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Research profile

Research field and research philosophy

The major goal is to identify and modulate key features of human pain neuroplasticity leading to prevention of maladaptive neuroplasticity and promote advantageous neuroplasticity, offering ways to manage chronic pain. A core research philosophy in TGN's work is that pain research by nature is multidisciplinary, hence interdisciplinary and intersectorial collaboration is a key concept, as is collaboration with excellent researchers and students.

Employment

Professor

Professor, Leader
Department of Health Science and Technology
The Faculty of Medicine
Gistrup, Denmark
1 Jul 1997 → 31 Dec 4712

Professor

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The Faculty of Medicine
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1 Jul 1997 → 31 Dec 4712

Pain and Motor System Plasticity

The Faculty of Medicine
Gistrup, Denmark
28 Sept 2015 → present

Professor

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Pain and Motor System Plasticity
The Faculty of Medicine
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1 Jul 1997 → 31 Dec 4712

Center for Neuroplasticity and Pain

The Faculty of Medicine
Aalborg East, Denmark
1 Feb 2015 → present

Adjunct Professor

Western Sydney University
Australia
1 Jan 2015 → 1 Jan 2017

Adjunct Professor

Curtin University
Australia
1 Jan 2004 → 1 Jan 2019

Adjunct Associate Professor

Curtin University
Australia
1 Jan 2001 → 1 Jan 2004

Research outputs

Posterior-superior insula repetitive transcranial magnetic stimulation reduces experimental tonic pain and pain-related cortical inhibition in humans

Chowdhury, N., Millard, S. K., De Martino, E., Larsen, D. B., Seminowicz, D. A., Schabrun, S. M., de Andrade, D. C. & Graven-Nielsen, T., 15 May 2024, *bioRxiv*, 31 p.

Facilitation of Early and Middle Latency SEP after tDCS of M1: No Evidence of Primary Somatosensory Homeostatic Plasticity

Zolezzi, D. M., Larsen, D. B., Zamorano, A. M. & Graven-Nielsen, T., 11 May 2024, (E-pub ahead of print) In: *Neuroscience*. 551, p. 143-152 10 p.

Evoked oscillatory cortical activity during acute pain: Probing brain in pain by transcranial magnetic stimulation combined with electroencephalogram

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Impact of Chronic Pain on Use-Dependent Plasticity: Corticomotor Excitability and Motor Representation in Musicians With and Without Pain

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Disrupted Cortical Homeostatic Plasticity Due to Prolonged Capsaicin-induced Pain

Geraldine Wittkopf, P., Boye Larsen, D., Gregoret, L. & Graven-Nielsen, T., 21 Nov 2023, In: *Neuroscience*. 533, p. 1-9 9 p.

Exploring the pain and disability continuum in adolescents with non-traumatic anterior knee pain: a mediation analysis using individual participant data of prospective studies

Holden, S., Lee, H., van Middelkoop, M., Rathleff, M. S., Adolescent knee health group, Roos, E. M., Olesen, J. L., Graven-Nielsen, T., Arendt-Nielsen, L., Hölmich, P., Thorborg, K., Rasmussen, S., Madeleine, P. & Selhorst, M., Nov 2023

, In: British Journal of Sports Medicine. 57, 21, p. 1388-1394 7 p., 107177.

Pain in Parkinson disease: mechanistic substrates, main classification systems, and how to make sense out of them

de Andrade, D. C., Mylius, V., Perez Lloret, S., Cury, R. G., Bannister, K., Moisset, X., Kubota, G. T., Finnerup, N. B., Bouhassira, D., Chaudhuri, K. R., Graven-Nielsen, T. & Treede, R-D., Nov 2023, In: Pain. 164, 11, p. 2425-2434 10 p.

Why Europe needs a pain research strategy

Pickering, G., O'Keeffe, M., Bannister, K., Becker, S., Cottom, S., Cox, F. J., Eisenberg, E., Finn, D. P., Graven-Nielsen, T., Meeus, M., Mouraux, A., Tölle, T., Garcia-Larrea, L. & Fullen, B. M., Nov 2023, In: European Journal of Pain. 27, 10, p. 1147-1149 3 p.

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Decreased effective cortical connectivity during acute experimental pain: a transcranial magnetic stimulation combined with electroencephalography study

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Influence of prolonged pain on corticomotor excitability and motor maps: insights from use-dependent plasticity

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Clausen, M. B., Rathleff, M. S., Graven-Nielsen, T., Bandholm, T., Christensen, K. B., Hölmich, P. & Thorborg, K., Jul 2023, In: British Journal of Sports Medicine. 57, 13, p. 842-848 7 p., bjsports-2022-106383.

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Plinsinga, M. L., Vuvan, V., Maclachlan, L., Klyne, D., Graven-Nielsen, T., Vicenzino, B., Hodges, P. & Bjarke Vaegter, H., Jul 2023, In: Pain. 164, 7, p. 1593-1599 7 p.

Prolonged slumped sitting causes neck pain and increased axioscapular muscle activity during a computer task in healthy participants - A randomized crossover study

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Kroniske smerter: Skal svaret findes i hjernen?

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Effect of prolonged experimental neck pain on exercise-induced hypoalgesia

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Larsen, D. B., Wittkopf, P. G. & Graven-Nielsen, T., 23 Sept 2022.

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The fast-posterior superior insula (Fast-PSI): A neuronavigation-free targeting method for noninvasive neuromodulation

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Prolonged experimental neck pain impair efficacy of exercise-induced hypoalgesia in healthy participants

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Neurophysiological, psychological and symptom-related factors predict low back pain outcome

Jenkins, L. C., Chang, W-J., Buscemi, V., Liston, M., Humburg, P., Nicholas, M., Graven-Nielsen, T., Hodges, P., McAuley, J. H. & Schabrun, S. M., Jun 2021.

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The Effect of Capsaicin-induced Pain on Homeostatic Plasticity

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Prognosis and transition of multi-site pain during the course of 5 years: Results of knee pain and function from a prospective cohort study among 756 adolescents

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Press/Media

1,6 mio. kr. til smerteforskning på AAU

Lars Arendt-Nielsen & Thomas Graven-Nielsen

07/12/2006

2 items of Media coverage

Apples forskningsapp får lunken modtagelse af danske forskere

Thomas Graven-Nielsen

16/03/2015

1 item of Media coverage

Bestil en forsker hjem i stuen

Thomas Graven-Nielsen

01/03/2021

1 item of Media coverage

Chili hjælper på smerter

Thomas Graven-Nielsen

09/10/2007

1 item of Media coverage

Debat: Kroniske smerter: Skal svaret findes i hjernen?

Thomas Graven-Nielsen & Daniel Ciampi de Andrade

17/03/2023

1 Media contribution

Debat: LIGESTILLING: Mænd kan sagtens være feminister

Thomas Graven-Nielsen

04/08/2016

2 items of Media coverage

Den elektriske kur

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Den elektriske kur

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Derfor falder vi

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Du kan blive overfølsom over for smerte

Thomas Graven-Nielsen, Søren Thorgaard Skou & Thomas Graven Nielsen

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15 items of Media coverage

Dybe smerter kan skyldes plasticitet i centralnervesystemet

Thomas Graven-Nielsen

01/02/2007

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Esben Lunde Larsen stolt af at være minister for AAU

Per Michael Johansen, Lars Hvilsted Rasmussen, Lasse Rosendahl & Thomas Graven-Nielsen

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Et afklædt sundhedsvæsen... eller forskere i "forklædning"

Lars Arendt-Nielsen & Thomas Graven-Nielsen

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Europæisk pris til smerteforsker på Aalborg Universitet

Thomas Graven-Nielsen

01/02/2008

1 item of Media coverage

Feberramte møder på jobbet

Thomas Graven-Nielsen

29/12/2014

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Fire nye professorer styrker AAU's sundhedsområder

Thomas Graven-Nielsen, Ole Kæseler Andersen, Dario Farina & Ole Hejlesen

01/06/2008

1 item of Media coverage

Fiskeren, politikerne og konsulen er med i "bogen"

Thomas Graven-Nielsen & Martin D. Munk

23/05/2014

4 items of Media coverage

Forskere giver forsøgspersoner tennisalbue for videnskabens skyld

Thomas Graven-Nielsen

09/09/2015

3 items of Media coverage

Forskning i smerter fra nervesystemet

Thomas Graven-Nielsen

20/10/2014

1 item of Media coverage

Funktionelle lidelser udfordrer lægevidenskabeligt paradigme

Thomas Graven-Nielsen

23/01/2017

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Gennembrud i behandlingen af kroniske smerter på vej

Thomas Graven-Nielsen

02/04/2024

1 item of Media coverage

Gigtforeningen støtter 17 nye forskningsprojekter

Thomas Graven-Nielsen

08/05/2013

3 items of Media coverage

Global epidemi af kronisk smerte skal bekæmpes uden medicin

Shellie Boudreau & Thomas Graven-Nielsen

27/10/2017

6 items of Media coverage

Han er bidd af at forske i, hvad smerter kan gøre for vores krop

Thomas Graven-Nielsen

23/04/2021

2 items of Media coverage

Hvad gør mest ondt?

Lars Arendt-Nielsen & Thomas Graven-Nielsen

24/06/2007

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Hvordan klarer du influenza? Tager du den i stiv arm, eller klynker du? Svaret ligger i dit køn

Thomas Graven-Nielsen

20/07/2017

1 item of Media coverage

Hvorfor bliver jeg aldrig syg?

Thomas Graven-Nielsen

09/12/2013

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Hvorfor bliver jeg aldrig syg?

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03/01/2020

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Hvorfor gør smerte mere ondt på nogle end på andre?

Thomas Graven-Nielsen

11/08/2016

2 items of Media coverage

Kontant belønning til Danmarks næste superstjerner på forskningshimlen

Thomas Graven-Nielsen

07/10/2014

9 items of Media coverage

Kroppen kan blive overfølsom over for smerte

Thomas Graven-Nielsen

01/02/2007

1 item of Media coverage

Kvinder har lavere smertetærskel end mænd

Thomas Graven-Nielsen

07/02/2007

1 item of Media coverage

Kvinder har lavere smertetærskel end mænd

Lars Arendt-Nielsen & Thomas Graven-Nielsen

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Lundbeckfonden uddeler 80 mio. kr. til tre hjerneforsknings-professorer

Thomas Graven-Nielsen

20/12/2023 → 24/12/2023

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Millionstøtte til lægevidenskabelig forskning i Nordjylland

Lars Arendt-Nielsen, Thomas Graven-Nielsen, Torben Moos, Ole Thorlacius-Ussing, Sam Riahi & Erik Berg Schmidt

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1 item of Media coverage

Minister: Slut med AAU-vækst i København

Thomas Graven-Nielsen

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Motor Unit Recruitment Strategies Are Altered during Deep-Tissue Pain

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Nakkesmerter sætter forskerne skakmat

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Navnenyt

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Nu kan man bestille en forsker til et gratis online foredrag

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Nye ansættelser på AAU

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1 item of Media coverage

Nye udnævnelser på Aalborg Universitet

Thomas Graven-Nielsen & Ole Hejlesen

23/04/2008

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Ny forskning kan hjælpe hver femte voksne dansker til færre smerter

Thomas Graven-Nielsen

23/03/2015

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Ny prodekan og forskerskoleleder

Thomas Graven-Nielsen

29/02/2016

1 item of Media coverage

Ny professor ved AAU

Thomas Graven-Nielsen

06/04/2008

1 item of Media coverage

Ny tvivl om bækkenløsning

Thomas Graven-Nielsen

14/11/2014

1 item of Media coverage

Ny tvivl om bækkenløsning

Thorvaldur Palsson & Thomas Graven-Nielsen

01/06/2020

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Når smertesystemet går i selvsving

Lars Arendt-Nielsen & Thomas Graven-Nielsen

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Prominent Pain Researcher at AAU Receives Prestigious European Grant

Thomas Graven-Nielsen & Daniel Ciampi de Andrade

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På sporet af smerten

Kristian Kjær Petersen, Steffen Frahm & Thomas Graven-Nielsen

18/04/2016

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Runde tal i morgen

Thomas Graven-Nielsen

06/03/2020 → 07/03/2020

3 items of Media coverage

Smerten spreder sig i dig

Thomas Graven-Nielsen

09/09/2012

3 items of Media coverage

Smertens veje og vildveje

Thomas Graven-Nielsen

03/10/2014

1 item of Media coverage

Smerteprofessor får forskerpris

Thomas Graven-Nielsen

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Smerte er signaler - men hvad fortæller de os?

Thomas Graven-Nielsen

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Smerte skal behandles forskelligt

Lars Arendt-Nielsen & Thomas Graven-Nielsen

19/06/2007

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Smerte smitter

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2 items of Media coverage

Smerte smitter

Thomas Graven-Nielsen

30/12/2009

2 items of Media coverage

Smerte smitter fra muskel til muskel

Thomas Graven-Nielsen

29/12/2009

1 item of Media coverage

Støtte til AAU-forskere

Lene Lange, Leonid Gurevich, Peter Fojan, Jes Vollertsen, Thorbjørn Terndrup Nielsen, Thomas Graven-Nielsen, Kristoffer Jensen, Eskild Holm Nielsen, Ellen Tove Christiansen, Benjaminn Nordahl Nielsen & Peter Roslev

20/09/2011

4 items of Media coverage

Tennisalbue påvirker hjernen

Thomas Graven-Nielsen

20/09/2015

8 items of Media coverage

Thomas Graven-Nielsen modtager forskningsbevilling

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To nye chefer på plads på AAU

Ole Kæseler Andersen & Thomas Graven-Nielsen

20/02/2016

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Tre hjerneforskningsprofessorer får i alt 80 millioner kroner

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Undskyld, må vi påføre dig smerte?

Thomas Graven-Nielsen

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Aalborgensisk smertensbarn lancerer første produkt

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19/01/2017

1 item of Media coverage

Aalborg-forskere er verdensberømte for at påføre folk smerte

Thomas Graven-Nielsen & Shellie Boudreau

30/10/2017 → 30/10/2017

3 items of Media coverage

AAU arrangerer forskertræf

Lars Arendt-Nielsen & Thomas Graven-Nielsen

24/07/2006

1 item of Media coverage

AAU styrker det sundhedsvidenskabelige område

Thomas Graven-Nielsen, Dario Farina, Ole Hejlesen & Ole Kæseler Andersen

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