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Lektor  
Institut for Medicin og Sundhedsteknologi  
Det Sundhedsvidenskabelige Fakultet  
Neural Engineering and Neurophysiology  
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## Kvalifikationer

Biomedical Engineering and Science, PhD, Department of Health Science and Technology, Aalborg University, Denmark.  
1 okt. 2010 → 1 jan. 2014  
Dimissionsdato: 15 aug. 2014  
Project management for scientists  
maj 2018 → aug. 2018  
University Pedagogy  
nov. 2014 → jan. 2016  
Electronic Engineering, Master of Science, 110/110 summa cum laude, Applied Electronics Dept., University Roma TRE  
okt. 2007 → maj 2010  
Electronic Engineering, Bachelor of Science, Applied Electronics Dept., University Roma TRE  
okt. 2003 → jul. 2007

## Ansættelse

### Lektor

Institut for Medicin og Sundhedsteknologi  
Det Sundhedsvidenskabelige Fakultet  
Aalborg Øst, Danmark  
1 okt. 2010 → present

### Lektor

Det Sundhedsvidenskabelige Fakultet  
Aalborg Øst, Danmark  
1 okt. 2010 → present

### Neural Engineering and Neurophysiology

Det Sundhedsvidenskabelige Fakultet  
Aalborg, Danmark  
1 dec. 2015 → present

### Senior Research Expert

Inventor's Way ApS,  
Aalborg, Danmark  
1 maj 2018 → present

### Research Expert

Nordic NeuroSTIM  
Danmark  
1 okt. 2013 → 1 jan. 2016

## Publikationer

**Behavioral tendencies, anxiety, and sensory processing: alpha activity at rest and brain responses to visual stimulations**  
Albano, F., Petrini, L. & Gervasio, S., 2022.

**Stimulation modality and noxiousness affects the 2-point discrimination threshold**  
Frahm, K. S. & Gervasio, S., jun. 2021.

**Topical capsaicin modulates the 2-point discrimination threshold – modulation depends on stimulation modality and intensity**  
Frahm, K. S., Gervasio, S., Arendt-Nielsen, L. & Andersen, O. K., jun. 2021.

**The two-point discrimination threshold depends both on the stimulation noxiousness and modality**  
Frahm, K. S. & Gervasio, S., maj 2021, I: *Experimental Brain Research*. 239, 5, s. 1439-1449 11 s.

**New Insights into Cutaneous Laser Stimulation – Dependency on Skin and Laser Type**  
Frahm, K. S., Gervasio, S., Arguissain, F. & Mouraux, A., 10 nov. 2020, I: *Neuroscience*. 448, s. 71-84 14 s.

**Exploring the EEG Signatures of Musculoskeletal Pain**  
Gervasio, S., Hennings, K. & Mrachacz-Kersting, N., 1 jan. 2019, *Converging Clinical and Engineering Research on Neurorehabilitation III: Proceedings of the 4th International Conference on NeuroRehabilitation (ICNR2018), October 16-20, 2018, Pisa, Italy*. Springer Publishing Company, s. 734-738 5 s. (Biosystems and Biorobotics, Bind 21).

**Nociceptor activation during cutaneous laser stimulation depends more on skin type and laser wavelength than innervation – insights from a combined experimental and mathematical modelling approach**  
Frahm, K. S., Gervasio, S., Arguissain, F. & Mouraux, A., 2019.

**The influence of skin type and laser wavelength on laser-evoked brain responses: Preliminary results**  
Arguissain, F., Gervasio, S., Frahm, K. S. & Mouraux, A., 2019.

**Delayed muscle onset soreness in the gastrocnemius muscle attenuates the spinal contribution to interlimb communication**  
Gervasio, S., Finocchietti, S., Stevenson, A. J. T. & Mrachacz-Kersting, N., nov. 2018, I: *European Journal of Applied Physiology*. 118, 11, s. 2393-2402 10 s.

**A novel stimulation paradigm to limit the habituation of the nociceptive withdrawal reflex**  
Gervasio, S., Laursen, C. B., Andersen, O. K., Hennings, K. & Spaich, E. G., maj 2018, I: *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 26, 5, s. 1100-1107 8 s.

**Biofeedback for reducing musculoskeletal pain**  
Mrachacz-Kersting, N. & Gervasio, S., 2018, IPC nr. A61B5/04, A61B5/048, A61B5/0482, A61B5/00, Patentnr. WO2018059645, 5 apr. 2018

**Evidence for a supraspinal contribution to the human crossed reflex response during human walking**  
Mrachacz-Kersting, N., Gervasio, S. & Marchand-Pauvert, V., 2018, I: *Frontiers in Human Neuroscience*. 12, 10 s., 260.

**Technologically-advanced assessment of upper-limb spasticity: a pilot study**  
Posteraro, F., Crea, S., Mazzoleni, S., Berteau, M., Ciobanu, I., Vitiello, N., Cempini, M., Gervasio, S. & Mrachacz-Kersting, N., 2018, I: *European Journal of Physical and Rehabilitation Medicine*. 54, 4, s. 536-544 9 s.

**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 s.

### **A Brain-Computer-Interface to combat musculoskeletal pain**

Mrachacz-Kersting, N., Yao, N., Gervasio, S., Jiang, N., Palsson, T., Graven-Nielsen, T., Falla, D., Dremstrup, K. & Farina, D., 2017, *Brain-Computer-Interface Research – A state of the art summary*. Guger, C., Brendan, A. & Leuthardt, EC. (red.). 5 udg. Springer, s. 123-130

### **Sensory feedback in interlimb coordination: Contralateral afferent contribution to the short-latency crossed response during human walking**

Gervasio, S., Voigt, M., Kersting, U. G., Farina, D., Sinkjær, T. & Mrachacz-Kersting, N., 2017, I: PLOS ONE. 12, 1, 24 s., e0168557.

### **Chronic musculoskeletal pain and its effects on brain activation**

Ebbesen, B. D., Rasmussen, J., Gervasio, S., Graven-Nielsen, T. & Mrachacz-Kersting, N., 2015, *45th Annual Meeting of the Society for Neuroscience, Neuroscience 2015, 17-21 October 2015, Chicago, IL, USA*. Society for Neuroscience, s. No. 807.27/W1

### **Motor control and motor learning**

Mrachacz-Kersting, N., Stubbs, P. & Gervasio, S., 2015, *Grieve's Modern Musculoskeletal Physiotherapy*. Jull, G., Moore, A., Falla, D., Lewis, J., McCarthy, C. & Sterling, M. (red.). 4 udg. Elsevier, s. 42-52

### **Novel electrical stimulation paradigm to reduce habituation of the nociceptive withdrawal reflex: Preliminary results**

Laursen, C. B., Gervasio, S., Andersen, O. K., Hennings, K. & Spaich, E. G., 2015, *45th Annual Meeting of the Society for Neuroscience, Neuroscience 2015, 17-21 October 2015, Chicago, IL, USA*. Society for Neuroscience, s. No. 268.01/BB74

### **The effect of crossed reflex responses on dynamic stability during locomotion**

Gervasio, S., Kersting, U. G., Farina, D. & Mrachacz-Kersting, N., 2015, I: Journal of Neurophysiology. 114, 2, s. 1034-1040

### **The effect of fatigue on interlimb communication**

Gervasio, S., Stevenson, A. J. T. & Mrachacz-Kersting, N., 2015, *45th Annual Meeting of the Society for Neuroscience, Neuroscience 2015, 17-21 October 2015, Chicago, IL, USA*. Society for Neuroscience, s. No. 67.16/N38

### **Motor control and emerging therapies for improving mobility in patients with spasticity**

Gervasio, S., Macleod, C., Esteban-Herreros, E. B., Meng, L. & Tejada, M. C., 1 jan. 2014, *Emerging Therapies in Neurorehabilitation*. Springer, s. 147-169 23 s. (Biosystems and Biorobotics, Bind 4).

### **Cortical contribution to crossed reflexes in walking humans**

Mrachacz-Kersting, N., Gervasio, S., Farina, D. & Sinkjær, T., 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. (red.). Springer, s. 575-583 (Biosystems and Biorobotics; Nr. 7).

### **Effects of muscle pain on interlimb communication: preliminary results**

Gervasio, S., Finocchietti, S. & Mrachacz-Kersting, N., 2014, *Book of Proceedings, ISEK 2014, XX Congress of the International Society of Electrophysiology and Kinesiology, 15-18 July 2014, Rome, Italy*. ISEK

### **Interlimb communication during human walking: crossed responses in the gastrocnemius muscle**

Gervasio, S., 2014, River Publishers. 85 s.

### **Interlimb communication during human walking: crossed responses in the gastrocnemius muscle**

Gervasio, S., 2014

### **Modeling the functional dependence of stroke patients: the outcome of an improved gait training**

Hennings, K., Gervasio, S., Andersen, O. K. & Spaich, E. G., 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. (red.). Springer, s. 421-429 (Biosystems and Biorobotics; Nr. 7).

### **The effect of crossed responses on dynamic stability**

Gervasio, S., Kersting, U. G., Farina, D. & Mrachacz-Kersting, N., 2014.

### **Contralateral afferent contribution to crossed responses during human locomotion**

Gervasio, S., Voigt, M., Kersting, U. G. & Mrachacz-Kersting, N., 2013, *Annual Meeting of the Society for Neuroscience, Neuroscience 2013, 9-13 November 2013, San Diego, CA, USA*. Society for Neuroscience, s. No. 832.13/MM9

### **Crossed reflex reversal during human locomotion**

Gervasio, S., Farina, D., Sinkjær, T. & Mrachacz-Kersting, N., 2013, *J. Neurophysiol.* 109, 9, s. 2335-2344

### **Contralateral spinal excitability after unilateral locomotor adaptation**

Gervasio, S. & Mrachacz-Kersting, N., 2012, *Proceedings of the XIXth Congress of the International Society of Electrophysiology & Kinesiology, ISEK2012, 19-21 July 2012, Brisbane, Australia*. ISEK, s. 119, No. MOTC\_O3.3

### **Extracting motor modules as a measure of interlimb coordination**

Gervasio, S., Gizzi, L., Mrachacz-Kersting, N. & Farina, D., 2012, *Annual Meeting of the Society for Neuroscience, Neuroscience 2012, 13-17 October 2012, New Orleans, LA, USA*. Society for Neuroscience, s. No. 887.20/JJ3

### **Modeling activation of small cutaneous afferents by electrical stimulation**

Frahm, S., Gervasio, S., Grill, W. M., Mørch, C. D. & Andersen, O. K., 2012, *Proceedings of the XIXth Congress of the International Society of Electrophysiology & Kinesiology, ISEK2012, 19-21 July 2012, Brisbane, Australia*. ISEK, s. 327, No. MOSP\_P1.4

### **Motor adaptation following split-belt treadmill walking**

Stubbs, P. W. & Gervasio, S., 2012, *J. Neurophysiol.* 108, 5, s. 1225-1227

### **Lower spinal interlimb communication: evidence for functional significance**

Gervasio, S. & Mrachacz-Kersting, N., 2011, *Annual Meeting of the Society for Neuroscience, Neuroscience 2011, 12-16 November 2011, Washington, DC, USA*. Washington, DC: Society for Neuroscience, s. No. 923.13/VV27

## **Priser**

### **Most Promising Proposal**

Frahm, Sabata Gervasio (Modtager), 14 aug. 0004

## **Presse/medie**

### **Behandling af kroniske smerter**

Sabata Gervasio

08/11/2018

1 element af Mediedækning

### **Donationer**

Sabata Gervasio

26/10/2018 → 26/10/2018

2 elementer af Mediedækning

## **Projekter**

### **A direct measure of sensory processing anomalies**

Gervasio, S.

Simon Fougner Hartmanns Familiefond, Danmarks Frie Forskningsfond

**A neurofeedback treatment for chronic musculoskeletal pain**

Gervasio, S.  
Gigtforeningen  
01/09/2014 → ...

**A novel stimulation paradigm to reduce the habituation of the nociceptive withdrawal reflex**

Gervasio, S.  
01/09/2014 → 30/05/2018

**Interlimb coordination during human walking**

Gervasio, S. & Stevenson, A. J. T.  
01/10/2010 → ...