Intellectual Merit Criterion

Overall Assessment of Intellectual Merit
Excellent

Explanation to Applicant
The applicant has won several scholarships and awards previously, and has very good academic record. Through the applicant's prior work with the industry and startups, he has shown ingenuity in coming up with novel research ideas and translating them into reality. The applicant will work with an expert in the area and the research proposal itself is well reasoned and clearly presented. The letter writers attest to the originality of research ideas of the applicant and his ability to succeed in realizing them.

Broader Impacts Criterion

Overall Assessment of Broader Impacts
Very Good

Explanation to Applicant
The broader impacts include dissemination of the work via teaching and impact on health care, which the applicant already has demonstrated via previous successful projects.

Summary Comments
The applicant's intellectual capacity is evidenced through academic excellence, prior research, industry and entrpreneural experience, and several paper publications and presentations. The broader impact addresses health care and will impact all sections of the society if successful.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit
Excellent

Explanation to Applicant
The applicant has an ambition to address and resolve the longstanding paradox between neuroscience and clinical reality. He considers the paradox as an big data problem and plans to construct a model that can predict human muscle control patterns in health and pathological conditions. The innovation is impressive and deserves encouraging.

Broader Impacts Criterion

Overall Assessment of Broader Impacts
Excellent

Explanation to Applicant
The applicant has extensive experience in outreach and services to clinics. He even has experience in starting up a business.

Summary Comments
Very innovative research plan with active thoughts.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit
Very Good

Explanation to Applicant
The PI proposes a fully-dimensional probabilistic model for neuromuscular coordination. This area is very limited in current research, so this project has the potential to impact the entire biotechnology industry.

Broader Impacts Criterion

Overall Assessment of Broader Impacts
Very Good

Explanation to Applicant
This research is a complex study that will go beyond a single lab. As such researchers and data from around the country will have some level of involvement whether in data collection, analysis, or verification of the results.

Summary Comments
The background of the PI is suitable for this research. The goals and milestones are presented in a broad timeline. The milestones for success are clearly mentioned with measurements to success explained.