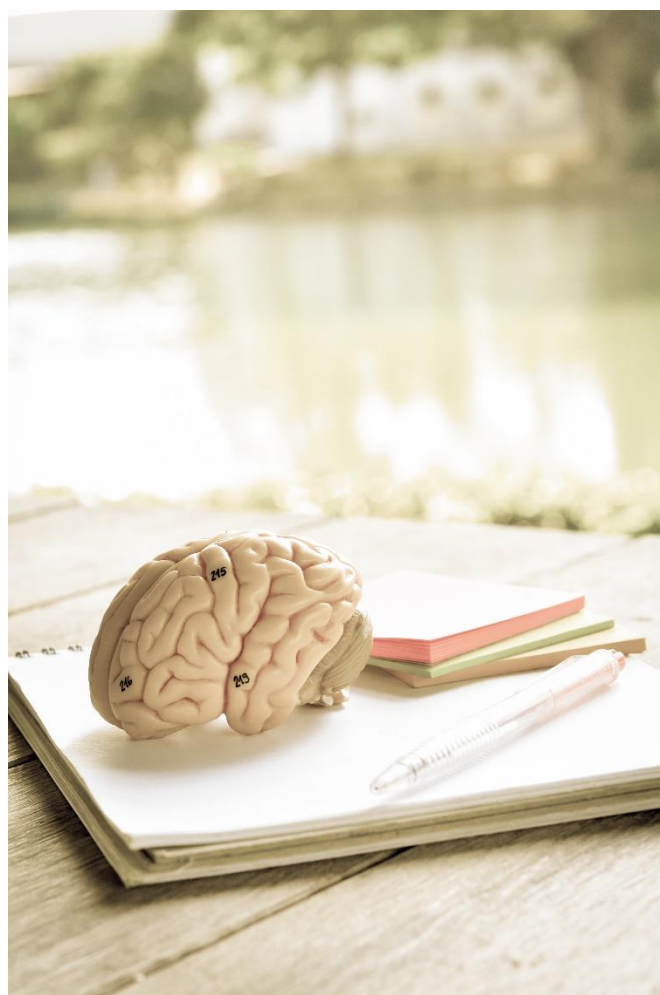




Annual Report

Research Activity 2019



Division of Clinical Neuroscience
University of Oslo and Oslo University Hospital





Contents

Oslo University Hospital and the University of Oslo	4
From Division Director Eva Bjørstad.....	4
Division of Clinical Neuroscience (NVR) Organizational Chart	5

Department of Physical Medicine and Rehabilitation

Rehabilitation after trauma.....	6
Group Leader: Nada Andelic	
Painful musculoskeletal disorders.....	9
Group Leader: Cecilie Røe	

Department of Refractory Epilepsy - National Centre for Epilepsy

Complex epilepsy.....	11
Group Leader: Morten Lossius	

Department of Neurosurgery

Neurovascular-Hydrocephalus Research Group	16
Group Leader: Per Kristian Eide	
Oslo Neurosurgical Outcome Study Group (ONOSG)	19
Group Leaders: Eirik Helseth and Torstein Meling	
Vilhelm Magnus Laboratory for Neurosurgical Research	22
Group Leader: Iver Langmoen	
Functional Neurosurgery Group	26
Group Leader: Pål Gunnar Larsson	





Department of Neurology

Movement Disorders 29

Group Leader: Mathias Toft

Cerebrovascular diseases 32

Group Leader: Mona Skjelland

Epilepsy Research Group 36

Group Leader: Erik Taubøll

Multiple Sclerosis (MS) 40

Group Leader: Elisabeth Gulowsen Celius

NEMU – Neurological and musculoskeletal pain and genetics 47

Group Leader: John-Anker Zwart

Brain plasticity and neuropsychiatry 43

Group Leader: Torbjørn Elvsåshagen

Cognitive Health Research group (CoHR) 46

Group Leader: Ira Haraldsen

Department of Neurohabilitation

Intellectual disability and neurohabilitation 48

Group Leader: Bjørnar Hassel

Sunnaas Rehabilitation Hospital

Specialized medical rehabilitation – Sunnaas Rehabilitation Hospital 50

Group Leader: Frank Becker

Publication list NVR research groups 2019 53

Publication list Sunnaas Rehabilitation Hospital 2019 88





Oslo University Hospital and the University of Oslo

Oslo University Hospital (OUH) is Norway's largest hospital with over 24 000 employees and a budget of 23 billion NOK. The Hospital has a local function for parts of Oslo's population. It has a regional function for the inhabitants in the South-Eastern Norway Regional Health Authority, as well as a large number of national functions. The Hospital is responsible for the majority of medical research and education of health personnel in Norway.

The University of Oslo (UiO) is Norway's largest research and educational institution with 28 000 students and 7 000 employees. Professional breadth and internationally recognized research environments make UiO an important contributor to society. The Faculty of Medicine was established in 1814 and works for progressive education, research and dissemination for the patients' and society's best interests.

From Division Director Eva Bjørstad

Being the largest hospital in Norway, Oslo University Hospital provides highly specialized health care services to the citizens of Oslo and the Southeast health region. In addition, the Hospital has a nationwide responsibility for a number of national and multi-regional assignments. The Division of Clinical Neuroscience encompasses the disciplines of neurology, neurosurgery, physical medicine and rehabilitation, neuro habilitation and complex epilepsy. The proximity to patients and their medical issues are the cornerstones for the research conducted at our Hospital, and the research aims at improving patient care. High ethical standards ensure the confidentiality and our goal is to continuously improve diagnostics, treatment and management for all our patients.

Research activity at the Division of Clinical Neuroscience

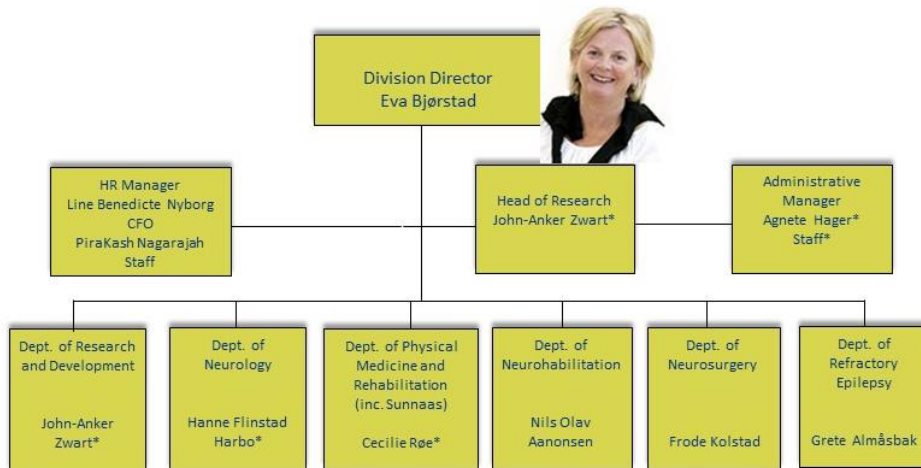
The Division's research activity is organized into 16 different research groups covering a broad range of basic, clinical and epidemiological research with an overall aim to improve patient care with emphasis on diagnostic, therapeutic and preventive measures. Most group leaders have a combined position at Oslo University Hospital and the University of Oslo. In total, the Division has 18 Professors, 4 Associate Professors, several postdoctoral fellowships and PhD students, administrative staff and technical staff. The Division has an advisory research board that in 2019 consisted of: Professor and Head of Research John-Anker Zwart, Division Director Eva Bjørstad, Professor and Senior Consultant Morten Lossius, Professor and Senior Consultant Eirik Helseth, Professor and Senior Consultant Mona Skjelland, Professor and Senior Consultant Nada Andelic and Administrative Manager Agnete Hager. In 2019 there were in total 279 registered peer reviewed publications and 4 PhD dissertations, while Sunnaas Rehabilitation Hospital published 57 registered peer reviewed articles and had 3 PhD dissertations.

Eva Bjørstad



Division of Clinical Neuroscience (NVR)

Organizational Chart



*UiO employee(s)



Rehabilitation after trauma



Group Leader

Nada Andelic, MD/PhD, Professor, Dept. of Nursing Science, UiO
(nada.andelic@medisin.uio.no) / OUH (nadand@ous-hf.no)

Group members

- Cecilie Røe, Professor, UiO
- Erik Bautz-Holter, Professor emeritus, UiO
- Helene Lundgaard Sjøberg, Professor, OsloMet
- Unni Sveen, Professor, OsloMet
- Tonje Haug Nordenmark, Associate Professor, UiO
- Marit V. Forslund, Postdoc, OUH
- Tanja Karic, Researcher, OUH
- Torgeir Hellstrøm, Researcher, OUH
- Ingerid Kleffegård, Postdoc, OUH
- Mari S. Rasmussen, PhD fellow, UiO
- Emilie I. Howe, Cand Psych, PhD fellow, UiO
- Silje Fure, PhD fellow, UiO
- Elin Western, PhD fellow, UiO
- Ida Maria Borgen Henriksen, PhD fellow, UiO
- Håkon Moksnes, PhD fellow, UiO
- Cathrine Buaas Tverdal, PhD fellow, UiO

Associated group members

- Line Preede, PhD fellow, UiO

Research profile and aims

The research group generates knowledge about the mechanisms and consequences of trauma, patient care, trends and challenges in treatment and rehabilitation including the patients' healthcare needs. The main research focus is traumatic injuries including traumatic brain injury (TBIs), and aneurysmal subarachnoid hemorrhage (aSAH). The research conducted by this group is multidisciplinary and collaborative, where collaboration between genetics, intensive medicine, neurosurgery, neuroradiology, neuropsychology and rehabilitation has been established over the last 10 years. By combining the perspectives and methods of basal, clinical and health care service research, we may provide unique knowledge on the consequences of injuries, how to organize effective patient care and improve the functional outcomes after injuries.

The main aims are:

1. To better understand the mechanisms, course and consequences of TBI and multiple traumas by using translational research strategy
2. To develop and build evidence based efficient protocols for the rehabilitation implementation
3. To strengthen existing and initiate new national and international research collaboration





Main ongoing projects

- *Center-TBI (Collaborative European NeuroTrauma Effectiveness Research in TBI)*. Principal investigator at the Oslo University Hospital Study Site of Center-TBI Nada Andelic
- *The family as a resource for improved patient and family functioning after traumatic brain injury*. A randomized controlled trial of a family centered intervention. Principal investigator Helene L. Sjøberg, PhD fellow Mari S. Rasmussen
- *The effect evaluation of combined cognitive and vocational interventions after mild-to-moderate traumatic brain injury: a randomized controlled trial and qualitative process evaluation*. Principal Investigator: Nada Andelic, PhD fellows: Emile I. Howe and Silje Fure. Postdoc Torgeir Hellstrøm
- *Traumatic brain injury; needs and treatment options in the chronic phase. A randomized controlled community-based intervention*. Principal investigator: Cecilie Røe, PhD fellow Ida M. Borgen Henriksen, postdocs: Marit V. Forslund, Solveig L. Hauger, Ingerid Kleffegård
- *OSU6162 in the treatment of fatigue and other neuropsychological sequelae after aneurysmal subarachnoidal hemorrhage - a double-blind, randomised, placebo-controlled study*. Principal investigators Angelika Sorteberg and Tonje Haug Nordenmark. PhD fellow Elin Western
- *Rehabilitation needs after trauma*. In collaboration with the National Trauma Register and University Hospital of North Norway and CHARM. Principal investigator Nada Andelic, PhD fellows Håkon Moksnes and Christoph Schäfer
- *The course of functional recovery after moderate-to-severe TBI (5, 10 and 20 years after injury)*. Principal investigator Nada Andelic, Researchers: Cecilie Røe, Solrun Sigurdardottir, Torgeir Hellstrøm, Emile S. Howe, Marit V. Forslund

Other projects

- *Development of persistent fatigue after moderate-to-severe TBI*. In collaboration with Sunnaas Rehabilitation Hospital. Principal investigator Marianne Løvstad, PhD fellow Daniel Løke
- *Global functioning and quality of life 5 and 10 years after aneurysmal subarachnoid hemorrhage*. Principal investigator Tonje Haug Nordenmark, researcher Tanja Karic
- *Effect of adapted physical activity and goal-setting on physical and mental health*. In collaboration with Beitostølen Health Sport Center. Principal investigators Cecilie Røe and Erik-Bautz Holter, PhD fellow Line Preede
- *Pediatric traumatic brain injury: A prospective study investigating incidence, outcomes and unmet treatments needs 2 years post-injury*. In collaboration with Children Dept. Principal investigators Trond Diseth and Mia Myhre. PhD fellow Hilde M. Dahl
- *Acute treatment of traumatic brain injury at Oslo University Hospital. Profile of patient population, hospital resource use and hospital discharge*. In collaboration with Dept. of Neurosurgery. Principal investigator Eirik Helseth, PhD fellow Cathrine Buas Tverdal

Most important national and international collaborators

National

- Oslo Traumatic Brain Injury Outcome and Rehabilitation Research Network (OBIOR- research network)
- Hospitals in the South-East Region, including Sunnaas Rehab. Hospital
- OsloMet

International

- Karolinska, Uppsala, Umeå and Salgrenska University Hospitals, Sweden
- Copenhagen University Hospital and Hammel Rehabilitation and Research Centre, Denmark
- Virginia Commonwealth University, Richmond, US
- BioCruces Health Research Institute, Spain





- Work Research Institute (AFI)
- Norwegian Labor and Welfare Administration, Oslo
- NAV, Dept. of vocational rehabilitation
- Universities of Oslo, Bergen, Trondheim and Tromsø
- Helsam/Charm
- University of California, San Diego, CA, USA
- University of Gottingen, Germany
- Hannover Medical School, Germany
- CENTER-TBI collaborators across the European hospitals/universities (particularly Finland, UK, France, Slovakia and Germany)

Funding

- European Union's Seventh Framework Programme for Research and Development
- Norwegian Research Council
- Heath Authority South-East Region
- Stiftelsen Dam
- University of Oslo
- Oslo University Hospital

Scientific production of the research group in 2019

Master thesis

Anne-Margrethe Linnestad:

“Balansekunst – om å manøvrere i ukjent farvann; en kvalitativ studie om rehabiliteringserfaringer”

UiO, September 2019, in collaboration with Sunnaas Rehabilitation Hospital

Peer reviewed original research articles: 17

Other publications: 15

Selected publications:

Gormley M, Devanaboyina M, Andelic N, Røe C, Seel RT, Lu J (2019)

“Long-term employment outcomes following moderate to severe traumatic brain injury: a systematic review and meta-analysis”

Brain Inj, 33 (13-14), 1567-1580. DOI 10.1080/02699052.2019.1658222, PubMed 31454278

Holthe OO, Hellstrom T, Andelic N, Server A, Sigurdardottir S (2019)

“Improvement and Prediction of Memory and Executive Functions in Patients Admitted to a Neurosurgery Service With Complicated and Uncomplicated Mild Traumatic Brain Injury”

J Head Trauma Rehabil, 34 (5), E45-E56. DOI 10.1097/HTR.0000000000000463, PubMed 30829814

Røe C, Tverdal C, Howe EI, Tenovuo O, Azouvi P, Andelic N (2019)

“Randomized Controlled Trials of Rehabilitation Services in the Post-acute Phase of Moderate and Severe Traumatic Brain Injury - A Systematic Review”

Front Neurol, 10, 557. DOI 10.3389/fneur.2019.00557, PubMed 31244748



Painful musculoskeletal disorders



Group Leader

Cecilie Røe, Professor, Head of Dept of Physical Medicine and Rehabilitation,
UiO (cecilie.roe@medisin.uio.no)/ OUH (cecilie.roe@ous-hf.no)

Group Members

- Erik Bautz-Holter, Professor emeritus, UiO
- Siri Bjorland, PhD, OUH
- Jens Ivar Brox, Professor, UiO
- Kaia Beck Engebretsen, PT, PhD, OUH
- Marte Heide, PhD student, UiO
- Aasne Hoksrud, PhD, OUH
- Marianne Bakke Johnsen, PhD, UiO
- Niels-Gunnar Juel, MD, Dr. Philos, OUH
- Synnøve Kvalheim, PhD, OUH
- Kjersti Myhre, PhD, OUH
- Marianne Mørk, PhD student, OUH
- Line Preede, PhD student, UiO
- Elina Schistad, PhD, OUH
- Helene Skaara, MSc, OUH
- Sigrid Skatteboe, PhD, OUH
- Mirad Taso, PhD student, OUH
- Thy Vanem, PhD student, OUH

Research profile and aims

The research unit generates knowledge regarding diagnostics, treatment and rehabilitation of painful musculoskeletal conditions. The main focus is on neck, back and shoulder conditions. The research is multidisciplinary, and collaboration with basal, clinical and health care service milieus established. Based on the framework of the International Classification of Functioning, Disability and Health (ICF) and the biopsychosocial model, interaction between the genetic and other basal disease mechanisms with psychosocial, personal and environmental factors are studied regarding the course of pain, functioning and participation. Furthermore, developing and evaluating treatment models in prospective and randomized studies, aiming to improve functioning and return to work are focus areas.

The main aims are:

- To understand the mechanisms, course and consequences of painful musculoskeletal conditions.
- To develop and evaluate treatment models for painful musculoskeletal conditions.



Ongoing projects

- A randomized controlled study of surgical versus non-surgical treatment for cervical radiculopathy. Principal investigator Jens Ivar Brox, PhD fellow Mirad Taso
- The effectiveness of radial extracorporeal shockwave therapy, standardized exercise program or usual care for patients with plantar fasciopathy. Study protocol for a double-blind, randomized, sham-controlled trial. Principal investigator Aasne Fenne Hoksrud, PhD fellows Marianne Mørk and Marte Heide
- Reliability of Modic changes. Principal investigator Elina Schistad
- Improving functioning and participation among persons with physical disabilities. Principal investigator Cecilie Røe. PhD fellow Line Preede
- Clinical course and prognostic factors for shoulder pain patients in primary and specialized care. Principal investigator Kaia Engebretsen
- Antibiotic treatment in patients with chronic low back pain and Modic Changes: randomized trial. Conducted by FORMI. Principal investigator in the research group Jens Ivar Brox and Elina Schistad
- Development of a minimum reporting set for rehabilitation services, Principal investigator Cecilie Røe
- Treatment of elbow pain. Principal investigator Aasne Fenne Hoksrud

Most important national and international collaborators

National

- Dept. of Orthopaedics, OUH
- Forsknings og formidlingsenheten for muskelskjelett helse, FORMI
- Dept. of Physical medicine and Rehabilitation, St Olavs Hospital
- Dept. of Physical medicine and Rehabilitation, University Hospital of North Norway
- Dept. of Physical medicine and Rehabilitation, Haukeland University Hospital

International

- Tuomas Lähdeoja, Helsinki University Central Hospital
- Juan Lu, Paul Perrin, Virginia Commonwealth University, US
- Christoph Gutenbrunner, Hannover Medical School, Department of Rehabilitation Medicine, Hannover, Germany





Scientific production of the research group in 2019

Peer reviewed original research articles: 18

Doctoral dissertation:

Siri Bjorland: *"Genetic variability and persistent low back and lumbar radicular pain"*
24 January 2019

Selected publications:

GH, Kristoffersen PM, Lutro O, Randen S, Wilhelmsen M, Winsvold BS, Kadar TI, Holmgard TE, Vigeland MD, Vetti N, Nygaard ØP, Lie BA, Hellum C, Anke A, Grotle M, Schistad EI, Skouen JS, Grøvle L et al. (2019)
"Efficacy of antibiotic treatment in patients with chronic low back pain and Modic changes (the AIM study): double blind, randomised, placebo controlled, multicentre trial"
BMJ, 367, I5654
DOI 10.1136/bmj.I5654, PubMed 31619437, WoS 000492058700002 Cristin 1743458 (Details)

Bjorland S, Gjerstad J, Schistad E, Swanson DM, Røe C (2019)
"Persistent lumbar radicular and low back pain; impact of genetic variability versus emotional distress"
BMC Res Notes, 12 (1), 547
DOI 10.1186/s13104-019-4592-6, PubMed 31455415 Cristin 1720025

von Kodolitsch Y, Demolder A, Girdauskas E, Kaemmerer H, Kornhuber K, Muino Mosquera L, Morris S, Neptune E, Pyeritz R, Rand-Hendriksen S, Rahman A, Riise N, Robert L, Staufenbiel I, Szöcs K, Vanem TT, Linke SJ, Vogler M, Yetman A, De Backer J (2019)
"Features of Marfan syndrome not listed in the Ghent nosology - the dark side of the disease"
Expert Rev Cardiovasc Ther, 17 (12), 883-915
DOI 10.1080/14779072.2019.1704625, PubMed 31829751, WoS 000506625700005 Cristin 1782301 (Details)

Funding

- The Research Council of Norway
- South-Eastern Norway Regional Health Authority
- Sofies Minde Ortopedi
- Oslo University Hospital



Complex epilepsy



Group Leader

Morten I. Lossius, Consultant neurologist, National Centre for Epilepsy, OUH (mortenl@ous-hf.no) and Professor, UiO (morten.lossius@medisin.uio.no)

Group Members

- Marit Bjørnvold, MD/PhD, SSE
- Cecilie Johannessen Landmark, MSc/PhD, SSE and OsloMET
- Kristin Alfstad, MD/PhD, SSE
- Karl Otto Nakken, MD/PhD, SSE
- Magnhild Kverneland, MSc, SSE and UiO
- Kari Modalsli Aaberg, MD/PhD, SSE and UiO
- Hilde Karterud, Cand.san/PhD, SSE and UiO
- Antonia Villagran, MD, SSE and UiO
- Torleiv Svendsen, MD, SSE and UiO
- Oliver Henning, MD, SSE
- Sigrid Pedersen, MSc, SSE
- Erik sætre, MD, PhD, SSE
- Annette Holth Skogan Clin.Neuro.Psych/PhD, SSE
- Ellen Molteberg, MD, SSE and UiO
- Konstantin H. Kostov, MD, SSE and UiO
- Gernot Hlauschek, MD, SSE
- Merete Tschamper, MSc, SSE

Associated group members

- Anette Huuse Farnen, MD, Innlandet Hospital and UiO
- Marte Syvertsen, MD, Vestre Viken and UiO
- Kaja Kristine Selmer, MD/PhD, OUS and UiO
- Ine Cockerell, MSc, OUH and UiO

Research profile and aims

Clinical research in patients with difficult-to-treat epilepsy, with particular focus on:

- Characterization of different epilepsy syndromes (genotype/phenotype)
- Clinical pharmacology of antiepileptic drugs
- Different diagnostic and treatment options; EEG, pharmacotherapy, surgery, VNS, diets
- Psychosocial, psychiatric and neurocognitive aspects
- Psychogenic non-epileptic seizures

Ongoing projects

PhD candidates in the UiO PhD program:

- **Magnhild Kverneland:** *Effect of modified Atkin's diet in adult patients with pharmacoresistant focal epilepsy. A randomized controlled study.* Supervisor: **Karl Otto Nakken**. Co-supervisor: Erik Taubøll
 - **Antonia Villagran:** *Psychiatric comorbidity in patients with psychogenic non-epileptic seizures (PNES).* Supervisor: Morten I. Lossius. Co-supervisor: Roderick Duncan
 - **Torleiv Svendsen:** *Tolerability and efficacy of new antiepileptic drugs.* Supervisor: **Cecilie Johannessen Landmark**. Co-supervisors: Ole Morten Rønning and **Morten I. Lossius**
 - **Sigrid Pedersen:** *Epilepsy in Children: The Impact of the Gut Microbiota and Epigenetics in Successful Treatment of Epilepsy.* Supervisor: **Kaja Kristine Selmer**. Co-supervisors: Knut Rudi, Per Ole Iversen, and Benedicte Alexandra Lie
 - **Ellen Molteberg:** *Long term effects of modified Atkins diet in therapy-resistant epilepsy.* Supervisor: Erik Taubøll. Co-supervisor: Per Medbøe Thorsby and **Karl O. Nakken**
- Eli B. Kyte:** *"Impact of epilepsy surgery on cognition, psychiatry and quality of life at the commencement of aging"* Supervisor: **Kristin Å. Alfstad**. Co-supervisor: **Morten I. Lossius and Annette H. Skogan**.

Dr. philos. candidate:

- **Oliver Henning:** *Sexuality, depression and side effects in refractory epilepsy patients.* Senior reseacher: **Morten I. Lossius**

Post doc:

- **Silje Alvestad:** *Scandinavian multi-registry study of antiepileptic drug teratogenicity: the SCAN-A study*

PhD-candidates not yet in the UiO PhD program:

- **Kathrine C. Haavardsholm:** *Long term effect of ketogenic diet in children with epilepsy*
Supervisor: Anette Ramm -Pettersen
- **Konstantin H. Kostov:** *Clinical outcomes and determinants of effectiveness of vagus nerve stimulation in a large national refractory epilepsy population*
Supervisor: Jukka Peltola. Co-supervisor: **Morten I. Lossius** and Pål Gunnar Larsson

PhD-candidates in the UiO PhD program, associated to the group:

- **Anette Huuse Farmen:** *Effect of epilepsy and antiepileptic drugs in pregnancy: cognition, neurodevelopmental symptoms and obstetric outcome in offspring – a prospective cohort study*
Supervisor: **Morten I. Lossius**. Co-supervisor: Merethe Øien
- **Ine Cockerell:** *"Treatment and follow-up in patients with tuberous sclerosis"*
Supervisor: Terje Nærland. Co-supervisor: Caroline Lund and Ketil Heimdal

International projects:

- “*EURAP study. An International Antiepileptic Drugs and Pregnancy Registry*” (International concerted Action on the Teratogenesis of Anti-epileptic Drugs) (<http://www.eurapinternational.org/>); **Silje Alvestad** and **Kari Mette Lillestølen**, national coordinators
- “*E-PILEPSY*” is a pan European project, with the primary aim of improving awareness and accessibility of surgery for epilepsy across different countries. Epilepsy surgery is an established treatment in the management of individuals with drug resistant focal epilepsy (<http://www.e-epilepsy.eu/>); **Morten I. Lossius**, associated partner
- “*EpiCARE*” European Reference Network (ERN) on rare and complex epilepsies associated member. Head of Scientific Advisory Board **Morten I. Lossius**
- “*NESREC*” Nordic Epilepsy Surgery Research Consortium. **SSE**
- “*Nordic prospective observational study of outcomes after rare epilepsy surgery procedures*”; **Fridny Heimisdottir**
- “*TRACE*” (Transcutan VNS (t-VNS) for drug resistant epilepsy); **Oliver Henning** and **Konstantin Kostov**
- “*Pharmacokinetic variability, efficacy and tolerability of a new antiepileptic drug, brivaracetam*” Scandinavian project between the National Centre for Epilepsy in Norway and Denmark (Filadelfia, Dianalund); **Torleiv Svendsen**, medical leader, **Cecilie Johannessen Landmark**, project leader
- “*Children with refractory epilepsy and use of the newest antiepileptic drugs*”. Scandinavian project between the National Center for Epilepsy in Norway and Denmark (Filadelfia, Dianalund); Margrete Larsen Burns, Marina Nikoronova, responsible in Denmark, **Cecilie Johannessen Landmark**, project leader
- “*EDDI EMG triggered seizure alarm*”; **Oliver Henning** in cooperation with Danish Epilepsy Center Dianalund
- “*ERAS-Trial (Effect Related to Auto Stimulation): Does additional ECG-triggered stimulation increase the efficacy of Vagus Nerve Stimulation?*” **Oliver Henning, Hrisimir Kostov and Tatiana Evsikova**
- “*EEG in Nodding Syndrome (Onchocerca volvulus associated epilepsy)*.”: In cooperation with the Makerere University in Kampala, Uganda we are part in a study. **Oliver Henning**
- “*Scandinavian multi-registry study of antiepileptic drug teratogenicity: the SCAN-A study*”; **Silje Alvestad**, post-doc, in cooperation with UiB/Haukeland
- CMD Expert Group. **Cecilie Johannessen Landmark**
- EpiPed. ILAE Task Force. **Cecilie Johannessen Landmark**
- EpiEd. ILAE Task Force. **Cecilie Johannessen Landmark**
- Pediatric Treatment. ILAE Task Force. **Cecilie Johannessen Landmark**
- A Study to Test the Efficacy and Safety of Padsevonil as Treatment of Focal-onset Seizures in Adult Subjects With Drug-resistant Epilepsy (DUET) P.I. **Torleiv Svendsen**, Investigator: **Morten I. Lossius**, Study coordinator: **Stein Atle Roestad**



Most important national and international collaborators

National

- Prof. Eylert Brodtkorb, St. Olavs Hospital and NTNU, Trondheim
- Prof. Erik Taubøll, OUH and UiO
- Prof. Jeanette Koht, Drammen Hospital and UiO
- Marte Syvertsen, MD, Drammen Hospital and UiO
- Ass. prof. Marte Bjørk, Haukeland University Hospital and UiB

International

- Prof. Torbjörn Tomson, Karolinska Institutet, Stockholm, Sweden
- Prof. Philippe Ryvlin, Lausanne University Hospital, Switzerland
- Prof. Marina Nikoronova, Dianalund, Denmark
- Prof. Anne Sabers, Copenhagen, Denmark
- Prof. Christoph Helmstaedter, Bonn University Hospital, Germany
- Prof. Kristina Malmgren, Sahlgrenska University Hospital, Sweden
- Prof. Sándor Beniczky, Århus University, Denmark
- Prof. Guido Rubboli, Copenhagen University, Denmark
- Ass. Prof. Rikke Steensbjerre Møller, University of Southern Denmark, Denmark
- Prof. Jukka Peltola, Tampere University Hospital, Finland

Scientific production of the research group in 2019

Peer reviewed original research articles: 17

Other publications: 11

Submitted doctoral thesis : 3

Selected publications:

Henning O, Johannessen Landmark C, Nakken KO, Lossius MI (2019)

“Nonadherence to treatment regimens in epilepsy from the patient's perspective and predisposing factors: Differences between intentional and unintentional lack of adherence”

Epilepsia, 60 (5), e58-e62

Henning O, Johannessen Landmark C, Traeen B, Svendsen T, Farmen A, Nakken KO, Lossius M (2019)

“Sexual function in people with epilepsy: Similarities and differences with the general population”

Epilepsia, 60 (9), 1984-1992

Johannessen Landmark C, Fløgstad I, Baftiu A, Syvertsen M, Enger U, Koht J, Johannessen SI (2019)

“Long-term follow-up with therapeutic drug monitoring of antiepileptic drugs in patients with juvenile myoclonic epilepsy”

Epilepsy Res, 155, 106148





Funding

- South-Eastern Norway Regional Health Authority
- Norwegian chapter of ILAE
- Norwegian ExtraFoundation for Health and Rehabilitation (Dam stiftelsen)



Neurovascular–Hydrocephalus Research Group



Group Leader

Per Kristian Eide, Professor, Dept of Neurosurgery, UiO (p.k.eide@medisin.uio.no)/
Head of Section, Dept of Neurosurgery, OUH (peide@ous-hf.no)

Group Members

- Brastad Evensen, Karen, PhD fellow, OUH
- Dahlberg, Daniel, PhD fellow, OUH
- Eide, Per Kristian, professor, OUH
- Fric, Radek, PhD fellow, OUH
- Hassan-Olive, Md Mahdi, PhD fellow, OUH
- Lashkarivand, Aslan, PhD fellow, OUH
- Langvatn, Erlend, Consultant, OUH
- Slettebø, Haldor, Senior Consultant, OUH
- Sortberg, Angelika, dr.med., OUH
- Sorteberg, Wilhelm, dr.med., OUH
- Stanisic, Milo, dr.med., OUH
- Ringsby, Jon-Olav, Consultant, OUH
- Wiedemann, Markus, PhD, Consultant, OUH

Research profile and aims

The research group focuses on clinical and translational neurosurgical research within the fields of neurovascular disease and cerebrospinal fluid disorders.

1. Cerebrovascular disorders. Cerebral hemodynamics. Focus on intracranial aneurysms and subarachnoid hemorrhage, including neurointensive monitoring and outcome.
2. Brain Monitoring. Several projects study intracranial pathophysiology with a strong focus on intracranial pressure and arterial blood pressure dynamics, and cerebral autoregulation.
3. Hydrocephalus. Studies focus on the pathophysiology of hydrocephalus and alterations in pressure dynamics in hydrocephalus and other brain water disorders. Translational research has been initiated to study molecular-genetic mechanisms of hydrocephalus and diseases involving disorders in brain water homeostasis. Clinical studies focus on outcome of treatment of hydrocephalus. Studies on imaging of CSF circulation.



Ongoing projects

- Pathophysiology by cerebral abscesses
- Pathophysiology of hydrocephalus and abnormal brain pressure
- Pathophysiology of subarachnoid hemorrhage and subdural hematomas
- Outcome of treatment of subarachnoid hemorrhage, vascular compression syndromes, stroke and hydrocephalus
- Bleeding Risks of cerebral aneurysms
- Rehabilitation after subarachnoid hemorrhage
- Diagnostic Imaging by disturbances in the cerebrospinal fluid circulation
- Non-invasive monitoring of intracranial pressure
- Glymphatic circulation in humans

Most important national and international collaborators

National

- Simula, UiO
- Physical medical dept, OUH
- Dept of Radiology, OUH
- Interventional Centre, OUH
- Dept of Informatics, UiO
- Dept of Mathematics, UiO
- Dept of Neurology, OUH
- Trauma Clinic , OUH
- Sunnaas Rehabilitation Hospital
- Institute of Basic Medical Sciences, UiO

International

- University of Gothenburg, Sweden (Prof. Hansson)
- University of Kupio, Finland
- University of Copenhagen, Denmark

Funding

- South-Eastern Norway Regional Health Authority
- European Union

Scientific production of the research group in 2019

Peer reviewed original research articles: 19

Invited lectures at international congresses: >15





Selected publications:

Sorteberg A, Bredmose PP, Hansen AE, Sorteberg W (2019)

"The path from ictus to Neurosurgery: chronology and transport logistics of patients with aneurysmal subarachnoid haemorrhage in the South-Eastern Norway Health Region"

Acta Neurochir (Wien), 161 (8), 1497-1506

DOI 10.1007/s00701-019-03971-9, PubMed 31197472, WoS 000475688800003 Cristin 1717751 (Details)

Jacobsen HH, Ringstad G, Jørstad ØK, Moe MC, Sandell T, Eide PK (2019)

"The Human Visual Pathway Communicates Directly With the Subarachnoid Space"

Invest Ophthalmol Vis Sci, 60 (7), 2773-2780

DOI 10.1167/iavs.19-26997, PubMed 31247084, WoS 000474865600013 Cristin 1725747 (Details)

Hasan-Olive MM, Hansson HA, Enger R, Nagelhus EA, Eide PK (2019)

"Blood-Brain Barrier Dysfunction in Idiopathic Intracranial Hypertension"

J Neuropathol Exp Neurol, 78 (9), 808-818

DOI 10.1093/jnen/nlz063, PubMed 31393574, WoS 000493383300006 Cristin 1742839 (Details)



Oslo Neurosurgical Outcome Study Group (ONOSG)



Professor Eirik Helseth, MD/PhD, Consultant neurosurgeon, Dept. of Neurosurgery, Oslo University Hospital (eirik.helseth@ous-hf.no) and Professor of Neurosurgery, Faculty of Medicine, University of Oslo (eirik.helseth@medisin.uio.no)



Torstein Meling, MD/PhD, Consultant neurosurgeon, Dept. of Neurosurgery, Oslo University Hospital (tmeling@ous-hf.no), Professor of Neurosurgery, Faculty of Medicine, University of Oslo and Assistant Professor, Institute of Psychology, University of Oslo (t.r.meling@medisin.uio.no)

Group Members

- Petter Brandal, MD/PhD, OUH
- Bjarne Lied, MD/PhD, Oslofjordklinikken
- Tom Børge Johannesen, MD/PhD, OUH
- David Scheie, MD/PhD, Rigshospitalet, Copenhagen, Denmark
- Mads Aarhus, MD/PhD, OUH
- Einar Vik-Mo, MD/PhD, OUH
- Charlotte Halvorsen, MD, PhD fellow, OUH
- Hege Linnerud, MD/PhD, OUH
- Markus Wiedmann, MD/PhD, OUH
- Jon-Terje Ramm-Pettersen, MD/PhD, OUH
- Pål Rønning, MD/PhD, OUH
- Benjamin Lassen, MD, PhD fellow, OUH
- Marton König, MD, PhD fellow, Faculty of medicine, UiO
- Tor Brommeland, MD/PhD fellow, OUH
- Ali Rizvi, MD, PhD fellow, OUH
- Christina Teisner Høstmælingen, MD, PhD fellow, OUH
- Cathrine Buaas Tverdal, registrar and PhD fellow, OUH
- Dag Ferner Netteland, PhD fellow
- Ola Fougner Skaansar, medical student, UiO
- Ingar Næss, medical student, UiO
- Guro Jahr, PhD fellow
- Michele Da Broi, MD/PhD fellow

Research profile and aims

Main focus on surgical complications and outcome after surgery for:

- Intracranial tumors
- Intraspinal tumors
- Outpatient spinal surgery
- Neurotrauma



Ongoing projects 2019

- Intraspinal tumors – Surgical management
- Cervical trauma – Epidemiology and Surgical management
- Traumatic Brain Injury – Epidemiology and management
- Intracranial tumors – Epidemiology, imaging and management
- CenterTBI – European study
- Transocular ultrasound for ICP measurement – with SINTEF/Nisonic
- GLOBAL NEUROTRAUMA OUTCOMES STUDY (GNOS)
- Low-grade gliomas: Scandinavian Study of Surgical Selection, Techniques and Results (S4TAR)
- Safety of outpatient spine surgery

PhD projects

- Skull base tumors - Marton König
- CNS lymphomas – Guro Jahr
- Intracranial meningiomas – Michele Da Broi
- Intraspinal tumors – Charlotte Halvorsen
- Odontoid fractures – Ali Rizvi
- Subaxial cervical fractures - Christina Teiner Høstmælingen
- Transocular ultrasound for ICP measurement - Dag Ferner Netteland
- Traumatic brain injury – Cathrine Buas Tverdal

“Forskerlinje” projects

- Traumatic brain injury – Ola Fougner Skaansar
- Bicycle accidents – Ingar Næss

Funding

South-Eastern Norway Regional Health Authority

Scientific production of the research group in 2019

Peer reviewed original research articles: 27

Invited lectures at international congresses: 20





Selected publications:

Meling TR, Da Broi M, Scheie D, Helseth E, Smoll NR (2019)

“Meningioma Surgery-Are We Making Progress?”

World Neurosurg, 125, e205-e213

DOI 10.1016/j.wneu.2019.01.042, PubMed 30684722, WoS 000466491700027 Cristin 1711865 (Details)

Helseth Ø, Lied B, Heskestad B, Ekseth K, **Helseth E** (2019)

“Retrospective single-centre series of 1300 consecutive cases of outpatient cervical spine surgery: complications, hospital readmissions, and reoperations”

Br J Neurosurg, 33 (6), 613-619

DOI 10.1080/02688697.2019.1675587, PubMed 31607163, WoS 000489797000001 Cristin 1791701 (Details)

A, Citerio G, De Keyser V, Ercole A, Kunzmann K, Lanyon L, Lecky F, Lingsma H, Manley G, Nelson D, Peul W, Stocchetti N, von Steinbüchel N, Vande Vyvere T, Verheyden J, Wilson L, Maas AIR, Menon DK; **CENTER-TBI Participants and Investigators.**

“Case-mix, care pathways, and outcomes in patients with traumatic brain injury in CENTER-TBI: a European prospective, multicentre, longitudinal, cohort study”

Steyerberg EW, Wiegers E, Sewalt C, Buki

Lancet Neurol. 2019 Oct;18(10):923-934.

DOI 10.1016/S1474-4422(19)30232-7.



Vilhelm Magnus Laboratory for Neurosurgical Research



Group Leader

Iver A. Langmoen, MD/PhD, Professor, Dept of Neurosurgery, UiO
(i.a.langmoen@medisin.uio.no) /Dept of Neurosurgery, OUH (UXLAIV@ous-hf.no)

Group Members:

- Cecilie J Sandberg, MSc, PhD, Lab manager/HR/Daily activities, OUH
- Einar O. Vik-Mo, MD, PhD, Deputy group leader, OUH
- Skarphedinn Haldorsson, MSc, PhD, Post Doc
- Luna Kutiti Djirackor, MD, PhD, Post Doc
- Erlend Skaga, MD, PhD-student, UiO
- Marit Brynjufsen, MSc, PhD-student, UiO
- Zanina Grieg, MSc, OUH
- Birthe Mikkelsen, BSc, OUH (leave of absence)
- Emily Palmero, BSc, OUH
- Elise Solli, MSc-student, NTNU

Research profile and aims

After showing that the human brain contain stem cells that can differentiate into functional neurons and that malignant brain tumors harbour cancer stem cells that are essential to tumor growth and progression, the Vilhelm Magnus Laboratory (VML) has focused purely on translational research, mainly on glioblastoma (GBM), the most frequent and deadly brain cancer (median survival in unselected series < 1 year).

This resulted in the first clinical protocol, which was established to target stem cells in a solid tumor as well as an individualized systems medicine strategy where we test > 500 drugs against the tumor stem cells from individual patients. The latter is also the first study of its kind in any type of solid tumor.

The Vilhelm Magnus Laboratory is a section within the Department of Neurosurgery.

Aims:

- To characterize cell types and cellular mechanisms in GBMs with special attention to GBM stem cells (GSCs)
- To develop therapeutic strategies against GBM targeting GCSs

Ongoing projects

Background

Fifteen years ago we showed for the first time that stem cells from the adult human brain can differentiate into functional neurons, and that it is possible to generate a small nervous system with numerous neurons that fire action potentials and communicate via synapses, from a single stem cell harvested from the adult human brain (Moe et al Brain, 2005;128:2189-99, Westerlund et al Exp Cell Res. 2003; 289:378-83, Moe et al Neurosurgery 2005;56:1182-8).



Simultaneously we started to grow cells from GBMs. A population of cells from these tumors turned out to have stem cell-like properties. Through extensive comparisons between GSCs and normal stem cells from the adult brain (Varghese et al *Neurosurgery* 2008;63:1022-33), we identified genes and pathways which are dysregulated in GSCs, and provided the first clinical dataset that support the cancer stem cell hypothesis in glioblastoma (Sandberg et al, *Exp Cell Res*, 2013).

We further showed that a GBM only can be transferred from one animal to another by transplantation of cells from the GSC subpopulation, in keeping with other results indicating that it is this subpopulation that is responsible for recurrence, growth and drug resistance. We have therefore characterized GSCs quite extensively (Varghese et al *Neurosurgery*. 2008;63:1022-33; Vik-Mo et al, *Neuro Oncol*, 2010 Dec;12:1220-30, Vik-Mo et al, *Exp Cell Res*, 2011 Apr 15;317:1049-59, Joel et al, *Dev Dyn*, 2013;242:1078-93, Sandberg et al, *Exp Cell Res*, 2013 15;319:2230-43, Fayzullin et al *Exp Cell Res*. 2016 10;349:199-213, Mughal et al, *Neoplasia*. 2018;20:643-6569).



VML members *Elise Sollj, Einar Vik-Mo, Cecilie J Sandberg, Marit Brynjufsen, Luna Djirackor, Iver Langmoen, Emily Palmero and Skarphedinn Haldorsson.*

Development of a stem cell-based vaccine in patients with brain cancer:

We developed the first clinical protocol that targeted stem cells in a solid tumor by transducing dendritic cells from patients with mRNA from their own GBM stem cells. This significantly improved clinical outcome (Vik-Mo et al, *Cancer Immunol Immunother*. 2013;62:1499-509). One out of four of the patients are still alive.

The responders have a median survival of 7 years and are still recurrence free. A randomized trial of the vaccine was certified by all required authorities, and started in the spring of 2018. This study is currently including patients. Our intention in the current study is also to clarify why some patients respond and others do not; by in-depth studies of individual tumors and treatment responses.

Individualized systems medicine strategy to target GSCs in patients with recurrent glioblastoma:

In collaboration with our partners at the Finnish Institute for Molecular Medicine, we are combining the novel technical possibilities of high-throughput screening and deep sequencing with our established know-how on patient specific tumor stem cell cultures. Exploring a panel of 525 drugs established in clinical use, as well as drugs in early-phase development, at five different concentrations, we have screened stem cells from individual tumors for drug sensitivity. The approach has been coined Individualized Systems Medicine. This study has shown that GBMs from individual patients are very heterogenous with respect to drug sensitivity (Skaga et al. 2019).



A clinical early phase trial where for feasibility evaluation of this strategy is in the process of regulatory approval.

Coordinated undermining of survival paths with nine repurposed drugs (CUSP9) and temozolomide in patient-derived GBM samples:

A major barrier to effective treatment in glioblastoma is the simultaneous activity of multiple survival and growth-promoting mechanisms. A conceptually new treatment approach has emerged focusing on coordinated blockade of the native survival paths of GBMs. The coordinated blockade is undertaken by 9 clinically well-known and repurposed drugs concomitant with the cytotoxic and standard of care, temozolomide, in a drug cocktail termed CUSP9. We have evaluated the in vitro efficacy of CUSP9 in patient-derived GBM samples using clinical relative drug concentrations across several different experimental cell assays. The coordinated approach has demonstrated a broad efficacy among several patient samples and experimental cell assays, and as the drugs have well-known safety profiles the results are intriguing for translation to patient treatment (Skaga et al. 2019).

Characterization of invasive GCSs at the single cell level:

Glioblastomas are characterized by diffusely infiltrative growth. To investigate the invasive properties of glioblastoma cells we film cells while they invade into rodent brain slices or 3D-biomatrixes using time-lapse microscopy. We have identified subpopulations of cells with different invasive potentials. These cells display specific movement patterns and morphology (Fayzullin et al. 2019)

Molecular targeting of cancer stem cells in glioblastoma:

By performing a systematic comparison of gene expression in adult human neural stem cells and GSCs, we have identified differentially expressed genes that may have the potential as new and specific targets for treatment of glioblastoma. Our results from exploring several of these genes and pathways in-depth, suggest a functional role for the Wnt signaling pathway, PBK and NAT12/NAA30 in GBM. As a strategy to more efficiently and directly identify targets that are likely to trigger a therapeutic response, we are currently focusing on genetic high throughput loss-of function screening as tools to identify both individual and shared target hits in patient derived GSC cell cultures.

The molecular basis for tissue stiffness in glioblastoma:

Magnetic resonance imaging elastography is a novel imaging modality with the potential to preoperatively identify surgical risk by evaluating tumor stiffness. Through a collaboration with Dept. of Diagnostic Physics, we are further exploring the molecular basis for MRI heterogeneity in glioblastoma.

A molecular pipeline for individualized treatment in pediatric brain cancers:

Brain cancer is the most common cancer in children. We are exploring the use of rapid molecular characterization using Nanopore technology combined with stem cell biology and high throughput drug-screening to develop better individualized treatment strategies.





Most important national and international collaborators

National

- Gunnar Kvalheim/Dag Josefsen, OUH
- Steinar Aamdal/Paal Brunsvig, OUH
- Gustav Gaudernack, Targovax
- Kyrre Emblem, OUH
- Ola Myklebust, OUH
- Petter Brandal, OUH
- Else Marit Inderberg, OUH
- Elsa Lundanes, UiO
- Steven Wilson, UiO

International

- Krister Wennerberg, Markus Perola, Finnish Institute for Molecular Medicine, Finland
- Aki Laakso, Emilia Gaal-Paavola, Töölö Hospital, Helsinki, Finland
- Rainer Glass, LMU, München, Germany
- Krishna Bhat and Frederick Lang, MD Anderson Cancer Center, Houston, USA
- Winston Hide, Harvard University, MA, USA
- Phillipp Euskirchen, Charité Universitätsmedizin, Berlin, Germany

Funding

- Norwegian Cancer Society
- Barnekreftforeningen
- The Norwegian Research Council
- South-Eastern Regional Health Authorities
- OUH, Dept. of Neurosurgery

Scientific production of the research group in 2019

PhD thesis

Artem Fayzullin; A Study of Glioblastoma's Invasion and Hypoxic Tolerance at Anatomical, Cellular and Transcriptional Levels with a Focus on Real-time Single Cell Observations. Dissertation 3 April 2019

Peer reviewed original research articles: 6

Selected publications:

Skaga E et al

"Feasibility study of using high-throughput drug sensitivity testing to target recurrent glioblastoma stem cells for individualized treatment"

Clin Transl Med. 2019 Dec 30;8(1):33.

Skaga E et al.

"The efficacy of a coordinated pharmacological blockade in glioblastoma stem cells with nine repurposed drugs using the CUSP9 strategy"

J Cancer Res Clin Oncol. 2019

Fayzullin A et al .

"Phenotypic and Expressional Heterogeneity in the Invasive Glioma Cells"

Transl Oncol. 2019 Jan;12(1):122-133.



Functional Neurosurgery Group



Group Leader

Pål G. Larsson, MD/Dr. philos, Head of Clinical Neurophysiology, Dept. of Neurosurgery, OUH (pall@ous-hf.no)

Group Members

- Arild Egge, MD/PhD, OUH
- Frode Kolstad, MD, PhD, OUH
- Milo Stanisic, MD, Dr.med., OUH
- Jugoslav Ivanovic, MD/PhD fellow
- Mark Züchner, MD/PhD, OUH
- Ane Konglund, MD/PhD, OUH
- Marianne Nævra, Mphil., OUH
- Ketil Berg Olsen, MD, OUH
- Lars Etholm, MD/PhD, OUH

Research profile and aims

Main research aim is assessment of brain, medulla and peripheral nerve function and surgical treatment:

- Epilepsy surgery
- Deep brain stimulation
- Other electrical nerve tissue stimulation
- Assessment of grain function through EEG
- Stereotactic intracranial recording (SEEG)
- Function localization
- Clinical assessment through deep machine learning

Ongoing projects

- Cognitive function assessment through SEEG
- Consciousness assessment
- Dynamics of large-scale cortical networks during general anesthesia
- Changes in brain connectivity during the Wada test
- Epilepsy surgery outcome
- Changes in connectivity in preterm children and prediction of long term outcome
- Adjuvant treatment with Cycloapron in surgical treatment of CSDH
- ProTLE – follow up study of newly diagnosed temporal lobe epilepsies
- Long QT-time and seizures
- Continues spike wave during sleep (CSWS)
- Source localization in epilepsy (E-epilepsy, EU-consortium)
- Antiepileptic drug use in Norway
- Quality assessment of intraoperative neuro-monitoring in spine surgery (IONM)
- NORSTIM – prospective study of DBS in STN in Parkinson disease
- DBS in tremor



- DBS in epilepsy
- Microbiota in Nuclius Subthalamicus and CSF in patients with Parkinson disease
- Predictors of VNS stimulation
- New treatment in chronic subdural haematomas
- EEG as predictor of Brivaracetam, Perampanel and levetiracetam effect
- Interictal EEG features as biomarkers in presurgical epilepsy work up
- Refractory status epilepticus
- Genetic mapping in Moya Moya

Most important national and international collaborators

National

- Institute of Psychology, UiO
- Institute of Basic Medical Sciences, UiO
- Department of Neurology, OUH
- Department of Anesthesiology, OUH
- Children's Department, UUS, OUH
- National Center for Epilepsy, OUH
- Department of Radiology, OUH
- Research laboratory, DNR, OUH
- Internal Medicine, OUH
- OsloMet
- Department of Engineering Cybernetics, NTNU

International

- Helene Wills institute, UC Berkeley, US
- Department of Neurology, Marburg , Germany
- Clinical Neurophysiology, Århus, Denmark
- Dianalund Epilepsy Center, Denmark
- Epilog

Funding

- None directly to the group
- More national and international fundings through collaborators

Scientific production of the research group in 2019

Peer reviewed original research articles: 11

Invited lectures at international congresses: 1 lecture and opponent in one dissertation in Denmark





Selected publications:

Blenkmann AO, Collavini S, Lubell J, Llorens A, Funderud I, Ivanovic J, Larsson PG, Meling TR, Bekinschtein T, Kochen S, Endestad T, Knight RT, Solbakk AK (2019)

“Auditory deviance detection in the human insula: An intracranial EEG study”

Cortex, 121, 189-200

Stanišić M, Pripp AH (2019)

“In Reply: A Reliable Grading System for Prediction of Chronic Subdural Hematoma Recurrence Requiring Reoperation After Initial Burr-Hole Surgery”

Neurosurgery, 85 (3), E614-E615

DOI 10.1093/neuros/nyz224, PubMed 31215631, WoS 000489702900053 (Details)

Züchner M, Lervik A, Kondratskaya E, Bettembourg V, Zhang L, Haga HA, Boulland JL (2019)

“Development of a Multimodal Apparatus to Generate Biomechanically Reproducible Spinal Cord Injuries in Large Animals”

Front Neurol, 10, 223

DOI 10.3389/fneur.2019.00223, PubMed 30941086, WoS 000461706900001 Cristin 1784191 (Details)



Movement Disorders



Group Leader

Mathias Toft, MD/PhD, Professor and Head of Section, Dept. of Neurology, UiO (mathias.toft@medisin.uio.no) and OUH (mtoft@ous-hf.no)

Group Members

- Victoria Berge-Seidl, MD
- Silje Bjercknes, MD
- Vidar Gundersen, Prof MD PhD
- Sandra Pilar Henriksen, MSc
- Chiara Cappelletti, MSc
- Zafar Iqbal, PhD
- Nadja Anette Myrvik Kvernmo, MD
- Lasse Pihlstrøm, MD, PhD
- Inger Marie Skogseid, MD PhD
- Margrete Langmyhr, MSc
- Maren Stolp Andersen, MD
- Jon Anders Tunold, MD
- Espen Dietrichs, Prof MD PhD
- Kristin Ørstavik, MD PhD
- Trine Haug Popperud, MD PhD
- Magnhild Rasmussen, MD PhD
- Ellen Annexstad, MD
- Marianne Nordstrøm, Registered dietitian, PhD
- Anna Benterud, MD (Ahus)
- Hanne Ludt Fossmo, MSc
- Gro Solbakken, MSc (Vestre Viken)
- Angelina Maniaol
- Mathilde Kinge-Rasmussen

Research profile and aims

Our research aims at mapping the clinical expression, natural progression and treatment of movement disorders, neurodegenerative diseases and neuromuscular disorders, as well as their causes (genetic disposition, environmental factors, and pathophysiological mechanisms).

Clinical research is performed at both sites of Dept. of Neurology, i.e. at Rikshospitalet (The National Hospital) and at Ullevål University Hospital. Laboratory research is performed in the Neuroscience Research Unit in modern facilities at Domus Medica 4, close to Rikshospitalet. Our Department is the secondary referral center for all neurology in Oslo (mainly at Ullevål), and the tertiary referral center for neurology in the South-East Health Region of Norway (which includes one half of the Norwegian population). In addition, we have different national functions, including deep brain stimulation (DBS) for movement disorders and other conditions (shared with St. Olavs hospital). The group is also part of the National Advisory Unit on Rare Disorders.



Ongoing projects

Our research group is organized into five project groups, of which several are focusing on studies of movement disorders.

We perform clinical studies, including clinical trials on the efficacy of deep brain stimulation for Parkinson's disease, dystonia, and tremors. Patients with Huntington's disease are included in international registries. Laboratory research is focusing on genetic and genomic studies of Parkinson's disease, and epigenetic studies of Parkinson's disease and Dementia with Lewy bodies. Furthermore, there is an interest in the role of inflammation in neurodegeneration.

The Rare Neuromuscular Disorders Project Group focuses on juvenile and adult neuromuscular disorders and the main objective is to contribute to early detection and diagnostics of disease, better treatment and multidisciplinary care for the people affected by the rare neuromuscular disorders and their relatives. The research is mainly clinical research related to myotonic dystrophy, Charcot-Marie Tooth, spinal muscular atrophy and Duchennes muscular dystrophy.

The last project group is focusing on clinical studies of amyotrophic lateral sclerosis, and participates in national and international projects related to genetic studies, imaging and clinical trials.

Most important national and international collaborators

National

- Division of Clinical Neuroscience, UiO (Internal collaboration, joint academic and laboratory)
- The other university hospitals in Norway
- Prof. Ole Andreassen, UiO, DemGene – Genetics of Dementia
- Dept. of Cardiology, OUH
- Prof. Jan Frich, Dept. of Health Management and Health Economics, UiO
- Prof. SO Kolseth, Dept. of Nutrition, Inst. of Basic Medical Sciences, UiO
- Sunnaas Hospital

International

- IPDGC (international Parkinson Disease Genetics Consortium)
- COURAGE-PD consortium
- Dr. Owen Ross, Mayo Clinic, USA
- GEO-PD consortium
- Dr Wilma van der Berg, VuMC University Hospital, Amsterdam, Netherlands
- Prof. Per Odin, Lund University, Sweden
- Prof. Henry Houlden, University College London, UK

Funding

Among others:

- The Research Council of Norway
- South-Eastern Norway Regional Health Authority
- DAM (Norwegian ExtraFoundation for Health and Rehabilitation)
- Michael J. Fox Foundation (US)
- The Norwegian Health Association
- Sophies Minde Foundation





Scientific production of the research group in 2019

Peer reviewed original research articles: 26

Selected publications:

Nalls MA, Blauwendraat C, Vallerga CL, Heilbron K, Bandres-Ciga S, Chang D, Tan M, Kia DA, Noyce AJ, Xue A, Bras J, Young E, von Coelln R, Simón-Sánchez J, Schulte C, Sharma M, Krohn L, Pihlstrøm L, Siitonen A, Iwaki H, Leonard H, Faghri F, Gibbs JR, Hernandez DG, Scholz SW et al. (2019)
"Identification of novel risk loci, causal insights, and heritable risk for Parkinson's disease: a meta-analysis of genome-wide association studies"
Lancet Neurol, 18 (12), 1091-1102
DOI [10.1016/S1474-4422\(19\)303205](https://doi.org/10.1016/S1474-4422(19)303205), PubMed 31701892, WoS 000495892200015
Cristin 1765823 (Details)

Iqbal Z, Koht J, Pihlstrøm L, Henriksen SP, Cappelletti C, Russel MB, Norberto de Souza O, Skogseid IM, Toft M (2019)
"Missense mutations in DYT-TOR1A dystonia"
Neurol Genet, 5 (4), e343
DOI [10.1212/NXG.0000000000000343](https://doi.org/10.1212/NXG.0000000000000343), PubMed 31321303, WoS 000484334100012
Cristin 1754923 (Details)

Solbakken G, Bjørnarå B, Kirkhus E, Nguyen B, Hansen G, Frich JC, Ørstavik K (2019)
"MRI of trunk muscles and motor and respiratory function in patients with myotonic dystrophy type 1"
BMC Neurol, 19 (1), 135
DOI [10.1186/s12883-019-1357-8](https://doi.org/10.1186/s12883-019-1357-8), PubMed [31216995](https://pubmed.ncbi.nlm.nih.gov/31216995/), WoS [000472142900001](https://www.scopus.com/search/form.do?prerender=true&query=000472142900001)
Cristin [1706972](https://www.cristin.no/works/1706972) (Details)



Cerebrovascular diseases



Group Leader

Mona Skjelland, Professor II and Consultant, Dept. of Neurology,
OUH (moskje@ous-hf.no) and UiO (m.e.skjelland@medisin.uio.no)

Group Members

- Anne Hege Aamodt, MD, PhD, postdoc
- Lars Alteheld, MD
- Helge Fagerheim Bugge MD, PhD student
- Brian Enriquez, MD
- Erik Eriksen, MD
- Mona Guterud, paramedics, PhD student
- Guri Hagberg MD, PhD student
- Charlotta Hamre, PhD student
- Maren Ranhoff Hov, MD, PhD, postdoc
- Jørgen Ibsen, MD, PhD student
- Hege Ihle-Hansen, MD, PhD
- Svein Håkon Ingebretsen, MD
- Henriette Johansen, MD
- Mirza Jusufovic, MD, PhD
- Christina Kefaloykos, study coordinator
- Kristian Lundsgaard Kraglund, MD, PhD
- Karianne Larsen, MD, PhD student
- Christian Lund, MD, PhD
- Terje Nome, MD
- Barbara Ratajczak-Tretel, MD, PhD student
- Stephen Ryes, MD, PhD student
- David Russell, Professor emeritus
- Else Charlotte Sandset, MD, PhD, postdoc
- Karolina Skagen, MD, PhD, postdoc
- Kristine Stø, MD, PhD student
- Mahtab Zamani, MD, PhD fellow
- Anna Tancinova, MD, PhD fellow
- Georgus Vlachos, MD, PhD fellow

Associate Group members

- Mona Beyer, MD Professor II
- Bente Halvorsen, Professor II
- Kjersti Johnsrud, MD, PhD fellow
- Terje Nome, MD
- Kristin Tveitan Larsen PhD fellow



Research profile and aims

The main goal is to conduct high-quality cerebrovascular research leading to new knowledge and hopefully better treatment of stroke patients. The main research areas are:

- **Pre-hospital and acute stroke.** The focus of this group is to improve and implement prehospital diagnostics and treatment of acute stroke patients. Subgroup leader is Else Charlotte Sandset.
- **Acute stroke, inflammation and the gut-brain axis.** The main aim of this group is to study the role of inflammation in acute stroke, and the impact of gut microbiota on cerebrovascular disease. Subgroup leader is Karolina Skagen.
- **Acute stroke treatment and atrial fibrillation.** The scientific research interest is acute stroke treatment, diagnostic workup in acute ischemic stroke and the relation between stroke and atrial fibrillation. Subgroup leader is Anne-Hege Aamodt.
- **Stroke and cognition.** This group aims to quantify and measure levels of cognitive impairment after stroke and to identify biological and clinical markers associated with prognosis for cognitive disorders following incident stroke. Subgroup leader is Hege Ihle-Hansen.

Ongoing projects

- The Gut and Oral bacteria, Atherosclerosis and Ischemic Stroke Study
- Atherosclerosis, Inflammation and Ischemic Stroke Study
- Acute cerebral thrombi: mapping the immuno-thrombotic content -developing clinical tools for identifying the embolic source
- Advanced ultrasound methods in the assessment of carotid plaque instability
Inflammation, atherosclerosis and ischemic stroke in chronic rheumatological disease
- BRIDGE study: Bridging pregnancy and fetal microchimerism with long-term maternal cardiovascular and neurovascular health (planned)
- STROKECLOSE, Prevention of stroke by left atrial appendage closure in atrial fibrillation patients after Intracerebral Hemorrhage. A multicenter randomized clinical trial
- OSCAR; The Oslo Acute Revascularization Stroke Study
- NOR-FIB 1; A Nordic multi-center prospective observational study of the occurrence of AF in patients with cryptogenic stroke / TIA
- TEN-CRAOS; A randomized controlled trial with tenecteplase in central retinal artery occlusion
- NorVis; Norwegian Vision in Stroke network
- TENSION; Efficacy and safety of thrombectomy in stroke with extended lesion and time window, a randomized, controlled trial
- Para-NASPP; Diagnostics and triage of acute stroke by the National Institute of Stroke Scale (NIHSS) by paramedics, the Para-NASPP (Paramedic – Norwegian Acute Stroke Prehospital Project)
- Treat-NASPP; Prehospital advanced diagnostics and treatment of acute stroke
- The rural CT-study. A case-control study with pre-hospital treatment with intravenous thrombolysis in acute stroke at “Sjukestugu Ål”
- NorCOAST; The Norwegian Cognitive impairment after Stroke study. A descriptive cohort study recruiting patients from five Norwegian hospitals
- Hidden impairment after stroke
- ACE 1950; The ACE 1950 Study is a prospective, population-based, cohort study of the cardio- and cerebrovascular health of all men and women born in 1950 in Akershus County, Norway



Most important national and international collaborators

National

- Research Institute of Internal Medicine, OUH
- Norwegian Air Ambulance Foundation (NLA)
- Dep of Thoracic Surgery, OUH
- Dep of Ophthalmology, OUH, Prof Morten C Moe
- Dep of Infectious Diseases, OUH
- Dep of Transplantation Medicine, OUH, Professor Johannes Hov
- **Division of Obstetrics and Gynaecology, OUH, Professor Annetine Staff**
- Akershus University Hospital , Dep of vascular and Thoracic Surgery
- Østfold Hospital, Dep of Cardiology and Dep of Neurology
- National Hospital of Epilepsy (SSE)
- Dep of Clinical and Molecular Medicine, NTNU, Professor Terje Espevik
- Institute of Basic Medical Science, biostatistics, OUH

International

- University of Calgary, Canada, Professor Mayank Goyal
- The George Institute for Global Health, China and Australia, Professors Craig S. Anderson and Philip M. Bath
- Nottingham University, UK
- University Hospital Bern, Switzerland, Professor Urs Fischer
- Greater Manchester Comprehensive Stroke Center, UK, Professor Craig Smith
- University of Maastricht, Netherlands, Professor Erik Biessen

Funding

- South-Eastern Norway Regional Health Authority
- OUH
- NLA
- Research grants, Blix



Scientific production of the research group in 2019

Peer reviewed original research articles: 47

Invited lectures at International congresses:

- H Ihle-Hansen:
Nordic Stroke, Tromsø. «Cognitive and emotional impairment after TIA and minor stroke»
- AH Aamodt:
EAN Congress, Oslo.
“The Norwegian Bain Plan 2018-2024: An example to follow?”
“Challenges for Women in Neurology - with Norwegian perspectives”
“Presentation of cerebrovascular diseases at the highlight session”
Nordic Stroke, Tromsø.
“Thrombolysis for central retinal artery occlusion”
“Future perspectives: Integrating neurovascular protection with revascularization treatment”
- M. Skjelland:
EAN Congress, Oslo. “Sonographic features of dissection and inflammation”
Nordic Stroke Congress, Tromsø. “Cerebral venous sinus thrombosis”

Selected publications:

Hov MR, Røislien J, Lindner T, Zakariassen E, Bache KCG, Solyga VM, Russell D, Lund CG (2019)
“Stroke severity quantification by critical care physicians in a mobile stroke unit”
Eur J Emerg Med, 26 (3), 194-198
DOI 10.1097/MEJ.0000000000000529, PubMed 29239899, WoS 000480683800010 (Details)

Zamani M, Skagen K, Scott H, Lindberg B, Russell D, Skjelland M (2019)
“Carotid Plaque Neovascularization Detected With Superb Microvascular Imaging Ultrasound Without Using Contrast Media”
Stroke, 50 (11), 3121-3127
DOI 10.1161/STROKEAHA.119.025496, PubMed 31510899, WoS 000492999300045 Cristin 1760174 (Details)

Hagberg G, Fure B, Sandset EC, Thommessen B, Ihle-Hansen H, Øksengård AR, Nygård S, Wyller TB, Ihle-Hansen H (2019)
“Long-term effects on survival after a 1-year multifactorial vascular risk factor intervention after stroke or TIA: secondary analysis of a randomized controlled trial, a 7-year follow-up study”
Vasc Health Risk Manag, 15, 11-18
DOI 10.2147/VHRM.S191873, PubMed 30799926, WoS 000459532100001 Cristin 1702240 (Details)



Epilepsy Research Group



Group Leader

Erik Taubøll, Professor, Dept. of Neurology, UiO
(erik.tauboll@medisin.uio.no) / OUH (erik.tauboll@ous-hf.no)

Group Members

- Erik Taubøll, Consultant, Professor
- Kjell Heuser, Consultant/Postdoc. Project leader; TLE/translation
- Sigrid Svalheim, Section Head. Project Leader; side effects of AED
- Dag Aurlien, Consultant, Stavanger. Project Leader; epilepsy and cardiology
- Agnes Balint Bjørke, MD, PhD fellow; TLE
- Toni Berger, MD, PhD fellow ; Marie Curie programme, EU
- Alba Gonzalez; MD, Ph.D. fellow; Epilepsy and cardiology
- Monika Mokol, PhD fellow; side effects of AED
- Helle Hermann, PhD fellow; deep brain stimulation for epilepsy
- Line Sveberg, Consultant; Women and epilepsy/autoimmune epilepsy
- Ketil Berg Olsen, Consultant; Status epilepticus
- Line Bedos Ulvin, MD; Status epilepticus
- Hild F. Sødal, MD; posttraumatic epilepsy project
- Ylva Østby, Neuropsychologist, TLE project

Associated Group Members

- Cecilie Nome, Phd candidate, TLE/translation, Letten Research Center
- Rune Enger, Head of Letten Research Center, Institute of Basic Medical Science, UiO
- Cecilie Bugge Bakketun, Phd candidate, Glia/epileptogenesis, Letten Research Center
- Bjørnar Hassel, Department of Neurohabilitation, UiO/OUH
- Leif Gjerstad, MD/PhD Professor, OUH/UiO, Prof. emeritus
- Pål Gunnar Larsson, Department of Neurosurgery, OUH

Research profile and aims

The Epilepsy Research Group in Department of Neurology (ERGO) has been active for about 25 years. Our research is currently focused on four main areas:

1) Epilepsy-Translational Research. This focuses on research on temporal lobe epilepsy (TLE) through genetic, basic, and clinical studies. The project leader is Kjell Heuser. The main project concerns studying the role of the brain's glial cells in the development and exacerbation of epilepsy (epileptogenesis). The initial studies are basic research using epilepsy models. In addition, larger patient trials are used in which the clinical, radiological (MRI), and neuropsychological development of TLE is monitored over time.





Recently, we have also started epigenetic studies investigating changes in DNA methylation and gene expression during epileptogenesis. (See publication Berger T et al, 2019, PLoS-One for the first results).

2) "Gender issues", endocrinology and long-term effects of AEDs. The leader is Sigrid Svalheim. "Gender issues" have been an important area of research for the group over many years, with many PhD theses. The current major focus is studying the long-term side-effects of AEDs on hormones, immunology, haematology and bone health. The effects of epilepsy and antiepileptic drugs on inflammation parameters are now studied

3) Epilepsy and cardiology / SUDEP (sudden unexpected death in epilepsy patients). The leader is Dag Aurlen who is presently based at Stavanger University Hospital. The project is a collaborative venture between Oslo University Hospital (OUS) and Stavanger University Hospital. Both clinical and basic animal research is going on.

4) Status epilepticus (SE). OUS has a large population of patients who has experienced SE and epidemiological studies have recently been performed regarding underlying causes, treatment, outcome etc. We will now especially focus on possible predictors for outcome and study in more detail treatment of the super refractory cases.

In addition to these four main areas of research, the group also has interests in deep brain stimulation (DBS) in epilepsy, ketogenic diets for adults, posttraumatic epilepsy and status epilepticus.

Ongoing projects

1) Can the brain's glial cells be a point of attack for novel AED treatments? This is a major project in which, among other approaches, a mouse model is being used to investigate how epilepsy arises and evolves over time. The main question is how glia cells behave during the development and worsening of epilepsy, and whether these changes can be affected by various drugs such as AEDs, anti-inflammatory drugs, drugs that affect intracellular cell signalling etc.

In extension to this study, we are now also investigating possible epigenetic changes taking place during epileptogenesis. This is done in collaboration with Dr. Kaja K. Selmer and her group in Research Group for Neurogenetics, Division of Clinical Neuroscience, OUS. Studying possible mechanisms involved in epileptogenesis may open new treatment strategies to prevent epilepsy, i.e. after stroke and brain injuries.

2) Is epilepsy a progressive disease? This long-term study focuses on changes in the clinical, radiological and neuropsychological picture in patients with temporal lobe epilepsy (Pro-TLE). Comprehensive investigations are conducted on patients with newly diagnosed temporal lobe epilepsy at various time points over a 10-year period. We are also performing a retrospective study (Retro-TLE) investigating MR changes over time before operation in patients with surgically verified hippocampal sclerosis.

3) Long-term effects of AEDs. Patients starting treatment with the AEDs levetiracetam and lamotrigine will be followed prospectively for 2-years in terms of immunological, hormonal, and haematological adverse reactions, and possible changes in bone health. The data will be collected through interviews, questionnaires, blood tests, and bone density measurements. This project is supported with a 50 % PhD student from Østfold Hospital.

As part of this project, also studies on the effect of AEDs on gene expression related to immune genes



are under way in collaboration with NMBU (Norwegian University of Life Sciences) and a study on the effect of AEDs on markers for inflammation in humans with epilepsy is performed together with collaborators in OUS.

4) Epilepsy and cardiology. It has become increasingly clear that several epilepsies are channelopathies, as are many cardiac arrhythmias, and are associated with many of the same channels and ions. The relationship between epilepsy and cardiac arrhythmias like the long QT syndrome (LQTS) is studied. This is also of central importance for understanding sudden unexpected death in epilepsy (SUDEP). We are also studying the impact of several years of active epilepsy on cardiac function.

An experimental study in mice experiencing status epilepticus to investigate possible deleterious effects on the heart using mouse MR, ecco-cor and ECG is ongoing with a first paper accepted for publication in 2020. This is done in collaboration with Prof. Ivar Sjøstad and his group in Institute for Experimental Medical Research, OUH – Ullevål.

5) National registration of refractory status epilepticus. We are collating national experiences on how patients with this condition are treated in Norway and how this can be improved. As there are only a few such patients at each centre, joint exchange of experiences is essential. Collection of data commenced in 2015. A national reference group for SE has been established.

6) Deep brain stimulation (DBS) in epilepsy. In this study patients with hard-to-treat epilepsy are treated with DBS using a blinded study design. The clinical work is now completed and the first results published.

7) Traumatic brain injury and posttraumatic epilepsy. A project is now starting up (2020) to study the possible predictive value of different parameters, especially related to inflammation, measured immediately after traumatic brain injuries on the frequency of posttraumatic epilepsy.

Most important national and international collaborators

National

- Dept. of Cardiology, OUH
- Kaja Selmer's research group, Div. of Clinical Neuroscience, OUH
- National Centre for Epilepsy
- Stavanger University Hospital
- Østfold Hospital
- Institute of Basic Medical Science, Glia cells research group (GLIALAB), UiO
- Prof. Erik Ropstad, NMBU (Norwegian University of Life Sciences)
- Prof Pål Aukrust, Research Institute of Internal Medicine, OUH

International

- Institute of Cellular Neurosciences, Medical Faculty, University of Bonn, Germany (Prof. C. Steinhäuser)
- Pavel Klein, the CURE programme for post-traumatic epilepsy research, Washington, USA
- To be started 2020: Annamaria Vezzani, Department of Neuroscience, IRCCS – Mario Negi Institute for Pharmacological Research, Milan, Italy



Scientific production of the research group in 2019

Peer-reviewed original research articles: 5

Abstracts: 13

Book chapters: 2.1 International, 1 National

Invited lectures at international congresses: 2

Kjell Heuser: The roles of glia in epilepsy. Focused workshop, European Academy of Neurology Congress, Oslo, July 2019. Part of overarching theme.

Erik Taubøll: Highlights on epilepsy. Highlight session, European Academy of Neurology Congress, Oslo, July 2019.

Toni Berger: Epigenetics in epilepsy. EU Glia PHD meeting, Porto. 14th European Glial Meeting, May 2019.

Selected publications:

Berger TC, Vigeland MD, Hjorthaug HS, Etholm L, Nome CG, Taubøll E, Heuser K, Selmer KK.
“Neuronal and glial DNA methylation and gene expression changes in early epileptogenesis”
PLoS One. 2019 Dec 30;14(12):e0226575.
doi: 10.1371/journal.pone.0226575

Ulvin LB, Taubøll E, Olsen KB, Heuser K.
“Predictive performances of STESS and EMSE in a Norwegian adult status epilepticus cohort”
Seizure. 2019 Jun 20;70:6-11.

Herrman H, Egge A, Konglund AE, Ramm-Pettersen J, Dietrichs E, Taubøll E.
“Anterior thalamic deep brain stimulation in refractory epilepsy: a randomized, double-blinded study”
Acta Neurol Scand 2019;139(3):294-304.
doi: 10.1111/ane.13047.

Funding

- Health and rehab, 1 PhD
- The South-Eastern Norway Regional Health Authority, 1 PhD
- EU grant, 722053, Marie S Curie programme, 1 PhD



Multiple Sclerosis (MS)



Group Leader

Elisabeth Gulowsen Celius, Professor and consultant of Neurology (MD/PhD),
Department of Neurology, OUH and Institute of Clinical Medicine, UiO
(e.g.celius@medisin.uio.no/ uxelgu@ous-hf.no).

Group members

- Elisabeth Gulowsen Celius, MD/PhD, Professor, Department of Neurology, OUH/UiO
- Hanne Flinstad Harbo, MD/PhD/MHA, Professor, Department of Neurology, OUH/UiO
- Tone Berge, MSc/PhD, researcher FOU department, OUH, Ass. prof., OsloMet
- Steffan D. Bos-Haugen, MSc/PhD, researcher, Department of Neurology, UiO
- Daniel Rinker, PhD, Department of Neurology, OUS and UiO (from December 2017)
- Pål Berg-Hansen, MD/PhD, consultant, Department of Neurology OUH
- Gro Owren Nygaard, MD/PhD, consultant, Department of Neurology OUH
- Sigrid Aune de Rodez Benavent, MD/PhD fellow, Department of Ophthalmology, OUH/UIO
- Ingvild Sjørøm Leikfoss, MSci/PhD, UiO
- Anna M. Eriksson, MSci/PhD fellow, Department of Neurology, UiO
- Ina S. Brorson, MSci/PhD fellow, Department of Neurology, OUH
- Einar August Høgestøl, MD/PhD fellow, Department of Neurology, UiO/OUH
- Cecilia Smith Simonsen, MD/PhD fellow, Drammen Hospital/OUH
- Heidi Øyen Flemmen, MD/PhD fellow, Skien Hospital/OUH
- Synne Brune, MD/PhD fellow, Department of Neurology,OUH
- Line Broch, MD, PhD fellow, Drammen hospital/OUH
- Chiara Cappelletti, MSci/PhD fellow, OsloMet
- Marte Wendel-Haga, MD/PhD, STHF, Department of Neurology, OUH
- Zakia Raja, BSc, Master student, OsloMet
- Mikal Fitsum, BSc, Master student, OsloMet
- Oda Kråbøl, Bsc, Master Student, Norwegian University of Life Sciences

Associated Group Members

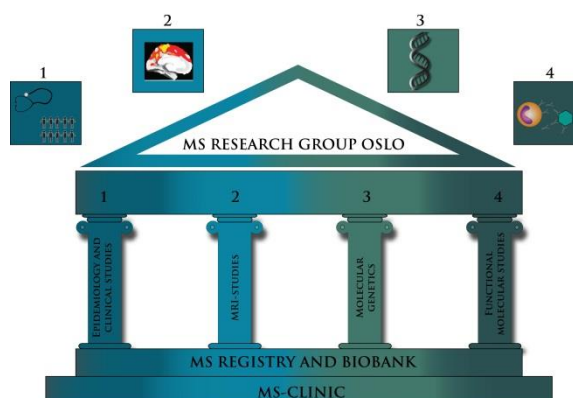
- Stine Marit Moen, MD/PhD, Head of research and development, MSCenter Hakadal
- Piotr Sowa, MD/PhD, Division of Radiology and Nuclear Medicine, OUH
- Mona K Beyer, MD/PhD, Professor, Division of Radiology and Nuclear Medicine UiO/OUH

We have this year had four students connected to our group, writing student theses:

- Magnus Ørseng Kværner, medical student, UiO (Harbo/Høgestøl)
- Sakina Baqeri, medical student, UiO (Celius)
- Petter Espeseth Emhjellen, psychology student, UiO (Høgestøl/Landrø)
- Fuaad Sofia, psychology student, UiO (Høgestøl/Landrø)

Research profile and aims

Multiple Sclerosis (MS) research group at the Department of Neurology, OUH and UiO, aims to identify characteristics and susceptibility factors of MS, and to contribute to a better understanding of the disease and development of better treatments. We perform genetic, immunological, clinical, epidemiological, environmental, MRI and translational studies of MS in collaboration with national and international research partners and networks.



Ongoing projects

- Sigrid Aune de Rodez Benavent, PhD fellow: A longitudinal cohort study of ophthalmologic biomarkers correlated with neurodegeneration in early MS. (OUH Department of Ophthalmology) Supervisor: Elisabeth G. Celius, Co-supervisors: Emilia Kerty, Bruno Laeng and Liv Drolsum.
- Tone Berge, researcher, Ingvild Sørum Leikfoss (Senior Engineer): Vitamin D responsive regulation of susceptibility genes for autoimmune diseases. In collaboration with Professor Lisa Barcellos at the University of California.
- Steffan Daniel Bos, researcher: Identification of molecular mechanisms and biomarkers of Multiple Sclerosis (MS-biomarkers) – RNA sequencing of CD4+ and CD8+ T cells as potential biomarkers of MS phenotypes.
- Anna M. Eriksson, PhD fellow: Identification of molecular mechanisms and biomarkers of Multiple Sclerosis (MS-biomarkers) – molecular characterization of DEXI and other MS susceptibility genes. Supervisor: Tone Berge, Co-supervisors: Hanne F. Harbo and Steffan D. Bos.
- Ina S. Brorson, PhD fellow: Defining and characterizing molecular pathways in multiple sclerosis. Supervisor: Steffan D. Bos, Co-supervisors: Hanne F Harbo and Tone Berge.
- Einar August Høgestøl, PhD fellow: MRI- and other biomarkers in multiple sclerosis. Supervisor: Hanne F Harbo, Co supervisors: Lars T Westlye and Gro O Nygaard.
- Daniel Rinker, Post Doc from December 2017: Integrating genetic and MRI data in multiple sclerosis.
- Cecilia Smith Simonsen, PhD fellow: Predictors for disease susceptibility and disease progression in Multiple sclerosis, Supervisor: Elisabeth Gulowsen Celius, Co supervisors: Stine Marit Moen and Kari Anne Bjørnerå.
- Heidi Øyen Flemmen, PhD fellow: Socioeconomic factors as predictors for disease susceptibility and disease progression in Multiple sclerosis, Supervisor: Elisabeth Gulowsen Celius, Co supervisor: Pål Berg-Hansen.
- Line Broch, PhD fellow: Fatigue in Multiple Sclerosis. Supervisor: Elisabeth Gulowsen Celius, Co-supervisor: Heidi Ormstad (start 1.1.19).
- Synne Brune: PhD fellow: MRI changes and clinical MS phenotypes. Supervisor: Hanne F Harbo, Co supervisors: Mona K Beyer and Pål Berg-Hansen.





- Chiara Cappilletti, PhD fellow: Novel molecular mechanisms for severe brain disorders – a study using complex data analyses. Supervisor: Tone Berge, Co supervisor: Mathias Toft (start 1.1.19).
- Zakia Raja (Master project): Vitamin D regulation of MS-associated genes in CD4+ T cells. Supervisors: Tone Berge and Ingvild Sørnum Leikfoss
- Mikal Fitsum (Master project): Genetic factors as risk factors in MS. How do they affect vitamin D response in CD8+ T cells. Supervisors: Tone Berge and Ingvild Sørnum Leikfoss
- Oda Kråbøl (Master project): Proteomics of T cells in MS. Supervisor: Tone Berge, co-supervisor: Chiara Cappilletti.
- Ingvild Sørnum Leikfoss, Anna M. Eriksson, Tone Berge: CLEC16A and other candidate genes.
- Ingvild Sørnum Leikfoss, Synne Brune, Tone Berge: Neurofilament analysis in MS research and clinical practice. (Biogen Idec)
- Hanne F Harbo, Steffan D. Bos, Pål Berg-Hansen, Mona Beyer: BorrSci study, lead from Kristiansand (South-Eastern Norway Multi- Regional Health Authority grant).
- Hanne F Harbo, Steffan D. Bos, Pål Berg-Hansen, Tone Berge, Ingvild S Leikfoss, Elisabeth G Celius, Mona Beyer, Einar A Høgestøl, Synne Brune, Goran Petrovski, Dragana Drobnjak Nes, Sigrid Aune de Rodez Benavent: MultipleMS - partner in EU Horizon 2020-project (Harbo Oslo PI).
- Hanne F Harbo, Einar A Høgestøl, Sigrid de Rodez Benavent, Steffan Bos, Tone Berge, Synne Brune, Elisabeth G Celius, Mona Beyer: Sys4MS- Biotek 2021/NFR Project. (Harbo Oslo PI).
- Einar A Høgestøl, Hanne F Harbo and others: Brain age in MS with Tobias Granberg, Karolinska Institutes, Sweden
- Einar A Høgestøl, Hanne F. Harbo, Dan Rinker, Elisabeth Celius, Piotr Sowa, Mona K Beyer: MAGNIMS collaboration on various MRI projects.
- Einar A Høgestøl, Hanne Harbo, Dan Rinker, Elisabeth Celius, Piotr Sowa, Mona K Beyer: NORMENT collaboration on various MRI projects.
- Elisabeth G. Celius, Mona Beyer, Piotr Sowa, Tobias Granberg: Neuroprotective effects of alemtuzumab in patients with MS in a clinical setting.
- Elisabeth G. Celius, Pål Berg-Hansen, Stine Marit Moen/MS Centre Hakadal and SINTEF: AutoActive: Tools and Methods for Autonomous Analysis of Human Activities from Wearable Device Sensor Data (SINTEF PI).
- Elisabeth G. Celius, Stine Marit Moen/MS Centre Hakadal and SINTEF: Digital oppfølging og støtte for personer med multipel sklerose (MS-DOS).
- Elisabeth Gulowsen Celius: Lemtrada PASS, international observational study. EGC national investigator.
- Elisabeth G. Celius, Stine Marit Moen/MS Centre Hakadal, Tone Berge and OsloMet: Use of functional near-infrared spectroscopy analyses for studies of neuroplasticity in MS patients – a pilot study.
- Gro O. Nygaard and Oslo MS Research Group: NOR-MS. Norwegian multicenter study of cladribine and rituximab.





MS research group OUS-UiO photo 2019 at Domus Medica 4, UiO (not everyone present at the photo-session)

Funding

- South-Eastern Norway Regional Health Authority
- The Research Council of Norway
- University of Oslo
- European Commission: EU Horizon 2020
- European Commission/The Research Council of Norway: Sys4MS - Biotek 2021
- Dam Foundation
- South-Eastern Norway Regional Health Authority grant
- Unrestricted research grants from Novartis, Biogen, Sanofi Genzyme
- Odd Fellow Foundation, Forsberg and Aulie, and Ingrid and Fritz Nilsen, UNIFOR
- The Peder Saether Foundation

Most important national and international collaborators

National

- Mona Beyer, Rigmor Lundby, Piotr Sowa, Atle Bjørnerud and Tuva Hope, Div. of Radiology and Nuclear Med., OUH
- Stine Marit Moen, MSCenterHakadal
- Benedicte A. Lie, Dept. of Medical Genetics, OUH /UiO
- Lars Westlye, Dept. of Psychology, UiO and NORMENT, OUH
- Anne Spurkland, Institute of Basic Medical Sciences, UiO
- Emilia Kerty, Dept. of Neurology, OUH/UiO
- Liv Drolsum, Dept. of Ophthalmology, OUH/UiO
- Ole A. Andreassen, Lars T. Westlye, Tobias Kaufman, Torbjørn Elvsåshagen, Dag Alnæs, NORMENT, OUH/UiO
- Trygve Holmøy, Dept. of Neurology, Akershus University Hospital
- Nils Inge Landrø and Bruno Laeng, Dept. of Psychology, UiO
- Ole Landsverk, Dept of Pathology, KLM, OUH
- Kristian Bernhard Nilsen and L. Etholm, Dept. of Neurophysiology, OUH
- Kjell-Morten Myhr and Jan Aarseth, Haukeland University Hospital
- Frode Berven, Dept. of Biomedicine, University of Bergen
- Åslaug Lorentzen, Dep. of Neurology, Sørlandet Sykehus
- Marieke Kuijjer, Center for Molecular Medicine, Norway
- Peyman Mirtaheri, Dept of Mechanical, Electronics and Chemical Engineering, OsloMet
- Mathias Toft, Dept of Neurol., UiO/OUH
- Heidi Ormstad, Universitet Sør-Øst/OsloMet

International

- Ingrid Kockum, on behalf of the MultipleMS consortium
- Mara Rocca, on behalf of the MAGNIMS consortium
- An Goris, on behalf of the International MS Genetics Consortium
- Pablo Villoslada, Hospital Clinic of Barcelona, Spain, on behalf of the Sys4MS consortium
- Lisa Barcellos, University of California, Berkeley, US
- Stephen Sawcer, University of Cambridge, UK
- Jorge Oksenberg, University of California, San Francisco, US
- Sergio E. Baranzini, University of California, San Francisco, US
- Anders Dahle, University of California San Diego, US
- Jan Damoiseaux, Dept. of Neurology, Canisius Wilhelmina Hospital, Nijmegen, the Netherlands
- Joost Smolders, Dept. of Neurology, Canisius Wilhelmina Hospital, Nijmegen, Netherlands
- B. Wilhelm, Steinbeis Transfer-Centre for Biomedical Optics and Function Testing, Tübingen, Germany
- Nordic MS genetics consortium (Hillert, Olsson, Kockum, Oturai, Sørensen, Saareala)
- Pierre Antoine Gourraud, Hôpital St-Jacques - CHU de Nantes, France
- Tobias Granberg, Karolinska Institute, Stockholm, Sweden
- Kaj Blennow and Henrik Zetterberg, Sahlgrenska University Hospital, Gothenburg, Sweden





Scientific production of the research group in 2019

Peer reviewed original research articles: 13 (4 with group members as first author)

Master thesis dissertations:

Magnus Ørseng Kværner: «Oppfølging av Multipel Sklerose-pasienter på Oslo universitetssykehus, Rikshospitalet.»

Petter Espeseth Emhjellen: "Kognitive reserver og hjernerreserver ved tidlig multipel sklerose: Effekter på longitudinelle kognitive endringer.»

Selected publications:

International Multiple Sclerosis Genetics Consortium

"Multiple sclerosis genomic map implicates peripheral immune cells and microglia in susceptibility"

Science. 2019 Sep 27;365(6460):eaav7188. doi: 10.1126/science.aav7188.

PMID: 31604244

Kaufmann, T., van der Meer, D., Doan, N.T., Schwarz, E., Lund, M.J., Agartz, I., E. Celius, P. Sowa, H. Harbo, E. Høgestøl et al. (2019)

"Common brain disorders are associated with heritable patterns of apparent aging of the brain"

Nature Neuroscience 22(10), 1617-1623. doi: 10.1038/s41593-019-0471-7

Brorson IS, Eriksson A, Leikfoss IS, Celius EG, Berg-Hansen P, Barcellos LF, Berge T, Harbo HF, Bos SD

"No differential gene expression for CD4+ T cells of MS patients and healthy controls"

Mult Scler J Exp Transl Clin. 2019 Jun 13;5(2):2055217319856903. doi: 10.1177/2055217319856903.

eCollection 2019 Apr-Jun. PMID: 31223483

Other publications (abstracts excluded):

Blog Ekspertsykehuset OUS: Toppidrett og MS (AutoActive)

Odd Fellow homepage:

Pål Berg-Hansen: «AutoActive- en studie av toppidrettsutøvere og personer med multipel sklerose»

Line Broch: «MS og fatigue»

Blogs DagensMedisin: Einar A. Høgestøl;

«Pasienteksamen i helsebyråkrati – nå er det nok!»,

«Nok en helg med live-sending fra Mannen, hva med EAN?»,

«Hjernesukk»

Invited lectures at international congresses:

- Hanne F. Harbo: Personalized Medicine. Merck MS Annual Conference, Oslo 28.6.19
- Hanne F. Harbo: EAN Brain Health Seminar. European Academy of Neurology Congress, Oslo, 1.7.19
- Hanne F. Harbo: Treatment of Multiple Sclerosis. European Society of Neuroradiology congress, Oslo, September 19.9.19
- Gro O. Nygaard: Multiple sclerosis. European Society of Neuroradiology congress Oslo, 19.9.19
- Steffan D. Bos-Haugen: "Genetics of multiple sclerosis in Europe" Czech MS societies' annual meeting hosted by Palacký University in Olomouc, Czechia 3-4.10.2019





- Elisabeth G. Celius: Family planning and pregnancy in MS. 5th International Porto Congress of MS, Porto 14-16.2.19
- Elisabeth G. Celius: Case discussions, MS Masters Forum Madrid 12-13.4.19
- Elisabeth G. Celius: Mavenclad: RWE in Norway. Polish Neurology Meeting, Lodz, Polen 29.5.19
- Elisabeth G. Celius: Brain Health and MS. European Brain Council and Italian Ministry of Health, Rome, Italy 5.6.19
- Elisabeth G. Celius: IRT in MS, clinical considerations in the real world. Merck Nordic Webinar 12.6.19
- Elisabeth G. Celius: Cladribine experience from Oslo. European Academy of Neurology congress, Oslo 28.6.19
- Elisabeth G. Celius: Reducing disability progression in MS, what clinical advances are being made? European Academy of Neurology Congress, Oslo, 30.6.19
- Elisabeth G. Celius: Cladribine tablets: Nordic RWE. European Academy of Neurology Congress, Oslo, 1.7.19
- Elisabeth G. Celius: Lemtrada experience in Oslo, Norway.ECTRIMS, Stockholm, 11.9.19
- Elisabeth G. Celius: Family planning. ECTRIMS, Stockholm 13.9.19
- Elisabeth G. Celius: Alemtuzumab experience in a real life setting. ECTRIMS Stockholm 13.9.19
- Elisabeth G. Celius: The relevance of MS studies to Clinical Practice, the Perspective of a Norwegian Cohort, Greek Neurology Meeting, Thessaloniki 13.12.19

Social media:

Facebook: «Multipel Sklerose Forskningsgruppen Oslo» (728 followers)



Publisert av Einar August [?] · 13. mars · 🌐

Professor Elisabeth G. Celius og vi i MS-behandlingsteamet på Oslo universitetssykehus har samlet oss om disse føringene for oppfølging av personer med MS i disse COVID-19 tider. Det er oppdatert etter rykende ferske britiske og internasjonale føringer, justert for våre lokale forhold.

Vi håper at dette kan bidra til å trygge dere i at vi gjør alt vi kan for at dere skal få den beste oppfølgingen, også i månedene som kommer. Vi har svært stor pågang gjennom våre kontaktpunkt... [Se mer](#)

Informasjon til våre polikliniske pasienter ifm COVID-19-utbruddet

Generell informasjon om COVID-19 og forholdsregler finnes på: www.fhi.no

Vi har meget stor pågang på både telefon og mail for tiden og det er utfordrende å kunne svare alle som tar kontakt. En del spørsmål håper vi at vi kan besvare her.

Pasienter som har timer fremover vil få informasjon fra oss om timen utsettes eller omgjøres til telefonkonsultasjon. Planlagte behandlinger går som normalt inntil videre, og der hvor behandlinger skal utsettes vil vi ta kontakt uken før.

Mange av våre pasienter får behandlinger med medikamenter som innvirker på immunsystemet.

Innleggsresultater

8 725 Personer nådd

263 Reaksjoner, kommentarer og delinger ⓘ

163 👍 Liker	50 På innlegg	113 På delinger
2 ❤️ Hjerte	1 På innlegg	1 På delinger
55 Kommentarer	7 På innlegg	48 På delinger
43 Delinger	39 På innlegg	4 På delinger

2 466 Klikk på innlegg

669 Bildevisninger	144 Lenkeklikk ⓘ	1 653 Andre klikk ⓘ
------------------------------	----------------------------	-------------------------------

Example from Facebook



NEMU – Neurological and musculoskeletal pain and genetics



Group Leader

John-Anker Zwart, Professor, Dept. of Neurology, Head of Research, Division of Clinical Neuroscience, UiO (j.a.zwart@medisin.uio.no) / OUH (uxzwjo@ous-hf.no)

Group Members

- Ellen Jørum, Professor, UiO/OUH
- Kjersti Storheim, PhD/Associate Professor, OUH/OsloMet
- Astrid Lunestad, Research coordinator
- Ingrid Fjeldheim Bånerud, Msc/Administrative, OUH
- Olaf Fjeld, MD/PhD fellow, OUH
- Håvard Furunes, MD/PhD fellow, Innlandet Hospital Trust
- Margreth Grotle, Professor, OUH/OsloMet
- Maren Hjelle Guddal, Msc/PhD fellow
- Ingrid Heuch, MD/Senior researcher, OUH
- Synne Øien Stensland, MD/ Senior researcher, OUH
- Marianne Bakke Johnsen, PhD/Postdoctoral fellow, UiO
- Inge Petter Kleggetveit, MD/Postdoctoral fellow, OUH
- Ida Løchting, Msc/Postdoctoral fellow, OUH
- Kristian Bernhard Nilsen, MD/ Senior researcher, OUH
- Linda M. Pedersen, PhD/ Senior researcher, OUH
- Vibeke Siewers, Research coordinator, OUH
- Monica Wigemyr, Msc/Research coordinator, OUH
- Bendik Winsvold, MD/ Senior researcher, OUH
- Lars Christian Haugli Bråten, MD/PhD fellow, OUH
- Maria Dehli Vigeland, Msc/PhD fellow, OUH
- Sigrid Børte, MD/PhD fellow, OUH
- Eira Ebbs, Msc/PhD fellow/research coordinator, OUH
- Amy Martinsen, Msc/Research coordinator, OUH
- Marie Udnesseter Lie, Msc/PhD fellow, OUH
- Espen Saxhaug Kristoffersen, MD/PhD, associate professor, UiO
- Tone Berge, PhD/ Senior researcher, OUH
- Marie Skovli Pettersen, Msc/Research coordinator, OUH
- Daniel Gregor Schulze, MD/PhD fellow, OUH
- Dagrund Sagafos, PhD fellow, OUH
- Lars Kristian Lunden, PhD fellow, OUH
- Mads Peder Rolfsen, PhD fellow, OUH
- Kaja Kristine Selmer, MD/ Senior researcher, OUH
- Elisabeth Gjefsen, MD/PhD fellow, OUH
- Ioannis Kitsos, MD/PhD fellow, OUH
- Marianne Mørk, Msc/PhD fellow, OUH
- Gøril Brevik Melbye, Msc/PhD fellow, OUH



Research profile and aims

The focus of the research group is to generate research based knowledge on genetics, mechanisms, prevention and treatment of pain in the musculoskeletal- and nervous system.

Ongoing projects

- The Acute Low-Back Pain Study. Clinical, neurophysiological and genetic risk factors
- Genetic risk variants in migraine and cardiovascular disease. The Gene HUNT study
- Risk factors for anterior cruciate ligament injuries in Norwegian adolescents and young adults: (the ACL/HUNT studies)
- BackToBasic; TNF alfa blocker treatment of chronic low-back pain with Modic changes, a randomized double blind multicenter placebo controlled trial
- Genetic and environmental causes of migraine, a large-scale family-based analysis
- Early risk factors for migraine. The young-HUNT study
- Familiar hemiplegic migraine in Norway
- The AIM-study (Antibiotics In Modic changes); antibiotic treatment of chronic low-back pain with Modic changes, a randomised double blind multicenter placebo controlled trial
- Epigenetic and molecular biomarkers in chronic low back pain and Modic changes. A case-control study
- The HUNT OsteoArthritis study (the HOA-study)
- Lumbar disc prosthesis versus multidisciplinary rehabilitation in chronic back pain and localized degenerative disc. Long term follow-up of a randomized multicentre trial
- The NORwegian Degenerative spinal STENosis-trial (the NORDSTEN-study)
- Physical activity and sport participation during adolescence and musculoskeletal complaints in adulthood. A population based cohort study
- Spinal surgery in Norway. Trends, costs and regional differences
- The Norwegian Cervical Arthroplasty Trial. The NORCAT study. A prospective, single blinded, randomized, controlled multicenter study
- Risk factors for development of chronic pain after hospitalization for acute low back pain and/or sciatica (RUKSAR)
- Clinical and genetic aspects of neuropathic pain (ClINGNeuP)
- Conditioned pain modulation with respect to different test pain stimuli (CPM2TS)
- Childbirths, hormonal factors and low back pain - a prospective epidemiological survey
- Back Pain in Elderly (BACE). A prospective cohort study of older people visiting primary care with a new episode of back pain
- Genetic risk factors for development of Pain – The Tromsø Study
- All-In-HUNT, genetic assessment of neurological and psychiatric disorders
- Targeting low back pain and comorbidity in primary care – a plan for a prospective study aimed to increase treatment effects in back pain (pilot project, NFR)
- Clinical and neurophysiological aspects of peripheral neuropathies
- Genetics of juvenile myoclonic epilepsy – a part of the BIOJUME consortium (BIOJUME)
- Gut microbiota in adult patients with epilepsy (EpiGUT – a pilot project)
- Epilepsy in Children: The Potential Impact of the Ketogenic Diet on Gut Microbiota and Epigenetics (EpiMICRO)
- Genetic mosaicism in overgrowth syndromes



- Neck surgery in Norway
- Exploring function and disability in patients with Cervical dystonia; an observational study
- Environmental and genetic causes of migraine in children and adolescents
- Migraines, obesity and body fat distribution
- Biomarkers in headaches

Most important national and international collaborators

National

- University Hospital of North Norway (UNN)
- The Arctic University of Norway (UiT)
- Drammen Hospital
- St.Olavs Hospital, Trondheim University Hospital
- The Hospital Østfold Kalnes
- Haukeland University Hospital
- University of Bergen (UiB)
- Stavanger University Hospital
- The National Institute of Occupational Health (STAMI)
- Norwegian University of Science and Technology (NTNU)
- OsloMet
- National Centre for Epilepsy (SSE)
- Norwegian Institute of Public Health (FHI)
- Diakonhjemmet Hospital

International

- Leiden University Medical Centre (LUMC), Netherlands
- Broad Institute of MIT and Harvard, Boston, US
- Institute for Molecular Medicine (FIMM), Finland
- University of Oxford, UK
- Keele University, UK
- The Karolinska Institute, Sweden
- McGill University, Canada
- University of Munich, Germany
- University of Sydney, Australia
- University College London, UK
- Aarhus University Hospital, Denmark
- University Hospital RWTH Aachen, Germany
- The George Institute of Global Health, Australia
- Dianalund and University of Copenhagen, Denmark
- University of Erlangen-Nuremberg, Germany
- Queensland University of Technology, Australia
- Danish Headache Center, Denmark
- King's College, London, UK
- Vall d'Hebron University Hospital and Quirón Hospital, Spain
- Heidelberg University, Germany
- University of Michigan, US
- The low-back pain consortium
- The headache genetics consortium
- Erasmus MC, Rotterdam, the Netherlands



Scientific production of the research group in 2019

Peer reviewed original research articles: 49

Selected publications:

Lars Christian Haugli Bråten, Mads Peder Rolfsen, Ansgar Espeland, Monica Wigemyr, Jörg Aßmus, Anne Froholdt, Anne Julsrud Haugen, Gunn Hege Marchand, Per Martin Kristoffersen, Olav Lutro, Sigrun Randen, Maja Wilhelmsen, Bendik Slagsvold Winsvold, Thomas Istvan Kadar, Thor Einar Holmgard, Maria Dehli Vigeland, Nils Vetti, Øystein Petter Nygaard, Benedicte Alexandra Lie, Christian Hellum, Audny Anke, Margreth Grotle, Elina Iordanova Schistad, Jan Sture Skouen, Lars Grøvle, Jens Ivar Brox, John-Anker Zwart, Kjersti Storheim.
“Efficacy of antibiotic treatment in patients with chronic low back pain and Modic changes (the AIM study): double blind, randomised, placebo controlled, multicentre trial”
BMJ. 2019; 367: I5654. Published online 2019 Oct 16. doi: 10.1136/bmj.I5654 Correction in: BMJ. 2020 Feb 11; 368: m546. PMID: PMC6812614

Rydning SL, Koht J, Sheng Y, Sowa P, Hjorthaug HS, Wedding IM, Erichsen AK, Hovden IA, Backe PH, Tallaksen CME, Vigeland MD, Selmer KK (2019)
“Biallelic POLR3A variants confirmed as a frequent cause of hereditary ataxia and spastic paraparesis”
Brain, 142 (4), e12

Børte S, Zwart JA, Stensland SØ, Hagen K, Winsvold BS (2019)
“Parental migraine in relation to migraine in offspring: Family linkage analyses from the HUNT Study”
Cephalalgia, 39 (7), 854-862

Funding

- South-Eastern Norway Regional Health Authority
- KLINBEFORSK
- The Research Council of Norway
- The Norwegian Fund for Post-Graduate Training in Physiotherapy
- UiO
- OUH

Brain plasticity and neuropsychiatry



Group Leader

Torbjørn Elvsåshagen; M.D., PhD, postdoctoral research fellow; Department of Neurology, OUH (telvsaha@ous-hf.no) and Norwegian Centre for Mental Disorders Research (NORMENT), UiO (torbjorn.elvsashagen@medisin.uio.no)

Group Members

- Erlend Bøen; M.D., Ph.D.; Diakonhjemmet Hospital
- Britta Bürker; M.D., Ph.D. research fellow; OUH/UiO
- Guro Dunvoll; M.Sc., Ph.D. research fellow; OUH/UiO/Oslo and Akershus University College of Applied Sciences
- Torfinn Hynnekleiv; M.D.; OUH and Innlandet Hospital Trust
- Katalin Juhasz; M.D.; Akershus University Hospital
- Eva A. Malt; M.D., Ph.D., Assoc. professor; Inst. of Clinical Medicine, UiO
- Ulrik F. Malt; M.D., Ph.D., Professor emeritus; Inst. of Clinical Medicine, UiO
- Kåre Osnes; M.D., Ph.D.; Diakonhjemmet Hospital
- Torunn Søyseth; M.Sc., OUH
- Mathias Valstad; M.Sc., Ph.D. research fellow; OUH/UiO
- Nathalia Zak; M.D., Ph.D. research fellow; OUH/UiO

Associated Group Members

- Stein Andersson; Ph.D., Professor; Dept. of Psychology, UiO
- Atle Bjørnerud; Ph.D., Professor; OUH
- Birgitte Boye; M.D., Ph.D., Professor; Inst. of Basic Medical Sciences, UiO
- Torgeir Moberget; Ph.D., postdoctoral research fellow; OUH
- Kristian Bernhard Nilsen; M.D., Ph.D., section leader; OUH

Research profile and aims

Our group conducts research in the fields of adult brain plasticity and neuropsychiatry. Plasticity – the capacity for change – is increasingly recognized as an intrinsic property of the adult brain and may play important roles in the etiologies and treatments of neurological and psychiatric illnesses. Neuropsychiatry recognizes that the brain and mind are one, that mental illnesses are disorders of the brain, and that psychiatric symptoms are commonly found in neurological disorders. One important goal of neuropsychiatric research is to bridge the gap between neurology and psychiatry.

Among the main aims of our current research are:

1. To examine whether structural and functional brain plasticity are core characteristics of the human sleep-wake cycle
2. To increase our understanding of how novel schizophrenia- and bipolar disorder-associated genetic variants affect synaptic function and plasticity
3. To examine the role of brainstem and thalamus regions in neuropsychiatric and neurological disorders





Ongoing projects

- Brainstem and thalamus volumes: genetic architectures and roles in neuropsychiatric and neurological disorders
- Sleep-wake-dependent brain plasticity in health and depression
- Genes, synaptic function, and stem cells in bipolar disorder, schizophrenia, and autism spectrum disorder: from pathophysiology towards personalized medicine
- Brain plasticity and psychobiology in bipolar II disorder and borderline personality disorder
- G-protein genotypes and associations with anxiety and depression in the HUNT Study
- Studies of genotype-phenotype interactions in the 3q29 microdeletion syndrome
- Neuropsychiatry and coping in heart and lung transplantation
- Non-invasive human LTP-like plasticity – examining robustness, functional significance and clinical utility of a novel biomarker

Most important national and international collaborators

National

- Prof. Ole A. Andreassen, NORMENT, UiO/OUH
- Prof. Erik Jönsson, NORMENT, UiO
- Prof. Srdjan Djurovic, NORMENT, UiO
- Ass. prof. Lars T. Westlye and Dr. Tobias Kaufmann, NORMENT, UiO
- Prof. Bjørn Bjorvatn, Norwegian Competence Center for Sleep Disorders, Bergen
- Dr. Stine Knudsen, C. of Exp. For Neurodevelopmental Disorders and Hypersomnias, OUH
- Prof. Lars Gullestad, Dept. of Cardiovascular Medicine, OUH/UiO
- Prof. Arne E. Vaaler, NTNU, BRAIN: Bipolar research and innovation network
- Prof. Hilde Nilsen, Dept. of Molecular Biology (EpiGen), UiO
- Prof. Gaute Einevoll, NMBU/UiO

International

- ENIGMA groups (Enhancing NeuroImaging Genetics through Meta-Analysis)
- EURONET-SOMA: European Research Network on somatoform disorders; group leader: Prof. Bernd Löwe, Uni Hamburg-Eppendorf, Abt. Für Psychotherapie und Psychosomatische Medizin, Germany
- Ass. prof. Mirjana Maletic-Savatic, Baylor College of Medicine, Houston, USA





Funding

- South-Eastern Norway Regional Health Authority
- Norwegian Competence Center for Sleep Disorders
- Oslo University Hospital
- Throne-Holst foundation
- Ebbe Frøland foundation

Scientific production of the research group in 2019

Peer reviewed original research articles: 46

Doctoral thesis: 2

Nathalia Zak; *"A longitudinal investigation of cortical plasticity and structure in bipolar disorder type II"*
Principal supervisor: T. Elvsåshagen. Dissertation 13.05.19.

Britta Bürker : *"Mood and Cognitive Outcome after Heart Transplantation: The MOODHEART study"*
Principal supervisor: S. Andersson. Dissertation 10.09.19.

Selected publications:

Stahl EA, Breen G, Forstner AJ, Elvsåshagen T, Malt UF, *et al.*
"Genome-wide association study identifies 30 loci associated with bipolar disorder"
Nat Genet, 51 (5), 793-803

Zak N, Bøen E, Boye B, Andreassen OA, Doan NT, Malt UF, Westlye LT, Elvsåshagen T.
"Mood episodes are associated with increased cortical thinning: A longitudinal study of bipolar disorder type II"
Bipolar Disord, 21 (6), 525-538

Moberget T, Alnæs D, Kaufmann T, Doan NT, Córdova-Palomera A, Norbom LB, Rokicki J, van der Meer D, Andreassen OA, Westlye LT.
"Cerebellar Gray Matter Volume Is Associated With Cognitive Function and Psychopathology in Adolescence"
Biol Psychiatry. 2019 Jul 1;86(1):65-75



Cognitive Health Research group (CoHR)



Group Leader

Ira Ronit Hebold Haraldsen, MD/PhD, OUH (i.haraldse@ous-hf.no)

Group Members

- Vebjørn Anderson, BSc, stud.med., coordinator, OUH
- Aksel Erichsen, MD, PhD-candidate, OUH
- Christoffer Hatlestad, cand.psychol., PhD-candidate, OUH
- Reidar Jessen, cand.psychol., PhD-candidate, OUH
- Slawomir Wojnusz, PhD, physiotherapist, senior researcher, OUH/OsloMet
- Stefan Sütterlin, PhD, psychology, OUH/HiØF
- Patrick Riss, PhD, chemist, senior researcher, OUH/UiO
- Syed Nuruddin, PhD, VetMD, senior researcher, OUH/UiO
- Kjersti Gulbrandsen, Clin. nurse specialist, researcher, OUH

Research profile and aims

Our aims include contribution to development of novel and innovative methods for early detection, prevention, diagnostics and treatment of neurological diseases associated with cognitive health issues. Another branch of our research is concerned with environmental and biological factors in gender development, and qualitative research into subjective experiences of adolescence gender dysphoria.

Currently, our focus is primarily centred on development of accessible functional biomarkers of neurodegeneration. Here, together with our collaborators in Spain, Finland, Italy and the UK, we combine EEG-based network models with artificial intelligence methods to identify crucial features of the aging brain's functional integrity.

We are an international group of researchers which comes from a variety of different educational backgrounds, including medicine, psychology, physiotherapy, nursing and biological science. Our multidisciplinary approach to brain-behaviour relations allows us to conduct research across various systems and cognitive levels; from molecules to cells to cognitive systems to behaviours.

Our broad research methods portfolio include: Electrophysiological (EEG) source reconstruction and network modelling; event-related potential (ERP) techniques; positron emission tomography (PET) and radiochemistry; neuropsychological assessment; in-depth qualitative interview techniques; and physiotherapeutical interventions.

Ongoing projects

- Novel risk factor assay for Alzheimer's disease – Multi-parametric quantification of HPG/HPTaxis dysfunction (AIRDEM)
- Effectiveness of somatocognitive therapy for the treatment of provoked localized vestibulodynia (the Pro-LoVe study)

- Gender dysphoria in adolescents – a qualitative study
- Gender dysphoria: Worldwide exacerbation, prevalence, and the impact of GnRH treatment on brain development – an investigation in a human and animal model (CONOS)

Most important national and international collaborators

National

- Erik Taubøll, OUH
- Mona-Elisabeth Revheim, OUH
- Per Magnus, FHI
- Thor Audun Saga, NMS
- Uta Sailer, UiO
- Tormod Flatby, Ahus
- Eirik Næs Ulseth, PubGene AS
- Anne-Kristin Solbakk, UiO
- Erik Stänicke, UiO
- Reidun Torp, UiO
- Marte Roa Syvertsen, Vestre Viken

International

- Fernando Maestu, Madrid, Spain
- Ricardo Bruña, Madrid, Spain
- Ernesto Pereda, Tenerife, Spain
- Laura Hughes, Cambridge, UK
- James Rowe, Cambridge, UK
- Hanna Renvall, Helsinki, Finland
- Walter Bockting, New York, USA
- Neil Evans, Glasgow, Scotland
- Jane Robinson, Glasgow, Scotland

Scientific production of the research group in 2019

Peer reviewed original research articles: **21** (indexed in Publika)

Selected publications:

Bürker BS, Gullestad L, Gude E, Havik OE, Relbo Authen A, Grov I, Andreassen AK, Fiane AE, Haraldsen IR, Dew MA, Andersson S, Malt UF (2019)

“The Predictive Value of Depression in the Years After Heart Transplantation for Mortality During Long-Term Follow-Up”

Psychosom Med, 81 (6), 513-520 DOI 10.1097/PSY.0000000000000702, PubMed 31033937

Haugstad GK, Wojniusz S, Kirschner R, Kirste U, Lilleheie I, Haugstad TS (2019)

“Somatocognitive therapy of women with provoked vulvodynia: a pilot study”

Scand. J. Pain, 19 (4), 725-732

Alluri SR, Pitman KE, Malinen E, Riss PJ (2019)

“Synthesis, radiosynthesis, and positron emission tomography neuroimaging using 5-[18 F]fluoro-L-amino suberate”

J Labelled Comp Radiopharm, 63 (1), 6-14 DOI 10.1002/jlcr.3814, PubMed 31697846

Funding

- The Research Council of Norway
- South-Eastern Norway Regional Health Authority



Intellectual disability and neurohabilitation



Group Leader

Bjørnar Hassel, Professor, Dept. of Neurohabilitation, OUH
(bjornar.hassel@ous-hf.no) and UiO (bjornar.hassel@medisin.uio.no)

Group Members

- Nils Olav Aanonsen, MD, OUH
- Sigrun Hope, MD, PhD, OUH
- Anne Katrin T. Holmøy, MD, OUH
- Kathrine Haggag, MD, OUH
- Jutta Rummel, MD, OUH
- Alma Sikiric, MD, OUH
- Daniel Dahlberg, MD, OUH
- Marleen van Walsem, PhD, OUH
- Emilie Kildal, Stud psychol, UiO

Research profile and aims

The aim of the neurohabilitation research group is 1) to conduct research that will lead to improvement of the quality of life of persons with developmental disabilities, 2) to investigate mechanisms behind brain dysfunction and damage that leads to developmental disability.

In collaboration with the municipality of Oslo, SINTEF, and The University College of Oslo and Akershus (Oslo Met) we investigate the use of sensors for autonomic responses as a means of communication for developmentally disabled persons who are unable to express their needs.

To investigate mechanisms that underlie some forms of developmental disability we use clinical and preclinical approaches to elucidate mechanisms of toxicity of certain metabolites and microbes.

Ongoing projects

- Wearable sensors for autonomic responses as a means of communication for persons with developmental disability who lack the ability to express themselves
- Mechanisms of seizure generation and cell death during brain abscess formation, a preventable cause of developmental disability
- Mechanisms of cell death and seizure generation during formation of cystic brain tumors
- The effects on brain cells of propionic acid, a metabolite that causes cerebral dysfunction in an inborn error of metabolism
- The metabolism of fructose and its metabolite glyceraldehyde, two causes of neurodegeneration through formation of advanced glycation end products
- Barriers to proper health services for patients with muscular dystrophies



Most important national and international collaborators

National

- Cecilie Morland, OsloMet/Inst. of Pharmacy, UiO
- Frode Strisland, SINTEF – Smart sensor systems, Oslo
- Oslo Municipality and the burroughs of Nordstrand, Østensjø and Vestre Aker
- Erik Taubøll, Dept. of Neurology, UiO
- Torgeir Bruun Wyller, Leiv Otto Watne and Nenad Bogdanovic, Dept. of Geriatrics, OUH
- Espen Mariussen and Øyvind Voie, Norwegian Defence Research Establishment, Kjeller
- Frode Rise, Inst. of Chemistry, UiO
- Farrukh Chaudry and Niels Christian Danbolt, Dept. of Anatomy, UiO

International

- Farshid Amirabdollahian, University of Hertfordshire, UK
- Sergio Guillen, Mysphera, TSB Real time location systems, Valencia, Spain
- Jordi Rovirasimon, Parc Sanitari Sant Joan de Deu, Barcelona, Spain
- Raymond Dingledine, Emory University, Atlanta, GA, USA

Scientific production of the research group in 2019

Peer reviewed original research articles: 16

Selected publications:

Hassel B, Rogne AG, Hope S.

“Intellectual disability associated with pyridoxine-responsive epilepsies: The need to protect cognitive development”

Front Psychiatry. 2019;10:116. doi: 10.3389/fpsyt.2019.00116.

Holmøy AKT, Johannessen CH, Hope S, van Walsem MR, Aanonsen NO, Hassel B.

“Uncovering health and social care needs among myotonic dystrophy patients: Utility of the Needs and Provisions Complexity Scale”

Acta Neurol Scand. 2019;139(6):526-532. doi: 10.1111/ane.13086.

Grove J, Ripke S, Als TD, Mattheisen M, et al.

“Identification of common genetic risk variants for autism spectrum disorder”

Nat Genet. 2019;51(3):431-444. doi: 10.1038/s41588-019-0344-8.

Funding

- The Research Council of Norway
- Rebergs legat



Specialized medical rehabilitation – Sunnaas Rehabilitation Hospital



Group Leader

Frank Becker, MD/PhD, Associate Professor, Dept. of Physical Medicine and Rehabilitation, UiO/Sunnaas Rehabilitation Hospital (frank.becker@sunnaas.no)

Group Members

- Johan K. Stanghelle, MD/PhD, Professor emeritus, Sunnaas Rehabilitation Hospital/UiO
- Grethe Månnum, MD/PhD, Ass. Professor, Sunnaas Rehabilitation Hospital/UiO
- Vegard Strøm, Cand. Scient/PhD, Sunnaas Rehabilitation Hospital
- Emil Kostovski, MD/PhD, Postdoc fellow, Sunnaas Rehabilitation Hospital/UiO
- Arve I. Opheim, PT/PhD, Sunnaas Rehabilitation Hospital
- Marianne Løvstad, PSYCH/PhD, Professor, Sunnaas Rehabilitation Hospital/UiO
- Svend Rand-Hendriksen, MD/PhD, Postdoc fellow, Sunnaas Rehabilitation Hospital/UiO
- Dag Brekke, MD/PhD, Sunnaas Rehabilitation Hospital
- Tor Haugstad, MD/PhD, Sunnaas Rehabilitation Hospital
- Anne-Kristine Schanke, PSYCH/PhD, Professor emeritus, Sunnaas Rehabilitation Hospital/UiO
- Solrun Sigurdardottir, PSYCH/PhD, Postdoc fellow, Sunnaas Rehabilitation Hospital
- Jan Egil Nordvik, PSYCH/PhD, Sunnaas Rehabilitation Hospital
- Per Ola Rike, PSYCH/PhD, Sunnaas Rehabilitation Hospital
- Sveinung Tornås, PSYCH/PhD, Sunnaas Rehabilitation Hospital
- Solveig Hauger, PSYCH/PhD, Sunnaas Rehabilitation Hospital
- Vivien Jørgensen, PT/PhD, Sunnaas Rehabilitation Hospital
- Ellen Høyser, PT/PhD, Sunnaas Rehabilitation Hospital
- Anne Lannem, PT/PhD, Ass. Professor, Sunnaas Rehabilitation Hospital/
Norwegian school of Sport Sciences
- Matthijs Wouda, PT/PhD, Sunnaas Rehabilitation Hospital
- Kirsti Skavberg Roaldsen, PT/PhD, Ass. Professor, Sunnaas Rehabilitation Hospital/ OsloMet/
Karolinska Institute
- Birgitta Langhammer, PT/PhD, Professor, Sunnaas Rehabilitation Hospital/OsloMet
- Ellen Berg Svendby, Cand Scient/PhD, Sunnaas Rehabilitation Hospital/OsloMet
- Melanie Kirmess, ST/PhD, Ass. Professor, Sunnaas Rehabilitation Hospital/UiO
- Gry Velvin, SW/PhD, Sunnaas Rehabilitation Hospital

Guest professors:

- Fin Biering-Sørensen, MD/PhD, Professor, Copenhagen University
- Katharina Sunnerhagen, MD/PhD, Professor, Gothenburg University
- Lena Hartelius, ST/PhD, Professor, Gothenburg University
- Kerstin Fugl-Meyer, SW/PhD, Professor, Karolinska Institute
- Agneta Ståhle, PT/PhD, Professor, Karolinska Institute
- Helle Ploug Hansen, RN/PhD, Professor, University of Southern Denmark, Odense
- Jennie Ponsford, PSYCH/PhD, Professor, Monash University, Melbourne





PhD fellows:

- MD: Thy Thy Vanem, Ingebjørg Irgens, Erlend Solberg Dørum, Hege Prag Øra, Svein Otto Fredwall, Kristine Marie M. Vege, Jelena Simic
- PSYCH: Daniel Løke, Geneviève Richard, Knut Kolskår
- RN: Anne Geard
- PT: Emelie Butler Forslund, Linda Rennie, Anu Piira
- SW: Jannike K. Vikan
- ST: Maribeth C. Rivelsrud, Silje Merete Hansen
- PhD Fellows/OT: Anne-Marthe Sanders

- **Administration:** Annette M. Juelsen

Research profile and aims

The overall aim of research in our group is to improve everyday living of people with physical and/or mental impairments due to injury or disease. Our research activities within specialized rehabilitation, mainly neurorehabilitation, are organized into four research groups:

- Acquired Brain injuries
- Spinal cord injuries
- Patients with movement dysfunctions
- Patients with rare disorders

Ongoing projects

A large number of studies are ongoing in our group, most of them involving international collaboration:

- Specialized rehabilitation interventions for patients with stroke or spinal cord injury
- Telerehabilitation and rehabilitation technology
- Rehabilitation of acquired injuries in children and adolescents
- Movement disorders and gait analysis
- Patients with rare disorders
- Basal physiological mechanisms in patients spinal cord injuries and patients with brain injuries
- Neuropsychological consequences after brain injury





Most important national and international collaborators

National

- Oslo University Hospital
- OsloMet
- Norwegian Sport High School
- Haukeland University Hospital
- St. Olav Hospital
- University Hospital of North Norway
- Beitostølen Health Sport Center
- Hospitals in Health Region South-East

International

- Karolinska Institute, Stockholm, Sweden
- Gothenburg University, Sweden
- Copenhagen University, Denmark
- University of Southern Denmark, Odense, Denmark
- Monash University, Melbourne, Australia
- China Rehabilitation and Research Center, China
- Rusk Institute of Rehabilitation, NY, USA
- Polyclinic no2, Petrozavodsk, Karelia, Russia
- Sheba Medical Center, Tel Aviv, Israel
- Bethlehem Arab Society for Rehabilitation, Palestine
- El Wafa Hospital, Gaza, Palestine
- Sahlgrenska University Hospital, Högsbo, Sweden
- Bayi 81 Rehabilitation Center, Sichuan, China
- Schweizer Paraplegiker-Forschung AG, Switzerland

Scientific production of the research group in 2019

Peer reviewed original research

articles: 72

PhD thesis: 3

Selected publications:

Månnum G, Løvstad M, Wisløff-Aase K, Ræder J, Schanke AK, Larsen I, Dyb G, Ekeberg Ø, Stanghelle JK (2019)

“Clinical characteristics and physical functioning in persons hospitalized following the Norwegian terror attacks in July 2011: A follow up study”

J Rehabil Med, 51 (3), 225-233

DOI 10.2340/165019772521, PubMed 30816422, WoS 000460419000010 Crisinfo 1700037 (Details)

Vikan JK, Nilsson MI, Bushnik T, Deng W, Elessi K, Frost-Bareket Y, Kovrigina E, Shahwan J, Snekkvik H, Åkesson E, Stanghelle JK, Fugl-Meyer KS (2019)

“Sexual health policies in stroke rehabilitation: A multi national study”

J Rehabil Med, 51 (5), 361-368

DOI 10.2340/16501977-2552, PubMed 30938448, WoS 000466848600005 (Details)

Moore JL, Nordvik JE, Erichsen A, Rosseland I, Bø E, Hornby TG, FIRST-Oslo Team (2019)

“Implementation of High-Intensity Stepping Training During Inpatient Stroke Rehabilitation Improves Functional Outcomes”

Stroke, 51 (2), 563-570

DOI 10.1161/STROKEAHA.119.027450, PubMed 31884902 (Details)





Publication list NVR research groups 2019

- Skaga E, Kuleskiy E, Brynjulvsen M, Sandberg CJ, Potdar S, Langmoen IA, Laakso A, Gaál-Paavola E, Perola M, Wennerberg K, Vik-Mo EO (2019)
Feasibility study of using high-throughput drug sensitivity testing to target recurrent glioblastoma stem cells for individualized treatment
Clin Transl Med, 8 (1), 33
DOI [10.1186/s40169-019-0253-6](https://doi.org/10.1186/s40169-019-0253-6), PubMed [31889236](https://pubmed.ncbi.nlm.nih.gov/31889236/), WoS [000511690600001](https://www.scopus.com/search/form.do?prf=more&id=5000511690600001) ([Details](#))
- Berger TC, Vigeland MD, Hjorthaug HS, Etholm L, Nome CG, Taubøll E, Heuser K, Selmer KK (2019)
Neuronal and glial DNA methylation and gene expression changes in early epileptogenesis
PLoS One, 14 (12), e0226575
DOI [10.1371/journal.pone.0226575](https://doi.org/10.1371/journal.pone.0226575), PubMed [31887157](https://pubmed.ncbi.nlm.nih.gov/31887157/), WoS [000515092200022](https://www.scopus.com/search/form.do?prf=more&id=5000515092200022) Cristin [1791993](https://www.cristin.no/urn:nbn:no:ctin:1791993) ([Details](#))
- Damsbo AG, Kraglund KL, Buttenschøn HN, Johnsen SP, Andersen G, Mortensen JK (2019)
Predictors for wellbeing and characteristics of mental health after stroke
J Affect Disord, 264, 358-364
DOI [10.1016/j.jad.2019.12.032](https://doi.org/10.1016/j.jad.2019.12.032), PubMed [32056772](https://pubmed.ncbi.nlm.nih.gov/32056772/), WoS [000510380300047](https://www.scopus.com/search/form.do?prf=more&id=5000510380300047) Cristin [1803816](https://www.cristin.no/urn:nbn:no:ctin:1803816) ([Details](#))
- Ghaderi S, Berg-Hansen P, Bakken IJ, Magnus P, Trogstad L, Håberg SE (2019)
Hospitalization following influenza infection and pandemic vaccination in multiple sclerosis patients: a nationwide population-based registry study from Norway
Eur J Epidemiol, 35 (4), 355-362
DOI [10.1007/s10654-019-00595-2](https://doi.org/10.1007/s10654-019-00595-2), PubMed [31873811](https://pubmed.ncbi.nlm.nih.gov/31873811/), WoS [000504171400002](https://www.scopus.com/search/form.do?prf=more&id=5000504171400002) Cristin [1790275](https://www.cristin.no/urn:nbn:no:ctin:1790275) ([Details](#))
- Major DH, Røe Y, Grotle M, Jessup RL, Farmer C, Småstuen MC, Buchbinder R (2019)
Content reporting of exercise interventions in rotator cuff disease trials: results from application of the Consensus on Exercise Reporting Template (CERT)
BMJ Open Sport Exerc Med, 5 (1), e000656
DOI [10.1136/bmjsem-2019-000656](https://doi.org/10.1136/bmjsem-2019-000656), PubMed [31908837](https://pubmed.ncbi.nlm.nih.gov/31908837/) Cristin [1763432](https://www.cristin.no/urn:nbn:no:ctin:1763432) ([Details](#))
- Hasan-Olive MM, Enger R, Hansson HA, Nagelhus EA, Eide PK (2019)
Pathological mitochondria in neurons and perivascular astrocytic endfeet of idiopathic normal pressure hydrocephalus patients
Fluids Barriers CNS, 16 (1), 39
DOI [10.1186/s12987-019-0160-7](https://doi.org/10.1186/s12987-019-0160-7), PubMed [31849332](https://pubmed.ncbi.nlm.nih.gov/31849332/), WoS [000512690000001](https://www.scopus.com/search/form.do?prf=more&id=5000512690000001) Cristin [1787291](https://www.cristin.no/urn:nbn:no:ctin:1787291) ([Details](#))
- Fjeld OR, Grotle M, Matre D, Pedersen LM, Lie MU, Småstuen MC, Storheim K, Heuch I, Stubhaug A, Zwart JA, Nilsen KB (2019)
Predicting the outcome of persistent sciatica using conditioned pain modulation: 1-year results from a prospective cohort study
Scand J Pain, 20 (1), 69-75
DOI [10.1515/sjpain-2019-0112](https://doi.org/10.1515/sjpain-2019-0112), PubMed [31527299](https://pubmed.ncbi.nlm.nih.gov/31527299/), WoS [000504845500010](https://www.scopus.com/search/form.do?prf=more&id=5000504845500010) Cristin [1727730](https://www.cristin.no/urn:nbn:no:ctin:1727730) ([Details](#))





[Kvarstein G](#), [Högström H](#), [Allen SM](#), [Rosland JH](#) (2019)

Cryoneurolysis for cervicogenic headache - a double blinded randomized controlled study

Scand J Pain, 20 (1), 39-50

DOI [10.1515/sjpain-2019-0086](#), PubMed [31675351](#), WoS [000504845500007](#) Cristin [1758253](#) ([Details](#))

[Dukefoss TT](#), [Kleggetveit IP](#), [Helås T](#), [Jørum E](#) (2019)

Pain and small-fiber affection in hereditary neuropathy with liability to pressure palsies (HNPP)

Scand J Pain, 20 (1), 61-68

DOI [10.1515/sjpain-2019-0090](#), PubMed [31536037](#), WoS [000504845500009](#) Cristin [1734950](#) ([Details](#))

[Lunde NN](#), [Gregersen I](#), [Ueland T](#), [Shetelig C](#), [Holm S](#), [Kong XY](#), [Michelsen AE](#), [Otterdal K](#), [Yndestad A](#), [Broch K](#), [Gullestad L](#), [Nyman TA](#), [Benz B](#), [Eritsland J](#), [Hoffmann P](#), [Skagen K](#), [Gonçalves I](#), [Nilsson J](#), [Grenegård M](#), [Poreba M](#), [Drag M](#), [Seljeflot I](#), [Sporsheim B](#), [Espevik T](#), [Skjelland M](#) et al. (2019)

Legumain is upregulated in acute cardiovascular events and associated with improved outcome - potentially related to anti-inflammatory effects on macrophages

Atherosclerosis, 296, 74-82

DOI [10.1016/j.atherosclerosis.2019.12.008](#), PubMed [31870625](#), WoS [000518470200014](#) Cristin [1761084](#) ([Details](#))

[Advani R](#), [Ajmi S](#), [Kurz MW](#) (2019)

Mechanical thrombectomy: Lessons to be learned from intravenous thrombolysis

Brain Behav, 10 (1), e01500

DOI [10.1002/brb3.1500](#), PubMed [31837108](#), WoS [000502455300001](#) ([Details](#))

[Lipka AF](#), [Boldingh MI](#), [van Zwet EW](#), [Schreurs MWJ](#), [Kuks JBM](#), [Tallaksen CM](#), [Titulaer MJ](#), [Verschuuren JJGM](#) (2019)

Long-term follow-up, quality of life, and survival of patients with Lambert-Eaton myasthenic syndrome

Neurology, 94 (5), e511-e520

DOI [10.1212/WNL.00000000000008747](#), PubMed [31831596](#), WoS [000530111400017](#) Cristin [1803809](#) ([Details](#))

[Schulze DG](#), [Nordby KC](#), [Cvancarova Småstuen M](#), [Clemm T](#), [Grotle M](#), [Zwart JA](#), [Nilsen KB](#) (2019)

Impact of technical variations on the ring-finger test for carpal tunnel syndrome

Clin Neurophysiol Pract, 5, 23-29

DOI [10.1016/j.cnp.2019.11.005](#), PubMed [31909307](#) Cristin [1769121](#) ([Details](#))

[Hott A](#), [Brox JI](#), [Pripp AH](#), [Juel NG](#), [Liavaag S](#) (2019)

Predictors of Pain, Function, and Change in Patellofemoral Pain

Am J Sports Med, 48 (2), 351-358

DOI [10.1177/0363546519889623](#), PubMed [31821014](#), WoS [000501963500001](#) Cristin [1779974](#) ([Details](#))

[Zamani M](#), [Skagen K](#), [Russell D](#), [Skjelland M](#) (2019)

Response by Zamani et al to Letter Regarding Article, "Carotid Plaque Neovascularization Detected With Superb Microvascular Imaging Ultrasound Without Using Contrast Media"

Stroke, 51 (1), e12

DOI [10.1161/STROKEAHA.119.027944](#), PubMed [31813362](#), WoS [000504225600012](#) ([Details](#))





Skjelland M, Zamani M, Hetlevik S, Lilleby V, [Halvorsen B](#), [Skagen K](#) (2019)

Increased Endothelial Activation in Patients with Mixed Connective Tissue Disease

J Stroke Cerebrovasc Dis, 29 (2), 104563

DOI [10.1016/j.jstrokecerebrovasdis.2019.104563](#), PubMed [31831329](#), WoS [000505793800024](#) Cristin [1803782](#) ([Details](#))

Makarious MB, Diez-Fairen M, Krohn L, Blauwendraat C, Bandres-Ciga S, Ding J, [Pihlstrøm L](#), Houlden H, Scholz SW, Gan-Or Z (2019)

ARSA variants in α -synucleinopathies

Brain, 142 (12), e70

DOI [10.1093/brain/awz340](#), PubMed [31670782](#), WoS [000504324300005](#) ([Details](#))

Nalls MA, Blauwendraat C, Vallerga CL, Heilbron K, Bandres-Ciga S, Chang D, Tan M, Kia DA, Noyce AJ, Xue A, Bras J, Young E, von Coelln R, Simón-Sánchez J, Schulte C, Sharma M, Krohn L, [Pihlstrøm L](#), Siitonen A, Iwaki H, Leonard H, Faghri F, Gibbs JR, Hernandez DG, Scholz SW et al. (2019)

Identification of novel risk loci, causal insights, and heritable risk for Parkinson's disease: a meta-analysis of genome-wide association studies

Lancet Neurol, 18 (12), 1091-1102

DOI [10.1016/S1474-4422\(19\)30320-5](#), PubMed [31701892](#), WoS [000495892200015](#) Cristin [1765823](#) ([Details](#))

Lorenzano S, Kremer C, Pavlovic A, Jovanovic DR, [Sandset EC](#), Christensen H, Bushnell C, Arsovska A, Sprigg N, Roffe C, Ijas P, Gdovinova Z, Alexandrov A, Zedde M, Tassi R, Acciaresi M, Lantz M, Sunnerhagen K, Zarkov M, Rantanen K, Perren F, Iversen HK, Kruuse C, Slowik A, Palazzo P et al. (2019)

SiPP (Stroke in Pregnancy and Postpartum): A prospective, observational, international, multicentre study on pathophysiological mechanisms, clinical profile, management and outcome of cerebrovascular diseases in pregnant and postpartum women

Eur. Stroke J., UNSP 2396987319893512

DOI [10.1177/2396987319893512](#), WoS [000501042400001](#) Cristin [1794496](#) ([Details](#))

von Kodolitsch Y, Demolder A, Girdauskas E, Kaemmerer H, Kornhuber K, Muino Mosquera L, Morris S, Neptune E, Pyeritz R, Rand-Hendriksen S, Rahman A, Riise N, Robert L, Staufenbiel I, Szöcs K, Vanem TT, Linke SJ, Vogler M, Yetman A, De Backer J (2019)

Features of Marfan syndrome not listed in the Ghent nosology - the dark side of the disease

Expert Rev Cardiovasc Ther, 17 (12), 883-915

DOI [10.1080/14779072.2019.1704625](#), PubMed [31829751](#), WoS [000506625700005](#) Cristin [1782301](#) ([Details](#))

Kogelman LJA, Esserlind AL, Christensen AF, Awasthi S, Ripke S, Ingason A, Davidsson OB, Erikstrup C, Hjalgrim H, Ullum H, Olesen J, Hansen TF, Gudbjartsson D, Gastafsson O, Stefansson K, Stefansson H, Porsteinsdottir U, Andersen S, Banasik K, Brunak S, Buil A, Burgdorf K, Gregor J, Jennum P, Nielsen KR et al. (2019)

Migraine polygenic risk score associates with efficacy of migraine-specific drugs

Neurol.-Genet., 5 (6), e364

DOI [10.1212/NXG.0000000000000364](#), WoS [000512893600002](#) Cristin [1804046](#) ([Details](#))

[Eide PK](#), [Ringstad G](#) (2019)

In Vivo Imaging of Molecular Clearance From Human Entorhinal Cortex: A Possible Method for Preclinical Testing of Dementia

Gerontol Geriatr Med, 5, 2333721419889739

DOI [10.1177/2333721419889739](#), PubMed [31819895](#), WoS [000500228100001](#) ([Details](#))





Ogollah R, Bishop A, Lewis M, [Grotle M](#), Foster NE (2019)
Responsiveness and Minimal Important Change for Pain and Disability Outcome Measures in Pregnancy-Related Low Back and Pelvic Girdle Pain
Phys Ther, 99 (11), 1551-1561

DOI [10.1093/ptj/pzz107](#), PubMed [31392990](#), WoS [000507619300012](#) Cristin [1793017](#) ([Details](#))

Palmio J, Jonson PH, Inoue M, Sarparanta J, Bengoechea R, Savarese M, Vihola A, Jokela M, Nakagawa M, Noguchi S, Olivé M, Masingue M, [Kerty E](#), Hackman P, Weihl CC, Nishino I, Udd B (2019)
Mutations in the J domain of DNAJB6 cause dominant distal myopathy
Neuromuscul Disord, 30 (1), 38-46

DOI [10.1016/j.nmd.2019.11.005](#), PubMed [31955980](#), WoS [000525822000006](#) Cristin [1804051](#) ([Details](#))

[Bjurulf B](#), Magnus P, Hallböök T, [Strømme P](#) (2019)

Potassium citrate and metabolic acidosis in children with epilepsy on the ketogenic diet: a prospective controlled study
Dev Med Child Neurol, 62 (1), 57-61

DOI [10.1111/dmcn.14393](#), PubMed [31745987](#), WoS [000497172700001](#) Cristin [1769733](#) ([Details](#))

Maeland JG, [Pihlstrom L](#), Skagen KM, Kvale G (2019)

Doctors demand climate action now!
Tidsskr. Nor. Laegeforen., 139 (17), 1636

WoS [000498056200013](#) ([Details](#))

[Lundar T](#), [Due-Tønnessen BJ](#) (2019)

Persistent shunt dependency in children treated with CSF diversion for idiopathic intracranial hypertension (IIH)
Acta Neurochir (Wien), 162 (1), 39-42

DOI [10.1007/s00701-019-04142-6](#), PubMed [31736001](#), WoS [000511717400006](#) Cristin [1803815](#) ([Details](#))

Granås AG, Halvorsen KH, Wendelbo J, [Johannessen Landmark C](#) (2019)

Interdisciplinary medication review to improve pharmacotherapy for patients with intellectual disabilities
Int J Clin Pharm, 41 (6), 1516-1525

DOI [10.1007/s11096-019-00914-3](#), PubMed [31729635](#), WoS [000504339700017](#) Cristin [1748483](#) ([Details](#))

Carcel C, Wang X, [Sandset EC](#), Delcourt C, Arima H, Lindley R, Hackett ML, Lavados P, Robinson TG, Muñoz Venturelli P, Olavarría VV, Brunser A, [Berge E](#), Chalmers J, Woodward M, Anderson CS (2019)

Sex differences in treatment and outcome after stroke: Pooled analysis including 19,000 participants
Neurology, 93 (24), e2170-e2180

DOI [10.1212/WNL.0000000000008615](#), PubMed [31719135](#), WoS [000512634400001](#) Cristin [1803817](#) ([Details](#))

[Eide PK](#), Hansson HA (2019)

Blood-brain barrier leakage of blood proteins in idiopathic normal pressure hydrocephalus
Brain Res, 1727, 146547

DOI [10.1016/j.brainres.2019.146547](#), PubMed [31712085](#), WoS [000508497100030](#) Cristin [1787305](#) ([Details](#))





Voormolen DC, Haagsma JA, Polinder S, Maas AIR, Steyerberg EW, Vuleković P, Sewalt CA, Gravesteijn BY, Covic A, [Andelic N](#), Plass AM, von Steinbuechel N (2019)

Post-Concussion Symptoms in Complicated vs. Uncomplicated Mild Traumatic Brain Injury Patients at Three and Six Months Post-Injury: Results from the CENTER-TBI Study

J Clin Med, 8 (11)

DOI [10.3390/jcm8111921](#), PubMed [31717436](#), WoS [000502294400164](#) Cristin [1759506](#) ([Details](#))

[Henning O](#), [Lossius MI](#), Lima M, Mevåg M, [Villagran A](#), [Nakken KO](#), [Johannessen Landmark C](#) (2019)

Refractory epilepsy and nonadherence to drug treatment

Epilepsia Open, 4 (4), 618-623

DOI [10.1002/epi4.12367](#), PubMed [31819918](#) Cristin [1746455](#) ([Details](#))

[Quist-Paulsen E](#), [Ormaasen V](#), [Kran AB](#), Dunlop O, Ueland PM, [Ueland T](#), Eikeland R, [Aukrust P](#), Nordenmark TH (2019)

Encephalitis and aseptic meningitis: short-term and long-term outcome, quality of life and neuropsychological functioning

Sci Rep, 9 (1), 16158

DOI [10.1038/s41598-019-52570-2](#), PubMed [31695095](#), WoS [000494636900011](#) Cristin [1758271](#) ([Details](#))

Matre D, [Nilsen KB](#), Katsifaraki M, Waage S, Pallesen S, BJORVATN B (2019)

Pain complaints are associated with quick returns and insomnia among Norwegian nurses, but do not differ between shift workers and day only workers

Int Arch Occup Environ Health, 93 (3), 291-299

DOI [10.1007/s00420-019-01481-w](#), PubMed [31691014](#), WoS [000494631300001](#) Cristin [1746348](#) ([Details](#))

Tingulstad A, Munk R, [Grotle M](#), Vigdal Ø, [Storheim K](#), Langhammer B (2019)

Back beliefs among elderly seeking health care due to back pain; psychometric properties of the Norwegian version of the back beliefs questionnaire

BMC Musculoskelet Disord, 20 (1), 510

DOI [10.1186/s12891-019-2910-8](#), PubMed [31679522](#), WoS [000500485800006](#) Cristin [1748257](#) ([Details](#))

[Andelic N](#), Løvstad M, Norup A, Ponsford J, [Røe C](#) (2019)

Editorial: Impact of Traumatic Brain Injuries on Participation in Daily Life and Work: Recent Research and Future Directions

Front Neurol, 10, 1153

DOI [10.3389/fneur.2019.01153](#), PubMed [31736861](#) ([Details](#))

Teymoori A, Real R, Gorbunova A, Haghish EF, [Andelic N](#), Wilson L, Asendorf T, Menon D, von Steinbüchel N (2019)

Measurement invariance of assessments of depression (PHQ-9) and anxiety (GAD-7) across sex, strata and linguistic backgrounds in a European-wide sample of patients after Traumatic Brain Injury

J Affect Disord, 262, 278-285

DOI [10.1016/j.jad.2019.10.035](#), PubMed [31732280](#), WoS [000501596400037](#) Cristin [1759480](#) ([Details](#))





Writing Committee for the ENIGMA-CNV Working Group , van der Meer D, [Sønderby IE](#), [Kaufmann T](#), Walters GB, Abdellaoui A, Ames D, Amunts K, Andersson M, Armstrong NJ, Bernard M, Blackburn NB, Blangero J, Boomsma DI, Brodaty H, Brouwer RM, Bülow R, Cahn W, Calhoun VD, Caspers S, Cavalleri GL, Ching CRK, Cichon S, Ciufolini S, Corvin A et al. (2019)

Association of Copy Number Variation of the 15q11.2 BP1-BP2 Region With Cortical and Subcortical Morphology and Cognition

JAMA Psychiatry, 77 (4), 420-430

DOI [10.1001/jamapsychiatry.2019.3779](#), PubMed [31665216](#), WoS [000525168200014](#) Cristin [1748470](#) ([Details](#))

Corniola MV, Lemée JM, Schaller K, [Meling TR](#) (2019)

Lateral sphenoid wing meningiomas without bone invasion-still skull base surgery?

Neurosurg Rev

DOI [10.1007/s10143-019-01181-6](#), PubMed [31664581](#), WoS [000493337400002](#) Cristin [1764058](#) ([Details](#))

[Frič R](#), [Eide PK](#) (2019)

Chiari type 1-a malformation or a syndrome? A critical review

Acta Neurochir (Wien)

DOI [10.1007/s00701-019-04100-2](#), PubMed [31656982](#), WoS [000492721900001](#) Cristin [1787309](#) ([Details](#))

Del Mar Álvarez-Torres M, Juan-Albarracín J, Fuster-García E, Bellvís-Bataller F, Lorente D, Reynés G, Font de Mora J, Aparici-Robles F, Botella C, Muñoz-Langa J, Faubel R, Asensio-Cuesta S, García-Ferrando GA, Chelebian E, Auger C, Pineda J, Rovira A, Oleaga L, Mollà-Olmos E, Revert AJ, Tshibanda L, Crisi G, [Emblem KE](#), Martin D, [Due-Tønnessen P](#) et al. (2019)

Robust association between vascular habitats and patient prognosis in glioblastoma: An international multicenter study

J Magn Reson Imaging, 51 (5), 1478-1486

DOI [10.1002/jmri.26958](#), PubMed [31654541](#), WoS [000492588600001](#) Cristin [1779723](#) ([Details](#))

Anke A, [Røe C](#), [Sigurdardottir S](#), Norup A, [Soberg HL](#), Arango-Lasprilla JC, Manskow US (2019)

Family needs at one and two years after severe traumatic brain injury: a prospective study of changes and predictors

Brain Inj, 34 (1), 89-97

DOI [10.1080/02699052.2019.1682191](#), PubMed [31647690](#), WoS [000492316900001](#) Cristin [1779266](#) ([Details](#))

[Pedersen S](#), [Bliksrud YT](#), [Selmer KK](#), [Ramm-Pettersen A](#) (2019)

Pyruvate dehydrogenase deficiency

Tidsskr. Nor. Laegeforen., 139 (15), 1473-1476

WoS [000492834100015](#) ([Details](#))

Skogheim TS, Villanger GD, Weyde KVF, Engel SM, Surén P, Øie MG, Skogan AH, Biele G, [Zeiner P](#), [Øvergaard KR](#), Haug LS, Sabaredzovic A, Aase H (2019)

Prenatal exposure to perfluoroalkyl substances and associations with symptoms of attention-deficit/hyperactivity disorder and cognitive functions in preschool children

Int J Hyg Environ Health, 223 (1), 80-92

DOI [10.1016/j.ijheh.2019.10.003](#), PubMed [31653559](#), WoS [000509004300009](#) Cristin [1739678](#) ([Details](#))



Creese B, Vassos E, Bergh S, [AthanasIU L](#), Johar I, Rongve A, Medbøen IT, Vasconcelos Da Silva M, Aakhus E, Andersen F, Bettella F, [Braekhus A](#), [Djurovic S](#), Paroni G, Proitsi P, Saltvedt I, Seripa D, Stordal E, Fladby T, Aarsland D, [Andreassen OA](#), Ballard C, [Selbaek G](#), AddNeuroMed consortium and the Alzheimer's Disease Neuroimaging Initiative (2019)

Examining the association between genetic liability for schizophrenia and psychotic symptoms in Alzheimer's disease

Transl Psychiatry, 9 (1), 273

DOI [10.1038/s41398-019-0592-5](#), PubMed [31641104](#), WoS [000491307600004](#) Cristin [1741516](#) ([Details](#))

Stynes S, Grøvle L, Haugen AJ, Konstantinou K, [Grotle M](#) (2019)

New insight to the characteristics and clinical course of clusters of patients with imaging confirmed disc-related sciatica

Eur J Pain, 24 (1), 171-181

DOI [10.1002/ejp.1475](#), PubMed [31454467](#), WoS [000491715400001](#) Cristin [1757721](#) ([Details](#))

Rongve A, Witoelar A, Ruiz A, [AthanasIU L](#), Abdelnour C, Clarimon J, Heilmann-Heimbach S, Hernández I, Moreno-Grau S, de Rojas I, Morenas-Rodríguez E, Fladby T, Sando SB, Bråthen G, Blanc F, Bousiges O, Lemstra AW, van Steenoven I, Londos E, [Almdahl IS](#), Pålhaugen L, Eriksen JA, [Djurovic S](#), Stordal E, Saltvedt I et al. (2019)

Author Correction: GBA and APOE ε4 associate with sporadic dementia with Lewy bodies in European genome wide association study

Sci Rep, 9 (1), 15168

DOI [10.1038/s41598-019-51827-0](#), PubMed [31619746](#) ([Details](#))

[Bråten LCH](#), [Rolfsen MP](#), Espeland A, [Wigemyr M](#), Aßmus J, Froholdt A, Haugen AJ, Marchand GH, Kristoffersen PM, Lutro O, Randen S, Wilhelmsen M, [Winsvold BS](#), Kadar TI, Holmgard TE, [Vigeland MD](#), Vetti N, Nygaard ØP, [Lie BA](#), [Hellum C](#), Anke A, [Grotle M](#), [Schistad EI](#), Skouen JS, Grøvle L et al. (2019)

Efficacy of antibiotic treatment in patients with chronic low back pain and Modic changes (the AIM study): double blind, randomised, placebo controlled, multicentre trial

BMJ, 367, l5654

DOI [10.1136/bmj.l5654](#), PubMed [31619437](#), WoS [000492058700002](#) Cristin [1743458](#) ([Details](#))

Orav K, Moullaali TJ, [Sandset EC](#), Doubal F, Whiteley W (2019)

Inspiring New Researchers in Stroke: The ESO Edinburgh Stroke Research Workshop

Stroke, 50 (11), e316-e318

DOI [10.1161/STROKEAHA.119.026936](#), PubMed [31610766](#), WoS [000492999300002](#) ([Details](#))

[Pedersen S](#), [Bliksrud YT](#), [Selmer KK](#), [Ramm-Pettersen A](#) (2019)

Pyruvate dehydrogenase deficiency

Tidsskr Nor Laegeforen, 139 (15)

DOI [10.4045/tidsskr.18.0988](#), PubMed [31642628](#) Cristin [1757903](#) ([Details](#))

Helseth Ø, [Lied B](#), Heskestad B, Ekseth K, [Helseth E](#) (2019)

Retrospective single-centre series of 1300 consecutive cases of outpatient cervical spine surgery: complications, hospital readmissions, and reoperations

Br J Neurosurg, 33 (6), 613-619

DOI [10.1080/02688697.2019.1675587](#), PubMed [31607163](#), WoS [000489797000001](#) Cristin [1791701](#) ([Details](#))



Puhr A, [Ruud E](#), Anderson V, [Due-Tønnessen BJ](#), Skarbø AB, [Finset A](#), Andersson S (2019)
Social attainment in physically well-functioning long-term survivors of pediatric brain tumour; the role of executive dysfunction, fatigue, and psychological and emotional symptoms
Neuropsychol Rehabil
DOI [10.1080/09602011.2019.1677480](#), PubMed [31603026](#), WoS [000490394400001](#) Cristin [1751882](#) ([Details](#))

[Kverneland M](#), [Taubøll E](#), [Molteberg E](#), Veierød MB, [Selmer KK](#), [Nakken KO](#), [Iversen PO](#) (2019)
Pharmacokinetic interaction between modified Atkins diet and antiepileptic drugs in adults with drug-resistant epilepsy
Epilepsia, 60 (11), 2235-2244
DOI [10.1111/epi.16364](#), PubMed [31602644](#), WoS [000495227300012](#) Cristin [1752077](#) ([Details](#))

Bath PM, Woodhouse LJ, Krishnan K, Appleton JP, Anderson CS, [Berge E](#), Cala L, Dixon M, England TJ, Godolphin PJ, Hepburn T, Mair G, Montgomery AA, Phillips SJ, Potter J, Price CI, Randall M, Robinson TG, Roffe C, Rothwell PM, [Sandset EC](#), Sanossian N, Saver JL, Siriwardena AN, Venables G et al. (2019)
Prehospital Transdermal Glyceryl Trinitrate for Ultra-Acute Intracerebral Hemorrhage: Data From the RIGHT-2 Trial
Stroke, 50 (11), 3064-3071
DOI [10.1161/STROKEAHA.119.026389](#), PubMed [31587658](#), WoS [000492999300037](#) Cristin [1801123](#) ([Details](#))

[Hle-Hansen H](#), Langhammer B, Lydersen S, Gunnes M, Indredavik B, Askim T (2019)
A physical activity intervention to prevent cognitive decline after stroke: Secondary results from the Life After STroke study, an 18-month randomized controlled trial
J Rehabil Med, 51 (9), 646-651
DOI [10.2340/16501977-2588](#), PubMed [31440765](#), WoS [000487810500002](#) Cristin [1726996](#) ([Details](#))

Hott A, Liavaag S, [Juel NG](#), [Brox JI](#), [Ekeberg OM](#) (2019)
The reliability, validity, interpretability, and responsiveness of the Norwegian version of the Anterior Knee Pain Scale in patellofemoral pain
Disabil Rehabil, 1-10 (in press)
DOI [10.1080/09638288.2019.1671499](#), PubMed [31583918](#) Cristin [1749882](#) ([Details](#))

Li J, Yang SC, Moullaali TJ, Chen R, Woodward M, Carcel C, Delcourt C, [Sandset EC](#), Anderson C, Chen G, Wang X (2019)
Sex differences in blood pressure after stroke: a systematic review and meta-analysis
J Hypertens, 37 (10), 1991-1999
DOI [10.1097/HJH.0000000000002116](#), PubMed [31058800](#), WoS [000506869000011](#) Cristin [1751872](#) ([Details](#))

[Sandset EC](#), Appleton JP, [Berge E](#), Christensen H, Gommans J, Krishnan K, Ntaios G, Phillips S, Pocock S, Sprigg N, Woodhouse LJ, Bath PM, ENOS trial investigators* (2019)
Associations between change in blood pressure and functional outcome, early events and death: results from the Efficacy of Nitric Oxide in Stroke trial
J Hypertens, 37 (10), 2104-2109
DOI [10.1097/HJH.0000000000002154](#), PubMed [31246895](#), WoS [000506869000023](#) Cristin [1803516](#) ([Details](#))





Grytten N, Myhr KM, [Celius EG](#), Benjaminsen E, Kampman M, Midgard R, Vatne A, Aarseth JH, Riise T, Torkildsen Ø (2019)

Risk of cancer among multiple sclerosis patients, siblings, and population controls: A prospective cohort study
Mult Scler, UNSP 1352458519877244

DOI [10.1177/1352458519877244](#), PubMed [31573834](#), WoS [000490673900001](#) Cristin [1748368](#) ([Details](#))

[Haugstad GK](#), [Wojniusz S](#), [Kirschner R](#), [Kirste U](#), Lilleheie I, Haugstad TS (2019)

Somatocognitive therapy of women with provoked vulvodynia: a pilot study
Scand. J. Pain, 19 (4), 725-732

DOI [10.1515/sjpain-2019-0011](#), WoS [000489140000009](#) Cristin [1716458](#) ([Details](#))

Rathore C, [Henning OJ](#), Luef G, Radhakrishnan K (2019)

Sexual dysfunction in people with epilepsy
Epilepsy Behav, 100 (Pt A), 106495

DOI [10.1016/j.yebeh.2019.106495](#), PubMed [31577987](#), WoS [000500348700003](#) Cristin [1734083](#) ([Details](#))

[Aslaksen S](#), Methlie P, [Vigeland MD](#), Jøssang DE, Wolff AB, Sheng Y, Oftedal BE, [Skinningrud B](#), [Undlien DE](#), [Selmer KK](#), Husebye ES, Bratland E (2019)

Coexistence of Congenital Adrenal Hyperplasia and Autoimmune Addison's Disease
Front Endocrinol (Lausanne), 10, 648

DOI [10.3389/fendo.2019.00648](#), PubMed [31611844](#), WoS [000488009000001](#) Cristin [1744434](#) ([Details](#))

International Multiple Sclerosis Genetics Consortium (2019)

Multiple sclerosis genomic map implicates peripheral immune cells and microglia in susceptibility
Science, 365 (6460)

DOI [10.1126/science.aav7188](#), PubMed [31604244](#), WoS [000488838600040](#) Cristin [1738911](#) ([Details](#))

Hagen K, Stovner LJ, [Nilsen KB](#), Kristoffersen ES, [Winsvold BS](#) (2019)

The impact of C-reactive protein levels on headache frequency in the HUNT study 2006-2008
BMC Neurol, 19 (1), 229

DOI [10.1186/s12883-019-1462-8](#), PubMed [31558164](#), WoS [000502384800002](#) Cristin [1730083](#) ([Details](#))

Blenkmann AO, Collavini S, Lubell J, Llorens A, Funderud I, Ivanovic J, [Larsson PG](#), [Meling TR](#), Bekinschtein T, Kochen S, Endestad T, Knight RT, [Solbakk AK](#) (2019)

Auditory deviance detection in the human insula: An intracranial EEG study
Cortex, 121, 189-200

DOI [10.1016/j.cortex.2019.09.002](#), PubMed [31629197](#), WoS [000501715900016](#) Cristin [1761259](#) ([Details](#))

[Kaufmann T](#), van der Meer D, Doan NT, Schwarz E, Lund MJ, [Agartz I](#), [Alnæs D](#), Barch DM, Baur-Streubel R, Bertolino A, Bettella F, [Beyer MK](#), [Bøen E](#), Borgwardt S, [Brandt CL](#), Buitelaar J, [Celius EG](#), Cervenka S, Conzelmann A, Córdova-Palomera A, Dale AM, de Quervain DJF, Di Carlo P, [Djurovic S](#), Dørum ES et al. (2019)
Common brain disorders are associated with heritable patterns of apparent aging of the brain
Nat Neurosci, 22 (10), 1617-1623

DOI [10.1038/s41593-019-0471-7](#), PubMed [31551603](#), WoS [000493396200012](#) Cristin [1717835](#) ([Details](#))

Oppeboen M, [Kerty E](#) (2019)

Troublesome eye movements

Tidsskr. Nor. Laegeforen., 139 (13), 1291

WoS [000488052800030](#) ([Details](#))





Werner NB, [Myhre K](#), [Werner EL](#) (2019)
Multidisciplinary treatment for patients with back pain at a local hospital
Tidsskr. Nor. Laegeforen., 139 (13), 1275-1278
WoS [000488052800026](#) ([Details](#))

Dalbro SEJ, [Kerty E](#) (2019)
Atypical optic neuritis
Tidsskr. Nor. Laegeforen., 139 (13), 1282-1285
WoS [000488052800028](#) ([Details](#))

Dalbro SEJ, [Kerty E](#) (2019)
Atypisk optikusnevritt
Tidsskr Nor Laegeforen, 139 (13)
DOI [10.4045/tidsskr.18.0967](#), PubMed [31556528](#) Cristin [1739405](#) ([Details](#))

Oppebøen M, [Kerty E](#) (2019)
Troublesome eye movements
Tidsskr Nor Laegeforen, 139 (13)
DOI [10.4045/tidsskr.19.0214](#), PubMed [31556522](#) ([Details](#))

Weldingh E, [Johnsen MB](#), [Hagen KB](#), [Østerås N](#), [Risberg MA](#), [Natvig B](#), Slatkowsky-Christensen B, Fenstad AM, Furnes O, [Nordsletten L](#), Magnusson K (2019)
The Maternal and Paternal Effects on Clinically and Surgically Defined Osteoarthritis
Arthritis Rheumatol, 71 (11), 1844-1848
DOI [10.1002/art.41023](#), PubMed [31237417](#), WoS [000487438500001](#) Cristin [1755993](#) ([Details](#))

Werner NB, [Myhre K](#), [Werner EL](#) (2019)
Tverrfaglig behandlingstilbud til pasienter med rygg smerter ved et lokalsykehus
Tidsskr Nor Laegeforen, 139 (13)
DOI [10.4045/tidsskr.18.0083](#), PubMed [31556521](#) Cristin [1739623](#) ([Details](#))

Sadaghiani S, Dombert PL, Løvstad M, Funderud I, [Melting TR](#), Endestad T, Knight RT, [Solbakk AK](#), D'Esposito M (2019)
Lesions to the Fronto-Parietal Network Impact Alpha-Band Phase Synchrony and Cognitive Control
Cereb Cortex, 29 (10), 4143-4153
DOI [10.1093/cercor/bhy296](#), PubMed [30535068](#), WoS [000493326300009](#) Cristin [1677710](#) ([Details](#))

Munk R, [Storheim K](#), [Småstuen MC](#), [Grotle M](#) (2019)
Measuring Productivity Costs in Patients With Musculoskeletal Disorders: Measurement Properties of the Institute for Medical Technology Assessment Productivity Cost Questionnaire
Value Health, 22 (12), 1410-1416
DOI [10.1016/j.jval.2019.07.011](#), PubMed [31806198](#), WoS [000500754600009](#) Cristin [1746967](#) ([Details](#))

[Heuch I](#), Heuch I, Hagen K, Sørgerd EP, Åsvold BO, [Zwart JA](#) (2019)
Does diabetes influence the probability of experiencing chronic low back pain? A population-based cohort study: the Nord-Trøndelag Health Study
BMJ Open, 9 (9), e031692
DOI [10.1136/bmjopen-2019-031692](#), PubMed [31515434](#), WoS [000497787600389](#) Cristin [1733718](#) ([Details](#))





Zamani M, Skagen K, [Scott H](#), Lindberg B, Russell D, Skjelland M (2019)
Carotid Plaque Neovascularization Detected With Superb Microvascular Imaging Ultrasound Without Using Contrast Media
Stroke, 50 (11), 3121-3127
DOI [10.1161/STROKEAHA.119.025496](#), PubMed [31510899](#), WoS [000492999300045](#) Cristin [1760174](#) ([Details](#))

Iwaki H, Blauwendraat C, Leonard HL, Kim JJ, Liu G, Maple-Grødem J, Corvol JC, [Pihlstrøm L](#), van Nimwegen M, Hutten SJ, Nguyen KH, Rick J, Eberly S, Faghri F, Auinger P, Scott KM, Wijeyekoon R, Van Deerlin VM, Hernandez DG, Gibbs JR, International Parkinson's Disease Genomics Consortium, Chitrala KN, Day-Williams AG, Brice A, Alves G et al. (2019)
Genomewide association study of Parkinson's disease clinical biomarkers in 12 longitudinal patients' cohorts
Mov Disord, 34 (12), 1839-1850
DOI [10.1002/mds.27845](#), PubMed [31505070](#), WoS [000485391900001](#) Cristin [1744129](#) ([Details](#))

[Eide PK](#), Valnes LM, [Pripp AH](#), Mardal KA, [Ringstad G](#) (2019)
Delayed clearance of cerebrospinal fluid tracer from choroid plexus in idiopathic normal pressure hydrocephalus
J Cereb Blood Flow Metab, UNSP 0271678X19874790
DOI [10.1177/0271678X19874790](#), PubMed [31495299](#), WoS [000486105600001](#) Cristin [1746852](#) ([Details](#))

Bostrøm K, Mæhlum S, [Cvancarova Småstuen M](#), [Storheim K](#) (2019)
Clinical comparative effectiveness of acupuncture versus manual therapy treatment of lateral epicondylitis: feasibility randomized clinical trial
Pilot Feasibility Stud, 5, 110
DOI [10.1186/s40814-019-0490-x](#), PubMed [31516727](#) Cristin [1788197](#) ([Details](#))

Ligaard J, Sannæs J, [Pihlstrøm L](#) (2019)
Deep brain stimulation and genetic variability in Parkinson's disease: a review of the literature
NPJ Parkinsons Dis, 5, 18
DOI [10.1038/s41531-019-0091-7](#), PubMed [31508488](#), WoS [000487007900001](#) Cristin [1803763](#) ([Details](#))

[Meling TR](#), Patet G (2019)
Clip-wrapping of ruptured blood blister-like aneurysms of the internal carotid artery
Neurosurg Rev (in press)
DOI [10.1007/s10143-019-01172-7](#), PubMed [31485789](#) Cristin [1732451](#) ([Details](#))

Hjelle EG, Bragstad LK, Kirkevold M, Zucknick M, Bronken BA, Martinsen R, Kvigne KJ, Kitzmüller G, [Mangset M](#), [Thommessen B](#), [Sveen U](#) (2019)
Effect of a dialogue-based intervention on psychosocial well-being 6 months after stroke in Norway: A randomized controlled trial
J Rehabil Med, 51 (8), 557-565
DOI [10.2340/16501977-2585](#), PubMed [31411337](#), WoS [000483931500002](#) Cristin [1721009](#) ([Details](#))

[Øiestad BE](#), Hilde G, Tvetter AT, Peat GG, Thomas MJ, Dunn KM, [Grotle M](#) (2019)
Risk factors for episodes of back pain in emerging adults. A systematic review
Eur J Pain, 24 (1), 19-38
DOI [10.1002/ejp.1474](#), PubMed [31433541](#) Cristin [1730812](#) ([Details](#))





Kam JWY, Lin JJ, [Solbakk AK](#), Endestad T, [Larsson PG](#), Knight RT (2019)
Default network and frontoparietal control network theta connectivity supports internal attention
Nat Hum Behav, 3 (12), 1263-1270
DOI [10.1038/s41562-019-0717-0](#), PubMed [31477910](#), WoS [000502379800012](#) Cristin [1797799](#) ([Details](#))

[Jusufovic M](#), [Elsais A](#), [Kerty E](#) (2019)
Seven Points That Explain the Lack of Effect from Reperfusion Therapy in Central Retinal Artery Occlusion
Ophthalmol Retina, 3 (9), 713-715
DOI [10.1016/j.oret.2019.05.014](#), PubMed [31511166](#) ([Details](#))

Fernandez-Santiago R, Martin-Flores N, Antonelli F, Cerquera C, Moreno V, Bandres-Ciga S, Manduchi E, Tolosa E, Singleton AB, Moore JH, Noyce AJ, Kaiyrzhanov R, Middlehurst B, Kia DA, Tan M, Houlden H, Morris HR, Plun-Favreau H, Holmans P, Hardy J, Trabzuni D, Bras J, Quinn J, Mok KY, Kinghorn KJ et al. (2019)
SNCA and mTOR Pathway Single Nucleotide Polymorphisms Interact to Modulate the Age at Onset of Parkinson's Disease
Mov. Disord., 34 (9), 1333-1344
DOI [10.1002/mds.27770](#), WoS [000486741500017](#) Cristin [1804054](#) ([Details](#))

[Stanišić M](#), [Pripp AH](#) (2019)
In Reply: A Reliable Grading System for Prediction of Chronic Subdural Hematoma Recurrence Requiring Reoperation After Initial Burr-Hole Surgery
Neurosurgery, 85 (3), E614-E615
DOI [10.1093/neuros/nyz224](#), PubMed [31215631](#), WoS [000489702900053](#) ([Details](#))

[Hasan-Olive MM](#), [Hansson HA](#), [Enger R](#), [Nagelhus EA](#), [Eide PK](#) (2019)
Blood-Brain Barrier Dysfunction in Idiopathic Intracranial Hypertension
J Neuropathol Exp Neurol, 78 (9), 808-818
DOI [10.1093/jnen/nlz063](#), PubMed [31393574](#), WoS [000493383300006](#) Cristin [1742839](#) ([Details](#))

Holthe OO, Hellstrom T, [Andelic N](#), [Server A](#), [Sigurdardottir S](#) (2019)
Improvement and Prediction of Memory and Executive Functions in Patients Admitted to a Neurosurgery Service With Complicated and Uncomplicated Mild Traumatic Brain Injury
J Head Trauma Rehabil, 34 (5), E45-E56
DOI [10.1097/HTR.000000000000463](#), PubMed [30829814](#), WoS [000487281100006](#) Cristin [1689082](#) ([Details](#))

Robertsen A, [Helseth E](#), [Laake JH](#), Førde R (2019)
Neurocritical care physicians' doubt about whether to withdraw life-sustaining treatment the first days after devastating brain injury: an interview study
Scand J Trauma Resusc Emerg Med, 27 (1), 81
DOI [10.1186/s13049-019-0648-9](#), PubMed [31462245](#), WoS [000483065900001](#) Cristin [1737595](#) ([Details](#))

Bjorland S, [Gjerstad J](#), [Schistad E](#), [Swanson DM](#), [Røe C](#) (2019)
Persistent lumbar radicular and low back pain; impact of genetic variability versus emotional distress
BMC Res Notes, 12 (1), 547
DOI [10.1186/s13104-019-4592-6](#), PubMed [31455415](#) Cristin [1720025](#) ([Details](#))





Ree A, [Nilsen KB](#), Knardahl S, Sand T, Matre D (2019)

Sleep restriction does not potentiate placebo-induced changes in pain and cortical potentials

Eur J Pain, 24 (1), 110-121

DOI [10.1002/ejp.1466](#), PubMed [31385378](#), WoS [000483100700001](#) Cristin [1714824](#) ([Details](#))

Holtan JP, [Selmer KK](#), [Heimdal KR](#), [Bragadóttir R](#) (2019)

Inherited retinal disease in Norway - a characterization of current clinical and genetic knowledge

Acta Ophthalmol, 98 (3), 286-295

DOI [10.1111/aos.14218](#), PubMed [31429209](#), WoS [000482274200001](#) ([Details](#))

Feragen KB, Stock NM, Myhre A, [Due-Tønnessen BJ](#) (2019)

Medical Stress Reactions and Personal Growth in Parents of Children With a Rare Craniofacial Condition

Cleft Palate Craniofac J, 57 (2), 228-237

DOI [10.1177/1055665619869146](#), PubMed [31426676](#), WoS [000507324800010](#) Cristin [1803812](#) ([Details](#))

[Henning O](#), [Johannessen Landmark C](#), Traeen B, [Svendsen T](#), Farmen A, [Nakken KO](#), [Lossius M](#) (2019)

Sexual function in people with epilepsy: Similarities and differences with the general population

Epilepsia, 60 (9), 1984-1992

DOI [10.1111/epi.16311](#), PubMed [31407332](#), WoS [000480727100001](#) Cristin [1715762](#) ([Details](#))

Wang H, Lane JM, Jones SE, Dashti HS, Ollila HM, Wood AR, van Hees VT, Brumpton B, [Winsvold BS](#), Kantojärvi K, Palviainen T, Cade BE, Sofer T, Song Y, Patel K, Anderson SG, Bechtold DA, Bowden J, Emsley R, Kyle SD, Little MA, Loudon AS, Scheer FAJL, Purcell SM, Richmond RC et al. (2019)

Genome-wide association analysis of self-reported daytime sleepiness identifies 42 loci that suggest biological subtypes

Nat Commun, 10 (1), 3503

DOI [10.1038/s41467-019-11456-7](#), PubMed [31409809](#), WoS [000480518900002](#) Cristin [1724804](#) ([Details](#))

Hasvik E, Schjøberg T, Jacobsen DP, Haugen AJ, Grøvle L, [Schistad EI](#), [Gjerstad J](#) (2019)

Up-regulation of circulating microRNA-17 is associated with lumbar radicular pain following disc herniation

Arthritis Res Ther, 21 (1), 186

DOI [10.1186/s13075-019-1967-y](#), PubMed [31409426](#), WoS [000480775100001](#) Cristin [1716425](#) ([Details](#))

Enger M, Skjaker SA, [Nordsletten L](#), [Pripp AH](#), [Melhuus K](#), Moosmayer S, [Brox JI](#) (2019)

Sports-related acute shoulder injuries in an urban population

BMJ Open Sport Exerc Med, 5 (1), e000551

DOI [10.1136/bmjsem-2019-000551](#), PubMed [31548901](#) Cristin [1737309](#) ([Details](#))

Mäki-Marttunen T, [Kaufmann T](#), [Elvsåshagen T](#), Devor A, [Djurovic S](#), [Westlye LT](#), Linne ML, Rietschel M, Schubert D, Borgwardt S, Efrim-Budisteanu M, Bettella F, Halnes G, Hagen E, Næss S, Ness TV, [Moberget T](#), Metzner C, Edwards AG, Fyhn M, Dale AM, Einevoll GT, [Andreassen OA](#) (2019)

Biophysical Psychiatry-How Computational Neuroscience Can Help to Understand the Complex Mechanisms of Mental Disorders

Front Psychiatry, 10, 534

DOI [10.3389/fpsy.2019.00534](#), PubMed [31440172](#), WoS [000478898500001](#) Cristin [1722571](#) ([Details](#))





Grotle M, Småstuen MC, Fjeld O, Grøvle L, Helgeland J, [Storheim K](#), Solberg TK, Zwart JA (2019)
Lumbar spine surgery across 15 years: trends, complications and reoperations in a longitudinal observational study from Norway

BMJ Open, 9 (8), e028743

DOI [10.1136/bmjopen-2018-028743](#), PubMed [31375617](#), WoS [000502537200201](#) Cristin [1750636](#) ([Details](#))

Puschmann A, Jiménez-Ferrer I, Lundblad-Andersson E, Mårtensson E, Hansson O, Odin P, Widner H, Brodin K, Mzezewa R, Kristensen J, Soller M, Rödström EY, Ross OA, [Toft M](#), Breedveld GJ, Bonifati V, Brodin L, Zettergren A, Sydow O, Linder J, Wirdefeldt K, Svenningsson P, Nissbrandt H, Belin AC, Forsgren L et al. (2019)

Low prevalence of known pathogenic mutations in dominant PD genes: A Swedish multicenter study
Parkinsonism Relat Disord, 66, 158-165

DOI [10.1016/j.parkreldis.2019.07.032](#), PubMed [31422003](#), WoS [000491684100026](#) Cristin [1801912](#) ([Details](#))

Gunnes M, Indredavik B, Langhammer B, Lydersen S, [Ihle-Hansen H](#), Dahl AE, Askim T, LAST Collaboration group (2019)

Associations Between Adherence to the Physical Activity and Exercise Program Applied in the LAST Study and Functional Recovery After Stroke

Arch Phys Med Rehabil, 100 (12), 2251-2259

DOI [10.1016/j.apmr.2019.04.023](#), PubMed [31374191](#), WoS [000503107600004](#) Cristin [1717279](#) ([Details](#))

[Lie MU](#), Petriu E, Matre D, [Hansson P](#), Andersen OK, Zwart JA, [Nilsen KB](#) (2019)

Psychophysical or spinal reflex measures when assessing conditioned pain modulation?

Eur J Pain, 23 (10), 1879-1889

DOI [10.1002/ejp.1462](#), PubMed [31359580](#), WoS [000480742600001](#) Cristin [1713481](#) ([Details](#))

[Eilert-Olsen M](#), Hjukse JB, [Thoren AE](#), Tang W, [Enger R](#), [Jensen V](#), Pettersen KH, [Nagelhus EA](#) (2019)

Astroglial endfeet exhibit distinct Ca²⁺ signals during hypoosmotic conditions

Glia, 67 (12), 2399-2409

DOI [10.1002/glia.23692](#), PubMed [31350866](#), WoS [000478196500001](#) Cristin [1746383](#) ([Details](#))

[Jørum E](#), Opstad PK (2019)

A 4-year follow-up of non-freezing cold injury with cold allodynia and neuropathy in 26 naval soldiers

Scand J Pain, 19 (3), 441-451

DOI [10.1515/sjpain-2019-0035](#), PubMed [30939119](#), WoS [000473300500004](#) Cristin [1709948](#) ([Details](#))

Allen SM, Bédos Ulvin L, Sabel W, [Popperud TH](#), [Ørstavik K](#) (2019)

A painful foot with diagnostic and therapeutic consequences

Scand J Pain, 19 (3), 615-618

DOI [10.1515/sjpain-2019-0015](#), PubMed [31120861](#), WoS [000473300500021](#) Cristin [1742904](#) ([Details](#))

Shijagurumayum Acharya R, Tvetter AT, [Grotle M](#), Khadgi B, Braekken IH, [Stuge B](#) (2019)

Pelvic floor muscle training programme in pregnant Nepalese women-a feasibility study

Int Urogynecol J (in press)

DOI [10.1007/s00192-019-04053-1](#), PubMed [31346671](#) Cristin [1718909](#) ([Details](#))





Knaus A, Kortüm F, Kleefstra T, [Stray-Pedersen A](#), Đukić D, Murakami Y, Gerstner T, van Bokhoven H, Iqbal Z, Horn D, Kinoshita T, Hempel M, Krawitz PM (2019)

Mutations in PIGU Impair the Function of the GPI Transamidase Complex, Causing Severe Intellectual Disability, Epilepsy, and Brain Anomalies

Am J Hum Genet, 105 (2), 395-402

DOI [10.1016/j.ajhg.2019.06.009](#), PubMed [31353022](#), WoS [000478022200013](#) Cristin [1769227](#) ([Details](#))

Firth AM, Cavallini I, [Sütterlin S](#), Lugo RG (2019)

Mindfulness and self-efficacy in pain perception, stress and academic performance. The influence of mindfulness on cognitive processes

Psychol Res Behav Manag, 12, 565-574

DOI [10.2147/PRBM.S206666](#), PubMed [31413648](#), WoS [000477603900001](#) Cristin [1712402](#) ([Details](#))

[Sandset EC](#), Ford GA (2019)

Sphenopalatine ganglion stimulation after stroke, promising but not yet ready for adoption

Lancet, 394 (10194), 189-190

DOI [10.1016/S0140-6736\(19\)31412-6](#), PubMed [31327352](#), WoS [000475988700005](#) ([Details](#))

[Johannessen Landmark C](#), Fløgstad I, Syvertsen M, Baftiu A, Enger U, [Koht J](#), [Johannessen SI](#) (2019)

Treatment and challenges with antiepileptic drugs in patients with juvenile myoclonic epilepsy

Epilepsy Behav, 98 (Pt A), 110-116

DOI [10.1016/j.yebeh.2019.05.021](#), PubMed [31330379](#), WoS [000484364600018](#) Cristin [1713916](#) ([Details](#))

Edeklev CS, [Halvorsen M](#), Løvland G, Vatnehol SAS, [Gjertsen Ø](#), [Nedregaard B](#), Sletteberg R, [Ringstad G](#), [Eide PK](#) (2019)

Intrathecal Use of Gadobutrol for Glymphatic MR Imaging: Prospective Safety Study of 100 Patients

AJNR Am J Neuroradiol, 40 (8), 1257-1264

DOI [10.3174/ajnr.A6136](#), PubMed [31320462](#), WoS [000482323300006](#) Cristin [1764176](#) ([Details](#))

Moullaali TJ, Wang X, Woodhouse LJ, Law ZK, Delcourt C, Sprigg N, Krishnan K, Robinson TG, Wardlaw JM, Al-Shahi Salman R, [Berge E](#), [Sandset EC](#), Anderson CS, Bath PM, BASC Investigators (2019)

Lowering blood pressure after acute intracerebral haemorrhage: protocol for a systematic review and meta-analysis using individual patient data from randomised controlled trials participating in the Blood Pressure in Acute Stroke Collaboration (BASC)

BMJ Open, 9 (7), e030121

DOI [10.1136/bmjopen-2019-030121](#), PubMed [31315876](#), WoS [000485269700218](#) Cristin [1798978](#) ([Details](#))

[Lundar T](#), [Due-Tønnessen BJ](#), [Frič R](#), [Brandal P](#), [Stensvold E](#), [Due-Tønnessen P](#) (2019)

Adult outcome after neurosurgical treatment of brain tumours in the first year of life: long-term follow-up of a single consecutive institutional series of 34 patients

Acta Neurochir (Wien), 161 (9), 1793-1798

DOI [10.1007/s00701-019-04014-z](#), PubMed [31309304](#), WoS [000482453900007](#) Cristin [1722058](#) ([Details](#))

Shijagurumayum Acharya R, Tveter AT, [Grotle M](#), Eberhard-Gran M, [Stuge B](#) (2019)

Prevalence and severity of low back- and pelvic girdle pain in pregnant Nepalese women

BMC Pregnancy Childbirth, 19 (1), 247

DOI [10.1186/s12884-019-2398-0](#), PubMed [31307421](#), WoS [000475744000004](#) Cristin [1726218](#) ([Details](#))





Iannone LF, Preda A, Blottière HM, Clarke G, Albani D, Belcastro V, Carotenuto M, Cattaneo A, Citraro R, Ferraris C, Ronchi F, Luongo G, Santocchi E, Guiducci L, Baldelli P, Iannetti P, [Pedersen S](#), Petretto A, Provasi S, Selmer K, Spalice A, Tagliabue A, Verrotti A, Segata N, Zimmermann J et al. (2019)

Microbiota-gut brain axis involvement in neuropsychiatric disorders

Expert Rev Neurother, 19 (10), 1037-1050

DOI [10.1080/14737175.2019.1638763](#), PubMed [31260640](#), WoS [000475024000001](#) Cristin [1740798](#) ([Details](#))

Ho KKN, Simic M, [Cvancarova Småstuen M](#), de Barros Pinheiro M, Ferreira PH, [Bakke Johnsen M](#), [Heuch I](#), [Grotle M](#), [Zwart JA](#), [Nilsen KB](#) (2019)

The association between insomnia, c-reactive protein, and chronic low back pain: cross-sectional analysis of the HUNT study, Norway

Scand J Pain, 19 (4), 765-777

DOI [10.1515/sjpain-2019-0033](#), PubMed [31287802](#), WoS [000489140000013](#) Cristin [1724037](#) ([Details](#))

Iwaki H, Blauwendraat C, Leonard HL, Liu G, Maple-Grødem J, Corvol JC, [Pihlstrøm L](#), van Nimwegen M, Hutten SJ, Nguyen KH, Rick J, Eberly S, Faghri F, Auinger P, Scott KM, Wijeyekoon R, Van Deerlin VM, Hernandez DG, Day-Williams AG, Brice A, Alves G, Noyce AJ, Tysnes OB, Evans JR, Breen DP et al. (2019)

Genetic risk of Parkinson disease and progression:: An analysis of 13 longitudinal cohorts

Neurol Genet, 5 (4), e348

DOI [10.1212/NXG.0000000000000348](#), PubMed [31404238](#), WoS [000484334100013](#) Cristin [1748394](#) ([Details](#))

[Juvodden HT](#), [Alnæs D](#), Lund MJ, [Dietrichs E](#), [Thorsby PM](#), [Westlye LT](#), [Knudsen S](#) (2019)

Hypocretin-deficient narcolepsy patients have abnormal brain activation during humor processing

Sleep, 42 (7)

DOI [10.1093/sleep/zsz082](#), PubMed [30923809](#), WoS [000481491900003](#) Cristin [1727583](#) ([Details](#))

Vinje V, [Ringstad G](#), Lindstrøm EK, Valnes LM, Rognes ME, [Eide PK](#), Mardal KA (2019)

Respiratory influence on cerebrospinal fluid flow - a computational study based on long-term intracranial pressure measurements

Sci Rep, 9 (1), 9732

DOI [10.1038/s41598-019-46055-5](#), PubMed [31278278](#), WoS [000474230900012](#) Cristin [1714010](#) ([Details](#))

Hollung SJ, Bakken IJ, Vik T, Lydersen S, Wiik R, [Aaberg KM](#), Andersen GL (2019)

Comorbidities in cerebral palsy: a patient registry study

Dev Med Child Neurol, 62 (1), 97-103

DOI [10.1111/dmcn.14307](#), PubMed [31273772](#), WoS [000478478800001](#) Cristin [1710250](#) ([Details](#))

Gravastrand CS, Steinkjer B, [Halvorsen B](#), Landsem A, [Skjelland M](#), [Jacobsen EA](#), Woodruff TM, Lambris JD, [Mollnes TE](#), Brekke OL, Espevik T, Rokstad AMA (2019)

Cholesterol Crystals Induce Coagulation Activation through Complement-Dependent Expression of Monocytic Tissue Factor

J Immunol, 203 (4), 853-863

DOI [10.4049/jimmunol.1900503](#), PubMed [31270150](#), WoS [000478980700011](#) Cristin [1714403](#) ([Details](#))





Bürker BS, [Gullestad L](#), [Gude E](#), Havik OE, Relbo Authen A, Grov I, [Andreassen AK](#), [Fiane AE](#), Haraldsen IR, Dew MA, Andersson S, [Malt UF](#) (2019)

The Predictive Value of Depression in the Years After Heart Transplantation for Mortality During Long-Term Follow-Up

Psychosom Med, 81 (6), 513-520

DOI [10.1097/PSY.0000000000000702](#), PubMed [31033937](#), WoS [000475406800004](#) Cristin [1704865](#) ([Details](#))

[Stensvold E](#), [Myklebust TÅ](#), Cappelen J, [Due-Tønnessen BJ](#), [Due-Tønnessen P](#), Kepka A, [Johannesen TB](#), [Krossnes B](#), [Lundar T](#), Maric S, Miletic H, Moholdt V, Myrmed KS, Nordberg T, Rydland J, Stokland T, Solem K, Solheim O, Torsvik I, Wikran GC, [Zeller B](#), [Wesenberg F](#), [Bechensteen AG](#), [Brandal P](#) (2019)

Children treated for medulloblastoma and supratentorial primitive neuroectodermal tumor in Norway from 1974 through 2013: Unexplainable regional differences in survival

Pediatr Blood Cancer, 66 (10), e27910

DOI [10.1002/pbc.27910](#), PubMed [31264356](#), WoS [000473850800001](#) Cristin [1746611](#) ([Details](#))

International Multiple Sclerosis Genetics Consortium (2019)

Author Correction: A systems biology approach uncovers cell-specific gene regulatory effects of genetic associations in multiple sclerosis

Nat Commun, 10 (1), 2956

DOI [10.1038/s41467-019-10951-1](#), PubMed [31263110](#), WoS [000473296300001](#) ([Details](#))

Wang X, [Sandset EC](#), Moullaali TJ, Chen G, Song L, Carcel C, Delcourt C, Woodward M, Robinson T, Chalmers J, Arima H, Anderson CS, INTERACT2 Investigators (2019)

Determinants of the high admission blood pressure in mild-to-moderate acute intracerebral hemorrhage J Hypertens, 37 (7), 1463-1466

DOI [10.1097/HJH.0000000000002056](#), PubMed [31085948](#), WoS [000480761700019](#) Cristin [1803132](#) ([Details](#))

Ajmi SC, Advani R, Fjetland L, Kurz KD, Lindner T, Qvindesland SA, Ersdal H, Goyal M, Kvaløy JT, Kurz M (2019)

Reducing door-to-needle times in stroke thrombolysis to 13 min through protocol revision and simulation training: a quality improvement project in a Norwegian stroke centre

BMJ Qual Saf, 28 (11), 939-948

DOI [10.1136/bmjqs-2018-009117](#), PubMed [31256015](#), WoS [000492375800014](#) Cristin [1721044](#) ([Details](#))

Haldorsen B, [Juel NG](#) (2019)

Supervised training must be adapted individually

Tidsskr. Nor. Laegeforen., 139 (10), 891-892

WoS [000472902400054](#) ([Details](#))

Haldorsen B, [Juel NG](#) (2019)

Safe on the shoulder with limitations

Tidsskr. Nor. Laegeforen., 139 (10), 890-891

WoS [000472902400004](#) ([Details](#))

[Fric R](#), [Ringstad G](#), [Eide PK](#) (2019)

Chiari malformation type 1- diagnostics and treatment

Tidsskr. Nor. Laegeforen., 139 (10), 931-935

WoS [000472902400020](#) ([Details](#))





Skaga E, Kuleskiy E, Fayzullin A, Sandberg CJ, Potdar S, Kyttälä A, Langmoen IA, Laakso A, Gaál-Paavola E, Perola M, Wennerberg K, Vik-Mo EO (2019)

Intertumoral heterogeneity in patient-specific drug sensitivities in treatment-naïve glioblastoma
BMC Cancer, 19 (1), 628

DOI [10.1186/s12885-019-5861-4](https://doi.org/10.1186/s12885-019-5861-4), PubMed [31238897](https://pubmed.ncbi.nlm.nih.gov/31238897/), WoS [000472850100009](https://www.scopus.com/search/form.do?prf=pub&id=000472850100009) Cristin [1726718](https://www.cristin.no/works/1726718) ([Details](#))

Tornås S, Løvstad M, Solbakk AK, Schanke AK, Stubberud J (2019)

Use It or Lose It? A 5-Year Follow-up Study of Goal Management Training in Patients with Acquired Brain Injury
J Int Neuropsychol Soc, 25 (10), 1082-1087

DOI [10.1017/S1355617719000626](https://doi.org/10.1017/S1355617719000626), PubMed [31232252](https://pubmed.ncbi.nlm.nih.gov/31232252/), WoS [000511352800009](https://www.scopus.com/search/form.do?prf=pub&id=000511352800009) Cristin [1725565](https://www.cristin.no/works/1725565) ([Details](#))

Eidet JR, Biernat D, Dahlberg D, Wiedmann MKH, Jørstad ØK (2019)

Foster Kennedy Syndrome

Tidsskr Nor Laegeforen, 139 (10)

DOI [10.4045/tidsskr.18.0719](https://doi.org/10.4045/tidsskr.18.0719), PubMed [31238653](https://pubmed.ncbi.nlm.nih.gov/31238653/) Cristin [1718116](https://www.cristin.no/works/1718116) ([Details](#))

Ulvin LB, Taubøll E, Olsen KB, Heuser K (2019)

Predictive performances of STESS and EMSE in a Norwegian adult status epilepticus cohort
Seizure, 70, 6-11

DOI [10.1016/j.seizure.2019.06.024](https://doi.org/10.1016/j.seizure.2019.06.024), PubMed [31229856](https://pubmed.ncbi.nlm.nih.gov/31229856/), WoS [000480664600002](https://www.scopus.com/search/form.do?prf=pub&id=000480664600002) Cristin [1711335](https://www.cristin.no/works/1711335) ([Details](#))

Solbakken G, Bjørnarå B, Kirkhus E, Nguyen B, Hansen G, Frich JC, Ørstavik K (2019)

MRI of trunk muscles and motor and respiratory function in patients with myotonic dystrophy type 1
BMC Neurol, 19 (1), 135

DOI [10.1186/s12883-019-1357-8](https://doi.org/10.1186/s12883-019-1357-8), PubMed [31216995](https://pubmed.ncbi.nlm.nih.gov/31216995/), WoS [000472142900001](https://www.scopus.com/search/form.do?prf=pub&id=000472142900001) Cristin [1706972](https://www.cristin.no/works/1706972) ([Details](#))

Miall RC, Rosenthal O, Ørstavik K, Cole JD, Sarlegna FR (2019)

Loss of haptic feedback impairs control of hand posture: a study in chronically deafferented individuals when grasping and lifting objects

Exp Brain Res, 237 (9), 2167-2184

DOI [10.1007/s00221-019-05583-2](https://doi.org/10.1007/s00221-019-05583-2), PubMed [31209510](https://pubmed.ncbi.nlm.nih.gov/31209510/), WoS [000478671900004](https://www.scopus.com/search/form.do?prf=pub&id=000478671900004) Cristin [1799367](https://www.cristin.no/works/1799367) ([Details](#))

Langhammer B, Ada L, Gunnes M, Ihle-Hansen H, Indredavik B, Askim T (2019)

A physical activity program is no more effective than standard care at maintaining upper limb activity in community-dwelling people with stroke: secondary outcomes from a randomized trial

Clin Rehabil, 33 (10), 1607-1613

DOI [10.1177/0269215519856048](https://doi.org/10.1177/0269215519856048), PubMed [31198048](https://pubmed.ncbi.nlm.nih.gov/31198048/), WoS [000485953200006](https://www.scopus.com/search/form.do?prf=pub&id=000485953200006) Cristin [1705692](https://www.cristin.no/works/1705692) ([Details](#))

Hough D, Robinson JE, Bellingham M, Fleming LM, McLaughlin M, Jama K, Haraldsen I, Solbakk AK, Evans NP (2019)

Peripubertal GnRH and testosterone co-treatment leads to increased familiarity preferences in male sheep
Psychoneuroendocrinology, 108, 70-77

DOI [10.1016/j.psyneuen.2019.06.008](https://doi.org/10.1016/j.psyneuen.2019.06.008), PubMed [31229635](https://pubmed.ncbi.nlm.nih.gov/31229635/), WoS [000484870800009](https://www.scopus.com/search/form.do?prf=pub&id=000484870800009) Cristin [1716487](https://www.cristin.no/works/1716487) ([Details](#))

Sorteberg A, Bredmose PP, Hansen AE, Sorteberg W (2019)

The path from ictus to Neurosurgery: chronology and transport logistics of patients with aneurysmal subarachnoid haemorrhage in the South-Eastern Norway Health Region

Acta Neurochir (Wien), 161 (8), 1497-1506

DOI [10.1007/s00701-019-03971-9](https://doi.org/10.1007/s00701-019-03971-9), PubMed [31197472](https://pubmed.ncbi.nlm.nih.gov/31197472/), WoS [000475688800003](https://www.scopus.com/search/form.do?prf=pub&id=000475688800003) Cristin [1717751](https://www.cristin.no/works/1717751) ([Details](#))





Brorson IS, Eriksson A, Leikfoss IS, Celius EG, Berg-Hansen P, Barcellos LF, Berge T, Harbo HF, Bos SD (2019)
No differential gene expression for CD4⁺ T cells of MS patients and healthy controls
Mult Scler J Exp Transl Clin, 5 (2), 2055217319856903
DOI [10.1177/2055217319856903](https://doi.org/10.1177/2055217319856903), PubMed [31223483](https://pubmed.ncbi.nlm.nih.gov/31223483/) ([Details](#))

Lemée JM, Joswig H, Da Broi M, Corniola MV, [Scheie D](#), Schaller K, [Helseth E](#), [Meling TR](#) (2019)
WHO grade I meningiomas: classification-tree for prognostic factors of survival
Neurosurg Rev, 43 (2), 749-758
DOI [10.1007/s10143-019-01117-0](https://doi.org/10.1007/s10143-019-01117-0), PubMed [31183587](https://pubmed.ncbi.nlm.nih.gov/31183587/), WoS [000529270800034](https://www.scopus.com/search/form.do?pr=1&id=000529270800034) Cristin [1711362](https://www.cristin.no/works/1711362) ([Details](#))

[Jusufovic M](#), Berge TE, Guo R, You S, Delcourt C, Anderson C, Bath PM, Karlson BW, [Berge E](#), [Sandset EC](#), Scandinavian Candesartan Acute Stroke Trial (SCAST) Study Group (2019)
Effects of Candesartan in the Acute Phase of Intracerebral Hemorrhage
J Stroke Cerebrovasc Dis, 28 (8), 2262-2267
DOI [10.1016/j.jstrokecerebrovasdis.2019.05.010](https://doi.org/10.1016/j.jstrokecerebrovasdis.2019.05.010), PubMed [31178359](https://pubmed.ncbi.nlm.nih.gov/31178359/), WoS [000477865400031](https://www.scopus.com/search/form.do?pr=1&id=000477865400031) Cristin [1712343](https://www.cristin.no/works/1712343) ([Details](#))

[Røe C](#), Tverdal C, Howe EI, Tenovuo O, Azouvi P, [Andelic N](#) (2019)
Randomized Controlled Trials of Rehabilitation Services in the Post-acute Phase of Moderate and Severe Traumatic Brain Injury - A Systematic Review
Front Neurol, 10, 557
DOI [10.3389/fneur.2019.00557](https://doi.org/10.3389/fneur.2019.00557), PubMed [31244748](https://pubmed.ncbi.nlm.nih.gov/31244748/), WoS [000471247500001](https://www.scopus.com/search/form.do?pr=1&id=000471247500001) Cristin [1704489](https://www.cristin.no/works/1704489) ([Details](#))

Iqbal Z, [Koht J](#), [Pihlstrøm L](#), Henriksen SP, Cappelletti C, Russel MB, Norberto de Souza O, [Skogseid IM](#), [Toft M](#) (2019)
Missense mutations in DYT-TOR1A dystonia
Neurol Genet, 5 (4), e343
DOI [10.1212/NXG.0000000000000343](https://doi.org/10.1212/NXG.0000000000000343), PubMed [31321303](https://pubmed.ncbi.nlm.nih.gov/31321303/), WoS [000484334100012](https://www.scopus.com/search/form.do?pr=1&id=000484334100012) Cristin [1754923](https://www.cristin.no/works/1754923) ([Details](#))

Werner DAT, [Grotle M](#), Gulati S, Austevoll IM, Madsbu MA, Lønne G, Solberg TK (2019)
Can a Successful Outcome After Surgery for Lumbar Disc Herniation Be Defined by the Oswestry Disability Index Raw Score?
Global Spine J, 10 (1), 47-54
DOI [10.1177/2192568219851480](https://doi.org/10.1177/2192568219851480), PubMed [32002349](https://pubmed.ncbi.nlm.nih.gov/32002349/), WoS [000479734800001](https://www.scopus.com/search/form.do?pr=1&id=000479734800001) Cristin [1797041](https://www.cristin.no/works/1797041) ([Details](#))

Jakobsson JE, Gourni E, Khanapur S, Brito B, [Riss PJ](#) (2019)
Synthesis and Characterization in Rodent Brain of the Subtype-Selective NR2B NMDA Receptor Ligand [¹¹C]Ro04-5595 as a Potential Radiotracer for Positron Emission Tomography
ACS Omega, 4 (6), 9925-9931
DOI [10.1021/acsomega.9b00357](https://doi.org/10.1021/acsomega.9b00357), PubMed [31460083](https://pubmed.ncbi.nlm.nih.gov/31460083/), WoS [000473361500038](https://www.scopus.com/search/form.do?pr=1&id=000473361500038) Cristin [1713790](https://www.cristin.no/works/1713790) ([Details](#))

Jacobsen HH, [Ringstad G](#), [Jørstad ØK](#), [Moe MC](#), [Sandell T](#), [Eide PK](#) (2019)
The Human Visual Pathway Communicates Directly With the Subarachnoid Space
Invest Ophthalmol Vis Sci, 60 (7), 2773-2780
DOI [10.1167/iovs.19-26997](https://doi.org/10.1167/iovs.19-26997), PubMed [31247084](https://pubmed.ncbi.nlm.nih.gov/31247084/), WoS [000474865600013](https://www.scopus.com/search/form.do?pr=1&id=000474865600013) Cristin [1725747](https://www.cristin.no/works/1725747) ([Details](#))





Cantalupo G, Pavlidis E, Beniczky S, Avanzini P, Gardella E, Larsson PG (2019)
Quantitative EEG analysis in Encephalopathy related to Status Epilepticus during slow Sleep
Epileptic Disord, 21 (S1), 31-40
DOI [10.1684/epd.2019.1055](https://doi.org/10.1684/epd.2019.1055), PubMed [31149902](https://pubmed.ncbi.nlm.nih.gov/31149902/) Cristin [1793578](https://www.cristin.no/urn:nbn:no:ctin:1793578) (Details)

Meents JE, Bressan E, Sontag S, Foerster A, Hautvast P, Rösseler C, Hampf M, Schüler H, Goetzke R, Le TKC, Kleggetveit IP, Le Cann K, Kerth C, Rush AM, Rogers M, Kohl Z, Schmelz M, Wagner W, Jørum E, Namer B, Winner B, Zenke M, Lampert A (2019)
The role of Nav1.7 in human nociceptors: insights from human induced pluripotent stem cell-derived sensory neurons of erythromelalgia patients
Pain, 160 (6), 1327-1341
DOI [10.1097/j.pain.0000000000001511](https://doi.org/10.1097/j.pain.0000000000001511), PubMed [30720580](https://pubmed.ncbi.nlm.nih.gov/30720580/), WoS [000480762400010](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000480762400010) Cristin [1709096](https://www.cristin.no/urn:nbn:no:ctin:1709096) (Details)

Firth-Clark A, Sutterlin S, Lugo RG (2019)
Using Cognitive Behavioural Techniques to Improve Academic Achievement in Student-Athletes
Educ. Sci., 9 (2), 89
DOI [10.3390/educsci9020089](https://doi.org/10.3390/educsci9020089), WoS [000475301900023](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000475301900023) Cristin [1693311](https://www.cristin.no/urn:nbn:no:ctin:1693311) (Details)

Gardella E, Cantalupo G, Larsson PG, Fontana E, Bernardina BD, Rubboli G, Darra F (2019)
EEG features in Encephalopathy related to Status Epilepticus during slow Sleep
Epileptic Disord, 21 (S1), 22-30
DOI [10.1684/epd.2019.1054](https://doi.org/10.1684/epd.2019.1054), PubMed [31162114](https://pubmed.ncbi.nlm.nih.gov/31162114/) Cristin [1725603](https://www.cristin.no/urn:nbn:no:ctin:1725603) (Details)

Larsen Burns M, Nikanorova M, Baftiu A, Borg Rasmussen J, Johannessen SI, Johannessen Landmark C (2019)
Pharmacokinetic Variability and Clinical Use of Lacosamide in Children and Adolescents in Denmark and Norway
Ther Drug Monit, 41 (3), 340-347
DOI [10.1097/FTD.0000000000000599](https://doi.org/10.1097/FTD.0000000000000599), PubMed [30688870](https://pubmed.ncbi.nlm.nih.gov/30688870/), WoS [000480710500007](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000480710500007) Cristin [1685234](https://www.cristin.no/urn:nbn:no:ctin:1685234) (Details)

Hov MR, Røislien J, Lindner T, Zakariassen E, Bache KCG, Solyga VM, Russell D, Lund CG (2019)
Stroke severity quantification by critical care physicians in a mobile stroke unit
Eur J Emerg Med, 26 (3), 194-198
DOI [10.1097/MEJ.0000000000000529](https://doi.org/10.1097/MEJ.0000000000000529), PubMed [29239899](https://pubmed.ncbi.nlm.nih.gov/29239899/), WoS [000480683800010](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000480683800010) (Details)

Granerud-Dunvoll G, Arntzen E, Elvsashagen T, Hatlestad-Hall C, Malt E (2019)
Equivalence Class Formation and the N400: Methodological Issues
Psychol. Rec., 69 (2), 175-191
DOI [10.1007/s40732-019-00332-x](https://doi.org/10.1007/s40732-019-00332-x), WoS [000468906800003](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000468906800003) Cristin [1682754](https://www.cristin.no/urn:nbn:no:ctin:1682754) (Details)

Johannessen Landmark C, Fløgstad I, Baftiu A, Syvertsen M, Enger U, Koht J, Johannessen SI (2019)
Long-term follow-up with therapeutic drug monitoring of antiepileptic drugs in patients with juvenile myoclonic epilepsy
Epilepsy Res, 155, 106148
DOI [10.1016/j.eplepsyres.2019.05.016](https://doi.org/10.1016/j.eplepsyres.2019.05.016), PubMed [31195184](https://pubmed.ncbi.nlm.nih.gov/31195184/), WoS [000482249900003](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000482249900003) Cristin [1707362](https://www.cristin.no/urn:nbn:no:ctin:1707362) (Details)

Skarpsno ES, Mork PJ, Nilsen TIL, Steingrimsdóttir ÓA, Zwart JA, Nilsen KB (2019)
The interplay between sleeplessness and high-sensitivity C-reactive protein on risk of chronic musculoskeletal pain. Longitudinal data from the Tromsø Study
Sleep, 42 (9), UNSP zsz127
DOI [10.1093/sleep/zsz127](https://doi.org/10.1093/sleep/zsz127), PubMed [31135903](https://pubmed.ncbi.nlm.nih.gov/31135903/), WoS [000493384500009](https://www.webofscience.com/urn:nbn:nl:ui:sc:wos-000493384500009) Cristin [1712889](https://www.cristin.no/urn:nbn:no:ctin:1712889) (Details)





Eldoen G, Ljostad U, Goplen FK, [Aamodt AH](#), [Mygland A](#) (2019)
Persistent postural- perceptual dizziness
Tidsskr. Nor. Laegeforen., 139 (9), 833-836
WoS [000472901700024](#) ([Details](#))

Ljostad U, Eldoen G, Goplen FK, [Aamodt AH](#), [Mygland A](#) (2019)
Study of acute dizziness
Tidsskr. Nor. Laegeforen., 139 (9), 828-832
WoS [000472901700023](#) ([Details](#))

Carcel C, Woodward M, Balicki G, Koroneos GL, Sousa DA, Cordonnier C, Lukaszuk C, Thompson K, Wang X, Davies L, Bassi M, Anderson CS, Peters SA, [Sandset EC](#) (2019)
Trends in recruitment of women and reporting of sex differences in large-scale published randomized controlled trials in stroke
Int J Stroke, 14 (9), 931-938
DOI [10.1177/1747493019851292](#), PubMed [31132968](#), WoS [000502477300019](#) Cristin [1749804](#) ([Details](#))

Billingsley KJ, Barbosa IA, Bandrés-Ciga S, Quinn JP, Bubb VJ, Deshpande C, Botia JA, Reynolds RH, Zhang D, Simpson MA, Blauwendraat C, Gan-Or Z, Gibbs JR, Nalls MA, Singleton A, International Parkinson's Disease Genomics Consortium (IPDGC), Ryten M, Koks S (2019)
Mitochondria function associated genes contribute to Parkinson's Disease risk and later age at onset
NPJ Parkinsons Dis, 5, 8
DOI [10.1038/s41531-019-0080-x](#), PubMed [31123700](#), WoS [000468982900001](#) Cristin [1803813](#) ([Details](#))

International Multiple Sclerosis Genetics Consortium (2019)
A systems biology approach uncovers cell-specific gene regulatory effects of genetic associations in multiple sclerosis
Nat Commun, 10 (1), 2236
DOI [10.1038/s41467-019-09773-y](#), PubMed [31110181](#), WoS [000468275100001](#) Cristin [1770667](#) ([Details](#))

de Rodez Benavent SA, Nygaard GO, [Nilsen KB](#), Etholm L, Sowa P, Wendel-Haga M, [Harbo HF](#), [Drolsum L](#), Laeng B, [Kerty E](#), [Celius EG](#) (2019)
Neurodegenerative Interplay of Cardiovascular Autonomic Dysregulation and the Retina in Early Multiple Sclerosis
Front Neurol, 10, 507
DOI [10.3389/fneur.2019.00507](#), PubMed [31156539](#), WoS [000467974600001](#) Cristin [1705303](#) ([Details](#))

[Storheim K](#) (2019)
Critically appraised paper: Comprehensive non-surgical treatment leads to improved walking ability in people with lumbar spinal stenosis [commentary]
J Physiother, 65 (3), 174
DOI [10.1016/j.jphys.2019.04.006](#), PubMed [31101520](#), WoS [000473253200011](#) ([Details](#))

Lemée JM, Corniola MV, Da Broi M, Schaller K, [Meling TR](#) (2019)
Early Postoperative Complications in Meningioma: Predictive Factors and Impact on Outcome
World Neurosurg, 128, e851-e858
DOI [10.1016/j.wneu.2019.05.010](#), PubMed [31082552](#), WoS [000475895100100](#) Cristin [1707597](#) ([Details](#))





Berge T, Eriksson A, Brorson IS, Høgestøl EA, [Berg-Hansen P](#), Døskeland A, Mjaavatten O, [Bos SD](#), Harbo HF, Berven F (2019)

Quantitative proteomic analyses of CD4⁺ and CD8⁺ T cells reveal differentially expressed proteins in multiple sclerosis patients and healthy controls

Clin Proteomics, 16, 19

DOI [10.1186/s12014-019-9241-5](#), PubMed [31080378](#), WoS [000467445500001](#) Cristin [1709560](#) ([Details](#))

Kristoffersen ES, Faiz KW, [Winsvold BS](#) (2019)

Neurology residents' knowledge of the management of headache

Cephalalgia, 39 (11), 1396-1406

DOI [10.1177/0333102419847973](#), PubMed [31067081](#), WoS [000488874800005](#) Cristin [1708290](#) ([Details](#))

Flengsrud K, [Toft M](#), [Dietrichs E](#) (2019)

Essential tremor

Tidsskr. Nor. Laegeforen., 139 (8), 722-725

WoS [000467252200024](#) ([Details](#))

Bjørhei A, Pedersen FT, Muhammad S, [Tronstad C](#), [Kalvøy H](#), [Wojniusz S](#), Pabst O, [Sütterlin S](#) (2019)

An Investigation on Bilateral Asymmetry in Electrodermal Activity

Front Behav Neurosci, 13, 88

DOI [10.3389/fnbeh.2019.00088](#), PubMed [31133830](#), WoS [000467328300001](#) Cristin [1695996](#) ([Details](#))

Rongve A, Witoelar A, Ruiz A, [Athanasio L](#), Abdelnour C, Clarimon J, Heilmann-Heimbach S, Hernández I, Moreno-Grau S, de Rojas I, Morenas-Rodríguez E, Fladby T, Sando SB, Bråthen G, Blanc F, Bousiges O, Lemstra AW, van Steenoven I, Londos E, [Almdahl IS](#), Pålhaugen L, Eriksen JA, [Djurovic S](#), Stordal E, Saltvedt I et al. (2019)
GBA and APOE ε4 associate with sporadic dementia with Lewy bodies in European genome wide association study
Sci Rep, 9 (1), 7013

DOI [10.1038/s41598-019-43458-2](#), PubMed [31065058](#), WoS [000467137300012](#) Cristin [1708523](#) ([Details](#))

González A, [Aurlien D](#), [Larsson PG](#), Berg Olsen K, Dahl IT, [Edvardsen T](#), [Haugaa KH](#), [Taubøll E](#) (2019)

Corrigendum to "Seizure-like episodes and EEG abnormalities in patients with long QT syndrome" [Seizure 61 (2018) 214-220]

Seizure, 69, 304

DOI [10.1016/j.seizure.2018.12.002](#), PubMed [31056410](#), WoS [000474500800053](#) ([Details](#))

[Bjørnebekk A](#), [Westlye LT](#), [Walhovd KB](#), [Jørstad ML](#), [Sundseth ØØ](#), [Fjell AM](#) (2019)

Cognitive performance and structural brain correlates in long-term anabolic-androgenic steroid exposed and nonexposed weightlifters

Neuropsychology, 33 (4), 547-559

DOI [10.1037/neu0000537](#), PubMed [31033318](#), WoS [000466110100010](#) Cristin [1723290](#) ([Details](#))

Stahl EA, Breen G, Forstner AJ, McQuillin A, Ripke S, Trubetskoy V, Mattheisen M, Wang Y, Coleman JRI, Gaspar HA, de Leeuw CA, Steinberg S, Pavlides JMW, Trzaskowski M, Byrne EM, Pers TH, Holmans PA, Richards AL, Abbott L, Agerbo E, Akil H, Albani D, Alliey-Rodriguez N, Als TD, Anjorin A et al. (2019)

Genome-wide association study identifies 30 loci associated with bipolar disorder

Nat Genet, 51 (5), 793-803

DOI [10.1038/s41588-019-0397-8](#), PubMed [31043756](#), WoS [000466842000007](#) Cristin [1715717](#) ([Details](#))





Høgestøl EA, [Kaufmann T](#), Nygaard GO, [Beyer MK](#), Sowa P, Nordvik JE, Kolskår K, Richard G, [Andreassen OA](#), Harbo HF, [Westlye LT](#) (2019)

Cross-Sectional and Longitudinal MRI Brain Scans Reveal Accelerated Brain Aging in Multiple Sclerosis
Front Neurol, 10, 450

DOI [10.3389/fneur.2019.00450](#), PubMed [31114541](#), WoS [000466513800001](#) Cristin [1728282](#) ([Details](#))

[Henning O](#), Landmark CJ, Henning D, [Nakken KO](#), [Lossius MI](#) (2019)

Challenges in epilepsy-The perspective of Norwegian epilepsy patients

Acta Neurol Scand, 140 (1), 40-47

DOI [10.1111/ane.13098](#), PubMed [30963535](#), WoS [000470755500006](#) Cristin [1694953](#) ([Details](#))

[Henning O](#), [Alfstad KA](#), [Nakken KO](#), [Lossius MI](#) (2019)

A call for better information about epilepsy: The patients' perspective-An online survey

Seizure, 69, 173-179

DOI [10.1016/j.seizure.2019.04.015](#), PubMed [31054491](#), WoS [000474500800029](#) Cristin [1706808](#) ([Details](#))

[Bonsaksen T](#), [Dolva AS](#), [Horghagen S](#), [Sveen U](#), [Hagby C](#), [Arntzen C](#) (2019)

Characteristics of community-based occupational therapy: Results of a norwegian survey

Scand J Occup Ther, 27 (1), 39-46

DOI [10.1080/11038128.2019.1609085](#), PubMed [31032684](#), WoS [000469640900001](#) Cristin [1692991](#) ([Details](#))

[Skaga E](#), [Skaga IØ](#), [Grieg Z](#), [Sandberg CJ](#), [Langmoen IA](#), [Vik-Mo EO](#) (2019)

The efficacy of a coordinated pharmacological blockade in glioblastoma stem cells with nine repurposed drugs using the CUSP9 strategy

J Cancer Res Clin Oncol, 145 (6), 1495-1507

DOI [10.1007/s00432-019-02920-4](#), PubMed [31028540](#), WoS [000468537100011](#) Cristin [1711738](#) ([Details](#))

[Ask TF](#), [Ranjitkar S](#), [Ulak M](#), [Chandyo RK](#), [Hysing M](#), [Strand TA](#), [Kvestad I](#), [Shrestha L](#), [Andreassen M](#), [Lugo RG](#), [Shilpakar JS](#), [Shrestha M](#), [Sütterlin S](#) (2019)

The Association Between Heart Rate Variability and Neurocognitive and Socio-Emotional Development in Nepalese Infants

Front Neurosci, 13, 411

DOI [10.3389/fnins.2019.00411](#), PubMed [31105521](#), WoS [000466197700004](#) Cristin [1691377](#) ([Details](#))

[Efstestad AS](#), [Ihle-Hansen H](#), [Hjellvik V](#), [Engedal K](#), [Blix HS](#) (2019)

Drug Use before and after Initiating Treatment with Acetylcholinesterase Inhibitors

Dement Geriatr Cogn Dis Extra, 9 (1), 196-206

DOI [10.1159/000497307](#), PubMed [31143200](#), WoS [000470855400001](#) Cristin [1708262](#) ([Details](#))

[Jøsok Ø](#), [Lugo R](#), [Knox BJ](#), [Sütterlin S](#), [Helkala K](#) (2019)

Self-Regulation and Cognitive Agility in Cyber Operations

Front Psychol, 10, 875

DOI [10.3389/fpsyg.2019.00875](#), PubMed [31068866](#), WoS [000465476900001](#) Cristin [1691375](#) ([Details](#))

[Langvatn EA](#), [Frič R](#), [Due-Tønnessen BJ](#), [Eide PK](#) (2019)

Intracranial volume versus static and pulsatile intracranial pressure values in children with craniosynostosis

J Neurosurg Pediatr, 24 (1), 66-74

DOI [10.3171/2019.2.PEDS18767](#), PubMed [31003225](#), WoS [000473331600011](#) Cristin [1741740](#) ([Details](#))





Haug Nordenmark T, Karic T, [Røe C](#), [Sorteberg W](#), [Sorteberg A](#) (2019)

The post-aSAH syndrome: a self-reported cluster of symptoms in patients with aneurysmal subarachnoid hemorrhage

J Neurosurg, 1-10 (in press)

DOI [10.3171/2019.1.JNS183168](#), PubMed [31003212](#) Cristin [1768124](#) ([Details](#))

Hvinden IC, Berg HE, [Sachse D](#), [Skaga E](#), Skottvoll FS, Lundanes E, [Sandberg CJ](#), [Vik-Mo EO](#), Rise F, Wilson SR (2019)
Nuclear Magnetic Resonance Spectroscopy to Identify Metabolite Biomarkers of Nonresponsiveness to Targeted Therapy in Glioblastoma Tumor Stem Cells

J Proteome Res, 18 (5), 2012-2020

DOI [10.1021/acs.jproteome.8b00801](#), PubMed [30964684](#), WoS [000467317700008](#) Cristin [1702038](#) ([Details](#))

Baftiu A, Lima MH, Svendsen K, [Larsson PG](#), [Johannessen SI](#), Landmark CJ (2019)

Safety aspects of antiepileptic drugs-a population-based study of adverse effects relative to changes in utilisation
Eur J Clin Pharmacol, 75 (8), 1153-1160

DOI [10.1007/s00228-019-02678-1](#), PubMed [31001654](#), WoS [000475794400014](#) Cristin [1694950](#) ([Details](#))

Reynolds RH, Botía J, Nalls MA, International Parkinson's Disease Genomics Consortium (IPDGC), System Genomics of Parkinson's Disease (SGPD), Hardy J, Gagliano Taliun SA, Ryten M (2019)

Moving beyond neurons: the role of cell type-specific gene regulation in Parkinson's disease heritability
NPJ Parkinsons Dis, 5, 6

DOI [10.1038/s41531-019-0076-6](#), PubMed [31016231](#), WoS [000466759500001](#) Cristin [1803814](#) ([Details](#))

[Henning O](#), [Johannessen Landmark C](#), [Nakken KO](#), [Lossius MI](#) (2019)

Nonadherence to treatment regimens in epilepsy from the patient's perspective and predisposing factors: Differences between intentional and unintentional lack of adherence

Epilepsia, 60 (5), e58-e62

DOI [10.1111/epi.14734](#), PubMed [30980675](#), WoS [000477643000006](#) Cristin [1694954](#) ([Details](#))

[Meling TR](#), Patet G (2019)

What is the best therapeutic approach to a pediatric patient with a deep-seated brain AVM?

Neurosurg Rev, 42 (2), 409-416

DOI [10.1007/s10143-019-01101-8](#), PubMed [30980204](#), WoS [000467137500019](#) Cristin [1706574](#) ([Details](#))

Lemée JM, Corniola MV, Da Broi M, Joswig H, [Scheie D](#), Schaller K, [Helseth E](#), [Meling TR](#) (2019)

Extent of Resection in Meningioma: Predictive Factors and Clinical Implications

Sci Rep, 9 (1), 5944

DOI [10.1038/s41598-019-42451-z](#), PubMed [30976047](#), WoS [000464094200051](#) Cristin [1708403](#) ([Details](#))

Krishnan K, Bassilious K, [Eriksen E](#), Bath PM, Sprigg N, Brækken SK, [Ihle-Hansen H](#), Horn MA, [Sandset EC](#) (2019)
Posterior circulation stroke diagnosis using HINTS in patients presenting with acute vestibular syndrome: A systematic review

Eur Stroke J, 4 (3), 233-239

DOI [10.1177/2396987319843701](#), PubMed [31984230](#), WoS [000470464600001](#) Cristin [1718451](#) ([Details](#))

[Orstavik K](#) (2019)

Oliver Sacks- about remorse, neurologist joy and empathy

Tidsskr. Nor. Laegeforen., 139 (7), 637-640

WoS [000464034800029](#) ([Details](#))





Juel NG, Pedersen SJ, Engebretsen KB, Brurberg KG, Ekeberg OM, Reme SE, [Brox JI](#), [Natvig B](#) (2019)
Atraumatic shoulder pain in primary health care
Tidsskr. Nor. Laegeforen., 139 (7), 594-595
WoS [000464034800015](#) ([Details](#))

[Lindgaard KF](#), [Lundar T](#), Hauglie-Hanssen E, [Sorteberg A](#), [Sorteberg W](#), Magnaes B, Wiberg J, Bakke J (2019)
OBITUARY HELGE NORNES, has works published, Professor
Tidsskr. Nor. Laegeforen., 139 (7), 654
WoS [000464034800040](#) ([Details](#))

[Sandset EC](#), de Sousa DA, Christensen H, Cordonnier C, Fischer U, Katan M, Kremer C, Pavlovic A, Sprigg N, Bart van der Worp H, Zedde M, Caso V (2019)
Women in the European Stroke Organisation: One, two, many... - A *Top Down* and *Bottom Up* approach
Eur Stroke J, 4 (3), 247-253
DOI [10.1177/2396987319841979](#), PubMed [31984232](#), WoS [000485316800006](#) Cristin [1716328](#) ([Details](#))

[Aamodt AH](#), Bjork MH, Alstadhaug KB, Eldoen G, Dueland AN, Poole T, Hagen K, Vetvik KG, Ofte HK, Sonnervik J, Kristoffersen ES, [Winsvold BS](#), [Lundqvist C](#), Sagabraten SO (2019)
Practical management of headache
Tidsskr. Nor. Laegeforen., 139 (7), 617-620
WoS [000464034800023](#) ([Details](#))

Bendtsen L, Zakrzewska JM, Abbott J, Braschinsky M, Di Stefano G, Donnet A, [Eide PK](#), Leal PRL, Maarbjerg S, May A, Nurmikko T, Obermann M, Jensen TS, Cruccu G (2019)
European Academy of Neurology guideline on trigeminal neuralgia
Eur J Neurol, 26 (6), 831-849
DOI [10.1111/ene.13950](#), PubMed [30860637](#), WoS [000476944800004](#) Cristin [1707020](#) ([Details](#))

Hott A, [Brox JI](#), [Pripp AH](#), [Juel NG](#), Paulsen G, Liavaag S (2019)
Effectiveness of Isolated Hip Exercise, Knee Exercise, or Free Physical Activity for Patellofemoral Pain: A Randomized Controlled Trial
Am J Sports Med, 47 (6), 1312-1322
DOI [10.1177/0363546519830644](#), PubMed [30958707](#), WoS [000468208700004](#) Cristin [1706410](#) ([Details](#))

Blauwendraat C, Heilbron K, Vallerga CL, Bandres-Ciga S, von Coelln R, [Pihlstrøm L](#), Simón-Sánchez J, Schulte C, Sharma M, Krohn L, Siitonen A, Iwaki H, Leonard H, Noyce AJ, Tan M, Gibbs JR, Hernandez DG, Scholz SW, Jankovic J, Shulman LM, Lesage S, Corvol JC, Brice A, van Hilten JJ, Marinus J et al. (2019)
Parkinson's disease age at onset genome-wide association study: Defining heritability, genetic loci, and α -synuclein mechanisms
Mov Disord, 34 (6), 866-875
DOI [10.1002/mds.27659](#), PubMed [30957308](#), WoS [000471832200014](#) Cristin [1716421](#) ([Details](#))

[Jessen RS](#), Roen K (2019)
Balancing in the margins of gender: exploring psychologists' meaning-making in their work with gender non-conforming youth seeking puberty suppression
Psychol. Sex., 10 (2), 119-131
DOI [10.1080/19419899.2019.1568290](#), WoS [000467246900002](#) Cristin [1681778](#) ([Details](#))





Høgestøl EA, Nygaard GO, [Alnæs D](#), [Beyer MK](#), [Westlye LT](#), Harbo HF (2019)

Symptoms of fatigue and depression is reflected in altered default mode network connectivity in multiple sclerosis

PLoS One, 14 (4), e0210375

DOI [10.1371/journal.pone.0210375](#), PubMed [30933977](#), WoS [000462867000003](#) Cristin [1689972](#) ([Details](#))

Nordstrand SEH, [Hansen BH](#), [Rootwelt T](#), Karlsen TI, [Swanson D](#), [Nilsen KB](#), [Knudsen S](#) (2019)

Psychiatric symptoms in patients with post-H1N1 narcolepsy type 1 in Norway

Sleep, 42 (4)

DOI [10.1093/sleep/zsz008](#), PubMed [30649483](#), WoS [000465534300017](#) Cristin [1705662](#) ([Details](#))

Rydning SL, [Koht J](#), Sheng Y, Sowa P, Hjorthaug HS, Wedding IM, [Erichsen AK](#), [Hovden IA](#), [Backe PH](#), [Tallaksen CME](#), [Vigeland MD](#), [Selmer KK](#) (2019)

Biallelic POLR3A variants confirmed as a frequent cause of hereditary ataxia and spastic paraparesis

Brain, 142 (4), e12

DOI [10.1093/brain/awz041](#), PubMed [30847471](#), WoS [000472805000001](#) Cristin [1708033](#) ([Details](#))

[Johnsen MB](#), Pihl K, Nissen N, Sørensen RR, Jørgensen U, Englund M, Thorlund JB (2019)

The association between smoking and knee osteoarthritis in a cohort of Danish patients undergoing knee arthroscopy

BMC Musculoskelet Disord, 20 (1), 141

DOI [10.1186/s12891-019-2518-z](#), PubMed [30935365](#), WoS [000463066400001](#) Cristin [1712422](#) ([Details](#))

[Fjeld OR](#), Grøvle L, Helgeland J, [Småstuen MC](#), Solberg TK, [Zwart JA](#), [Grotle M](#) (2019)

Complications, reoperations, readmissions, and length of hospital stay in 34 639 surgical cases of lumbar disc herniation

Bone Joint J, 101-B (4), 470-477

DOI [10.1302/0301-620X.101B4.BJJ-2018-1184.R1](#), PubMed [30929479](#), WoS [000462754300018](#) Cristin [1693062](#) ([Details](#))

Lie MM, [Risberg MA](#), [Storheim K](#), [Engbretsen L](#), [Øiestad BE](#) (2019)

What's the rate of knee osteoarthritis 10 years after anterior cruciate ligament injury? An updated systematic review

Br J Sports Med, 53 (18), 1162-1167

DOI [10.1136/bjsports-2018-099751](#), PubMed [30936063](#), WoS [000495986200009](#) Cristin [1706578](#) ([Details](#))

Zak N, [Bøen E](#), [Boye B](#), [Andreassen OA](#), Doan NT, [Malt UF](#), [Westlye LT](#), [Elvsåshagen T](#) (2019)

Mood episodes are associated with increased cortical thinning: A longitudinal study of bipolar disorder type II

Bipolar Disord, 21 (6), 525-538

DOI [10.1111/bdi.12771](#), PubMed [30864260](#), WoS [000487928400005](#) Cristin [1702370](#) ([Details](#))

Kristoffersen ES, [Winsvold BS](#), Faiz KW (2019)

Prestige of neurological disorders among future neurologists in Norway

Acta Neurol Scand, 139 (6), 555-558

DOI [10.1111/ane.13087](#), PubMed [30851195](#), WoS [000467435600010](#) Cristin [1793337](#) ([Details](#))





- Holmøy AKT, Johannessen CH, [Hope S](#), [van Walsem MR](#), Aanonsen NO, [Hassel B](#) (2019)
Uncovering health and social care needs among myotonic dystrophy patients: Utility of the Needs and Provisions Complexity Scale
Acta Neurol Scand, 139 (6), 526-532
DOI [10.1111/ane.13086](#), PubMed [30848487](#), WoS [000467435600006](#) Cristin [1702971](#) ([Details](#))
- [Soberg HL](#), Engebretsen KB, [Juel NG](#), [Roe Y](#), [Brox JI](#) (2019)
Associations between shoulder pain and functioning on the ICF checklist and the disabilities of the arm, shoulder, and hand scale - a cross-sectional study
Disabil Rehabil, 1-8 (in press)
DOI [10.1080/09638288.2019.1584252](#), PubMed [30907151](#) Cristin [1673516](#) ([Details](#))
- Hjelle EG, Bragstad LK, Zucknick M, Kirkevold M, [Thommessen B](#), [Sveen U](#) (2019)
The General Health Questionnaire-28 (GHQ-28) as an outcome measurement in a randomized controlled trial in a Norwegian stroke population
BMC Psychol, 7 (1), 18
DOI [10.1186/s40359-019-0293-0](#), PubMed [30902115](#) Cristin [1687207](#) ([Details](#))
- Barclay K, Carruthers R, Trabousee A, Bass AD, LaGanke C, Bertolotto A, Boster A, [Celius EG](#), de Seze J, Cruz DD, Habek M, Lee JM, Limmroth V, Meuth SG, Oreja-Guevara C, Pagnotta P, Vos C, Ziemssen T, Baker DP, Wijmeersch BV (2019)
Best Practices for Long-Term Monitoring and Follow-Up of Alemtuzumab-Treated MS Patients in Real-World Clinical Settings
Front Neurol, 10, 253
DOI [10.3389/fneur.2019.00253](#), PubMed [30967831](#), WoS [000462039000002](#) Cristin [1785024](#) ([Details](#))
- [Aas M](#), [Elvsåshagen T](#), [Westlye LT](#), [Kaufmann T](#), [Athanasiu L](#), [Djurovic S](#), [Melle I](#), van der Meer D, Martin-Ruiz C, [Steen NE](#), [Agartz I](#), [Andreassen OA](#) (2019)
Telomere length is associated with childhood trauma in patients with severe mental disorders
Transl Psychiatry, 9 (1), 97
DOI [10.1038/s41398-019-0432-7](#), PubMed [30898995](#), WoS [000462356000001](#) Cristin [1708597](#) ([Details](#))
- Ratajczak-Tretel B, Lambert AT, Johansen H, [Halvorsen B](#), [Bjerkeli V](#), [Russell D](#), [Sandset EC](#), [Ihle-Hansen H](#), [Eriksen E](#), [Næss H](#), [Novotny V](#), [Khanevski AN](#), [Truelsen TC](#), [Idicula T](#), [Ægidius KL](#), [Tobro H](#), [Krogseth SB](#), [Ihle-Hansen H](#), [Hagberg G](#), [Kruuse C](#), [Arntzen K](#), [Bakkejord GK](#), [Villseth M](#), [Nakstad I](#), [Eldøen G](#) et al. (2019)
Atrial fibrillation in cryptogenic stroke and transient ischaemic attack - The Nordic Atrial Fibrillation and Stroke (NOR-FIB) Study: Rationale and design
Eur Stroke J, 4 (2), 172-180
DOI [10.1177/2396987319837089](#), PubMed [31259265](#), WoS [000471763800009](#) Cristin [1690040](#) ([Details](#))
- Züchner M, Lervik A, Kondratskaya E, Bettembourg V, Zhang L, Haga HA, [Boulland JL](#) (2019)
Development of a Multimodal Apparatus to Generate Biomechanically Reproducible Spinal Cord Injuries in Large Animals
Front Neurol, 10, 223
DOI [10.3389/fneur.2019.00223](#), PubMed [30941086](#), WoS [000461706900001](#) Cristin [1784191](#) ([Details](#))





Grøvle L, Fjeld OR, Haugen AJ, Helgeland J, Småstuen MC, Solberg TK, Zwart JA, Grotle M (2019)
The Rates of LSS Surgery in Norwegian Public Hospitals: A Threefold Increase From 1999 to 2013
Spine (Phila Pa 1976), 44 (6), E372-E378
DOI [10.1097/BRS.0000000000002858](https://doi.org/10.1097/BRS.0000000000002858), PubMed [30234811](https://pubmed.ncbi.nlm.nih.gov/30234811/), WoS [000467740500007](https://www.scopus.com/search/form.do?prf=more&id=5000467740500007) Cristin [1663645](https://www.cristin.no/works/1663645) ([Details](#))

Bragstad LK, Bronken BA, Sveen U, Hjelle EG, Kitzmüller G, Martinsen R, Kvigne KJ, Mangset M, Kirkevold M (2019)
Implementation fidelity in a complex intervention promoting psychosocial well-being following stroke: an explanatory sequential mixed methods study
BMC Med Res Methodol, 19 (1), 59
DOI [10.1186/s12874-019-0694-z](https://doi.org/10.1186/s12874-019-0694-z), PubMed [30876403](https://pubmed.ncbi.nlm.nih.gov/30876403/), WoS [000461377700002](https://www.scopus.com/search/form.do?prf=more&id=5000461377700002) Cristin [1685276](https://www.cristin.no/works/1685276) ([Details](#))

Forslund MV, Perrin PB, Røe C, Sigurdardottir S, Hellstrøm T, Berntsen SA, Lu J, Arango-Lasprilla JC, Andelic N (2019)
Global Outcome Trajectories up to 10 Years After Moderate to Severe Traumatic Brain Injury
Front Neurol, 10, 219
DOI [10.3389/fneur.2019.00219](https://doi.org/10.3389/fneur.2019.00219), PubMed [30923511](https://pubmed.ncbi.nlm.nih.gov/30923511/), WoS [000461698400001](https://www.scopus.com/search/form.do?prf=more&id=5000461698400001) Cristin [1689081](https://www.cristin.no/works/1689081) ([Details](#))

Steen NE, Dieset I, Hope S, Vedal TSJ, Smeland OB, Matson W, Kaddurah-Daouk R, Agartz I, Melle I, Djurovic S, Jönsson EG, Bogdanov M, Andreassen OA (2019)
Metabolic dysfunctions in the kynurenine pathway, noradrenergic and purine metabolism in schizophrenia and bipolar disorders
Psychol Med, 50 (4), 595-606
DOI [10.1017/S0033291719000400](https://doi.org/10.1017/S0033291719000400), PubMed [30867076](https://pubmed.ncbi.nlm.nih.gov/30867076/), WoS [000529434200007](https://www.scopus.com/search/form.do?prf=more&id=5000529434200007) Cristin [1702367](https://www.cristin.no/works/1702367) ([Details](#))

Sætren SS, Sütterlin S, Lugo RG, Prince-Embury S, Makransky G (2019)
A Multilevel Investigation of Resiliency Scales for Children and Adolescents: The Relationships Between Self-Perceived Emotion Regulation, Vagally Mediated Heart Rate Variability, and Personal Factors Associated With Resilience
Front Psychol, 10, 438
DOI [10.3389/fpsyg.2019.00438](https://doi.org/10.3389/fpsyg.2019.00438), PubMed [30923506](https://pubmed.ncbi.nlm.nih.gov/30923506/), WoS [000461125800001](https://www.scopus.com/search/form.do?prf=more&id=5000461125800001) Cristin [1677262](https://www.cristin.no/works/1677262) ([Details](#))

Kitzmüller G, Mangset M, Evju AS, Angel S, Aadal L, Martinsen R, Bronken BA, Kvigne K, Bragstad LK, Hjelle EG, Sveen U, Kirkevold M (2019)
Finding the Way Forward: The Lived Experience of People With Stroke After Participation in a Complex Psychosocial Intervention
Qual Health Res, 29 (12), 1711-1724
DOI [10.1177/1049732319833366](https://doi.org/10.1177/1049732319833366), PubMed [30862270](https://pubmed.ncbi.nlm.nih.gov/30862270/), WoS [000484592700003](https://www.scopus.com/search/form.do?prf=more&id=5000484592700003) Cristin [1685278](https://www.cristin.no/works/1685278) ([Details](#))

Hagen K, Hopstock LA, Elise Eggen A, Mathiesen EB, Nilsen KB (2019)
Does insomnia modify the association between C-reactive protein and migraine? The Tromsø Study 2015-2016
Cephalalgia, 39 (8), 1022-1029
DOI [10.1177/0333102418825370](https://doi.org/10.1177/0333102418825370), PubMed [30862180](https://pubmed.ncbi.nlm.nih.gov/30862180/), WoS [000473198400009](https://www.scopus.com/search/form.do?prf=more&id=5000473198400009) Cristin [1685770](https://www.cristin.no/works/1685770) ([Details](#))

Corniola MV, Lemée JM, Da Broi M, Joswig H, Schaller K, Helseth E, Meling TR (2019)
Posterior fossa meningiomas: perioperative predictors of extent of resection, overall survival and progression-free survival
Acta Neurochir (Wien), 161 (5), 1003-1011
DOI [10.1007/s00701-019-03862-z](https://doi.org/10.1007/s00701-019-03862-z), PubMed [30859321](https://pubmed.ncbi.nlm.nih.gov/30859321/), WoS [000465840200023](https://www.scopus.com/search/form.do?prf=more&id=5000465840200023) Cristin [1707518](https://www.cristin.no/works/1707518) ([Details](#))





Bialer M, [Johannessen SI](#), Koepp MJ, Levy RH, Perucca E, Tomson T, White HS (2019)
A summary of data presented at the XIV conference on new antiepileptic drug and devices (EILAT XIV)
Epilepsy Res, 153, 66-67
DOI [10.1016/j.eplepsyres.2019.03.002](#), PubMed [30910314](#), WoS [000468014600010](#) ([Details](#))

[Hassel B](#), Rogne AG, [Hope S](#) (2019)
Intellectual Disability Associated With Pyridoxine-Responsive Epilepsies: The Need to Protect Cognitive Development
Front Psychiatry, 10, 116
DOI [10.3389/fpsy.2019.00116](#), PubMed [30930802](#), WoS [000460786200001](#) Cristin [1707056](#) ([Details](#))

Iqbal Z, [Toft M](#) (2019)
TMEM230 variants in Parkinson's disease
Nat Genet, 51 (3), 366
DOI [10.1038/s41588-019-0353-7](#), PubMed [30804555](#), WoS [000459947200002](#) ([Details](#))

van Essen TA, den Boogert HF, Cnossen MC, de Ruiter GCW, Haitsma I, Polinder S, Steyerberg EW, Menon D, Maas AIR, Lingsma HF, Peul WC, CENTER-TBI Investigators and Participants (2019)
Correction to: Variation in neurosurgical management of traumatic brain injury: a survey in 68 centers participating in the CENTER-TBI study
Acta Neurochir (Wien), 161 (3), 451-455
DOI [10.1007/s00701-019-03815-6](#), PubMed [30715604](#), WoS [000460607500003](#) ([Details](#))

Grove J, Ripke S, Als TD, Mattheisen M, Walters RK, Won H, Pallesen J, Agerbo E, [Andreassen OA](#), Anney R, Awashti S, Belliveau R, Bettella F, Buxbaum JD, Bybjerg-Grauholm J, Bækvad-Hansen M, Cerrato F, Chambert K, Christensen JH, Churchhouse C, Dellenvall K, Demontis D, De Rubeis S, Devlin B, [Djurovic S](#) et al. (2019)
Identification of common genetic risk variants for autism spectrum disorder
Nat Genet, 51 (3), 431-444
DOI [10.1038/s41588-019-0344-8](#), PubMed [30804558](#), WoS [000459947200012](#) Cristin [1727584](#) ([Details](#))

Richter S, Wagner B, [Celius EG](#) (2019)
Two cases of diabetes mellitus type 1 after alemtuzumab treatment for multiple sclerosis: another probable secondary autoimmune disease
J Neurol, 266 (5), 1270-1271
DOI [10.1007/s00415-019-09257-5](#), PubMed [30805797](#), WoS [000464833000026](#) ([Details](#))

Lane JM, Jones SE, Dashti HS, Wood AR, Aragam KG, van Hees VT, Strand LB, [Winsvold BS](#), Wang H, Bowden J, Song Y, Patel K, Anderson SG, Beaumont RN, Bechtold DA, Cade BE, Haas M, Kathiresan S, Little MA, Luik AI, Loudon AS, Purcell S, Richmond RC, Scheer FAJL, Schormair B et al. (2019)
Biological and clinical insights from genetics of insomnia symptoms
Nat Genet, 51 (3), 387-393
DOI [10.1038/s41588-019-0361-7](#), PubMed [30804566](#), WoS [000459947200008](#) Cristin [1693735](#) ([Details](#))

Berg L, Thoresen H, Neckelmann G, Furunes H, [Hellum C](#), Espeland A (2019)
Facet arthropathy evaluation: CT or MRI?
Eur Radiol, 29 (9), 4990-4998
DOI [10.1007/s00330-019-06047-5](#), PubMed [30796571](#), WoS [000478873300050](#) Cristin [1691713](#) ([Details](#))



Rosic B, Dukefoss DB, Åbjørsbråten KS, Tang W, [Jensen V](#), [Ottersen OP](#), Enger R, Nagelhus EA (2019)
Aquaporin-4-independent volume dynamics of astroglial endfeet during cortical spreading depression
Glia, 67 (6), 1113-1121
DOI [10.1002/glia.23604](#), PubMed [30791140](#), WoS [000465353800008](#) Cristin [1719797](#) ([Details](#))

Sabir MS, Blauwendraat C, Ahmed S, Serrano GE, Beach TG, Perkins M, Rice AC, Masliah E, Morris CM, [Pihlstrom L](#), Pantelyat A, Resnick SM, Cookson MR, Hernandez DG, Albert M, Dawson TM, Rosenthal LS, Houlden H, Pletnikova O, Troncoso J, Scholz SW (2019)
Assessment of APOE in atypical parkinsonism syndromes
Neurobiol Dis, 127, 142-146
DOI [10.1016/j.nbd.2019.02.016](#), PubMed [30798004](#), WoS [000472990100012](#) Cristin [1803438](#) ([Details](#))

Larsen Burns M, Kinge E, Stokke Opdal M, [Johannessen SI](#), [Johannessen Landmark C](#) (2019)
Therapeutic drug monitoring of gabapentin in various indications
Acta Neurol Scand, 139 (5), 446-454
DOI [10.1111/ane.13075](#), PubMed [30710348](#), WoS [000464338600006](#) Cristin [1685232](#) ([Details](#))

[Rødevand L](#), [Steen NE](#), [Elvsåshagen T](#), Quintana DS, [Reponen EJ](#), Mørch RH, Lunding SH, Vedal TSJ, [Dieset I](#), [Melle J](#), [Lagerberg TV](#), [Andreassen OA](#) (2019)
Cardiovascular risk remains high in schizophrenia with modest improvements in bipolar disorder during past decade
Acta Psychiatr Scand, 139 (4), 348-360
DOI [10.1111/acps.13008](#), PubMed [30697685](#), WoS [000461872400006](#) Cristin [1678394](#) ([Details](#))

[Skagen K](#), Hetlevik SO, Zamani M, Lilleby V, [Skjelland M](#) (2019)
Preclinical Carotid Atherosclerosis in Patients With Juvenile-Onset Mixed Connective Tissue Disease
J Stroke Cerebrovasc Dis, 28 (5), 1295-1301
DOI [10.1016/j.jstrokecerebrovasdis.2019.01.027](#), PubMed [30772156](#), WoS [000464378600025](#) Cristin [1681652](#) ([Details](#))

Mouthaan BE, Rados M, Boon P, Carrette E, Diehl B, Jung J, Kimiskidis V, Kobulashvili T, Kuchukhidze G, [Larsson PG](#), Leitinger M, Ryvlin P, Rugg-Gunn F, Seeck M, Vulliémoz S, Huiskamp G, Leijten FSS, Van Eijsden P, Trinka E, Braun KPJ, E-PILEPSY consortium (2019)
Diagnostic accuracy of interictal source imaging in presurgical epilepsy evaluation: A systematic review from the E-PILEPSY consortium
Clin Neurophysiol, 130 (5), 845-855
DOI [10.1016/j.clinph.2018.12.016](#), PubMed [30824202](#), WoS [000463537100026](#) Cristin [1711935](#) ([Details](#))

[Lundar T](#), [Due-Tønnessen BJ](#), [Frič R](#), [Krossnes B](#), [Brandal P](#), [Stensvold E](#), [Due-Tønnessen P](#) (2019)
Neurosurgical treatment of pediatric pleomorphic xanthoastrocytomas: long-term follow-up of a single-institution, consecutive series of 12 patients
J Neurosurg Pediatr, 23 (4), 512-516
DOI [10.3171/2018.11.PEDS18449](#), PubMed [30738389](#), WoS [000462877000015](#) Cristin [1716419](#) ([Details](#))

Stenshorne I, [Rasmussen M](#), Salvanos P, Tallaksen CME, Bindoff LA, [Koht J](#) (2019)
Fever-related ataxia: a case report of CAPOS syndrome
Cerebellum Ataxias, 6, 2
DOI [10.1186/s40673-019-0096-3](#), PubMed [31410291](#) Cristin [1802770](#) ([Details](#))





Hagberg G, [Fure B](#), [Sandset EC](#), [Thommessen B](#), Ihle-Hansen H, [Øksengård AR](#), [Nygård S](#), [Wyller TB](#), [Ihle-Hansen H](#) (2019)

Long-term effects on survival after a 1-year multifactorial vascular risk factor intervention after stroke or TIA: secondary analysis of a randomized controlled trial, a 7-year follow-up study

Vasc Health Risk Manag, 15, 11-18

DOI [10.2147/VHRM.S191873](#), PubMed [30799926](#), WoS [000459532100001](#) Cristin [1702240](#) ([Details](#))

[Sandset EC](#), Fischer U (2019)

Blood pressure lowering in acute ischaemic stroke thrombolysis

Lancet, 393 (10174), 849-850

DOI [10.1016/S0140-6736\(19\)30196-5](#), PubMed [30739748](#), WoS [000460126900004](#) ([Details](#))

Vandvik PO, Lähdeoja T, Ardern C, Buchbinder R, Moro J, [Brox JI](#), Burgers J, Hao Q, Karjalainen T, van den Bekerom M, Noorduy J, Lytvyn L, Siemieniuk RAC, Albin A, Shunjie SC, Fisch F, Proulx L, Guyatt G, Agoritsas T, Poolman RW (2019)

Subacromial decompression surgery for adults with shoulder pain: a clinical practice guideline

BMJ, 364, l294

DOI [10.1136/bmj.l294](#), PubMed [30728120](#), WoS [000458616700006](#) Cristin [1696756](#) ([Details](#))

Latysheva A, [Emblem KE](#), [Brandal P](#), [Vik-Mo EO](#), [Pahnke J](#), Røysland K, [Hald JK](#), [Server A](#) (2019)

Dynamic susceptibility contrast and diffusion MR imaging identify oligodendroglioma as defined by the 2016 WHO classification for brain tumors: histogram analysis approach

Neuroradiology, 61 (5), 545-555

DOI [10.1007/s00234-019-02173-5](#), PubMed [30712139](#), WoS [000467711400005](#) Cristin [1705298](#) ([Details](#))

[Børte S](#), [Zwart JA](#), [Stensland SØ](#), Hagen K, [Winsvold BS](#) (2019)

Parental migraine in relation to migraine in offspring: Family linkage analyses from the HUNT Study

Cephalalgia, 39 (7), 854-862

DOI [10.1177/0333102419828989](#), PubMed [30714392](#), WoS [000470849400005](#) Cristin [1698914](#) ([Details](#))

Rønning OM, Logallo N, [Thommessen B](#), Tobro H, Novotny V, Kvistad CE, [Aamodt AH](#), Næss H, Waje-Andreassen U, Thomassen L (2019)

Tenecteplase Versus Alteplase Between 3 and 4.5 Hours in Low National Institutes of Health Stroke Scale Stroke, 50 (2), 498-500

DOI [10.1161/STROKEAHA.118.024223](#), PubMed [30602354](#), WoS [000469346800046](#) Cristin [1693279](#) ([Details](#))

Vervoort T, Karos K, Johnson D, [Sütterlin S](#), Van Ryckeghem D (2019)

Parental emotion and pain control behaviour when faced with child's pain: the emotion regulatory role of parental pain-related attention-set shifting and heart rate variability

Pain, 160 (2), 322-333

DOI [10.1097/j.pain.0000000000001402](#), PubMed [30247182](#), WoS [000462394100006](#) Cristin [1612904](#) ([Details](#))

Mäki-Marttunen T, Krull F, Bettella F, Hagen E, Næss S, Ness TV, [Moberget T](#), [Elvsåshagen T](#), Metzner C, Devor A, Edwards AG, Fyhn M, [Djurovic S](#), Dale AM, [Andreassen OA](#), Einevoll GT (2019)

Alterations in Schizophrenia-Associated Genes Can Lead to Increased Power in Delta Oscillations Cereb Cortex, 29 (2), 875-891

DOI [10.1093/cercor/bhy291](#), PubMed [30475994](#), WoS [000459544100032](#) Cristin [1696402](#) ([Details](#))





Almekhlafi MA, Kunz WG, Menon BK, McTaggart RA, Jayaraman MV, Baxter BW, Heck D, Frei D, Derdeyn CP, Takagi T, [Aamodt AH](#), Fragata IMR, Hill MD, Demchuk AM, Goyal M (2019)
Imaging of Patients with Suspected Large-Vessel Occlusion at Primary Stroke Centers: Available Modalities and a Suggested Approach

AJNR Am J Neuroradiol, 40 (3), 396-400

DOI [10.3174/ajnr.A5971](#), PubMed [30705072](#), WoS [000461201600007](#) Cristin [1704448](#) ([Details](#))

[Systad S](#), [Bjørnvold M](#), [Sørensen C](#), [Lyster SH](#) (2019)

The Value of Electroencephalogram in Assessing Children With Speech and Language Impairments

J Speech Lang Hear Res, 62 (1), 153-168

DOI [10.1044/2018_JSLHR-L-17-0087](#), PubMed [30950754](#), WoS [000458482300011](#) Cristin [1706553](#) ([Details](#))

Zahl SM, [Egge A](#), [Helseth E](#), [Wester K](#) (2019)

Clinical, Radiological, and Demographic Details of Benign External Hydrocephalus: A Population-Based Study

Pediatr Neurol, 96, 53-57

DOI [10.1016/j.pediatrneurol.2019.01.015](#), PubMed [30808532](#), WoS [000472985200009](#) Cristin [1713316](#) ([Details](#))

[Stray-Pedersen A](#), [Moller C](#), [de Lange C](#), [Myhre AK](#), [Rognum TO](#), [Due-Tonnessen BJ](#), [Groggaard JB](#), [Haugen](#)

[OH](#), [Hikmat O](#), [Mahesparan R](#), [Muller LSO](#), [Myhre MC](#), [Nedregaard B](#), [Nordhov SM](#), [Rosendahl K](#), [Sorbo T](#), [Vollmer-](#)

[Sandholm MJ](#), [Aukland SM](#) (2019)

The doctors' role in cases of suspected child abuse

Tidsskr. Nor. Laegeforen., 139 (2), 126-128

WoS [000457265900012](#) ([Details](#))

Vohra R, [Dalgaard LM](#), [Vibaek J](#), [Langbøl MA](#), [Bergersen LH](#), [Olsen NV](#), [Hassel B](#), [Chaudhry FA](#), [Kolko M](#) (2019)

Potential metabolic markers in glaucoma and their regulation in response to hypoxia

Acta Ophthalmol, 97 (6), 567-576

DOI [10.1111/aos.14021](#), PubMed [30690927](#), WoS [000480256800003](#) Cristin [1697432](#) ([Details](#))

[Brox JI](#) (2019)

The Fear Avoidance Beliefs Questionnaire - the FABQ - for the benefit of another 70 million potential pain patients

Scand J Pain, 19 (1), 1-2

DOI [10.1515/sjpain-2018-2005](#), PubMed [30864386](#), WoS [000455520700001](#) ([Details](#))

[Mørch RH](#), [Dieset I](#), [Færden A](#), [Reponen EJ](#), [Hope S](#), [Hoseth EZ](#), [Gardsjord ES](#), [Aas M](#), [Iversen T](#), [Joa I](#), [Morken](#)

[G](#), [Agartz I](#), [Melle I](#), [Aukrust P](#), [Djurovic S](#), [Ueland T](#), [Andreassen OA](#) (2019)

Inflammatory markers are altered in severe mental disorders independent of comorbid cardiometabolic disease risk factors

Psychol Med, 49 (10), 1749-1757

DOI [10.1017/S0033291718004142](#), PubMed [30688187](#), WoS [000474727300018](#) Cristin [1692852](#) ([Details](#))

[Meling TR](#), [Da Broi M](#), [Scheie D](#), [Helseth E](#), [Smoll NR](#) (2019)

Meningioma Surgery-Are We Making Progress?

World Neurosurg, 125, e205-e213

DOI [10.1016/j.wneu.2019.01.042](#), PubMed [30684722](#), WoS [000466491700027](#) Cristin [1711865](#) ([Details](#))





Bandres-Ciga S, Saez-Atienzar S, Bonet-Ponce L, Billingsley K, Vitale D, Blauwendraat C, Gibbs JR, Pihlstrøm L, Gan-Or Z, International Parkinson's Disease Genomics Consortium (IPDGC), Cookson MR, Nalls MA, Singleton AB (2019)

The endocytic membrane trafficking pathway plays a major role in the risk of Parkinson's disease
Mov Disord, 34 (4), 460-468
DOI [10.1002/mds.27614](https://doi.org/10.1002/mds.27614), PubMed [30675927](https://pubmed.ncbi.nlm.nih.gov/30675927/), WoS [000465047800005](https://www.scopus.com/search/form.do?prerelated=true&query=000465047800005) Cristin [1800170](https://www.cristin.no/1800170) ([Details](#))

Hermansen E, [Myklebust TÅ](#), Austevoll IM, Rekeland F, Solberg T, [Storheim K](#), [Grundnes O](#), Aaen J, [Brox JI](#), [Hellum C](#), Indrekvam K (2019)

Clinical outcome after surgery for lumbar spinal stenosis in patients with insignificant lower extremity pain. A prospective cohort study from the Norwegian registry for spine surgery
BMC Musculoskelet Disord, 20 (1), 36
DOI [10.1186/s12891-019-2407-5](https://doi.org/10.1186/s12891-019-2407-5), PubMed [30669998](https://pubmed.ncbi.nlm.nih.gov/30669998/), WoS [000456402900003](https://www.scopus.com/search/form.do?prerelated=true&query=000456402900003) Cristin [1669746](https://www.cristin.no/1669746) ([Details](#))

[Quist-Paulsen E](#), [Kran AB](#), [Lindland ES](#), Ellefsen K, [Sandvik L](#), Dunlop O, [Ormaasen V](#) (2019)

To what extent can clinical characteristics be used to distinguish encephalitis from encephalopathy of other causes? Results from a prospective observational study
BMC Infect Dis, 19 (1), 80
DOI [10.1186/s12879-018-3570-2](https://doi.org/10.1186/s12879-018-3570-2), PubMed [30669985](https://pubmed.ncbi.nlm.nih.gov/30669985/), WoS [000456398300003](https://www.scopus.com/search/form.do?prerelated=true&query=000456398300003) Cristin [1697037](https://www.cristin.no/1697037) ([Details](#))

Austevoll IM, Gjestad R, [Grotle M](#), Solberg T, [Brox JI](#), Hermansen E, Rekeland F, Indrekvam K, [Storheim K](#), [Hellum C](#) (2019)

Follow-up score, change score or percentage change score for determining clinical important outcome following surgery? An observational study from the Norwegian registry for Spine surgery evaluating patient reported outcome measures in lumbar spinal stenosis and lumbar degenerative spondylolisthesis
BMC Musculoskelet Disord, 20 (1), 31
DOI [10.1186/s12891-018-2386-y](https://doi.org/10.1186/s12891-018-2386-y), PubMed [30658613](https://pubmed.ncbi.nlm.nih.gov/30658613/), WoS [000456162700004](https://www.scopus.com/search/form.do?prerelated=true&query=000456162700004) Cristin [1693764](https://www.cristin.no/1693764) ([Details](#))

Liu M, Jiang Y, Wedow R, Li Y, Brazel DM, Chen F, Datta G, Davila-Velderrain J, McGuire D, Tian C, Zhan X, 23andMe Research Team, HUNT All-In Psychiatry, Choquet H, Docherty AR, Faul JD, Foerster JR, Fritsche LG, Gabrielsen ME, Gordon SD, Haessler J, Hottenga JJ, Huang H, Jang SK, Jansen PR et al. (2019)

Association studies of up to 1.2 million individuals yield new insights into the genetic etiology of tobacco and alcohol use
Nat Genet, 51 (2), 237-244
DOI [10.1038/s41588-018-0307-5](https://doi.org/10.1038/s41588-018-0307-5), PubMed [30643251](https://pubmed.ncbi.nlm.nih.gov/30643251/), WoS [000457314300010](https://www.scopus.com/search/form.do?prerelated=true&query=000457314300010) Cristin [1694237](https://www.cristin.no/1694237) ([Details](#))

Plans D, Morelli D, [Sütterlin S](#), Ollis L, Derbyshire G, Cropley M (2019)

Use of a Biofeedback Breathing App to Augment Poststress Physiological Recovery: Randomized Pilot Study
JMIR Form Res, 3 (1), e12227
DOI [10.2196/12227](https://doi.org/10.2196/12227), PubMed [30684437](https://pubmed.ncbi.nlm.nih.gov/30684437/) Cristin [1660658](https://www.cristin.no/1660658) ([Details](#))

[Tschamper MK](#), Jakobsen R (2019)

Parents' experiences of videoconference as a tool for multidisciplinary information exchange for children with epilepsy and disability
J Clin Nurs, 28 (9-10), 1506-1516
DOI [10.1111/jocn.14755](https://doi.org/10.1111/jocn.14755), PubMed [30589952](https://pubmed.ncbi.nlm.nih.gov/30589952/), WoS [000468589500012](https://www.scopus.com/search/form.do?prerelated=true&query=000468589500012) Cristin [1649691](https://www.cristin.no/1649691) ([Details](#))





- Arntzen C, Sveen U, Hagby C, Bonsaksen T, Dolva AS, Horghagen S (2019)
Community-based occupational therapy in Norway: Content, dilemmas, and priorities
Scand J Occup Ther, 26 (5), 371-381
DOI [10.1080/11038128.2018.1548647](https://doi.org/10.1080/11038128.2018.1548647), PubMed [30632858](https://pubmed.ncbi.nlm.nih.gov/30632858/), WoS [000466406200005](https://www.scopus.com/search/form.do?prerender=true&query=000466406200005) Cristin [1655985](https://www.cristin.no/1655985) ([Details](#))
- Eikeseth FF, Denninghaus S, Cropley M, Witthöft M, Pawelzik M, Sütterlin S (2019)
The cortisol awakening response at admission to hospital predicts depression severity after discharge in MDD patients
J Psychiatr Res, 111, 44-50
DOI [10.1016/j.jpsychires.2019.01.002](https://doi.org/10.1016/j.jpsychires.2019.01.002), PubMed [30669031](https://pubmed.ncbi.nlm.nih.gov/30669031/), WoS [000466252700007](https://www.scopus.com/search/form.do?prerender=true&query=000466252700007) Cristin [1653180](https://www.cristin.no/1653180) ([Details](#))
- Jansen IE, Savage JE, Watanabe K, Bryois J, Williams DM, Steinberg S, Sealock J, Karlsson IK, Hägg S, Athanasiu L, Voyle N, Proitsi P, Witoelar A, Stringer S, Aarsland D, Almdahl IS, Andersen F, Bergh S, Bettella F, Bjornsson S, Brækhus A, Bråthen G, de Leeuw C, Desikan RS, Djurovic S et al. (2019)
Genome-wide meta-analysis identifies new loci and functional pathways influencing Alzheimer's disease risk
Nat Genet, 51 (3), 404-413
DOI [10.1038/s41588-018-0311-9](https://doi.org/10.1038/s41588-018-0311-9), PubMed [30617256](https://pubmed.ncbi.nlm.nih.gov/30617256/), WoS [000459947200010](https://www.scopus.com/search/form.do?prerender=true&query=000459947200010) Cristin [1656853](https://www.cristin.no/1656853) ([Details](#))
- [Bøen E](#), [Hjørnevik T](#), [Hummelen B](#), [Elvsåshagen T](#), [Moberget T](#), Holtedahl JE, Babovic A, [Hol PK](#), [Karterud S](#), [Malt UF](#) (2019)
Patterns of altered regional brain glucose metabolism in borderline personality disorder and bipolar II disorder
Acta Psychiatr Scand, 139 (3), 256-268
DOI [10.1111/acps.12997](https://doi.org/10.1111/acps.12997), PubMed [30552759](https://pubmed.ncbi.nlm.nih.gov/30552759/), WoS [000459809400006](https://www.scopus.com/search/form.do?prerender=true&query=000459809400006) Cristin [1644584](https://www.cristin.no/1644584) ([Details](#))
- Austevoll IM, Hermansen E, Fagerland M, Rekeland F, Solberg T, [Storheim K](#), [Brox JI](#), Lønne G, Indrekvam K, Aaen J, [Grundnes O](#), [Hellum C](#) (2019)
Decompression alone versus decompression with instrumental fusion the NORDSTEN degenerative spondylolisthesis trial (NORDSTEN-DS); study protocol for a randomized controlled trial
BMC Musculoskelet Disord, 20 (1), 7
DOI [10.1186/s12891-018-2384-0](https://doi.org/10.1186/s12891-018-2384-0), PubMed [30611229](https://pubmed.ncbi.nlm.nih.gov/30611229/), WoS [000454957500007](https://www.scopus.com/search/form.do?prerender=true&query=000454957500007) Cristin [1665300](https://www.cristin.no/1665300) ([Details](#))
- Iqbal Z, Tawamie H, Ba W, Reis A, Halak BA, Sticht H, Uebe S, Kasri NN, Riazuddin S, van Bokhoven H, Abou Jamra R (2019)
Loss of function of SVBP leads to autosomal recessive intellectual disability, microcephaly, ataxia, and hypotonia
Genet Med, 21 (8), 1790-1796
DOI [10.1038/s41436-018-0415-8](https://doi.org/10.1038/s41436-018-0415-8), PubMed [30607023](https://pubmed.ncbi.nlm.nih.gov/30607023/), WoS [000478784800018](https://www.scopus.com/search/form.do?prerender=true&query=000478784800018) Cristin [1800359](https://www.cristin.no/1800359) ([Details](#))
- Skodvin TØ, Evju Ø, [Sorteberg A](#), Isaksen JG (2019)
Prerupture Intracranial Aneurysm Morphology in Predicting Risk of Rupture: A Matched Case-Control Study
Neurosurgery, 84 (1), 132-140
DOI [10.1093/neuros/nyy010](https://doi.org/10.1093/neuros/nyy010), PubMed [29529238](https://pubmed.ncbi.nlm.nih.gov/29529238/), WoS [000462588300067](https://www.scopus.com/search/form.do?prerender=true&query=000462588300067) Cristin [1618590](https://www.cristin.no/1618590) ([Details](#))
- Syvertsen M, Selmer K, Enger U, [Nakken KO](#), Pal DK, Smith A, [Koht J](#) (2019)
Psychosocial complications in juvenile myoclonic epilepsy
Epilepsy Behav, 90, 122-128
DOI [10.1016/j.yebeh.2018.11.022](https://doi.org/10.1016/j.yebeh.2018.11.022), PubMed [30530133](https://pubmed.ncbi.nlm.nih.gov/30530133/), WoS [000456722900022](https://www.scopus.com/search/form.do?prerender=true&query=000456722900022) Cristin [1697099](https://www.cristin.no/1697099) ([Details](#))





- Gormley M, Devanaboyina M, [Andelic N](#), [Røe C](#), Seel RT, Lu J (2019)
Long-term employment outcomes following moderate to severe traumatic brain injury: a systematic review and meta-analysis
Brain Inj, 33 (13-14), 1567-1580
DOI [10.1080/02699052.2019.1658222](#), PubMed [31454278](#), WoS [000484045400001](#) Cristin [1719285](#) ([Details](#))
- Schwartz AE, [van Walsem MR](#), Brean A, [Frich JC](#) (2019)
Therapeutic Use of Music, Dance, and Rhythmic Auditory Cueing for Patients with Huntington's Disease: A Systematic Review
J Huntingtons Dis, 8 (4), 393-420
DOI [10.3233/JHD-190370](#), PubMed [31450508](#), WoS [000492839900002](#) Cristin [1713565](#) ([Details](#))
- Annexstad EJ, [Bollerslev J](#), [Westvik J](#), [Myhre AG](#), [Godang K](#), Holm I, Rasmussen M (2019)
The role of delayed bone age in the evaluation of stature and bone health in glucocorticoid treated patients with Duchenne muscular dystrophy
Int J Pediatr Endocrinol, 2019, 4
DOI [10.1186/s13633-019-0070-0](#), PubMed [31889957](#), WoS [000503821100001](#) ([Details](#))
- [Jusufovic M](#), [Skagen K](#), [Krohg-Sørensen K](#), [Skjelland M](#) (2019)
Current Medical and Surgical Stroke Prevention Therapies for Patients with Carotid Artery Stenosis
Curr Neurovasc Res, 16 (1), 96-103
DOI [10.2174/1567202616666190131162811](#), PubMed [30706783](#), WoS [000467745900012](#) Cristin [1681659](#) ([Details](#))
- Weisser KH, [Diseth TH](#), [Boye B](#), [Faerden A](#), [Ekeberg Ø](#) (2019)
Examining the organization and quality of the psychiatric consultative service in Norway
Nord J Psychiatry, 73 (1), 9-15
DOI [10.1080/08039488.2018.1525426](#), PubMed [30661436](#), WoS [000466445300002](#) Cristin [1682325](#) ([Details](#))
- Raanaas RK, [Lund A](#), [Sveen U](#), Asbjørnslett M (2019)
Re-creating self-identity and meaning through occupations during expected and unexpected transitions in life
J. Occup. Sci., 26 (2), 211-218
DOI [10.1080/14427591.2019.1592011](#), WoS [000482560100009](#) Cristin [1704841](#) ([Details](#))
- Wang X, Song L, Yang J, Sun L, Moullaali TJ, [Sandset EC](#), Delcourt C, Lindley RI, Robinson TG, Minhas JS, Arima H, Chalmers J, Kim JS, Sharma V, Wang JG, Pontes-Neto O, Lavados PM, Olavarría VV, Lee TH, Levi C, Martins SO, Thang NH, Anderson CS, on behalf of the ENCHANTED Investigators (2019)
Interaction of Blood Pressure Lowering and Alteplase Dose in Acute Ischemic Stroke: Results of the Enhanced Control of Hypertension and Thrombolysis Stroke Study
Cerebrovasc Dis, 48 (3-6), 207-216
DOI [10.1159/000504745](#), PubMed [31812956](#), WoS [000522854100015](#) Cristin [1803807](#) ([Details](#))
- Brumpton BM, Fritsche LG, Zheng J, Nielsen JB, Mannila M, Surakka I, Rasheed H, Vie GÅ, Graham SE, Gabrielsen ME, Laugsand LE, [Aukrust P](#), Vatten LJ, [Damås JK](#), [Ueland T](#), Janszky I, [Zwart JA](#), Van't Hooft FM, Seidah NG, Hveem K, Willer C, Smith GD, Åsvold BO, INVENT Consortium (2019)
Variation in Serum PCSK9 (Proprotein Convertase Subtilisin/Kexin Type 9), Cardiovascular Disease Risk, and an Investigation of Potential Unanticipated Effects of PCSK9 Inhibition
Circ Genom Precis Med, 12 (1), e002335
DOI [10.1161/CIRCGEN.118.002335](#), PubMed [30645169](#), WoS [000459481200006](#) Cristin [1694350](#) ([Details](#))





Publication list Sunnaas Rehabilitation Hospital 2019

Moore JL, Nordvik JE, Erichsen A, Rosseland I, Bø E, Hornby TG, FIRST-Oslo Team (2019)
Implementation of High-Intensity Stepping Training During Inpatient Stroke Rehabilitation Improves Functional Outcomes

Stroke, 51 (2), 563-570

DOI [10.1161/STROKEAHA.119.027450](https://doi.org/10.1161/STROKEAHA.119.027450), PubMed [31884902](https://pubmed.ncbi.nlm.nih.gov/31884902/), WoS [000527003000052](https://www.scopus.com/search/form.do?prf=full&query=000527003000052) Cristin [1780669](https://www.cristin.no/1780669) ([Details](#))

Bonsaksen T, [Ekeberg Ø](#), [Skogstad L](#), Heir T, [Grimholt TK](#), [Lerdal A](#), [Schou-Bredal I](#) (2019)

Self-rated global health in the Norwegian general population

Health Qual Life Outcomes, 17 (1), 188

DOI [10.1186/s12955-019-1258-y](https://doi.org/10.1186/s12955-019-1258-y), PubMed [31870385](https://pubmed.ncbi.nlm.nih.gov/31870385/), WoS [000513554200002](https://www.scopus.com/search/form.do?prf=full&query=000513554200002) Cristin [1758464](https://www.cristin.no/1758464) ([Details](#))

Piira A, Lannem AM, [Gjesdal K](#), Knutsen R, Jørgensen L, Glott T, Hjeltnes N, Knutsen SF, Sørensen M (2019)

Quality of life and psychological outcomes of body-weight supported locomotor training in spinal cord injured persons with long-standing incomplete lesions

Spinal Cord, 58 (5), 560-569

DOI [10.1038/s41393-019-0401-2](https://doi.org/10.1038/s41393-019-0401-2), PubMed [31848443](https://pubmed.ncbi.nlm.nih.gov/31848443/) Cristin [1771309](https://www.cristin.no/1771309) ([Details](#))

Velvin G, Johansen H, Vardeberg K, Sjøgren Fugl-Meyer K, Wilhelmsen JE, Lidal I (2019)

Physical exercise for people with hereditary thoracic aortic disease. A study of patient perspectives
Disabil Rehabil

DOI [10.1080/09638288.2019.1703145](https://doi.org/10.1080/09638288.2019.1703145), PubMed [31847606](https://pubmed.ncbi.nlm.nih.gov/31847606/), WoS [000503516300001](https://www.scopus.com/search/form.do?prf=full&query=000503516300001) ([Details](#))

Festvåg LV, Stanghelle JK, Gilhus NE, Rike PO, Schanke AK (2019)

Polio and post-polio syndrome in non-Western immigrants: A new challenge for the healthcare system in Norway
J Rehabil Med, 51 (11), 861-868

DOI [10.2340/16501977-2624](https://doi.org/10.2340/16501977-2624), PubMed [31690950](https://pubmed.ncbi.nlm.nih.gov/31690950/), WoS [000502072600008](https://www.scopus.com/search/form.do?prf=full&query=000502072600008) ([Details](#))

Thomassen GK, Jørgensen V, Normann B (2019)

"Back at the same level as everyone else"-user perspectives on walking with an exoskeleton, a qualitative study
Spinal Cord Ser Cases, 5, 103

DOI [10.1038/s41394-019-0243-3](https://doi.org/10.1038/s41394-019-0243-3), PubMed [31871768](https://pubmed.ncbi.nlm.nih.gov/31871768/) ([Details](#))

Vanem TT, Böker T, Sandvik GF, [Kirkhus E](#), [Smith HJ](#), [Andersen K](#), [Drolsum L](#), [Lundby R](#), [Røe C](#), [Krohg-Sørensen K](#), [Geiran OR](#), [Paus B](#), Rand-Hendriksen S (2019)

Marfan syndrome: Evolving organ manifestations-A 10-year follow-up study

Am J Med Genet A, 182 (2), 397-408

DOI [10.1002/ajmg.a.61441](https://doi.org/10.1002/ajmg.a.61441), PubMed [31825148](https://pubmed.ncbi.nlm.nih.gov/31825148/), WoS [000501901500001](https://www.scopus.com/search/form.do?prf=full&query=000501901500001) Cristin [1788033](https://www.cristin.no/1788033) ([Details](#))

Rivelsrud MC, Kirmess M, Hartelius L (2019)

Cultural adaptation and validation of the Norwegian version of the swallowing quality of life questionnaire (SWAL-QOL)

Health Qual Life Outcomes, 17 (1), 179

DOI [10.1186/s12955-019-1248-0](https://doi.org/10.1186/s12955-019-1248-0), PubMed [31805954](https://pubmed.ncbi.nlm.nih.gov/31805954/), WoS [000513550400001](https://www.scopus.com/search/form.do?prf=full&query=000513550400001) ([Details](#))



Johansen T, Strøm V, Simic J, Rike PO (2019)

Effectiveness of training with motion-controlled commercial video games on hand and arm function in young people with cerebral palsy: A systematic review and meta-analysis

J Rehabil Med, 52 (1), UNSP jrm00012

DOI [10.2340/16501977-2633](https://doi.org/10.2340/16501977-2633), PubMed [31794044](https://pubmed.ncbi.nlm.nih.gov/31794044/), WoS [000512989800010](https://www.scopus.com/search/form.do?prerender=true&query=000512989800010) ([Details](#))

von Kodolitsch Y, Demolder A, Girdauskas E, Kaemmerer H, Kornhuber K, Muino Mosquera L, Morris S, Neptune E, Pyeritz R, Rand-Hendriksen S, Rahman A, Riise N, Robert L, Staufenbiel I, Szöcs K, Vanem TT, Linke SJ, Vogler M, Yetman A, De Backer J (2019)

Features of Marfan syndrome not listed in the Ghent nosology - the dark side of the disease

Expert Rev Cardiovasc Ther, 17 (12), 883-915

DOI [10.1080/14779072.2019.1704625](https://doi.org/10.1080/14779072.2019.1704625), PubMed [31829751](https://pubmed.ncbi.nlm.nih.gov/31829751/), WoS [000506625700005](https://www.scopus.com/search/form.do?prerender=true&query=000506625700005) Crislin [1782301](https://www.cristin.no/urn:nbn:no:ctin:1782301) ([Details](#))

Johansson H, Franzén E, Skavberg Roaldsen K, Hagströmer M, Leavy B (2019)

Controlling the Uncontrollable: Perceptions of Balance in People With Parkinson Disease

Phys Ther, 99 (11), 1501-1510

DOI [10.1093/ptj/pzz117](https://doi.org/10.1093/ptj/pzz117), PubMed [31504953](https://pubmed.ncbi.nlm.nih.gov/31504953/), WoS [000507619300008](https://www.scopus.com/search/form.do?prerender=true&query=000507619300008) ([Details](#))

Skavberg Roaldsen K, Halvarsson A (2019)

Reliability of the Swedish version of the Evidence-Based Practice Attitude Scale assessing physiotherapist's attitudes to implementation of evidence-based practice

PLoS One, 14 (11), e0225467

DOI [10.1371/journal.pone.0225467](https://doi.org/10.1371/journal.pone.0225467), PubMed [31765410](https://pubmed.ncbi.nlm.nih.gov/31765410/) ([Details](#))

Johansen H, Velvin G, Lidal I (2019)

Adults with Loey's-Dietz syndrome and vascular Ehlers-Danlos syndrome: A cross-sectional study of health burden perspectives

Am J Med Genet A, 182 (1), 137-145

DOI [10.1002/ajmg.a.61396](https://doi.org/10.1002/ajmg.a.61396), PubMed [31692252](https://pubmed.ncbi.nlm.nih.gov/31692252/), WoS [000494527300001](https://www.scopus.com/search/form.do?prerender=true&query=000494527300001) ([Details](#))

[Andelic N](#), Løvstad M, Norup A, Ponsford J, [Røe C](#) (2019)

Editorial: Impact of Traumatic Brain Injuries on Participation in Daily Life and Work: Recent Research and Future Directions

Front Neurol, 10, 1153

DOI [10.3389/fneur.2019.01153](https://doi.org/10.3389/fneur.2019.01153), PubMed [31736861](https://pubmed.ncbi.nlm.nih.gov/31736861/) ([Details](#))

Hwang M, Augutis M, Sadowsky C, Höfers W, Vogel LC, Post M, Charlifue S, New PW, Fisher R, Carney J, Dent K, Mulcahey MJ (2019)

The International Spinal Cord Injury Pediatric Activity and Participation Basic Data Set

Spinal Cord Ser Cases, 5, 91

DOI [10.1038/s41394-019-0230-8](https://doi.org/10.1038/s41394-019-0230-8), PubMed [31700689](https://pubmed.ncbi.nlm.nih.gov/31700689/) ([Details](#))

Anke A, [Røe C](#), [Sigurdardottir S](#), Norup A, [Soberg HL](#), Arango-Lasprilla JC, Manskow US (2019)

Family needs at one and two years after severe traumatic brain injury: a prospective study of changes and predictors

Brain Inj, 34 (1), 89-97

DOI [10.1080/02699052.2019.1682191](https://doi.org/10.1080/02699052.2019.1682191), PubMed [31647690](https://pubmed.ncbi.nlm.nih.gov/31647690/), WoS [000492316900001](https://www.scopus.com/search/form.do?prerender=true&query=000492316900001) Crislin [1779266](https://www.cristin.no/urn:nbn:no:ctin:1779266) ([Details](#))





Worum H, Lillekroken D, Ahlsen B, Roaldsen KS, [Bergland A](#) (2019)
Bridging the gap between research-based knowledge and clinical practice: a qualitative examination of patients and physiotherapists' views on the Otago exercise Programme
BMC Geriatr, 19 (1), 278
DOI [10.1186/s12877-019-1309-6](#), PubMed [31638912](#), WoS [000491310400004](#) ([Details](#))

Carney J, Fisher R, Augutis M, Charlifue S, Biering-Sørensen F, Höfers W, Hwang M, Wayne New P, Post M, Sadowsky C, Vogel L, Augustine L, Dent K, Mulcahey MJ (2019)
Development of the International Spinal Cord Injury/Dysfunction Education Basic Data Set
Spinal Cord Ser Cases, 5, 87
DOI [10.1038/s41394-019-0229-1](#), PubMed [31700685](#) ([Details](#))

Nyberg CK, Fjell AM, Walhovd KB (2019)
Level of body fat relates to memory decline and interacts with age in its association with hippocampal and subcortical atrophy
Neurobiol Aging, 91, 112-124
DOI [10.1016/j.neurobiolaging.2019.10.005](#), PubMed [32224068](#) ([Details](#))

[Hhle-Hansen H](#), Langhammer B, Lydersen S, Gunnes M, Indredavik B, Askim T (2019)
A physical activity intervention to prevent cognitive decline after stroke: Secondary results from the Life After STroke study, an 18-month randomized controlled trial
J Rehabil Med, 51 (9), 646-651
DOI [10.2340/16501977-2588](#), PubMed [31440765](#), WoS [000487810500002](#) Cristin [1726996](#) ([Details](#))

Messel MS, Raud L, Hoff PK, Skaftnes CS, Huster RJ (2019)
Strategy switches in proactive inhibitory control and their association with task-general and stopping-specific networks
Neuropsychologia, 135, 107220
DOI [10.1016/j.neuropsychologia.2019.107220](#), PubMed [31586553](#), WoS [000502334900013](#) ([Details](#))

Sønsterud H, Feragen KB, Kirmess M, [Halvorsen MS](#), Ward D (2019)
What do people search for in stuttering therapy: Personal goal-setting as a gold standard?
J Commun Disord, 105944 (in press)
DOI [10.1016/j.jcomdis.2019.105944](#), PubMed [31607438](#) Cristin [1751370](#) ([Details](#))

Sadaghiani S, Dombert PL, Løvstad M, Funderud I, [Meling TR](#), Endestad T, Knight RT, [Solbakk AK](#), D'Esposito M (2019)
Lesions to the Fronto-Parietal Network Impact Alpha-Band Phase Synchrony and Cognitive Control
Cereb Cortex, 29 (10), 4143-4153
DOI [10.1093/cercor/bhy296](#), PubMed [30535068](#), WoS [000493326300009](#) Cristin [1677710](#) ([Details](#))

Hansen SM, Stubberud J, Hjertstedt M, Kirmess M (2019)
Intensive and standard group-based treatment for persons with social communication difficulties after an acquired brain injury: study protocol for a randomised controlled trial
BMJ Open, 9 (9), e029392
DOI [10.1136/bmjopen-2019-029392](#), PubMed [31501112](#), WoS [000497787600182](#) ([Details](#))





- Holthe OO, Hellstrom T, [Andelic N](#), [Server A](#), [Sigurdardottir S](#) (2019)
Improvement and Prediction of Memory and Executive Functions in Patients Admitted to a Neurosurgery Service With Complicated and Uncomplicated Mild Traumatic Brain Injury
J Head Trauma Rehabil, 34 (5), E45-E56
DOI [10.1097/HTR.000000000000463](#), PubMed [30829814](#), WoS [000487281100006](#) Cristin [1689082](#) ([Details](#))
- Jakimovska VM, Biering-Sørensen F, Lidal IB, Kostovski E (2019)
Epidemiological characteristics and early complications after spinal cord injury in Former Yugoslav Republic of Macedonia
Spinal Cord, 58 (1), 86-94
DOI [10.1038/s41393-019-0342-9](#), PubMed [31427697](#), WoS [000507846600012](#) ([Details](#))
- Savikj M, Kostovski E, Lundell LS, [Iversen PO](#), Massart J, Widegren U (2019)
Altered oxidative stress and antioxidant defence in skeletal muscle during the first year following spinal cord injury
Physiol Rep, 7 (16), e14218
DOI [10.14814/phy2.14218](#), PubMed [31456346](#), WoS [000483689100005](#) Cristin [1714455](#) ([Details](#))
- Saetre E, Eik H (2019)
Flexible bodies-Restricted lives: A qualitative exploratory study of embodiment in living with joint hypermobility syndrome/Ehlers-Danlos syndrome, hypermobility type
Musculoskeletal Care, 17 (3), 241-248
DOI [10.1002/msc.1407](#), PubMed [31347287](#), WoS [000478519100001](#) ([Details](#))
- Liljequist D, Elfving B, Skavberg Roaldsen K (2019)
Intraclass correlation - A discussion and demonstration of basic features
PLoS One, 14 (7), e0219854
DOI [10.1371/journal.pone.0219854](#), PubMed [31329615](#), WoS [000484974100028](#) ([Details](#))
- Jørgensen V, Slettahjell HB, Skavberg Roaldsen K, Kostovski E (2019)
Carboxy terminal collagen crosslinks as a prognostic risk factor for fall-related fractures in individuals with established spinal cord injury
Spinal Cord, 57 (11), 985-991
DOI [10.1038/s41393-019-0322-0](#), PubMed [31308468](#), WoS [000493954300011](#) ([Details](#))
- Hasvik E, Haugen AJ, Haukeland-Parker S, Rimehaug SA, [Gjerstad J](#), Grøvle L (2019)
Cross-cultural Adaptation and Validation of the Norwegian Short-form McGill Pain Questionnaire-2 in Low Back-related Leg Pain
Spine (Phila Pa 1976), 44 (13), E774-E781
DOI [10.1097/BRS.0000000000002976](#), PubMed [31205173](#), WoS [000480754900004](#) ([Details](#))
- Madsen A, Fredwall SO, Maanum G, Henriksen C, Slettahjell HB (2019)
Anthropometrics, diet, and resting energy expenditure in Norwegian adults with achondroplasia
Am J Med Genet A, 179 (9), 1745-1755
DOI [10.1002/ajmg.a.61272](#), PubMed [31240834](#), WoS [000479258200009](#) ([Details](#))





Tornås S, Løvstad M, [Solbakk AK](#), Schanke AK, Stubberud J (2019)
Use It or Lose It? A 5-Year Follow-up Study of Goal Management Training in Patients with Acquired Brain Injury
J Int Neuropsychol Soc, 25 (10), 1082-1087
DOI [10.1017/S1355617719000626](#), PubMed [31232252](#), WoS [000511352800009](#) Cristin [1725565](#) ([Details](#))

Kostovski E, Miloshevska Jakimovska V, Lidal IB, Biering-Sørensen F (2019)
Cross-sectional and prospective data-collection in North Macedonia-methodological considerations
Spinal Cord Ser Cases, 5, 58
DOI [10.1038/s41394-019-0204-x](#), PubMed [31632716](#) ([Details](#))

Langhammer B, Ada L, Gunnes M, [Ihle-Hansen H](#), Indredavik B, Askim T (2019)
A physical activity program is no more effective than standard care at maintaining upper limb activity in community-dwelling people with stroke: secondary outcomes from a randomized trial
Clin Rehabil, 33 (10), 1607-1613
DOI [10.1177/0269215519856048](#), PubMed [31198048](#), WoS [000485953200006](#) Cristin [1705692](#) ([Details](#))

Lidal IB, Lundberg Larsen K, Hoff M (2019)
50 Years and older - born with spina bifida: participation, health issues and physical function
Disabil Rehabil
DOI [10.1080/09638288.2019.1621953](#), PubMed [31180731](#), WoS [000488108000001](#) ([Details](#))

Romsland GI, Milosavljevic KL, Andreassen TA (2019)
Facilitating non-tokenistic user involvement in research
Res Involv Engagem, 5, 18
DOI [10.1186/s40900-019-0153-3](#), PubMed [31183162](#) ([Details](#))

Piira A, Lannem AM, Sørensen M, Glott T, Knutsen R, Jørgensen L, [Gjesdal K](#), Hjeltnes N, Knutsen SF (2019)
Robot-assisted locomotor training did not improve walking function in patients with chronic incomplete spinal cord injury: A randomized clinical trial
J Rehabil Med, 51 (5), 385-389
DOI [10.2340/16501977-2547](#), PubMed [30895326](#), WoS [000466848600009](#) Cristin [1705951](#) ([Details](#))

Vikan JK, Nilsson MI, Bushnik T, Deng W, Elessi K, Frost-Bareket Y, Kovrigina E, Shahwan J, Snekkevik H, Åkesson E, Stanghelle JK, Fugl-Meyer KS (2019)
Sexual health policies in stroke rehabilitation: A multi national study
J Rehabil Med, 51 (5), 361-368
DOI [10.2340/16501977-2552](#), PubMed [30938448](#), WoS [000466848600005](#) ([Details](#))

Johansen I, [Klokkeud M](#), Anke A, Børke JB, Glott T, Hauglie U, Høyem A, Klovning A, Lande KA, Larsen M, Nordvik JE, Wigert SH, Øyeflaten I, [Hagen KB](#), [Kjeken I](#) (2019)
A quality indicator set for use in rehabilitation team care of people with rheumatic and musculoskeletal diseases; development and pilot testing
BMC Health Serv Res, 19 (1), 265
DOI [10.1186/s12913-019-4091-4](#), PubMed [31036000](#), WoS [000466909900007](#) ([Details](#))





Løvstad M, Månnum G, [Wisløff-Aase K](#), Hafstad GS, [Ræder J](#), Larsen I, Stanghelle JK, Schanke AK (2019)
Persons injured in the 2011 terror attacks in Norway - Relationship between post-traumatic stress symptoms, emotional distress, fatigue, sleep, and pain outcomes, and medical and psychosocial factors
Disabil Rehabil

DOI [10.1080/09638288.2019.1585489](https://doi.org/10.1080/09638288.2019.1585489), PubMed [31017034](https://pubmed.ncbi.nlm.nih.gov/31017034/), WoS [000470383600001](https://www.wos.com/000470383600001) Cristin [1700059](https://www.cristin.no/1700059) ([Details](#))

Fredwall SO, Maanum G, Johansen H, Snekkevik H, Savarirayan R, Lidal IB (2019)
Current knowledge of medical complications in adults with achondroplasia: A scoping review
Clin Genet, 97 (1), 179-197

DOI [10.1111/cge.13542](https://doi.org/10.1111/cge.13542), PubMed [30916780](https://pubmed.ncbi.nlm.nih.gov/30916780/) ([Details](#))

Böker T, Vanem TT, [Pripp AH](#), Rand-Hendriksen S, [Paus B](#), [Smith HJ](#), [Lundby R](#) (2019)
Dural ectasia in Marfan syndrome and other hereditary connective tissue disorders: a 10-year follow-up study
Spine J, 19 (8), 1412-1421

DOI [10.1016/j.spinee.2019.04.010](https://doi.org/10.1016/j.spinee.2019.04.010), PubMed [30998996](https://pubmed.ncbi.nlm.nih.gov/30998996/), WoS [000476725600013](https://www.wos.com/000476725600013) Cristin [1705946](https://www.cristin.no/1705946) ([Details](#))

[Wisløff-Aase K](#), [Ræder J](#), Månnum G, Løvstad M, Schanke AK, [Dyb G](#), [Ekeberg Ø](#), Stanghelle JK (2019)
Chronic pain among the hospitalized patients after the 22 July 2011 terror attacks in Oslo and at Utøya Island
Acta Anaesthesiol Scand, 63 (7), 913-922

DOI [10.1111/aas.13373](https://doi.org/10.1111/aas.13373), PubMed [30968401](https://pubmed.ncbi.nlm.nih.gov/30968401/), WoS [000473992700011](https://www.wos.com/000473992700011) Cristin [1700067](https://www.cristin.no/1700067) ([Details](#))

Groven KS, Svendby EB, Rugseth G (2019)
Ethical sensitivity in co-production: Openness and doubt when young women participate in research
Health Care Women Int, 41 (4), 445-460

DOI [10.1080/07399332.2019.1590363](https://doi.org/10.1080/07399332.2019.1590363), PubMed [30958761](https://pubmed.ncbi.nlm.nih.gov/30958761/), WoS [000463963000001](https://www.wos.com/000463963000001) ([Details](#))

Velvin G, Wilhelmsen JE, Johansen H, Bathen T, Geirdal AØ (2019)
Systematic review of quality of life in persons with hereditary thoracic aortic aneurysm and dissection diagnoses
Clin Genet, 95 (6), 661-676

DOI [10.1111/cge.13522](https://doi.org/10.1111/cge.13522), PubMed [30788842](https://pubmed.ncbi.nlm.nih.gov/30788842/), WoS [000468472900002](https://www.wos.com/000468472900002) ([Details](#))

Forslund MV, Perrin PB, [Røe C](#), [Sigurdardottir S](#), Hellstrøm T, Berntsen SA, Lu J, Arango-Lasprilla JC, [Andelic N](#) (2019)

Global Outcome Trajectories up to 10 Years After Moderate to Severe Traumatic Brain Injury
Front Neurol, 10, 219

DOI [10.3389/fneur.2019.00219](https://doi.org/10.3389/fneur.2019.00219), PubMed [30923511](https://pubmed.ncbi.nlm.nih.gov/30923511/), WoS [000461698400001](https://www.wos.com/000461698400001) Cristin [1689081](https://www.cristin.no/1689081) ([Details](#))

Månnum G, Løvstad M, [Wisløff-Aase K](#), [Ræder J](#), Schanke AK, Larsen I, [Dyb G](#), [Ekeberg Ø](#), Stanghelle JK (2019)
Clinical characteristics and physical functioning in persons hospitalized following the Norwegian terror attacks in July 2011: A follow up study

J Rehabil Med, 51 (3), 225-233

DOI [10.2340/16501977-2521](https://doi.org/10.2340/16501977-2521), PubMed [30816422](https://pubmed.ncbi.nlm.nih.gov/30816422/), WoS [000460419000010](https://www.wos.com/000460419000010) Cristin [1700037](https://www.cristin.no/1700037) ([Details](#))

Sønsterud H, Kirmess M, Howells K, Ward D, Feragen KB, [Halvorsen MS](#) (2019)

The working alliance in stuttering treatment: a neglected variable?

Int J Lang Commun Disord, 54 (4), 606-619

DOI [10.1111/1460-6984.12465](https://doi.org/10.1111/1460-6984.12465), PubMed [30866151](https://pubmed.ncbi.nlm.nih.gov/30866151/), WoS [000473991500007](https://www.wos.com/000473991500007) Cristin [1701953](https://www.cristin.no/1701953) ([Details](#))





Sørensen L, Månnum G (2019)

A single-subject study of robotic upper limb training in the subacute phase for four persons with cervical spinal cord injury

Spinal Cord Ser Cases, 5 (1), 29

DOI [10.1038/s41394-019-0170-3](https://doi.org/10.1038/s41394-019-0170-3), PubMed [32157076](https://pubmed.ncbi.nlm.nih.gov/32157076/) ([Details](#))

Sørensen L, Månnum G (2019)

A single-subject study of robotic upper limb training in the subacute phase for four persons with cervical spinal cord injury

Spinal Cord Ser Cases, 5, 29

DOI [10.1038/s41394-019-0170-3](https://doi.org/10.1038/s41394-019-0170-3), PubMed [31240123](https://pubmed.ncbi.nlm.nih.gov/31240123/) ([Details](#))

Langhammer B, Sagbakken M, [Kvaal K](#), [Ulstein I](#), Nåden D, Rognstad MK (2019)

Music Therapy and Physical Activity to Ease Anxiety, Restlessness, Irritability, and Aggression in Individuals With Dementia With Signs of Frontotemporal Lobe Degeneration

J Psychosoc Nurs Ment Health Serv, 57 (5), 29-37

DOI [10.3928/02793695-20190124-02](https://doi.org/10.3928/02793695-20190124-02), PubMed [30753735](https://pubmed.ncbi.nlm.nih.gov/30753735/), WoS [000466857000005](https://www.scopus.com/search/form.do?prf=up&recordId=000466857000005) Cristin [1490148](https://www.cristin.no/1490148) ([Details](#))

Bathen T, Fredwall S, Steen U, Svendby EB (2019)

Fatigue and pain in children and adults with multiple osteochondromas in Norway, a cross-sectional study

Int J Orthop Trauma Nurs, 34, 28-35

DOI [10.1016/j.ijotn.2019.02.001](https://doi.org/10.1016/j.ijotn.2019.02.001), PubMed [30824225](https://pubmed.ncbi.nlm.nih.gov/30824225/), WoS [000481632800006](https://www.scopus.com/search/form.do?prf=up&recordId=000481632800006) ([Details](#))

Piira A, Lannem AM, Sørensen M, Glott T, Knutsen R, Jørgensen L, [Gjesdal K](#), Hjeltnes N, Knutsen SF (2019)

Manually assisted body-weight supported locomotor training does not re-establish walking in non-walking subjects with chronic incomplete spinal cord injury: A randomized clinical trial

J Rehabil Med, 51 (2), 113-119

DOI [10.2340/16501977-2508](https://doi.org/10.2340/16501977-2508), PubMed [30483724](https://pubmed.ncbi.nlm.nih.gov/30483724/), WoS [000457153100006](https://www.scopus.com/search/form.do?prf=up&recordId=000457153100006) Cristin [1704366](https://www.cristin.no/1704366) ([Details](#))

Irgens I, Hoff JM, Sørli H, Haugland H, Stanghelle JK, Rekand T (2019)

Hospital based care at home; study protocol for a mixed epidemiological and randomized controlled trial

Trials, 20 (1), 77

DOI [10.1186/s13063-019-3185-y](https://doi.org/10.1186/s13063-019-3185-y), PubMed [30678710](https://pubmed.ncbi.nlm.nih.gov/30678710/), WoS [000457237000002](https://www.scopus.com/search/form.do?prf=up&recordId=000457237000002) ([Details](#))

Palmgren A, Ståhle A, Skavberg Roaldsen K, Dohrn IM, Halvarsson A (2019)

"Stay balanced" - effectiveness of evidence-based balance training for older adults transferred into a physical therapy primary care setting - a pilot study

Disabil Rehabil, 1-6 (in press)

DOI [10.1080/09638288.2018.1535631](https://doi.org/10.1080/09638288.2018.1535631), PubMed [30616441](https://pubmed.ncbi.nlm.nih.gov/30616441/) ([Details](#))

Gunnes M, Langhammer B, Aamot IL, Lydersen S, [Ihle-Hansen H](#), Indredavik B, Reneflot KH, Schroeter W, Askim T, LAST Collaboration group (2019)

Adherence to a Long-Term Physical Activity and Exercise Program After Stroke Applied in a Randomized Controlled Trial

Phys Ther, 99 (1), 74-85

DOI [10.1093/ptj/pzy126](https://doi.org/10.1093/ptj/pzy126), PubMed [30329136](https://pubmed.ncbi.nlm.nih.gov/30329136/), WoS [000456732000009](https://www.scopus.com/search/form.do?prf=up&recordId=000456732000009) ([Details](#))

