

From: Tay Netoff <tnetoff@umn.edu>
Sent: Wednesday, May 7, 2025 5:58 PM
To: Lorie Cousineau; Sean Herring; sam.parmekar@mnsenate.gov
Subject: Written Testimony by Prof. Netoff for support of the MN SCI/TBI research program

Dear Ms. Cousineau, Mr. Herring, and Mr. Parmekar,

I would like to express my strong support for the continued funding of the Minnesota Spinal Cord Injury and Traumatic Brain Injury (SCI/TBI) Research Grant Program.

I am a professor at the University of Minnesota and have received several grants through the SCI/TBI program. I have also been involved in the ESTAND study led by Dr. David Darrow, which has provided spinal cord stimulators to over 25 individuals with spinal cord injuries. This work has resulted in remarkable functional improvements, including restored volitional control of the legs — even in individuals injured more than 20 years ago who previously had no leg movement. Beyond volitional control, participants have experienced restoration of bladder function, sexual function, and other improvements that significantly enhance quality of life.

With support from the OHE SCI/TBI grant, we have implanted devices donated by Abbott at a cost that is approximately one-tenth that of other clinical studies. We estimate that the return on investment to Minnesota's economy is at least tenfold through reductions in medical costs, not to mention the immeasurable improvements in patient quality of life.

This grant mechanism has catalyzed the involvement of many scientists, like myself, who previously specialized in other areas, to study SCI and TBI. It has provided critical seed funding that enables teams to generate preliminary data and successfully compete for larger NIH grants. We are currently pursuing an NIH Phase II grant, which would bring a fivefold increase in federal funding dollars compared to the initial seed support.

The SCI/TBI program has had a profound impact on healthcare and scientific advancement in Minnesota. Because of this program, physicians such as Dr. Darrow remained in Minnesota following his neurosurgery residency, and Dr. David Balser stayed after completing his rehabilitation medicine residency. It has attracted neurosurgery residents such as Isabella Pena Pino and Brandon Hoglund, and Biomedical Engineers like Elizabeth Bottorff. Furthermore, three clinical coordinators from the ESTAND study have entered medical school, supported by the experience gained through their work, and the program has helped launch the careers of three graduate students into the field.

In 2024, the University of Minnesota hosted the Semi-Annual Neuromodulation for Spinal Cord Injury Conference, which has become the premier national conference in this field and highlighted Minnesota's leadership.

We recognize that federal funding at the state level is under pressure, but it is important to note that national funding sources such as NIH, NSF, and ARPA-H are also facing significant cuts. While NIH is shifting its focus more toward human-based research — aligning well with the work supported by this program — the SCI/TBI grant mechanism provides critical bridge funding during this uncertain period, ensuring that promising research can continue. With the success of the program, over 40

grant applications were submitted this year. Unlike NIH, the OHE has effectively distributed funding across a broad range of strong proposals, helping to foster new investigators and broaden the field.

Significantly reducing this program would be a devastating setback to the progress Minnesota has made in developing innovative research and improving outcomes for individuals with spinal cord and traumatic brain injuries.

Thank you for your consideration.

[Théoden](#) I. Netoff, PhD

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Co-Director of the Neuroimaging T32 training grant

zoom meeting link: <https://z.umn.edu/tnetoff>

Pronouns: he/him/his/they/them/their

[Calendar](#)