, Turner P J, Shelby RA. (August, October 2008) *Real-Time Bio-Sensors for Enhanced C2ISR Operator Performance*. Air Force Research Laboratory (AFRL) Phase II [bi-monthly reports and final report submitted to DARPA]

Soussou W, Turner PJ, **Fouragnan E**, Trejo J. (November 2008) *EEG Electrode Noise/Classification trade-off study and CMR/Classification experimentation* [QUASAR internal report]

Fouragnan E, Lofi A, Hugon E, Danoy P. (July 2002) *Which services for wellbeing, stress and anxiety management?* [Technical Reports of Nouvelles Frontières]

INVITED TALK, CONFERENCE PRESENTATIONS

Key speaker:

Neurotechnology Centre, Launch, University of Glasgow, UK, March 2024
Ultrasound Neuromodulation Series, Launch, Attune Neuroscience, San Francisco, USA, February 2024
BrainBox Initiative Conference (John Rothwell Award), Welcome Centre, London, UK, September 2023
NIMH Ultrasound Neuromodulation for Mental Health Applications Workshop, September 2023
Society for Psychophysiological Research, *Presidential Symposium*, September 2022
International Symposium of Focused Ultrasound Neuromodulation, Mainz, September 2022
Welcome for Integrative Neuroscience, Launch Symposium, Oxford, UK, November 2017

Chair:

International Symposium of Focused Ultrasound Neuromodulation, Toronto, Canada, July 2024 International Symposium of Focused Ultrasound Neuromodulation, Mainz, Germany, September 2022 Computational Properties of the Prefrontal Cortex, Oxford, UK, May 2021

Invited guest lecturer:

Exeter Brain Network (EBN) seminar series, University of Exeter, UK, June 2024

15th anniversary of the Centre for Cognitive Neuroimaging, University of Glasgow, UK, June 2024

Brain Dynamic Network Unit Lecture Series, University of Oxford, UK, June 2024

Precision Imaging, School of Medicine, University of Nottingham, UK, May 2024

MRC CBU, Chaucer Club seminars series, Cambridge, UK, April 2024

NIMH, Section Learning and Plasticity, West Virginia, USA, January 2024

CHBH Seminar Series, University of Birmingham, UK, November 2023

International Meeting Neural Resources of Cognition, Magdeburg, Germany, November 2023

Workshop Ultrasound Neuromodulation, BrainBox Initiative, Stanford University, USA, July 2023

Focused Ultrasound Neuromodulation Conference at Stanford University, USA, July 2023

Institute of Medical Research, Leeds Seminar, University of Leeds, UK, May 2023

 $International\ conference\ of\ Brain\ Stimulation,\ TUS\ workshop,\ February\ 2023$

Seminar series, Institut du cerveau et de la moelle epiniere, Paris, January 2023

Workshop Non-Invasive Brain Stimulation Copenhagen, December 2022

Seminar series, University of Liverpool, December 2022

Workshop Nijmegen on Non-Invasive Brain Stimulation, Netherlans, September 2022

International Congress of Clinical Neurophysiology, September 2022

NWG-funded NIBS-course "TUS: Best Practice", July 2022

Seminar on Ultrasound Neurostimulation. Oxford, UK, July 2022

World congress of the International Neuromodulation Society, Barcelona, Spain, May 2022

International Symposium on Biology of Decision Making. Oxford, UK, May 2020

ISAM Neuroscience Interest Group (NIG), seminar, February 2020

Seminar series Huddersfield, UK, September, 2019

British Association for Cognitive Neuroscience, Glasgow, UK. September, 2019

INSPIRE Interdisciplinary Meeting. School of medicine, Plymouth, UK, April 2019

Seminar series. University of Huddersfield. Huddersfield, UK, November 2018

Seminar series. University of Plymouth. Plymouth, UK, October 2018

Cognitive & Behavioural Neuroscience Seminar. Oxford, UK, January 2017

LNiF series, Centre for Brain and Cognitive Science. Trento, Italy, June 2015

Centre for Cognitive Neuroscience. CNRS, Lyon, France, January 2015

Centre for Decision Research & Experimental Economics. Nottingham, UK, February 2013

LNiF series, Centre for Brain and Cognitive Science, Trento, Italy, April 2012,

Department of Economics KAP, USC, Los Angeles, USA, November 2010

Alptis Conferences and debates. Annual congress, Pessac, France, October 2008

Poster presentation as first author:

British Association for Cognitive Neuroscience, Plymouth, UK, September, 2017

Society for Neuroscience. Washington, USA, October 2017

Neuroeconomics Society, Annual Conference, Toronto, Canada, October, 2017

International Symposium on Biology of Decision Making, Bordeaux, France, May 2017

Society for Neuroscience. Chicago, USA, October 2015

Organisation for Human Brain Mapping, Hamburg, Germany, June 2014

Society for Neuroeconomics. Lausanne, Switzerland, June 2013

Society for Neuroeconomics. Miami, USA, September 2012

Concepts, Actions and Object (CAOs), Rovereto, Italy, May 2011

Poster presentation as last author:

 $5^{th}\,Focused\,\,Ultrasound\,\,Neuromodulation\,\,Conference\,\,at\,\,Stanford\,\,University,\,\,Toronto,\,\,Canada,\,\,2024$

Faculty of Health PGR showcase, Plymouth, UK, June 2024

BrainBox Initiative Conference, Welcome Centre, London, UK, September 2023

4th Focused Ultrasound Neuromodulation Conference at Stanford University, USA, July 2023

Faculty of Health PGR showcase, Plymouth, UK, June 2023

3rd International Symposium on Focused Ultrasound, Mainz, Germany, September 2022

Federation of European Neuroscience Societies (FENS) Forum, Paris, France, July 2022

6th HBP student conference on interdisciplinary brain research, UK, February 2022

Faculty of Health PGR showcase, Plymouth, UK, June 2022

Computational Properties of the Prefrontal Cortex, Oxford, UK, May 2022

International Symposium on Biology of Decision Making (online), 2021

Neurofrance (online), May 2021

SSA PhD symposium (online), November 2021

SSA Annual conference (online), November 2021

International Symposium on Biology of Decision Making (online), May 2020

MEDIA COVERAGE

ESSAY

The Conversation *Ultrasound waves zapped at the brain are being used to treat everything from hand tremors to addiction* Published: May 23, 2024

YouTube Video

John Rothwell Award Interview

https://www.youtube.com/watch?v=uJft6CAE8Ow

Stanford Online Course, invited by Prof Kim Pulls Pauly

https://www.youtube.com/watch?v=ReP_66XKl4s

Educational video on Low Intensity Focused ultrasound:

https://www.youtube.com/watch?v=KsugRldCspU

NEWS ARTICLE

New Medical Life Science: Study shows how low-intensity ultrasonic waves can modulate decision-making process in the brain (2019)

Science Daily, EurekAlert, MedicalXpress, Technology Network, Long Room, The medical news: *Low-intensity ultrasound can change decision-making process in the brain* (2019)

Focused Ultrasound Federation: Focused Ultrasound Used to Identify Behavior-specific Regions of the Brain (2017)

MedicalXpress, Separate brain systems process the consequences of our decisions (2017)

SCIENTIFIC BLOGS, INTERVIEWS

Neuroscience RSS Feeds - Neuroscience News Updates: Low-intensity ultrasound can change decision making process in the brain (2019)

ReliaWire: Counterfactual thinking causally related to the anterior cingulate cortex (2019)

Medical Research News and Interviews: Pulse Ultrasound to the Brain could be Used to Affect Decision Making (2019)

PSI-COMM newsletter, How do we learn? Insights from the brain (2017) video available at:

https://www.elsafouragnan.com/news

BBSRC, bbsrc.tumblr.com/post, Mapping the consequences of our decisions in the brain

TEACHING & SUPERVISION

Post-Doctoral Supervision

Dr Sophie Clarke, University of Plymouth, UK, 2024 - Present

Dr Suraya Dunford, University of Plymouth, UK, 2023 - Present

Dr. Siti Yaakub, University of Plymouth, UK, 2020 - 2023

PhD SUPERVISION as DoS and co-S (6 completed, 5 currents)

Rimsha Marukc, PhD in Neuroscience, University of Plymouth, UK, 2023 - Present

Mathilde Lojkiewiez, PhD in Neuroscience, University of Plymouth, UK, 2022 - Present

Nomiki Koutsoumpari, PhD in Neuroscience, University of Plymouth, UK, 2022 - Present

Tomithy Palmer, PhD in Neuroscience, University of Plymouth, UK, 2021 - Present

Kenza Kadri, PhD in Psychology, University of Plymouth, UK, 2020 (VIVA 2023) - Now postdoc at the Max Plank Institute, Germany

Mica Komarnyckyj, PhD in Psychology, University of Huddersfield, UK, 2018 – 2022 (VIVA 2022) – Now postdoc at the University of Manchester

Rory Baxter, PhD in Psychology, University of Plymouth, UK, 2018 – 2022 (VIVA 2022)

Eleonora Parrotta, PhD in Psychology, University of Aberdeen, UK, 2018 - 2022 (VIVA 2022)

Nadescha Trudel, PhD in Psychology, University of Oxford, UK, 2018 – 2021 (VIVA 2021) – Now postdoc at Max Planck UCL Centre for Computational Psychiatry and Ageing, London

Davide Folloni, PhD in Psychology, University of Oxford, UK, 2018 – 2021 (VIVA 2021) - Now postdoc at Icahn School of Medicine at Mount Sinai; USA; Science and PINS prize for Neuromodulation, followed by a Prize Essay in the journal *Science* (on co-authored papers).

PhD Examiner

Benjamen Clennell, PhD in Neuromodulation, Bristol Medical School, 2019 - Viva passed in 2024

Kitty Ban, PhD at Glasgow University, Glasgow, 2021 - Viva passed in 2024

Joshua Bolam, PhD at University of Leeds, 2019 - Viva passed in 2023

Nicholar Clairis, PhD at the Sorbonne University, Paris, France, 2018 - Viva passed in 2022

Paul Knytl, PhD at the University of Surrey, School of Psychology, UK, 2018 - Viva passed in 2021

Elodie Levy, PhD at the Sorbonne University, Science and Engineering, Paris, France, 2020 - Present

LECTURING

Each course includes lectures and workshops/tutorials. In the methodological courses, I teach on a range of topics, including brain analyses and connectivity, model-based fMRI analyses, Bayesian model comparison and behavioural models of reinforcement learning

MA in Human Neuroscience (three modules) – *Physics of Neuroimaging (module leader)* – *Fundamental in spatial and temporal neural signals –fMRI tools and analyses*, Plymouth, 2020 – Present

MA in Psychology (two modules) – *Issues in Cognitive and Brain Science* – *The neural basis of decisions*, Plymouth, 2018 – Present

UG in Psychology (two modules) – From Neurons to Behaviours – Introduction to cognitive neuroscience, Plymouth, 2018 – Present

UNIQ (summer school) - Dopamine and Learning, University of Oxford, Summer 2017

MA in Cognitive Sciences - Reinforcement Learning and Value-Based Decision, Trento, Italy, 2012

Operating Centre, Central Air Navigation Systems, Cognitive Properties of Human Factors and Error Models in Engineering, Bordeaux, France, June 2007

MA in Psychotherapy - *Mental Imagery, Neurobiology, Stress,* Institute of Hydrotherapy, France, 2006 UG Sports Management - *Mental Imagery for Cognitive Science*, Bordeaux, France, 2005

TUTORING

Dissertation Project, University of Plymouth, 2018 - present
Saint Peter College, University of Oxford, Hilary term 2018
Sarah Lawrence Programme, Wadham College, University of Oxford, Michaelmas Term 2017
UNIQ summer school, University of Oxford, July 2017
Critical review, University of Glasgow, first semester 2015, 2016

Dissertation Project, University of Glasgow, second semester 2015, 2016

PROFESSIONAL SERVICE

Executive member of ITRUSST, Equipment, Safety and Practice groups, 2018 – Present Head of the NIBS department, Brain research Imaging Center, University of Plymouth, 2018 – Present Board member of the Change Group, Wellcome Centre for Integrative Neuroscience, Oxford, 2017-2018

Ad hoc reviewer:

Grants: ANR (France, rapporteure et lecteure), ERC, BBSRC, MRC, ESRC, Wellcome Trust (UK); Journal (reviewer): Nature Communications, Nature Human Behavior, Nature Metabolism, Science Advances, Scientific Reports, Neuron, Brain Stimulation, Neuroimage, Journal of neuroscience, Iscience, Frontiers, IEEE, Current Biology, Cells Reports

Editor.

Journal: Current Opinion in Behavioral Science; Frontiers in Neuroscience

CONFERENCE AND WORKSHOP ORGANISATION

2- days Workshop on Neuromodulation, Exeter, UK, July 2024

5th International Symposium on Focused Ultrasound, Toronto University, Canada, July 2024 3-days hands-on Workshop on Focused Ultrasound in humans, sponsored by BrainBox Initiative, Plymouth, UK, May 2024

4th International Symposium on Focused Ultrasound, Stanford University, July 2023

3-days hands-on Workshop on Focused Ultrasound in humans, sponsored by BrainBox Initiative, Plymouth, UK, May 2023

3rd International Symposium on Focused Ultrasound, Mainz, September 2022

Computational Properties of the Prefrontal Cortex, Oxford, May 2021