Dr Sinéad King, BSc, MSc, PhD
(Assistant Professor and Director of Clinical Research)

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

I have over 35 peer reviewed articles published, some of which are included below:

Cole, E. J., Phillips, A. L., Bentzley, B. S., Stimpson, K. H., Nejad, R., Barmak, F., Veerpal, C., Khan, N., Cherian, K., Felber, E., Brown, R., Choi, E., **King, S.,** Pankow, H., Bishop, J. H., Azeez, A., Coetzee, J., Rapier, R., Odenwald, N., Carreon, D., Hawkins, J., Chang, M., Keller, J., Raj, K., DeBattista, C., Booil, J., Espil, F. M., Schatzberg, A. F., Sudheimer, K D, Williams, N R. ***Stanford Neuromodulation Therapy (SNT): A Double-Blind Randomized Controlled Trial. The American Journal of Psychiatry.***

This paper, published in the American Journal of Psychiatry, significantly enhances the field in using specific transcranial magnetic stimulation (TMS) methods in treatment resistant mood disorders. Stanford Neuromodulation Therapy (SNT) — the first FDA-cleared accelerated neurostimulation protocol for treatment-resistant depression. Early trials of SNT achieved remission rates of up to 90% after just five days of treatment, and subsequent randomised controlled trials confirmed its efficacy, including findings linking treatment response to changes in brain network connectivity — work directly relevant to Dr King's own research focus.

King S, Zhang Z, Robinson L, Whelan R, Nees F, Bobou M, Banaschewski T, Barker GJ, Bokde ALW, Flor H, Grigis A, Garavan H, Gowland P, Heinz A, Brühl R, Martinot JL, Martinot MP, Artiges E, Poustka L, Hohmann S, Holz N, Baeuchl C, Smolka MN, Vaidya N, Walter H, Winterer J, Broulidakis MJ, van Noort BM, Stringaris A, Zhang Y, Sinclair J, Schumann G, Schmidt U, Desrivières S, Cotter D, Young AH, Donohoe G, Wolsztynski E. **Characterising a stress-sensitive default mode network (DMN) deficit in major psychiatric disorders. Nature Commun Biol**. 2026 Feb 25:10.1038/s42003-025-09400-1. doi: 10.1038/s42003-025-09400-1. Epub ahead of print. PMID: 41741790; PMCID: PMC7619006.

The above paper, published in Nature (2026) significantly advances knowledge in the field of stress related brain network instability in psychiatry, with important implications for prevention and treatment in young adults, where it identifies a common transdiagnostic instability of the default mode network related to stress using advanced computational methods.

Xie C, Xiang S, Shen C, Peng X, Kang J, Li Y, Cheng W, He S, Bobou M, Broulidakis MJ, van Noort BM, Zhang Z, Robinson L, Vaidya N, Winterer J, Zhang Y, **King S**, Banaschewski T, Barker GJ, Bokde ALW, Bromberg U, Büchel C, Flor H, Grigis A, Garavan H, Gowland P, Heinz A, Ittermann B, Lemaître H, Martinot JL, Martinot MP, Nees F, Orfanos DP, Paus T, Poustka L, Fröhner JH, Schmidt U, Sinclair J, Smolka MN, Stringaris A, Walter H, Whelan R, Desrivières S, Sahakian BJ, Robbins TW, Schumann G, Jia T, Feng J; IMAGEN Consortium; STRATIFY/ESTRA Consortium; ZIB Consortium. **A shared neural basis underlying psychiatric comorbidity. Nature Med.** 2023 May;29(5):1232-1242. doi: 10.1038/s41591- 023-02317-4. Epub 2023 Apr 24. Erratum in: Nat Med. 2023 Sep;29(9):2375. PMID: 37095248; PMCID: PMC10202801.

The above paper, published in Nature (2023) significantly advances knowledge in the field of precision medicine in psychiatry, where it identifies a common psychopathology factor of mental illness using advanced machine learning methods. I collected and managed the datasets that were used for this paper, i.e., STRATIFY and IMAGEN.

1. **King, S.,** Holleran, L., Mothersill, D., Rokita, K., Kelly, JP., McManus, R., Kenyon, M., Morris, DW., Corvin, A., Hallahan, BH., McDonald, C., McKernan, DP., Donohoe, G (2021) **Early Life Adversity, Functional Connectivity, and Cognition in Schizophrenia, the mediating role of IL-6. Brain, Behavior & Immunity.**
2. **King S**, Mothersill D, Holleran L, Patlola SR, Burke T, McManus R, Kenyon M, McDonald C, Hallahan B, Corvin A, Morris DW, Kelly JP, McKernan DP, Donohoe G (2023). **Early life stress, low-grade systemic inflammation and weaker suppression of the default mode network (DMN) during face processing in Schizophrenia. Translational Psychiatry.**
3. Mothersill, D.*, **King, S.*,** Holleran, L., Mothersill, D., Rokita, K., Kelly, JP., McManus, R., Kenyon, M., Morris, DW., Corvin, A., Hallahan, BH., McDonald, C., McKernan, DP., Donohoe, G (2022**). Interleukin 6 predicts increased neural response during face processing in a sample of individuals with schizophrenia and healthy participants: A functional magnetic resonance imaging study. NeuroImage: Clinical**
4. **King, S.,** Holleran, L., Mothersill, D., Rokita, K., Kelly, JP., McManus, R., Kenyon, M., Morris, DW., Corvin, A., Hallahan, BH., McDonald, C., McKernan, DP., Donohoe, G. (2022) **Childhood trauma, IL-6 and weaker suppression of the default mode network during theory of mind. Brain, Behaviour and Immunity – Health**
5. Dauvermann, M., Mothersill, D., Rokita, K., **King, S.,** Holleran, L., Kane, R., McKernan, DP., Kelly, JP., Morris, DW., Corvin, A., Hallahan, BH., McDonald, C., Donohoe, G (2021) **Changes in Default-Mode Network Associated with Childhood Trauma in Schizophrenia. Schizophrenia Bulletin**

The 5 published papers (see above 3-8) were published in 1.5 years based on my postdoctoral research at University Galway when working with Professor Gary Donohoe as a postdoctoral fellow on the iRELATE project.

King S, O'Connor J, Corley E, Tronchin G, Fontana E, Nabulsi L, Kang MJY, Radua J, Hallahan B, Abé C, Alda M, Alnæs D, Alonso-Lana S, Amoretti S, Bauer J, Benedetti F, Berger K, Berk M, Bøen E, Böhnlein J, Boye B, Bravi B, Canales-Rodríguez EJ, Dannlowski U, Demro C, Di Giorgio A, Diaz-Zuluaga AM, Elvsåshagen T, Favre P, Erwin-Grabner T, Forte MF, Fullerton JM, Furlong LS, Rossell SL, Glahn DC, Goldstein BI, Gotlib IH, Goya-Maldonado R, Green MJ, Grotegerd D, Gruber O, Haarman BCM, Hahn T, Hajek T, Hater L, Hermesdorf M, Houenou J, Howells FM, Karantonis JA, Kennedy KG, Kircher T, Klahn AL, Konowski M, Krämer B, Lahud E, Kuplicki R, Landén M, López-Jaramillo C, MacIntosh BJ, Meinert H, Meinert S, Melloni EMT, Mitchell PB, Mwangi B, Nenadić I, Overs BJ, Parker N, Pearlson G, Pomarol-Clotet E, Prisciandaro JJ, Quidé Y, Roberts G, Rodrigue A, Rodríguez-Cano E, Rauer L, Sacchet MD, Salvador R, Sambataro F, Satterthwaite TD, Savitz J, Scheffler F, Schürmeyer N, Shen C, Sim K, Soares JC, Solanes A, Soeiro-de-Souza MG, Sponheim SR, Stein DJ, Stein F, Temmingh HS, Teutenberg L, Thomopoulos SI, Urosevic S, Van Rheenen TE, Vieta E, Westlye LT, Wolf DH, Wu MJ, Yatham LN, Zunta-Soares GB, Cannon DM, Thompson PM, Andreassen OA, Ching CRK, McDonald C; ENIGMA Bipolar Disorder Working Group. **Psychotropic medications and their interactions with subcortical brain volume in bipolar disorder: An ENIGMA mega-analysis. Mol Psychiatry. 2026** May;31(5):2941-2953. doi: 10.1038/s41380-025-03432-z. Epub 2026 Jan 15. PMID: 41540091; PMCID: PMC13099646.

New paper from the ENIGMA Bipolar Disorder Working Group:
By pooling MRI data from 8,700+ participants across 34 research groups worldwide, Dr Sinead King and the team examined how psychotropic medication status relates to subcortical brain volumes in bipolar disorder using both traditional and Neuroscience-based Nomenclature (NbN) classifications. This work highlights the power of large-scale, international collaboration to tackle complex clinical and neurobiological questions that single studies can't answer alone.