

References

- Akram, N Faisal, Z., Irfan, R., Shah, Y. A., Batool, S. A., Zahid, T., Zulfiqar, A., Fatima, A., Jahan, Q., Tariq, H., Saeed, F., Ahmed, A., Asghar, A., Ateeq, H., Afzaal, M., & Khan, M. R. (2023). Exploring the serotonin-probiotics-gut health axis: A review of current evidence and potential mechanisms. *Food Science & Nutrition*, 12(2), 694–706. <https://doi.org/10.1002/fsn3.3826>
- Arnold, P. D., Sicard, T., Burroughs, E., Richter, M. A., & Kennedy, J. L. (2006). Glutamate transporter gene SLC1A1 associated with obsessive-compulsive disorder. *Archives of General Psychiatry*, 63(7), 769. <https://doi.org/10.1001/archpsyc.63.7.769>
- Beilharz, J. E., Kaakoush, N. O., Maniam, J., & Morris, M. J. (2017). Cafeteria diet and probiotic therapy: cross talk among memory, neuroplasticity, serotonin receptors and gut microbiota in the rat. *Molecular Psychiatry*, 23(2), 351–361. <https://doi.org/10.1038/mp.2017.38>
- Breteler, J. K., Ikani, N., Becker, E., Spijker, J., & Hendriks, G. (2021). Comorbid depression and treatment of anxiety disorders, OCD, and PTSD: Diagnosis versus severity. *Journal of Affective Disorders*, 295, 1005–1011. <https://doi.org/10.1016/j.jad.2021.08.146>
- Chalfie, M., Hart, A., Rankin, C., & Goodman, M. (2005–2018). Assaying mechanosensation. In *WormBook: The Online Review of C. elegans Biology*. Pasadena, CA: WormBook. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK235860/>
- Chamberlain, B. L., & Ahmari, S. E. (2021). Animal models for OCD research. *Current Topics in Behavioral Neurosciences*, 49, 55–96. https://doi.org/10.1007/7854_2020_196
- Clapp, M., Aurora, N., Herrera, L., Bhatia, M., Wilen, E., & Wakefield, S. (2017). Gut microbiota's effect on mental health: The Gut-Brain axis. *Clinics and Practice*, 7(4), 987. <https://doi.org/10.4081/cp.2017.987>
- Cleveland Clinic. (2024, June 19). *Probiotics*. Cleveland Clinic. <https://my.clevelandclinic.org/health/treatments/14598-probiotics>

Danbolt, N. C. (2001). Glutamate uptake. *Progress in Neurobiology*, 65(1), 1–105.

[https://doi.org/10.1016/s0301-0082\(00\)00067-8](https://doi.org/10.1016/s0301-0082(00)00067-8)

Dempsey, E., & Corr, S. C. (2022). Lactobacillus spp. for Gastrointestinal Health: Current and Future Perspectives. *Frontiers in Immunology*, 13. <https://doi.org/10.3389/fimmu.2022.840245>

Dickel, D. E., Veenstra-VanderWeele, J., Cox, N. J., Wu, X., Fischer, D. J., Van Etten-Lee, M., Himle, J. A., Leventhal, B. L., Cook, E. H., & Hanna, G. L. (2006). Association testing of the positional and functional candidate gene SLC1A1/EAAC1 in Early-Onset Obsessive-compulsive Disorder. *Archives of General Psychiatry*, 63(7), 778. <https://doi.org/10.1001/archpsyc.63.7.778>

Ghuge, S., Rahman, Z., Bhale, N. A., Dikundwar, A. G., & Dandekar, M. P. (2023). Multistrain probiotic rescinds quinpirole-induced obsessive-compulsive disorder phenotypes by reshaping of microbiota gut-brain axis in rats. *Pharmacology Biochemistry and Behavior*, 232, 173652. <https://doi.org/10.1016/j.pbb.2023.173652>

International OCD Foundation. (2024, October 15). *International OCD Foundation / Who gets OCD?* <https://iocdf.org/about-ocd/who-gets-ocd/>

Jones, L. A., Sun, E. W., Martin, A. M., & Keating, D. J. (2020). The ever-changing roles of serotonin. *The International Journal of Biochemistry & Cell Biology*, 125, 105776. <https://doi.org/10.1016/j.biocel.2020.105776>

Katz, M., Corson, F., Keil, W., Singhal, A., Bae, A., Lu, Y., Liang, Y., & Shaham, S. (2019). Glutamate spillover in *C. elegans* triggers repetitive behavior through presynaptic activation of MGL-2/mGluR5. *Nature Communications*, 10(1). <https://doi.org/10.1038/s41467-019-09581-4>

Lissemore, J. I., Sookman, D., Gravel, P., Berney, A., Barsoum, A., Diksic, M., Nordahl, T. E., Pinard, G., Sibon, I., Cottraux, J., Leyton, M., & Benkelfat, C. (2018). Brain serotonin synthesis capacity in obsessive-compulsive disorder: effects of cognitive behavioral therapy and sertraline. *Translational Psychiatry*, 8(1). <https://doi.org/10.1038/s41398-018-0128-4>

MIT. (2015). *C. elegans* synchronization via bleaching. *MIT OpenCourseWare*, 1–2.

https://ocw.mit.edu/courses/7-15-experimental-molecular-genetics-spring-2015/c4cb8b1556ac80b5d2e3599c65b5d1c4/MIT7_15S15_Synchronization.pdf

National Institute of Mental Health. (n.d.). *Obsessive-Compulsive Disorder*. National Institute of Mental

Health (NIMH). <https://www.nimh.nih.gov/health/topics/obsessive-compulsive-disorder-ocd>

O'Callaghan, A., & Van Sinderen, D. (2016). Bifidobacteria and their role as members of the human gut

microbiota. *Frontiers in Microbiology*, 7. <https://doi.org/10.3389/fmicb.2016.00925>

Palmer, E. G., Sornalingam, S., Page, L., & Cooper, M. (2023). Withdrawing from SSRI antidepressants:

advice for primary care. *British Journal of General Practice*, 73(728), 138–140.

<https://doi.org/10.3399/bjgp23x732273>

Pedersen, J. S. (2011). *wrMTrck multible object tracker* [Software].

<https://www.phage.dk/plugins/wrmtrck.html>

Pittenger, C. (2015). Glutamate Modulators in the Treatment of Obsessive-Compulsive Disorder.

Psychiatric Annals, 45(6), 308–315. <https://doi.org/10.3928/00485713-20150602-06>

Psychology Today. (n.d.). *Cost and insurance coverage*.

<https://www.psychologytoday.com/us/basics/therapy/cost-and-insurance-coverage#how-much-does-therapy-cost>

Roefs, A., Fried, E. I., Kindt, M., Martijn, C., Elzinga, B., Evers, A. W., Wiers, R. W., Borsboom, D., &

Jansen, A. (2022). A new science of mental disorders: Using personalised, transdiagnostic, dynamical systems to understand, model, diagnose and treat psychopathology. *Behaviour Research and Therapy*, 153, 104096. <https://doi.org/10.1016/j.brat.2022.104096>

Stringer, H. (2024). Mental health care is in high demand. Psychologists are leveraging tech and peers to

meet the need. *Monitor on Psychology*, 55(1). <https://www.apa.org/monitor/2024/01/trends-pathways-access-mental-health-care>

Welch, J. M., Lu, J., Rodriguez, R. M., Trotta, N. C., Peca, J., Ding, J., Feliciano, C., Chen, M., Adams, J. P.,

Luo, J., Dudek, S. M., Weinberg, R. J., Calakos, N., Wetsel, W. C., & Feng, G. (2007). Cortico-striatal synaptic defects and OCD-like behaviours in Sapap3-mutant mice. *Nature*, 448(7156), 894–900. <https://doi.org/10.1038/nature06104>

Zhang, H., & Chen, W. (2023). Automated Recognition and Analysis of Body Bending Behavior in C.

Elegans. *BMC Bioinformatics*, 24(1). <https://doi.org/10.1186/s12859-023-05307-y>

Zhao, B., Khare, P., Feldman, L., & Dent, J. A. (2003). Reversal frequency in *Caenorhabditis elegans* Represents an integrated response to the state of the animal and its environment.

Journal of Neuroscience, 23(12), 5319–5328. <https://doi.org/10.1523/jneurosci.23-12-05319.2003>

..