Notes on Neuroengineering

Introduction

<u>Neuroengineering</u> is a biomedical engineering field that provides a systematic framework for understanding complex processes in the brain [1]. Research in neuroengineering could allow for novel technologies that interface with the brain [2, 3]. Neural engineering encompasses neural regrowth and repair. Neural growth is influenced by genetic factors [4] may be useful to study for neural enhancement research.

References

- Edelman, B. J., Johnson, N., Sohrabpour, A., Tong, S., Thakor, N., & He, B. (2015).
 Systems neuroengineering: understanding and interacting with the brain.
 Engineering, 1(3), 292-308.
- 2. Chiappalone, M., Cota, V. R., Carè, M., Di Florio, M., Beaubois, R., Buccelli, S., ... & Levi, T. (2022). Neuromorphic-based neuroprostheses for brain rewiring: state-of-the-art and perspectives in neuroengineering. Brain sciences, 12(11), 1578.
- 3. Won, S. M., Cai, L., Gutruf, P., & Rogers, J. A. (2023). Wireless and battery-free technologies for neuroengineering. Nature Biomedical Engineering, 7(4), 405-423.
- 4. Seidlitz J, Mallard TT, Vogel JW, et al. The molecular genetic landscape of human brain size variation. Cell Rep. 2023;42(11):113439. doi:10.1016/j.celrep.2023.113439