

Sabata Gervasio
Associate Professor
Department of Health Science and Technology
The Faculty of Medicine
Neural Engineering and Neurophysiology
Postal address:
Fredrik Bajers Vej 7
E, D3-213
9220
Aalborg Ø
Denmark
Email: saba@hst.aau.dk
Phone: +45 9940 8820
Mobile: +45 5142 8999
Fax: +45 9815 4008



Qualifications

Biomedical Engineering and Science, PhD, Department of Health Science and Technology, Aalborg University, Denmark.
1 Oct 2010 → 1 Jan 2014
Award Date: 15 Aug 2014

Project management for scientists
May 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
Oct 2007 → May 2010

Electronic Engineering, Bachelor of Science, Applied Electronics Dept., University Roma TRE
Oct 2003 → Jul 2007

Employment

Associate Professor

Department of Health Science and Technology
The Faculty of Medicine
Aalborg Øst, Denmark
1 Oct 2010 → present

Associate Professor

The Faculty of Medicine
Aalborg Øst, Denmark
1 Oct 2010 → present

Neural Engineering and Neurophysiology

The Faculty of Medicine
Aalborg, Denmark
1 Dec 2015 → present

Senior Research Expert

Inventor's Way ApS,
Aalborg, Denmark
1 May 2018 → present

Research Expert

Nordic NeuroSTIM
Denmark
1 Oct 2013 → 1 Jan 2016

Research outputs

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., May 2021, In: *Experimental Brain Research*. 239, 5, p. 1439-1449 11 p.

New Insights into Cutaneous Laser Stimulation – Dependency on Skin and Laser Type

Frahm, K. S., Gervasio, S., Arguissain, F. & Mouraux, A., 10 Nov 2020, In: *Neuroscience*. 448, p. 71-84 14 p.

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, p. 734-738 5 p. (Biosystems and Biorobotics, Vol. 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, In: *European Journal of Applied Physiology*. 118, 11, p. 2393-2402 10 p.

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., May 2018, In: *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 26, 5, p. 1100-1107 8 p.

Biofeedback for reducing musculoskeletal pain

Mrachacz-Kersting, N. & Gervasio, S., 2018, IPC No. A61B5/04, A61B5/048, A61B5/0482, A61B5/00, Patent No. 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, In: *Frontiers in Human Neuroscience*. 12, 10 p., 260.

Technologically-advanced assessment of upper-limb spasticity: a pilot study

Posteraro, F., Crea, S., Mazzoleni, S., Berteanu, M., Ciobanu, I., Vitiello, N., Cempini, M., Gervasio, S. & Mrachacz-Kersting, N., 2018, In: *European Journal of Physical and Rehabilitation Medicine*. 54, 4, p. 536-544 9 p.

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.

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. (eds.). 5 ed. Springer, p. 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, In: PLOS ONE. 12, 1, 24 p., 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, p. 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. (eds.). 4 ed. Elsevier, p. 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, p. 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, In: *Journal of Neurophysiology*. 114, 2, p. 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, p. 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, p. 147-169 23 p. (Biosystems and Biorobotics, Vol. 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. (eds.). Springer, p. 575-583 (Biosystems and Biorobotics; No. 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 p.

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. (eds.). Springer, p. 421-429 (Biosystems and Biorobotics; No. 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, p. No. 832.13/MM9

Crossed reflex reversal during human locomotion

Gervasio, S., Farina, D., Sinkjær, T. & Mrachacz-Kersting, N., 2013, In: *Journal of Neurophysiology*. 109, 9, p. 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, p. 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, p. 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, p. 327, No. MOSP_P1.4

Motor adaptation following split-belt treadmill walking

Stubbs, P. W. & Gervasio, S., 2012, In: *Journal of Neurophysiology*. 108, 5, p. 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, p. No. 923.13/VV27

Prizes

Most Promising Proposal

Gervasio, Sabata (Recipient), 14 Aug 0004

Press/Media

Behandling af kroniske smerter

Sabata Gervasio

08/11/2018

1 item of Media coverage

Donationer

Sabata Gervasio

26/10/2018 → 26/10/2018

2 items of Media coverage

Projects

A direct measure of sensory processing anomalies

Gervasio, S.

Simon Fougner Hartmanns Familiefond, Independent Research Fund Denmark

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 → ...