

Brain implanted electrodes are used to alleviate a variety of sensory and movement disorders. However, the long-term performance of the implanted neural electrodes is compromised by the formation of glial scar around these devices, which is a typical consequence of the inflammatory tissue response in the CNS. The glial scar isolates the implant from the neurons and renders it ineffective.

My research is focussed on developing a biomimetic interface for the neural implant which can minimize glial scar formation and facilitate long term signal recording.