# Education

2011 – 2014 **PhD in Psychiatric Imaging Genetics • Trinity College Dublin, the University of Dublin**

Thesis: *Investigating the impact of schizophrenia genome-wide associated variants on brain structure and structural connectivity using diffusion tensor imaging and structural MRI*

2009 – 2010 **MSc Neuroscience (with distinction) • Trinity College Dublin, the University of Dublin**

2006 – 2009 **BA Psychology (First Class Honors)** • **National University of Ireland, Galway**

# Honors and Awards

2006 – 2008 **Undergraduate Scholarship award for academic excellence** **•** National University of Ireland Galway

2008 - **Lifetime membership of PSI-CHI •** International Honors Society in Psychology

2014 **Best speaker award** **•** Human Disease Mapping, Royal College of Surgeons in Ireland

2016 **Symposium award** **•** Society of Biological Psychiatry meeting, Atlanta, Georgia

# Research Experience

2016 – present **Postdoctoral Fellow**, Psychiatry Neuroimaging Laboratory, Brigham and Women’s Hospital/Dept of Psychiatry, Beth Israel Deaconess Medical Center, Harvard Medical School.

My research at the Psychiatry Neuroimaging Laboratory and at the Department of Psychiatry, Beth Israel and Deaconess, will focus on DTI and connectomics in early schizophrenia and psychosis.

2014 – 2016 **Postdoctoral Fellow and ENIGMA Project Leader** **•** ENIGMA Center of Excellence, Institute of Neuroimaging and Informatics, Keck School of Medicine, USC

My research at the ENIGMA Center of Excellence focused on large-scale, multisite studies of DTI in schizophrenia and major depression.

2011 – 2014 **PhD candidate** **•** Neuropsychiatric Genetics Group, Department of Psychiatry, Trinity College Dublin

My PhD focused on examining the effects of previously identified schizophrenia genome-wide associated (GWAS) variants on measures of brain structural connectivity using DTI, cortical and subcortical brain measures.

# Research interests

* Neuroimaging • Diffusion tensor imaging • Clinical psychology • Neuroimaging of psychiatric disorders, including schizophrenia, bipolar disorder and major depressive disorder  Imaging genetics  Cognitive neuroscience

# Teaching and Supervision Experience

2011 – 2013 **Module tutor** **•** Trinity College Dublin

* + - Course: Behavioral Science for first year undergraduate medical students
    - Organized tutorial discussions on topics related to behavioral science in medicine
    - Explained difficult concepts clearly and concisely
    - Provided guidance to students researching term assignments
    - Graded end-of-year assignments

2012-2013 **Project supervisor** **•** Trinity College Dublin

* + - Supervised undergraduate medical students conducting a four week project in our lab
    - Supervised a fourth year undergraduate neuroscience student on a three month summer

placement in our lab

2016 **Guest lecturer • USC**

* Lectured as part of a seminar series at the Imaging Genetics Center, USC

# Skills

* **Medical image analysis** (diffusion tensor imaging, tractography, functional MRI, FreeSurfer, FSL, ExploreDTI, LONI Pipeline)  **Computer programming** (BASH, R, SPSS)  Advanced statistics • **Neuropsychological assessment** • **Lecturing** and oration (diploma in speech and drama) • **Peer review** • Web development  **Scientific writing** • Mentoring and project management • **Scientific communication and outreach**

# Publications, peer-reviewed

* Van Erp TGM, […], **Kelly S**, et al. Subcortical brain volume abnormalities in 20228 individuals with schizophrenia and 2540 healthy controls via the ENIGMA consortium. Molecular Psychiatry, 21, 547-553, (2016).
* Whelan C, […], **Kelly S**, *et al*. Heritability and reliability of automatically segmented human hippocampal formation subregions. *NeuroImage*, 128, 125-137, (2016).
* Thompson PM, […] **Kelly S** *et al*. ENIGMA and the individual: Predicting factors that affect the brain in 35 countries worldwide. *NeuroImage (In Press)*, (2015)
* Patel VS, **Kelly S,** Wright C *et al. MIR137HG* risk variant rs1625579 genotype is related to corpus callosum volume in schizophrenia. *Neuroscience Letters,* 602, 44-49, 2015.
* Thompson PM, […] **Kelly S** *et al*. The ENIGMA Consortiium: large-scale collaborative analyses of neuroimaging and genetic data. *Brain Imaging and Behavior*, 8(2), 153-182 (2014). Conferences
* **Kelly S,** Morris,D, Mothersill O, Rose, EJ, Fahey C, O’Brien C, O’Hanlon E, Gill M, Corvin A, Donohoe G. Genome-wide schizophrenia variant at *MIR137* does not impact white matter microstructure in healthy participants. *Neuroscience Letters,* 547(27), 6-10, (2014).
* Rose EJ, […], **Kelly S**, *et al.* The *miR-137* schizophrenia susceptibility variant rs1625579 does not predict variability in brain volume in a sample of schizophrenic patients and healthy individuals. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 165(6), 467-471 (2014).
* Mothersill O, Morris DW, **Kelly S**, Rose EJ, Fahey C, O’Brien C, Lyne R, Reilly R, Gill M, Corvin AP, Donohoe G Effects of *MIR137* on fronto-amygdala functional connectivity. *Neuroimage*, 90(15), 189-195 (2014).
* Thompson P, Stein J, Medland S et al (2014). The ENIGMA Consortium: large-scale collaborative analyses of neuroimaging and genetic data. *Brain Imaging and Behaviour,* 8(2), 153-182 (2014).
* Mothersill O\*, **Kelly S\*,** Rose EJ, Donohoe G (2012). The effects of psychosis risk variants on brain connectivity: a review. *Frontiers in Molecular Psychiatry* **3**(18), 1-12 (2012).
* Rose EJ, Greene C, **Kelly S**, Morris DW, Robertson I, Fahey C, Jacobson S, O’Doherty J, Newell F, McGrath J, Bokde A, Garavan H, Frodl T, Gill M, Corvin AP, Donohoe G (2012). The *NOS1* variant rs6490121 is associated with variation in prefrontal function and grey matter density in healthy controls. *Neuroimage* **60**(1), 614-622 (2012).

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| * **Posters: •** Federation of European Neuroscience Societies (FENS), Barcelona, Spain 2012, **•** Human Brain Mapping (HBM), Seattle, Washington 2013, **•** Inaugural Human Disease Mapping conference, Royal College of Surgeons in Ireland (RCSI), 2014 (winner: poster prize) **•** Human Brain Mapping, Hamburg, Germany, 2014 **•** Human Brain Mapping, Honolulu, Hawaii, 2015 **•** Society for Neuroscience (SfN), Chicago, Illinois, 2015 • Human Brain Mapping, Geneva, Switzerland, 2016 |  |  |
| * **Oral presentations:** **•** Neuroscience Ireland, RCSI, 2012 **•** Postgraduate Research Day, Trinity College Dublin, 2012 **•** Irish Diffusion Imaging Group meeting, NUI Galway, 2013 **•** ENIGMA Principal Investigators Meeting, Turtle Bay, Hawaii, 2015 **•** NIH site visit, Palm Desert, California, 2015 **•** Society of Biological Psychiatry Annual conference, Atlanta, Georgia, 2016 • ENIGMA Principal Investigators Meeting, Chateau de Bossey, Geneva, Switzerland, June 2016 **•** NIH site visit, Sonoma, California, 2016 |  |  |

# Interests

* I was actively involved in student politics during my time at NUIG, canvassing for local politicians and having the opportunity to attend the inauguration of Irish President, Michael D. Higgins.
* I have a keen interest in drama, having performed monologues from plays including The Plough and the Stars and Dancing at Lughnasa. I currently hold a sixth-grade diploma in speech and drama.
* During my free time I enjoy playing guitar and drums and occasionally partake in traditional music sessions.

# Referees

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