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Education & Training

- 2013 - 2016 DPhil. Clinical Neurosciences, University of Oxford, United Kingdom.
- 2012 - 2016 PhD. Biomedical and Pharmaceutical Sciences, Universiteit Maastricht, The Netherlands, and Universite de Liege, Belgium.
- 2005 - 2007 M.Sc. Biomedical Engineering, Universidade Tecnol6gica Federal do Parana, Curitiba, Brazil
- 1999 - 2004 M.D., Universidade Federal do Parana, Curitiba, Parana, Brasil

Research Focus

Dr. Winkler's research program is focused in four areas: (1) Image Phenotyping, obtaining detailed measurements of brain anatomy and function using magnetic resonance imaging (MRI). This area aims to provide accurate information into brain structure and function non-invasively, in vivo. (2) Statistical Methods for Brain Imaging, developing statistical methods for analyzing brain imaging data. These techniques are used to investigate the relationship between brain imaging findings and indicators of health and disease, including genetic and behavioral factors. (3) Psychiatric Genetics, investigating genetic variants that correlate with psychiatric manifestations, aiming to improve the classification and understanding of psychiatric disorders. (4) Computational Psychiatry, developing numerical models of brain function for healthy and diseased states, utilizing computational approaches for analysis. Dr. Winkler's work contributes to the fields of neuroimaging, applied statistics, psychiatric genetics, and computational psychiatry, aiming to enhance understanding of brain function and disorders.

Publications

Peer-reviewed

1. Zugman A, Jett L, Antonacci C, Winkler AM, Pine DS. **A systematic review and meta-analysis of resting-state fMRI in anxiety disorders: Need for data sharing to move the field forward.** *J Anxiety Disord.* 2023 Oct;99:102773. doi: 10.1016/j.janxdis.2023.102773.
2. Schaper FLWVJ, Nordberg J, Cohen AL, Lin C, Hsu J, Horn A, Ferguson MA, Siddiqi SH, Drew W, Soussand L, Winkler AM, Simó M, Bruna J, Rheims S, Guenot M, Bucci M, Nummenmaa L, Staals J, Colon AJ, Ackermans L, Bubrick EJ, Peters JM, Wu O, Rost NS, Grafman J, Blumenfeld H, Temel Y, Rouhl RPW, Joutsa J, Fox MD. **Mapping Lesion-Related Epilepsy to a Human Brain Network.** *JAMA Neurol.* 2023 Sep 1;80(9):891-902. doi: 10.1001/jamaneurol.2023.1988.
3. Zugman A, Alliende LM, Medel V, Bethlehem RAI, Seidlitz J, Ringlein G, Arango C, Arnatkevičiūtė A, Asmal L, Bellgrove M, Benegal V, Bernardo M, Billeke P, Bosch-Bayard J, Bressan R, Busatto GF, Castro MN, Chaim-Avancini T, Compte A, Costanzi M, Czepielewski L, Dazzan P, de la Fuente-Sandoval C, Di Forti M, Díaz-Caneja CM, María Díaz-Zuluaga A, Du Plessis S, Duran FLS, Fittipaldi S, Fornito A, Freimer NB, Gadelha A, Gama CS, Garani R, Garcia-Rizo C, Gonzalez Campo C, Gonzalez-Valderrama A, Guinjoan S, Holla B, Ibañez A, Ivanovic D, Jackowski A, Leon-Ortiz P, Lochner C, López-Jaramillo C, Luckhoff H, Massuda R, McGuire P, Miyata J, Mizrahi R, Murray R, Ozerdem A, Pan PM, Parellada M, Phahladira L, Ramirez-Mahaluf JP, Reckziegel R, Reis Marques T, Reyes-Madriral F, Roos A, Rosa P, Salum G, Scheffler F, Schumann G, Serpa M, Stein DJ, Tepper A, Tiego J, Ueno T, Undurraga J, Undurraga EA, Valdes-Sosa P, Valli I, Villarreal M, Winton-Brown TT, Yalin N, Zamorano F, Zanetti MV; cVEDA; Winkler AM, Pine DS, Evans-Lacko S, Crossley NA. **Country-level gender inequality is associated with structural differences in the brains of women and men.** *Proc Natl Acad Sci U S A.* 2023 May 16;120(20):e2218782120. doi: 10.1073/pnas.2218782120.
4. Ji JL, Demšar J, Fonteneau C, Tamayo Z, Pan L, Kraljič A, Matkovič A, Purg N, Helmer M, Warrington S, Winkler A, Zerbi V, Coalson TS, Glasser MF, Harms MP, Sotiropoulos SN, Murray JD, Anticevic A, Repovš G. **QuNex—An integrative platform for reproducible neuroimaging analytics.** *Front. Neuroinform.* 2023; 17:1104508. doi: 10.3389/fninf.2023.1104508.
5. Leerssen L, Aghajani M, Bresser T, Rösler L, Winkler AM, Foster-Dingley JC, Van Someren EJW. **Cognitive, behavioral and circadian rhythm interventions for insomnia alter emotional brain responses.** *Biol Psychiatry Cogn Neurosci Neuroimaging.* 2023 Mar 21; doi: 10.1016/j.bpsc.2023.03.007. Online ahead of print.
6. Williams LZJ, Fitzgibbon SP, Bozek J, Winkler AM, Dimitrova R, Poppe T, Schuh A, Makropoulos A, Cupitt J, O'Muircheartaigh J, Duff EP, Cordero-Grande L, Price AN, Hajnal JV, Rueckert D, Smith SM, Edwards AD, Robinson EC. **Structural and functional asymmetry of the neonatal cerebral cortex.** *Nat Hum Behav.* 2023 Mar 16. doi: 10.1038/s41562-023-01542-8. Online ahead of print.
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 9. Khosravi P, Zugman A, Amelio P, Winkler AM, Pine DS. **Translating Big Data to Clinical Outcomes in Anxiety: Potential for Multimodal Integration.** *Curr Psychiatry Rep.* 2022 Dec;24(12):841-851. doi: 10.1007/s11920-022-01385-6. Epub 2022 Dec 5. Review. PubMed PMID: 36469202.
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 11. Bas-Hoogendam JM, Bernstein R, Benson BE, Buss KA, Gunther KE, Pérez-Edgar K, Salum GA, Jackowski AP, Bressan RA, Zugman A, Degnan KA, Filippi CA, Fox NA, Henderson HA, Tang A, Zeytinoglu S, Harrewijn A, Hillegers MHJ, White T, van IJzendoorn MH, Schwartz CE, Felicione JM, DeYoung KA, Shackman AJ, Smith JF, Tillman RM, van den Berg YHM, Cillesen AHN, Roelofs K, Tyborowska A, Hill SY, Battaglia M, Tettamanti M, Dougherty LR, Jin J, Klein DN, Leung HC, Avery SN, Blackford JU, Clauss JA, Hayden EP, Liu P, Vandermeer MRJ, Goldsmith HH, Planalp EM, Nichols TE, Thompson PM, Westenbergh PM, van der Wee NJA, Groenewold NA, Stein DJ, Winkler AM, Pine DS. **Structural Brain Correlates of Childhood Inhibited Temperament: An ENIGMA-Anxiety Mega-analysis.** *J Am Acad Child Adolesc Psychiatry.* 2022 Sep;61(9):1182-1188. doi: 10.1016/j.jaac.2022.04.023. Epub 2022 Jun 13. PubMed PMID: 36038199; PubMed Central PMCID: PMC9434711.
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22. Zugman A, Winkler AM, Pine DS. **Recent advances in understanding neural correlates of anxiety disorders in children and adolescents.** *Curr Opin Psychiatry.* 2021 Nov 1;34(6):617-623. doi: 10.1097/YCO.0000000000000743. Review. PubMed PMID: 34475352; PubMed Central PMCID: PMC8490291.
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