Jeffrey R. Kelly

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Professional Profile:

<https://the-fish-guy.wixsite.com/website>

<https://www.researchgate.net/profile/Jeffrey_Kelly5>

<https://www.linkedin.com/in/thefishguy/>

Doctoral candidate and teaching assistant in Psychology (Neuroscience & Behaviour) at the University of Tennessee, Knoxville. Research interests include the neural, endocrine, and genetic mechanisms underlying social behaviour and group leadership in teleosts. Teaching background includes behavioural neuroscience, perceptual psychology, and astrophysics. Internationally trained and multi-lingual research professional with an interdisciplinary background.

**Educational Background**

**University of Tennessee Knoxville** (2019 - Present) – Doctor of Philosophy in Psychology (Neuroscience & Behaviour)

**Liverpool John Moores University** (2017 - 2019) **–** Master of Philosophy in Behavioural Neuroscience

**University of Montana** (2014 - 2016) –Bachelor of the Arts (Honours) in Experimental Psychology

**University College Dublin** (2015) – Perceptual & Cognitive Neuroscience

**North Seattle College** (2012 - 2014)

**Research Experience**

**University of Tennessee Knoxville**

*August 2019 – Present*

**Project #1:** Determining how individuals exposed to cadmium can affect group aggressive behaviour, and how administration alters social network position.

**Project # 2:** Investigating the effect of cadmium administration on swimming and exploratory behaviour in zebrafish.

Additional responsibilities included training and managing a team of 2 undergraduate students to assist with data collection and laboratory procedures.

**Liverpool John Moores University**

*September 2017 – July 2019*

**Project #1:** Analyzing neuronal activation in the Social Decision Making Network in response to different contexts of social exposure in zebrafish using the phospho-S6 ribosomal protein as a proxy for neuronal activation.

**Project #2:** Examining environmentally-driven plasticity in nonapeptide neurons in the preoptic area in zebrafish.

Additional responsibilities included training students in brain dissection, immunohistochemistry, sectioning, histology, and microscopy.

**Norwegian University of Science and Technology**

*January 2017 – May 2017*

**Project #1:** Analyzing behavioural plasticity and personality in foraging strategies in pairwise vs group settings in wild house sparrows.

**Project #2:** Investigating the relationship between temperature and thermal tolerances on phenotypic variation and aggression across multiple generations in zebrafish.

**University of Montana**

*September 2014 – July 2016*

**Project #1:** Investigating the effect of Fluoxetine administration on aggression and motor vs motivational behaviour in Siamese fighting fish.

**Project #2:** Studying the impact of Fluoxetine administration on peak interval responses in a Pavlovian instrumental transfer task in Sprague-Dawley rats.

**Project #3:** Examining the effects of Fluoxetine on spatial memory in a Morris water maze and neural serotonin expression in Long-Evans hooded rats.

**University of Tromsø**

*June – August 2015*

**Project #1*:***Investigating the impact of hypothermia on spatial memory and neuronal necrosis in the ventral hippocampus of Long-Evans hooded rats.

**Conferences & Presentations**

**Kelly, J.R., et al.** 2018. “Activation of the Social Behaviour Network in Zebrafish in Response to Different Social Cues.” European Conference on Behavioural Biology, Liverpool John Moores University, Liverpool, United Kingdom.

**Kelly, J. R., et al.** 2016. “Effects of Fluoxetine Administration on Spatial Memory in a Morris Water Maze” NASA MSGC Research Symposium, Montana State University, Bozeman, MT, USA.

**Kelly, J. R., et al.** 2016. “Effects of Fluoxetine on Aggressive Behaviour in *Betta Splendens*” UMCUR Research Conference, University of Montana, Missoula, MT, USA.

**Kelly, J. R., et al.** 2016. “Motor Impairments of Fluoxetine Administration in *Betta Splendens*” UMCUR Research Conference, University of Montana, Missoula, MT, USA.

**Kelly, J. R., et al.** 2015. “Betta Less Motivated: Effects of Fluoxetine on *Betta Splendens”*. UMCUR Research Conference, University of Montana, Missoula, MT, USA.

**Teaching**

**University of Tennessee Knoxville – Teaching Assistant***August 2019 – Present*

Lectures taught:

Sensation & Perception: Visual Receptors & Transduction

Sensation & Perception: Transduction in Photoreceptors

Sensation & Perception: Neural Processing & Perception

Sensation & Perception: The Organized Brain: LGN & Striate Cortex

Sensation & Perception: Higher Processing in the Extrastriate Cortex

Sensation & Perception: Perception of Motion

Sensation & Perception: Perceiving Depth & Size Pt. 1

Sensation & Perception: Perceiving Depth & Size Pt. 2

Teaching Assistant:

Psyc410 – Sensation & Perception

Psyc110 – Intro to Psychology

**Liverpool John Moores University – Teaching Assistant & Guest Lecturer**

*January 2018 – May 2019*

Lectures taught:

Neurobiology: Teleost Neurobiology

Physiology & Behaviour: Fish Anatomy

Physiology & Behaviour: Mackerel Dissection

Physiology & Behaviour: Rat Dissection

Genetics: The Genetic Pedigree

Genetics: Technological Tools for Genetic Analysis

Animal Behaviour: Primate Ethology

Teaching Assistant:

Developmental Biology

Animal Behaviour

Genetics

Neurobiology

Physiology & Behaviour

**Language Tutor**

*September 2017 – March 2018*

Independent private language tutor for Norwegian (Bokmål) and Spanish.

**Norwegian University of Science & Technology – Teaching Assistant**

*January 2017 – May 2017*

Teaching Assistant

Evolutionary Behavioural Ecology

**Udemy – Audio & Music Production in Steinberg Cubase** **(Online Teacher)**

*February 2017 – August 2017*

Independent online instruction of audio engineering and studio music production on the teaching platform Udemy.

**NASA – Public Outreach Educator**

*August 2015 – July 2016*

Educator for the NASA Space Public Outreach Team in the Montana Space Grant Consortium. Education included delivering guest lectures at schools in underrepresented and underfunded regions of Montana.

Lectures Taught:  
Pluto & The Kuiper Belt  
New Horizons Mission  
General & Special Relativity  
History of Astronomy  
Life in the Solar System

**Professional Skills**

**Laboratory & Field**

Fluorescent and Confocal microscopy, histology, immunohistochemistry, immunoblot, brain dissection, IP injections, stereotaxic surgery, neo-fluorescent tagging, reagent preparation, ring tagging, mist net use.

**Computer & Technology**

Microsoft Office, RStudio, SPSS, G-Power, HTML, CSS.

**Volunteer Experience**

**European Conference on Behavioural Biology – Organizer & Volunteer**

*August 2018*

Volunteer for the organizing committee and event volunteer during the 2018 ECBB conference hosted by Liverpool John Moores University.

**Flagship Missoula – Counselor**

*August 2014 – January 2015*

Counselor for children at Franklin Elementary School in Missoula Montana with the Flagship Program providing positive intervention in after-school programs for at-risk youth.

**Rock School – Music Instructor & Band Director**

*July 2014*

Camp counselor for the Seattle Rock School summer camp. Responsibilities included delivering guitar and drum lessons as well as band direction, studio production assistance, and guidance with songwriting.

**ConnecT1d – Counselor**

*Winters 2008 – 2014*

Camp counselor with the ConnecT1D program providing positive support, education, and community events for families with children diagnosed with type 1 diabetes. Responsibilities included community engagement, health education, and working in a pediatric healthcare environment.

**Language Proficiency**

English – Native

Norwegian – Working proficiency

Spanish – Working proficiency

Mandarin Chinese – Intermediate