

Andrew James Thomas Stevenson  
Associate Professor  
Department of Health Science and Technology  
The Faculty of Medicine  
Neural Engineering and Neurophysiology  
Center for Neurotechnology and Rehabilitation (CNR)  
Neuroboost  
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## Research profile

My primary research interests include movement neuroscience, neurophysiology, motor control and learning, electrophysiology, cortical stimulation, neuroplasticity, and neural rehabilitation.

## Qualifications

University Pedagogy Training  
2016 → 2017  
Neurophysiology, Ph.D.  
2011 → 2015  
Kinesiology, M.Sc., University of British Columbia  
2009 → 2011  
Sport Science, Psychology, B.Sc., The University of Auckland  
2005 → 2008

## Employment

### Associate Professor

Associate Professor  
Department of Health Science and Technology  
The Faculty of Medicine  
Gistrup, Denmark  
1 Feb 2015 → 31 Dec 4712

### Associate Professor

Associate Professor  
The Faculty of Medicine  
Gistrup, Denmark  
1 Feb 2015 → 31 Dec 4712

### Associate Professor

Associate Professor  
Neural Engineering and Neurophysiology  
The Faculty of Medicine  
Gistrup, Denmark  
1 Feb 2015 → 31 Dec 4712

### Center for Neurotechnology and Rehabilitation (CNR)

The Faculty of Medicine  
1 Jan 2022 → present

### Neuroboost

The Faculty of Social Sciences and Humanities  
Aalborg, Denmark  
24 Nov 2022 → present

#### **Member of**

Censor Corps for Engineering  
Denmark  
1 Jan 2023 → present

#### **Member of**

Censor Corps for Sport Science  
Denmark  
1 Jan 2018 → present

#### **External Lecturer**

Aarhus University  
Aarhus, Denmark  
1 Jan 2017 → present

## **Research outputs**

### **BCI-PRIME: priming motor learning with an associative brain computer interface**

Stevenson, A. J. T. & Svejgaard, B., 27 Nov 2025.

### **BCI-PRIME: priming motor learning with an associative brain computer interface perspectives for neurorehabilitation**

Stevenson, A. J. T. & Svejgaard, B., 6 Nov 2025, *Symposium for Klinisk Forskning og Udvikling Abstractbog*. p. 194-195 83

### **Neurorehabilitation Technologies**

Stevenson, A. J. T., Spaich, E. G., Kantan, P. R., Larsen, L. H., Lorentzen, J. & Sinkjær, T., 25 Oct 2025, *Neuroplasticity-based Neurorehabilitation*. Nielsen, J. B., Frisk, R. F., Lorentzen, J. & Højkjær Larsen, L. (eds.). Springer, p. 241-255 15 p.

### **Neurorehabilitation technologies chapter: Complete list of references**

Stevenson, A. J. T., Spaich, E. G., Kantan, P. R., Larsen, L. H., Lorentzen, J. & Sinkjær, T., 2024

### **Brain state-dependent peripheral nerve stimulation for plasticity induction in stroke patients**

Stevenson, A. J. T., Jørgensen, H. R. M., Severinsen, K. E., Aliakbaryhosseinabadi, S., Jiang, N., Farina, D. & Mrachacz-Kersting, N., 2019, *Converging Clinical and Engineering Research on Neurorehabilitation III: Proceedings of the 4th International Conference on NeuroRehabilitation (ICNR2018), October 16–20, 2018, Pisa, Italy*. Masia, L., Micera, S., Akay, M. & Pons, J. L. (eds.). Springer, p. 1066-1070 5 p. (Biosystems and Biorobotics; No. 21).

### **Brain state-dependent stimulation to boost recovery of upper limb function following stroke**

Stevenson, A. J. T., Jørgensen, B. J. S., Jørgensen, H. R. M., Modrau, B., Svaneborg, N., Dosen, S. & Mrachacz-Kersting, N., 2019.

### **Group Ia afferents likely contribute to short-latency interlimb reflexes in the human biceps femoris muscle**

Stevenson, A. J. T., Kamavuako, E. N., Geertsen, S. S., Gervasio, S., Farina, D. & Mrachacz-Kersting, N., 21 Jul 2017, *Progress in Motor Control (PMC) XI*. 2 p.

### **Spatial facilitation of reciprocal inhibition and crossed inhibitory responses to soleus motoneurons during walking**

Stevenson, A. J. T., Geertsen, S. S., Nielsen, J. B. & Mrachacz-Kersting, N., 2017, *Converging Clinical and Engineering Research on Neurorehabilitation II: Proceedings of the 3rd International Conference on NeuroRehabilitation, ICNR2016, 18-21 October 2016, Segovia, Spain*. Ibáñez, J., González-Vargas, J., Azorín, J. M., Akay, M. & Pons, J. L. (eds.). Springer, p. 1031-1036 (Biosystems and Biorobotics; No. 15).

**Spinal plasticity in robot-mediated therapy for the lower limbs**

Stevenson, A. J. T., Mrachacz-Kersting, N., van Asseldonk, E., Turner, D. L. & Spaich, E. G., 17 Sept 2015, In: *Journal of NeuroEngineering and Rehabilitation*. 12, September, 7 p., 81.

**Interlimb communication: Crossed reflexes in the human biceps femoris muscle**

Stevenson, A. J. T., 2015, Aalborg Universitetsforlag. 151 p.

**Interlimb communication following unexpected changes in treadmill velocity during human walking**

Stevenson, A. J. T., Geertsen, S. S., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2015, In: *Journal of Neurophysiology*. 113, 9, p. 3151-3158

**Interlimb reflexes following ipsilateral knee joint rotations are suppressed in an unstable walking environment**

Stevenson, A. J. T., Geertsen, S. S., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2015, *45th Annual Meeting of the Society for Neuroscience, Neuroscience 2015, 17-21 October 2015, Chicago, IL, USA*. Society for Neuroscience, p. No. 70.03/P2

**Short-latency crossed responses in the human biceps femoris muscle**

Stevenson, A. J. T., Kamavuako, E. N., Geertsen, S. S., Farina, D. & Mrachacz-Kersting, N., 2015, In: *Journal of Physiology*. 593, 16, p. 3657-3671

**Short-latency crossed responses in the human biceps femoris muscle**

Stevenson, A. J. T., Kamavuako, E. N., Geertsen, S. S., Sinkjær, T., Farina, D. & Mrachacz-Kersting, N., 2015.

**Cortical involvement in the StartReact effect**

Stevenson, A. J. T., Chiu, C., Maslovat, D., Chua, R., Gick, B., Blouin, J.-S. & Franks, I. M., 2014, In: *Neuroscience*. 269, p. 21-34

**Functionality of the contralateral biceps femoris reflex response during human walking**

Stevenson, A. J. T., Geertsen, S. S., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2014, *Replace, Repair, Restore, Relieve : Bridging Clinical and Engineering Solutions in Neurorehabilitation: Proceedings of the 2nd International Conference on NeuroRehabilitation, ICNR2014, 24-26 June 2014, Aalborg, Denmark*. Jensen, W., Andersen, O. K. & Akay, M. (eds.). Springer, p. 765-773 (Biosystems and Biorobotics; No. 7).

**Interlimb communication: short-latency crossed spinal reflexes in the biceps femoris following ipsilateral knee joint rotations in seated humans**

Stevenson, A. J. T., Geertsen, S. S., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2014, *Annual Meeting of the Society for Neuroscience, Neuroscience 2014, 15-19 November 2014, Washington, DC, USA*. p. No. 732.01/LL18

**Interlimb communication: functionality of the contralateral biceps femoris reflex response during human walking**

Stevenson, A. J. T., Geertsen, S. S., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2013, *Annual Meeting of the Society for Neuroscience, Neuroscience 2013, 9-13 November 2013, San Diego, CA, USA*. Society for Neuroscience, p. No. 832.12/MM8

**Interlimb communication to the knee flexors during walking in humans**

Stevenson, A. J. T., Geertsen, S. S., Andersen, J. B., Sinkjær, T., Nielsen, J. B. & Mrachacz-Kersting, N., 2013, In: *Journal of Physiology*. 591, 19, p. 4921-4935

**Interlimb communication between knee flexors during a sitting task**

Stevenson, A. J., Sinkjær, T. & Mrachacz-Kersting, N., 2012, *Annual Meeting of the Society for Neuroscience, Neuroscience 2012, 13-17 October 2012, New Orleans, LA, USA*. Society for Neuroscience, p. No. 479.14/OO2

**Interlimb communication between knee flexors in the late stance phase of human walking**

Stevenson, A. J., Andersen, J. B. & Mrachacz-Kersting, N., 2012, *Proceedings of the XIXth Congress of the International Society of Electrophysiology & Kinesiology, ISEK2012, 19-21 July 2012, Brisbane, Australia*. ISEK, p. 475, No. POBG\_P2.2

Transcranial magnetic stimulation to the primary motor cortex can influence the early release of a preplanned movement by a startling acoustic stimulus  
Stevenson, A. J., Maslovat, D., Chua, R. & Franks, I. M., 2011, *Proceedings of the 21st Meeting of the Society for the Neural Control of Movement*.

Startle reaction time is not modulated by emotional valence  
Stevenson, A. J., Maslovat, D. & Franks, I. M., 2010, *Canadian Society for Psychomotor Learning and Sport Psychology*.

## Activities

### Center for Neurotechnology and Rehabilitation (CNR) Spring Seminar 2026

Spaich, E. G. (Other), Stevenson, A. J. T. (Other), Jørgensen, B. J. S. (Other), Leutscher, P. D. C. (Other), Brasholt, M. (Other) & Figlewski, K. (Other)  
28 May 2026

### Center for Neurotechnology and Rehabilitation (CNR) Autumn Seminar 2025

Spaich, E. G. (Other), Stevenson, A. J. T. (Other), Jørgensen, B. J. S. (Other), Leutscher, P. D. C. (Other), Modrau, B. (Other) & Brasholt, M. (Other)  
24 Oct 2025

### Center for Neurotechnology and Rehabilitation (CNR) Spring Seminar 2025

Spaich, E. G. (Other), Stevenson, A. J. T. (Other), Jørgensen, B. J. S. (Other), Leutscher, P. D. C. (Other), Modrau, B. (Other) & Brasholt, M. (Other)  
27 May 2025

### Lundbeck Foundation Investigator Network (External organisation)

Stevenson, A. J. T. (Member)  
2024 → ...

### Center for Neurotechnology and Rehabilitation (CNR) (Organisational unit)

Spaich, E. G. (Member (Appointed by AAU)), Stevenson, A. J. T. (Member (Appointed by AAU)), Brasholt, M. (Member), Leutscher, P. D. C. (Member), Modrau, B. (Member) & Jørgensen, B. J. S. (Member)  
2021

## Prizes

### American Physiological Society selects award for distinction in scholarship

Stevenson, A. J. T. (Recipient), 2018

### Nominated for Journal of Physiology Early Career Author Prize

Stevenson, A. J. T. (Recipient), 2013

### Nominated for Teacher of the Year

Stevenson, A. J. T. (Recipient), 2021

### Nominated for Teacher of the Year

Stevenson, A. J. T. (Recipient), 2024

## Press/Media

### 1.000 gymnasieelever til Hjernedag 2024

Stevenson, A. J. T.  
08/11/2024

1 item of Media coverage

### **Er 'hjernedoping' fremtiden inden for topsport?**

Stevenson, A. J. T.

13/12/2024

1 item of Media coverage

### **Hvad kan du styre med hjernen i fremtiden?**

Stevenson, A. J. T.

24/11/2023

1 item of Media coverage

### **Kan hjernedoping hjælpe dig med at score et 12-tal?**

Stevenson, A. J. T.

01/12/2023

1 item of Media coverage

### **Kommer soldater med optimerede hjerner til at udkæmpe fremtidens krige?**

Stevenson, A. J. T.

20/12/2024

1 item of Media coverage

### **Lam mand går igen**

Stevenson, A. J. T. & Jochumsen, M.

24/09/2018

9 items of Media coverage

### **Motor Imagery - Fall Prevention - Brain Health - Psychology**

Stevenson, A. J. T.

21/11/2024

1 item of Media coverage

### **Ny metode: Endnu flere blodpropper i hjernen kan behandles**

Stevenson, A. J. T.

16/05/2018

1 item of Media coverage

### **På bølgelængde med hjernen**

Stevenson, A. J. T., Jochumsen, M. R. & Gervasio, S.

08/02/2024 → 08/02/2024

2 items of Media coverage

### **Træning af hjernen skal få liv i armen**

Jørgensen, B. J. S. & Stevenson, A. J. T.

23/01/2023 → 24/01/2023

3 items of Media coverage

### **Udforsk hjernens potentiale og få repareret dine ting på Aalborg Bibliotek**

Stevenson, A. J. T.

08/03/2025

1 item of Media coverage

## **Projects**

### **BCI-STAR: Brain-Computer Interface: post STroke Arm Rehabilitation**

Jørgensen, B. J. S. (PI) & Stevenson, A. J. T. (PI)

01/03/2021 → ...

**Interlimb communication: Crossed responses in the human biceps femoris muscle**

Stevenson, A. J. T. (PI), Mrachacz-Kersting, N. (Supervisor), Sinkjær, T. (Supervisor), Nielsen, J. B. (PI) & Geertsen, S. S. (PI)

01/09/2011 → 12/08/2015

**Interlimb coordination during human walking**

Gervasio, S. (PI) & Stevenson, A. J. T. (PI)

01/10/2010 → ...

**Personalized technology for sensory-motor training of stroke patients.**

Spaich, E. G. (PI) & Stevenson, A. J. T. (Project Participant)

08/05/2023 → ...