BURKE MEDICAL RESEARCH INSTITUTE

Weekly Colloquium

Tuesday, 10/3/2017, 12:30pm, Billings Building – Rosedale Conference Room

"Neurologists Listening to Neurons: BrainGate Research toward the Restoration of Communication and Mobility"

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Research Abstract:

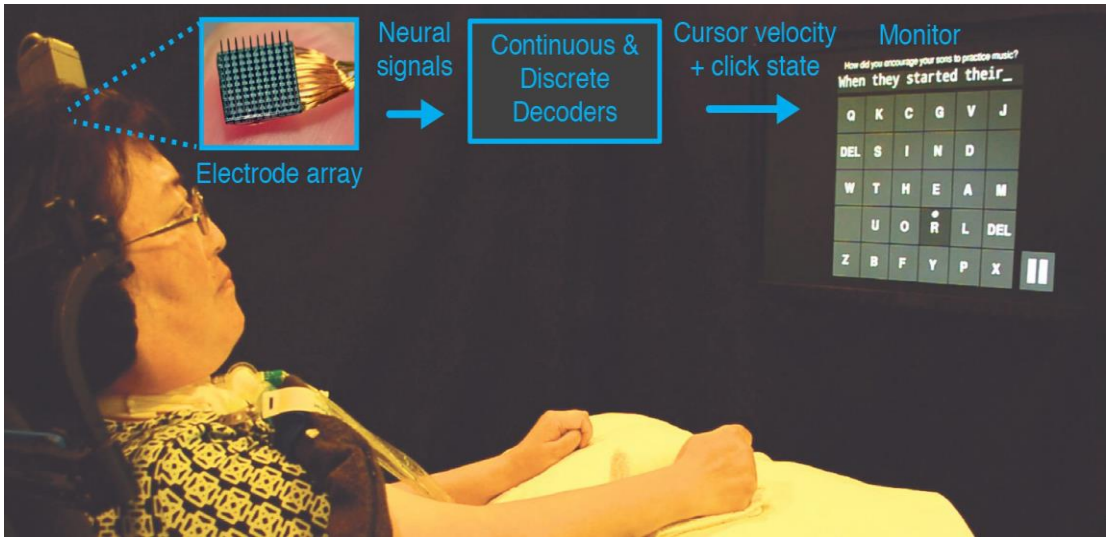
Intracortically-based Brain-Computer Interfaces (iBCI) are poised to revolutionize ourability to restore lost neurologic functions. The BrainGate research team is conducting amulti-site pilot clinical trial (IDE) of an iBCI system, seeking to determine the feasibility of persons with tetraplegia from cervical spinal cord injury, brainstem stroke, muscular dystrophy, or ALS controlling a computer cursor or other devices simply by imagining arm or hand movement.

Recent Publications

Jarosiewicz B, Sarma AA, Saab J, Franco B, Cash SS, Eskandar EN, Hochberg LR. Retrospectively supervised click decoder calibration for self-calibrating point-and-click brain-computer interfaces. J Physiol Paris. 2017 Mar 8. pii: S0928-4257(17)30010-4. doi: 10.1016/j.jphysparis.2017.03.001.

Brandman DM, Cash SS, Hochberg LR. Review: Human Intracortical recording and neural decoding for brain-computer interfaces. IEEE Trans Neural Syst Rehabil Eng. 2017 Mar 2. doi: 10.1109/TNSRE.2017.2677443.

Ajiboye AB, Willett FR, Young DR, Memberg WD, Murphy BA, Miller JM, Walter BL, Sweet JA, Hoyen HA, Keith MW, Peckham PH, Simeral JD, Donoghue JP, Hochberg LR, Kirsch RF. Restoration of reaching and grasping movements through brain-controlled muscle stimulation in a person with tetraplegia: a proof-of-concept demonstation. The Lancet. 2017 Mar 28.



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