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Multiscale neuroscience of the healthy and diseased brain

Wei, Y.

2020

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Wei, Y. (2020). *Multiscale neuroscience of the healthy and diseased brain*.

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Publications

Peer-reviewed articles

Sabrin K.M., **Wei Y.**, van den Heuvel M.P., Dovrolis C. (2020): The hourglass organization of the *C. elegans* connectome, *PLoS Computational Biology*

Wei Y., de Lange S.C., Scholtens L.H., Ardesch D., Jansen P.R., Savage J.E., Watanabe K., Li L., Preuss T.M., Rilling J.K., Posthuma D., van den Heuvel M.P. (2019): Genetic mapping and evolutionary analysis of human-expanded cognitive networks, *Nature Communications* [**Chapter 3**]

Cui L. ¹, **Wei Y.** ¹, Xi Y., Griffa A., de Lange S.C., Kahn R.S., Yin H., van den Heuvel M.P. (2019): Brain connectome-based patterns of first-episode medication naïve schizophrenia, *Schizophrenia Bulletin* [**Chapter 5**]

Zhang J., Scholtens L.H., **Wei Y.**, van den Heuvel M.P., Chanes L., Barrett L.F. (2019): Topography impacts topology: anatomically central areas exhibit a “high-level connector” profile in the human cortex, *Cerebral Cortex*

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Wei Y., Collin G., Mandl R.C.W., Cahn W., Keunen K., Schmidt R., Kahn R.S., van den Heuvel M.P. (2017): Cortical magnetization transfer abnormalities and connectome dysconnectivity in schizophrenia, *Schizophrenia Research* [**Chapter 6**]

Wei Y., Liao X., Yan C., He Y., Xia M. (2017): Identifying topological motif patterns of human brain functional networks, *Human Brain Mapping*

Yuan X., Han Y., **Wei Y.**, Xia M., Sheng C., Jia J., He Y. (2016): Regional homogeneity changes in amnesic mild cognitive impairment patients, *Neuroscience Letters*

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Wei Y., de Lange S.C., Pijnenburg R., Scholtens L.H., Ardesch D.J., Watanabe K., Posthuma D., van den Heuvel M.P.: GAMBA: an integrative platform for gene functional annotation, *in preparation* [**Chapter 4**]

Turk E. ¹, **Wei Y.** ¹, Scholtens L.H., Benders M.J.N.L., van den Heuvel M.P.: Prenatal human brain development brings insight into human-specific evolution, *in preparation*

Jansen P.R., Nagel M., Watanabe K., **Wei Y.**, Savage J.E., de Leeuw C.A., van den Heuvel M.P., van der Sluis S., Posthuma D. (2019): GWAS of brain volume on 54,407 individuals and cross-trait analysis with intelligence identifies shared genomic loci and genes, *bioRxiv*

McColgan P., Helbling S., Vaculčíaková L., [...], **Wei Y.**, [...], Weiskopf N. (2020): Relating quantitative 7T MRI across cortical depths to cytoarchitectonics, gene expression and connectomics: a framework for tracking neurodegenerative disease, *bioRxiv*

¹ contributed equally

Acknowledgements

First of all, I would love to express my sincere gratitude to my promoter, Martijn. Thank you for giving me the opportunity to study in the Netherlands and to work with you in the connectome lab. I had my best five years in your lab. I appreciate everything you taught me and all the support and encouragement you gave me, as well as the countless remarks you made in all of my manuscripts, posters, and slides. I'm super thankful for everything you did!

I would like to thank my promoter, Danielle. It's my great honor to join the CTG lab under your supervision. It's the best lab with amazing research outputs and nice people to work with. From you I realized the importance to do "high-impact" research. Thank you for building up such a fantastic lab and for giving me all of the great advice on my works.

I would like to thank my promoter when I stayed at the UMC Utrecht, Prof. Kahn. Thank you for supervising me in the first two years of my doctoral study and for giving me all of the great and important supports.

Many thanks to all co-authors in my papers, Dr. James Rilling, Dr. Todd Preuss, and Dr. Longchuan Li from the Emory University, Dr. René Mandl and Dr. Wiepke Cahn from the UMC Utrecht. I enjoyed our collaborations and I appreciate the great help from all of you.

I would give my gratitude to Dr. Yong He, who brought me into the field of the connectomics and guided me in my master studies.

Now it's time to thank all my colleagues in the lab. For me, you're not only my colleagues and friends but also my family in the Netherlands. Lianne, thank you for your

help in the past years. Also, thank you for your plants and brain arts that "saved" my life and gave me inspiration. It's a great joy to work together with you. Siemon, many thanks for all your help during the last 4 years. Also, thank you for all of the funny stories and all of the "Dutch culture" you showed me. Elise, thank you for teaching me all of the knowledge about the baby and fetal brain. I always think that you're doing the coolest things on babies, now also, your own baby. It's so nice to work with you. Dirk Jan, thank you for your help in my works. More importantly, thank you for saving me during ice-skating and teaching me "zwembroek"! Rory, I'm very glad to have you as my office mate. Thanks for taking the great responsibility to be my paranymp. Thank you for making tricks on me and telling me cycling with crossed hands. Elleke, it's so nice to have you in the lab. Thank you for bringing so much energy and fun! Furthermore, I would like to thank all other colleagues in the CTG lab. Tinca, Vivi, Sophie, Iris, Christiaan, Masa, Jorim, Stephanie, Mats, Cesar, Josefin, Eva, Douglas, Emil, ... thank you for all of the fantastic memory of lab outings, boat drinks, the trip to Texel, ice skating, Friday drinks, fossball, and of course, SPEC meetings. I want to give special thanks to Kyoko, Jeanne, and Philip for your great help in my papers, and to Eline for your important help in administrative affairs.

I want to thank all alumni of the connectome lab. Xiao, thank you for helping me so much to adapt my daily life in the Netherlands. It was my honor to be your navigator in your old Peugeot. Alessandra, it's my great pleasure to meet you in the Netherlands. You're always so nice to talk to and to give me a hand. We'll have a chance to eat more dumplings. Longbiao, thanks for the great collaboration and the wonderful memory in the Netherlands! Jil, thank you for sharing your knowledge on network science and also all your jokes (e.g., the one of Heineken)! Hannelore, thank you for being so kind and bringing us nice apple cakes! Marcel, thank you for sharing your knowledge and helping me with my projects. You're a legend in my mind. Guusje, thank you for always being so nice to help me. Ruben, thank you for the nice chatting on football, Federer, and your wonderful travelings. Fraukje, it's so nice to meet you, chat with you, and watch Ajax together with you. Kristin and Ingrid, thank you for all of the joys you brought to the lab and for being so supportive! Jet, Lotte, Jiahe, Judi, and others who joined the connectome lab before, many thanks to all of you for bringing me the wonderful memory in the past years.

I would like to thank Chengke Han, Xinyu He, and members of 嘎嘎乐园, thank you for the happiness and the wonderful memory of our youth. Yin Cui, thank you for

guiding me to the correct track and the world of academia. Cheng Ma, Fangyao Lv, thank you for the great time at the Beihang University. Fei Duan, Zhen Li, Jiaotian Yang, Xueyi Shen, thank you for the wonderful memory during our master at the Beijing Normal Univesity. Yi Jin, thank you for bringing us the most lovely bunny, Qiu Qiu, who accompanied me for the past two years. Yujie He, Xiaoxu Lei, Linghe Wu, etc., thank you for the best years in the Netherlands. For those whom I do not mention here by name, I will try to express my gratitude at other times and in other ways, and I thank you once again.

Finally, I would take this chance to thank my family. 感谢我的爷爷，奶奶，外公，外婆，岳父，岳母，姐姐弟弟们，姨和姨夫们，感谢你们对我的帮助。特别地，感谢我的外婆，谢谢您把我抚养成人。感谢我的爸爸和妈妈，谢谢你们无时无刻的支持，谢谢你们为我付出的一切，我爱你们！ I would love to thank my wife, Ting. I was so lucky to meet you in my life. Without your support I couldn't be able to finish my PhD. Thank you very much for everything you did! I am looking forward to new adventures with you for the rest of my life. I love you!

Curriculum vitae

Yongbin Wei was born on April 16th, 1990, in Zunyi, Guizhou, China. He graduated from high school in 2008 at the Zunyi Hang-Tian Middle School (ranked top 0.5% in the National College Entrance Examination in Guizhou province). After that he started his bachelor's study in Electronic and Information Engineering at the Beihang University, Beijing. He received his bachelor's degree in 2012 and then started his master's study in Computer Science and Application at the Beijing Normal University, Beijing. During his studies, he joined the Laboratory of Imaging Connectomics at the National Key Laboratory of Cognitive Neuroscience and Learning led by Prof. Dr. Yong He. Yongbin did researches on the functional connectomics and Alzheimer's Disease, and he became interested in applying network neuroscience approaches to understand brain diseases.

In 2015, Yongbin moved to Utrecht, the Netherlands and started his PhD study in the Dutch Connectome Lab (DCL) at the Department of Psychiatry, University Medical Center Utrecht, under the supervision of Prof. Dr. René Kahn and Dr. Martijn P. van den Heuvel. In 2018, he moved to the Department of Complex Trait Genetics, Center for Neurogenomics and Cognitive Research, VU Amsterdam and continued his PhD under the supervision of Prof. Dr. Martijn P. van den Heuvel and Prof. Dr. Danielle Posthuma. During his PhD, he focused on exploring the neurobiological mechanism underlying the human brain connectome and improving our understanding of the connectome-based neuropathology in psychiatric diseases. Yongbin aims to continue his research journey as a network neuroscientist, implementing multi-modal, multi-scale, multi-species neuroscience data and advanced analytical methodology to achieve a better understanding of the brain.