



# Neuro-SysMed Newsletter

Issue 2, 2023, October

## DIRECTORS COMMENTS

Dear all

We have had an exciting start of this autumn - with several important achievements for Neuro-SysMed. It all started in the late summer with securing Horizon funds (approx. 80 MNOK) for MS research. Torkildsen and Myhr will coordinate a large EU-project for studies of mechanisms how the Epstein-Barr virus causes the development of MS - with the exciting potential for treatment and prevention. Partners include highly recognized researchers from Stockholm, Barcelona, Rome, and Boston.

A major event was the annual Neuro-SysMed Symposium which we organized with great success at Solstrand, in September. We had outstanding international and local speakers covering topics with all four Neuro-SysMed diseases, as well as care, and trial design and statistics. At the same occasion, we also had the pleasure to meet with our Scientific Advisory Board (SAB) for fruitful discussions. The SAB expressed clearly support to our research and provided valuable advice for further developments.

Another noteworthy contribution from Neuro-SysMed was the inclusion of three MS drugs on The World Health Organization (WHO) list of medicine that all countries should have available for their citizens. We also contributed on BRAIN Health activities at the Arendalsuka in August.

This fall, large delegations from Neuro-SysMed participated with multiple original contributions at The International Congress of Parkinson's Disease and Movement Disorders (MDS) in Copenhagen, and the European Committee for Treatment and Research in MS (ECTRIMS) in Milan. Six presentations on Parkinson's-related Neuro-SysMed projects featured the MDS conference, while at ECTRIMS, 8/16 presentations from Norway were from Neuro-SysMed, and a ninth had major contribution from us. At the ECTRIMS meeting, we also organized the first NorTrials Brain Health gathering with participations from the Norwegian Embassy in Italy, international pharma industry and Norwegian health care personnel and researchers within MS. These congresses gave us inspiration and potential new partners for further development of our research.

On the ongoing research front, projects have been making great progress with several important milestones. The MS-group started recruitment into the EU-funded IMI-project, "3TR", aiming at defining treatment response biomarkers across seven inflammatory disease - including MS. This a large collaborative project (80 mill-Euro) including about 70 academic and industry partners across Europe - with Neuro-SysMed as the only Norwegian partner (UiB & HUS). The PD group initiated the NADAPT trial, aiming to test disease-modifying therapy for patients with atypical parkinsonism. Together with our partners in France and the UK, we will recruit patients with progressive supranuclear palsy, multiple system atrophy, and corticobasal syndrome. This study has been long-awaited by persons with these relentless disorders and their families, and will be Norway's first and one of very few trials on atypical parkinsonism in the world.

Yet another achievement for Neuro-SysMed was the recent awarding of the NADPARK study as one among the 10 most influential studies published in Cell Metabolism during 2022.

Thus, we all have many reasons to be happy and proud of the exciting growth of our Centre - and we look forward to further development and new advances in the treatment of our Neuro-SysMed diseases!

Best regards from

Kjell-Morten Myhr and Charalampos Tzoulis



Neuro-SysMed



Centre for  
Clinical Treatment  
Research

# SUCCESSFUL FIRST ANNUAL SYMPOSIUM

The very first Neuro-SysMed Annual Symposium took place at the historic Solstrand Hotel outside of Bergen, September 25-26, 2023. The dramatic western Norway weather did not entice to stepping out into the beautiful fjord surroundings, but all the 114 participants did nevertheless enjoy social and scientific radiance indoors.

The program covered sessions on treatment trials in neurodegeneration and in multiple sclerosis, NAD replenishment as a strategy for neuroprotection, and biostatistics for clinical trials. International speakers including professors Kailash Bhatia (London), Raymond Koopman (the Netherlands), Marie Vidailhet (Paris), Suvankar Pal (Edinburgh), Xavier Montalban (Barcelona), Fredrik Piehl (Stockholm), Vilhelm Bohr (Copenhagen), Tim Friede (Germany), Fan Li and Tong Guangyu (both USA) shared from their vast experience, and local senior and junior researchers added to the program with ongoing Neuro-SysMed research. See the [full program here](#).

Some of the talks inspired to articles from Dagens Medisin, with interviews with [Frank Riemer](#), [Fredrik Piehl](#), [Julia Tuominen](#) and [Akash Kapali](#).

Read more about the symposium and see more photos [here](#).

SAVE  
THE DATE  
for next year:  
Sept.  
26-27, 2024



# RECENT PUBLICATIONS

## Recent publications from the last 3 months

[Association Between Use of Any of the Drugs Prescribed in Norway and the Subsequent Risk of Parkinson Disease: A Drug-wide Association Study.](#) Romanowska J, Bjornevik K, Cortese M, Tuominen JA, Solheim M, Mofrad AA, Igland J, Scherzer CR, Riise T. *Neurology*. 2023 Oct 10:10.1212/WNL.0000000000207899. doi: 10.1212/WNL.0000000000207899. Online ahead of print. PMID: 37816645

[Ocrelizumab and ofatumumab, but not rituximab, trigger complement induction in vitro.](#) Førde JL, Herfindal L, Myhr KM, Torkildsen Ø, Mollnes TE, Skrede S. *Int Immunopharmacol*. 2023 Oct 8;124(Pt B):111021. doi: 10.1016/j.intimp.2023.111021. Online ahead of print. PMID: 37816262

[Humoral response to Epstein-Barr virus in patients with multiple sclerosis treated with B cell depletion therapy.](#) Rød BE, Wergeland S, Bjørnevik K, Holmøy T, Ulvestad E, Njølstad G, Myhr KM, Torkildsen Ø. *Mult Scler Relat Disord*. 2023 Sep 30;79:105037. doi: 10.1016/j.msard.2023.105037. Online ahead of print. PMID: 37804765

[Pain and quality of life in nursing home residents with dementia after admission - a longitudinal study.](#) Helvik AS, Bergh S, Saltytė Benth J, Borza T, Husebø B, Tevik K. *BMC Health Serv Res*. 2023 Sep 27;23(1):1032. doi: 10.1186/s12913-023-10041-5. PMID: 37759201 Free PMC article.

[Identification of structural determinants of nicotinamide phosphoribosyl transferase \(NAMPT\) activity and substrate selectivity.](#) Houry D, Raasakka A, Ferrario E, Niere M, Bifulco E, Kursula P, Ziegler M. *J Struct Biol*. 2023 Sep;215(3):108004. doi: 10.1016/j.jsb.2023.108004. Epub 2023 Jul 24. PMID: 37495196

[Prevalence, risk factors, clinical and biochemical characteristics of Alemtuzumab-induced Graves' disease.](#) Ueland GÅ, Ueland HO, Stokland AM, Bhan A, Schönberg A, Sollid ST, Morgas DE, Holmøy T, Lima K, Methlie P, Løvås K, Torkildsen Ø, Husebye ES. *J Clin Endocrinol Metab*. 2023 Sep 14;dgad540. doi: 10.1210/clinem/dgad540. Online ahead of print. PMID: 37708353

[The CLARION study: first report on safety findings in patients newly initiating treatment with cladribine tablets or fingolimod for multiple sclerosis.](#) Butzkueven H, Hillert J, Soilu-Hänninen M, Ziemssen T, Kuhle J, Wergeland S, Magyari M, Berger JR, Moore N, Aydemir A, Bezemer I, Sabidó M. *Curr Med Res Opin*. 2023 Oct;39(10):1367-1374. doi: 10.1080/03007995.2023.2256220. Epub 2023 Sep 7. PMID: 37675878

[Identification of diagnostic and prognostic biomarkers of PD using a multiplex proteomics approach.](#) Maple-Grødem J, Ushakova A, Pedersen KF, Tysnes OB, Alves G, Lange J. *Neurobiol Dis*. 2023 Oct 1;186:106281. doi: 10.1016/j.nbd.2023.106281. Epub 2023 Sep 4. PMID: 37673381

[Potassium channels in behavioral brain disorders. Molecular mechanisms and therapeutic potential: A narrative review.](#) Alam KA, Svalastoga P, Martinez A, Glennon JC, Haavik J. *Neurosci Biobehav Rev*. 2023 Sep;152:105301. doi: 10.1016/j.neubiorev.2023.105301. Epub 2023 Jul 4. PMID: 37414376 Review.

[Early GCase activity is a predictor of long-term cognitive decline in Parkinson's disease.](#) Oftedal L, Lange J, Pedersen KF, Erga AH, Dalen I, Tysnes OB, Alves G, Maple-Grødem J. *Transl Neurodegener*. 2023 Aug 28;12(1):41. doi: 10.1186/s40035-023-00373-x. PMID: 37635244

[Dynamics of SLC25A51 reveal preference for oxidized NAD+ and substrate led transport.](#) Goyal S, Paspureddi A, Lu MJ, Chan HR, Lyons SN, Wilson CN, Niere M, Ziegler M, Cambronne XA. *EMBO Rep*. 2023 Aug 14:e56596. doi: 10.15252/embr.202256596. Online ahead of print. PMID: 37575034

[DNA Methylation Age Acceleration Is Not Associated with Age of Onset in Parkinson's Disease.](#) Gaare JJ, Brügger K, Nido GS, Tzoulis C. *Mov Disord*. 2023 Aug 7. doi: 10.1002/mds.29574. Online ahead of print. PMID: 37551021

[Childbirth delivery mode and the risk of multiple sclerosis: a prospective population-based study.](#) Kapali A, Daltveit AK, Myhr KM, Bjornevik K, Baldin E, Pugliatti M, Riise T, Cortese M. *J Neurol Neurosurg Psychiatry*. 2023 Jul 21:jnnp-2023-331241. doi: 10.1136/jnnp-2023-331241. PMID: 37479464

[Visual velocity perception dysfunction in Parkinson's disease.](#) Bernardinis M, Atashzar SF, Jog MS, Patel RV. *Behav Brain Res*. 2023 Aug 24;452:114490. doi: 10.1016/j.bbr.2023.114490. Epub 2023 May 10. PMID: 37172741

[Neuronal loss drives differentially expressed protein-pathways in the PSP globus pallidus.](#) Dick F, Johanson GS, Tzoulis C. *Clin Transl Med*. 2023 Jul;13(7):e1280. doi: 10.1002/ctm2.1280. PMID: 37427490 Free PMC article. No abstract available.

[Comparative Effectiveness of Autologous Hematopoietic Stem Cell Transplant vs Fingolimod, Natalizumab, and Ocrelizumab in Highly Active Relapsing-Remitting Multiple Sclerosis.](#) Kalincik T, Sharmin S, Roos I, Freedman MS, Atkins H, Burman J, Massey J, Sutton I, Withers B, Macdonell R, Grigg A, Torkildsen Ø, Bo L, Lehmann AK, Havrdova EK, Krasulova E, Trnený M, Kozak T, van der Walt A, Butzkueven H, McCombe P, Skibina O, Lechner-Scott J, Willekens B, Cartechini E, Ozakbas S, Alroughani R, Kuhle J, Patti F, Duquette P, Lugaresi A, Khoury SJ, Slee M, Turkoglu R, Hodgkinson S, John N, Maimone D, Sa MJ, van Pesch V, Gerlach O, Laureys G, Van Hijfte L, Karabudak R, Spitaleri D, Csepány T, Gouider R, Castillo-Triviño T, Taylor B, Sharrack B, Snowden JA; MSBase Study Group Collaborators; MSBase Study Group Authors; Mrabet S, Garber J, Sanchez-Menoyo JL, Aguera-Morales E, Blanco Y, Al-Asmi A, Weinstock-Guttman B, Fragoso Y, de Gans K, Kermodé A; MSBase Study Group. *JAMA Neurol*. 2023 Jul 1;80(7):702-713. doi: 10.1001/jamaneurol.2023.1184. PMID: 37437240

[Not every estimate counts - evaluation of cell composition estimation approaches in brain bulk tissue data.](#) Toker L, Nido GS, Tzoulis C. *Genome Med*. 2023 Jun 7;15(1):41. doi: 10.1186/s13073-023-01195-2. PMID: 37287013 Free PMC article.

[Microstructural changes precede depression in patients with relapsing-remitting Multiple Sclerosis.](#) Riemer F, Skørve E, Pasternak O, Zaccagna F, Lundervold AJ, Torkildsen Ø, Myhr KM, Grüner R. *Commun Med (Lond)*. 2023 Jun 22;3(1):90. doi: 10.1038/s43856-023-00319-4. PMID: 37349545 Free PMC article.

## OTHER NEWS

**The World Health Organization has now included three MS drugs on the list of medicine that all countries should have available for their citizens.**

This has been done following an application from the MS International Federation (MSIF), where Kjell-Morten Myhr represents Norway via the MS Association. He has contributed with input related to getting rituximab on the list, based on experiences in Norway on rituximab as a very effective drug at low cost (as it is off-label treatment).

The drugs included in the list are:

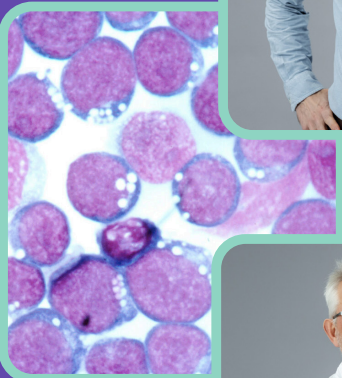
- a pill treatment (cladribine)
- a self-administered injection drug (glatiramer acetate)
- an intravenous infusion drug (rituximab)

Read more here:

- On the [WHO web pages](#)
- In article in Dagens Medisin: [MS-medisiner inkludert på WHO-liste: – Et stort fremskritt for internasjonalt MS-arbeid](#)



**World Health Organization**



### **EU-support to project on MS and the Epstein-Barr virus**

The MS Group has been granted 7 Mill. Euro in EU funding for studying the connection between the Epstein-Barr virus (EBV) and MS. The project will be done in collaboration with partners in Oslo, Stockholm, Barcelona, Rome, Brussels, and Boston.

The University of Bergen is coordinating the project, and in Bergen, Haukeland University Hospital is an essential contributor. The project will complete two clinical trials to evaluate the effect of anti-viral treatment on multiple sclerosis, in collaboration with hospitals in Stavanger, Drammen, Oslo and Akershus.

Professors Øivind Torkildsen and Kjell-Morten Myhr will be leading the project, supported by Research Advisor Yamila Torres Cleuren.

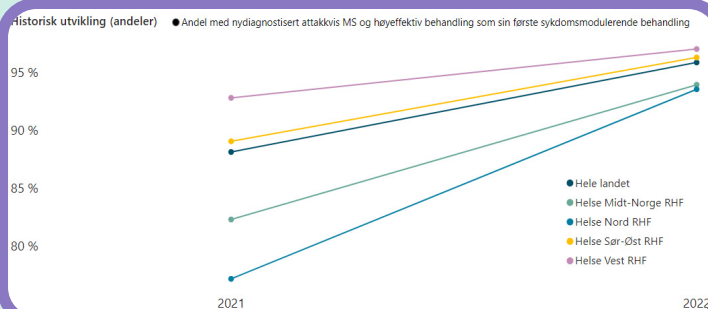
Read [more about this project here](#). There has also been much media attention on this lately, see for example [article in Dagens Medisin](#) and in [Aftenposten](#).

## More MS patients get high-efficient treatment earlier

New statistics from the Norwegian Directorate of Health's national quality indicators show that more MS patients receive early, high-efficient treatment, already at the time of diagnosis. 88.1% in 2021 for the whole country, increases to 95.9% in 2022.

Among the health regions, Helse Vest has been on top through both years, with 92.8% in 2021 and 97% in 2022. This is a result of systematic and long-term work to get this incorporated into the national guidelines, and a result of investing efforts in the Norwegian MS Registry. Neuro-SysMed's OVERLORD-MS study is also helping to establish practice with early initiation of high-efficient MS treatment of MS, investigating rituximab versus ocrelizumab and effect of the treatment from disease onset.

[Read more here](#) (Norwegian).



## Pending drugs for ALS

FDA approved Qalsody (tofersen) to treat patients with ALS associated with a mutation in the superoxide dismutase 1 (SOD1) gene (SOD1-ALS). Qalsody is an antisense oligonucleotide that targets SOD1 mRNA to reduce the synthesis of SOD1 protein. [The approval](#) was based on a reduction in plasma neurofilament light (NfL), a blood-based biomarker of axonal (nerve) injury and neurodegeneration. The drug will be evaluated in [Nye Metoder](#) in Norway this fall. Neuro-SysMed is monitoring the outcome.

Relyvrio/Albrioza (natriumfenylbutyrat / ursodokskoltaurin) is for the moment [not approved by EMA](#) as ALS treatment. It is registered in the US and Canada, but is [still pending approval](#) in Europe.



## Active Neuro-SysMed participation at Arendalsuka

Neuro-SysMed was, together with Hjernerådet and the MS Association, co-organizer and active participant at several events at Arendalsuka this year.

Kjell-Morten Myhr participated in a [panel discussion](#) on how to face challenges in connection to performing clinical trials (see [video here](#), timestamp 6:45:00).

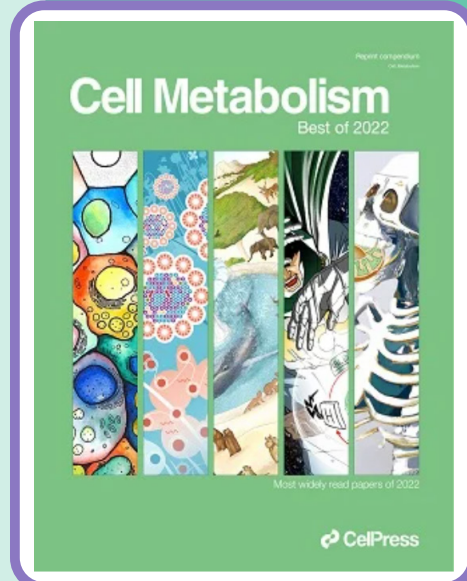
Øivind Torkildsen participated in a [meeting on stem cell therapy](#) for MS (see [video here](#), timestamp ca. 3:10:50).



## The NADPARK study among the top-10 most influential studies published in Cell Metabolism in 2022

In the "[Best of Cell Metabolism 2022](#)" collection, our NADPARK study was highlighted as one of the 10 most exciting studies in metabolism research. This trial is a randomized phase I trial of nicotinamide riboside (NR) supplementation in Parkinson's disease.

NR treatment was well tolerated and led to a significant but variable increase in cerebral NAD levels, measured by <sup>31</sup>P-magnetic resonance spectroscopy (<sup>31</sup>P-MRS), and related metabolites in the cerebrospinal fluid (CSF). Moreover, NR recipients showing increased brain NAD levels exhibited altered cerebral metabolism, measured by <sup>18</sup>F-fluoro-deoxyglucose positron emission tomography (FDG-PET), and this was associated with a mild but statistically significant clinical improvement. Furthermore, NR augmented the NAD metabolome and induced transcriptional upregulation of processes related to mitochondrial, lysosomal, and proteasomal function in blood cells and/or skeletal muscle. NR also decreased the levels of inflammatory cytokines in serum and cerebrospinal fluid. These findings nominate NR as a potential neuroprotective therapy for PD, warranting further investigation in larger trials.



## Great seminar with David Eidelberg

September 1, Neuro-SysMed had the pleasure of hosting a seminar with David Eidelberg, MD, Head of the Center for Neurosciences at The Feinstein Institutes for Medical Research in Manhasset, New York. A neurologist and neuroscientist, he is widely known for his groundbreaking work on network dysfunction in neurological disorders including Parkinson's disease, Huntington's disease, dystonia and dementia. He presented intriguing data that suggest a role for functional brain networks as treatment biomarkers in clinical trials for PD and other brain disorders. See [full abstract here](#).



## Large Neuro-SysMed delegation at MDS and ECTRIMS

Presence at important relevant conferences is essential, and this fall, Neuro-SysMed delegates and presenters participated among other in Copenhagen at [the International Congress of Parkinson's Disease and Movement Disorders \(MDS\)](#) August 27-31, and the [European Committee for Treatment and Research in MS \(ECTRIMS\)](#) in Milan, October 11-13.

Six presentations on Parkinson's-related Neuro-SysMed projects featured the MDS conference, while at ECTRIMS, 8/16 presentations from Norway were from Neuro-SysMed, and a ninth had major contribution from us.

At the ECTRIMS meeting, we also organized the first NorTrials Brain Health gathering with participations from the Norwegian Embassy in Italy ([see article here](#)), international pharma industry as well as Norwegian health care personnel and researchers within MS. See news articles generated from ECTRIMS on Neuro-SysMed research: [Eid](#), [Rød](#), [Torkildsen](#), [NorTrials](#).



# UPCOMING NEURO-SYSMED EVENTS

These - and later events - can be found in [the Neuro-SysMed calendar](#).



## NEURO-SYSMED JUNIOR SCIENTIST SYMPOSIUM, OCTOBER 20

Explore new frontiers with the young Neuro-SysMed researchers in this excellent arena to obtain valuable skills in presentation techniques, engage in scientific discussions and take advantage of peer reviews and comments. Open also to senior scientists. Lunch is included!



**When:** Friday October 20 at 09.00-13.00 (lunch at 11.20-12.00)  
**Where:** Auditorium 4, BB-building (campus Haukeland University Hospital)  
**Registration:** through [this link](#)

This time, **Cecilie Nordbotten** will tell us about life after Phd, and give career guidance and how to build your academic CV. **Magnus Svensen** will explain phosphorous MRS in neurodegenerative disorders, **Tale Bjerknes** will talk about mitochondrial dysfunction in amyotrophic lateral sclerosis, **Eirik Solheim** will show how you can use multi-omics to discover new pathways controlled by the cerebellar degeneration-related proteins, and **Anna Rubiolo** will give the talk Stratification of idiopathic Parkinson's disease based on mitochondrial dysfunction: the mitoPD subtype.

Chairs: **Yola Gerking** and **Fiona Dick**. Any questions, please contact coordinator **Shamundeewari Anandan**: samanandhan@gmail.com. Read more [here](#).



## COURSE: NEUROSYSTEM930 - APPLIED BIOINFORMATICS AND DATA ANALYSIS IN MEDICAL RESEARCH

The main objective of this course is to provide the candidates with the knowledge central for successful application of bioinformatics and data analysis in clinical research on human tissue.



The course will focus on practical aspects and methodological considerations that needed to be taken into account when dealing with human derived data, such as data sensitivity, limited sample sizes, sample misclassification, choice of appropriate statistical models, and covariates, and tissue heterogeneity.

**When:** November 8-10, 2023. Note that the registration **deadline was September 1, and the course is fully booked**. Read more about the course [here](#).



## NEURO-SYSMED SEMINAR, NOVEMBER 22, MS

This time, topic will be on multiple sclerosis. Join us at the auditorium in Armauer Hansens Hus at 11:30 - 13:00 (lunch from 11:30 - 12:00).



**Chair:** Professor Kjell-Morten Myhr  
**Topic:** Multiple sclerosis  
**Title:** to be announced  
**Place:** The auditorium in Armauer Hansens Hus  
**Time:** Wednesday November 22 at 11:30 - 13:00 (incl. lunch).  
**Registration:** through [this link](#)  
**Abstract:** will be [available here](#)

## NEURO-SYSMED SEMINAR, DECEMBER 13, PARKINSON'S

This time, topic will be on Parkinson's disease. Join us at the auditorium in Armauer Hansens Hus at 11:30 - 13:00 (lunch from 11:30 - 12:00).



**Chair:** Professor Charalampos (Haris) Tzoulis  
**Topic:** Parkinson's disease  
**Title:** to be announced  
**Place:** The auditorium in Armauer Hansens Hus  
**Time:** Wednesday December 13 at 11:30 - 13:00 (incl. lunch).  
**Registration:** through [this link](#)  
**Abstract:** will be [available here](#)

## NEURO-SYSMED JUNIOR SCIENTIST SYMPOSIUM, DECEMBER 1



Start the Xmas month with a Junior Scientist Symposium! Open also to senior scientists. Lunch is included!

**When:** Friday December 1 at 09.00-13.00 (lunch at 11.20-12.00)

**Where:** Auditorium 4, BB-building (campus Haukeland)

**Registration:** through [this link](#)



This time, **Paulo Rodrigues Santos** will give us an immunologist view of neuroscience research. **Sonia Gavasso** will provide us with neuroimmunological insights from high dimensional analysis, **Peder Lillebostad** will give a talk on SNceg, automated segmentation of the substantia nigra pars compacta from multiparametric MRI, and **Karine Eid** will give us a summary of findings from her PhD thesis "Childhood abuse, adult abuse, and the risk of perinatal depression in women with multiple sclerosis." **Yola Gerking** will explain application of imaging mass cytometry to compare microglia activation in various brain regions in paraneoplastic cerebellar degeneration, and **Gard Skulstad Johanson** will give an overview of the N-ADAPT study: a Randomized Double-blind Trial of NAD Replenishment Therapy for Atypical Parkinsonism.

Chairs: **Katarina Lundervold** and **Brit Ellen Rød**.

Any questions, please contact coordinator **Shamundeeswari Anandan**: samanandhan@gmail.com

Read more [here](#).

## NeuroDialogues: Reconstructing Identity - Navigating Neurological Changes, DECEMBER 5



5th of December we invite Neuro-SysMed staff and collaborators to join us for a conversation about identity in the context of neurological conditions and challenges.

**When:** Tuesday December 5 at 19.00-21.00

**Where:** Centre for the Study of the Sciences and the Humanities, Seminar room (ground floor), Parkveien 9, 5007 Bergen

**Registration:** through [this link](#)



The workshop will be organized as chaired discussions and will not require any formal preparation. We do however invite you to bring a curious and critical mind, kindness, and a story or two from your own clinical and/or scientific practices which foreground experiences related to identity in some way or another.

NeuroDialogues is an initiative anchored in the RRI/PPI node within Neuro-SysMed that aims to foster discussions and debates on a wide spectrum of topics at the intersection of severe neurological conditions, technology, and the human mind. It serves as a space for exploring the profound questions raised by the integration of cutting-edge technologies and medical practices in the field of neurology.

Chairs: **Caroline Engen** and **Jan-Reinert Karlsen**.

[Read more here](#).

## COURSE: CCBIONEUR911, CLINICAL TRIALS



The completed program qualifies for a Good Clinical Practice (GCP) certificate and covers several aspects of clinical trials – from design planning to execution – with learning examples from cancer research and neurological research alike. A 2 ECTS course, also open for non-ECTS participation. [See program here](#).

**When and when:** January 17-19, 2024. On-site (campus Haukeland)

[More info here](#).



### Topics in the course:

- What is a clinical study?
- Study design
- The pharmaceutical company perspective
- The patient's perspective
- Ethics
- GCP overview and concepts
- Practical running of a clinical trial
- Formalities and regulations
- Writing a protocol
- Applications and funding
- Contracts
- Translational research protocols
- Clinical trials as part of normal clinical operations
- Success factors
- Clinical trials in the future

Line Bjørge (CCBIO) and Øivind Grytten Torkildsen (Neuro-SysMed) are academically responsible for this course which is a collaboration between the CCBIO and Neuro-SysMed research schools.



# WELCOME TO NEW FACES IN THE NEURO-SYSMED GROUPS



**Ida Viktoria Herdlevær** has an MSc in Biomedicine and a PhD in Neuroimmunology. The University of Bergen awarded her *PhD Thesis of the Year* in 2022 for her work, titled "Cerebellar degeneration-related proteins in anti-Yo associated paraneoplastic cerebellar degeneration". She was granted a research scholarship from Helse Vest in 2023 and is currently pursuing her research career at Neuro-SysMed in Professor Myhr's group, closely associated with Professor Vedeler and Senior Researcher Gavasso. Her project aims at addressing disease mechanisms involved in multiple sclerosis using mass cytometry (CyTOF) and imaging mass cytometry techniques. This is important to be able to offer patients personalized treatment with a greater degree of predictability and reduced risk of complications.



**Shridar Amogh Patil** is a new student in the Medical Student Research Programme, working on a project at Neuro-SysMed. He started studying medicine in the autumn term of 2020 at the UiB. The research project is focused on analysing transcriptomic data to look for genes associated with Parkinsons disease. This will be his first formal research project and he is looking forward to being a part of Neuro-SysMed. His main supervisor is Professor Tzoulis, and co-supervisor is Senior Researcher Nido.



**Elisabeth Claire Evjenth** is currently a Master student in Biomedical Sciences with a Bachelor's degree in Molecular Biology. She is working on MS and microglia with her supervisor Sonia Gavasso and with the help of her co-supervisors Sam Anandhan and Ida Herdlevær. Her research interests are quite varied, but she is especially fascinated by neuroscience, cell signaling, metabolism, and disease treatment.



**Marie Ytterdal** is a new Master student from the Biomedicine program at the UiB. She has a Bachelor's degree in Biomedicine from the University of Tromsø where she investigated the effect of ionizing radiation on cancer cells and cancer associated fibroblasts. For her Master thesis, she is doing research on enhancing the remyelination potential of mesenchymal stem cells, and she is connected to the Multiple Sclerosis Group at Neuro-SysMed. Her research interests are immunology, cancer biology and neurodegenerative diseases.



**Dimitrios Kleftogiannis** has background in Computer Science and Engineering with an MSc and PhD in Bioinformatics. In his current research he is working on the development and application of computational approaches to dissect rich omics datasets. At Neuro-SysMed he is leading bioinformatics analyses of different projects and supporting data management tasks. Prior to joining Neuro-SysMed, Dimitrios was affiliated with the Computational Biology Unit (CBU) and the Centre for Cancer Biomarkers (CCBIO) of the University of Bergen, where he participated in several personalized medicine projects. Prior to moving to Norway, Dimitrios held researcher positions at the Genome Institute of Singapore (GIS/A\*STAR) in Singapore, and at the Institute of Cancer Research (ICR) in London UK.



**Anna Engan Aamodt** is a new Master student connected to Neuro-SysMed. She holds a bachelor degree in Biomedicine from the University of Tromsø where she wrote her bachelor thesis on the tumor microenvironment in oral squamous cell carcinoma. Her research interests are cancer, immunology and neurology. She is doing her master thesis supervised by Professor Vedeler, about the innervation of neurons in tumors and the tumor microenvironment in patients with paraneoplastic cerebellar degeneration.

# RECENT NEURO-SYSMED NEWS STORIES

Dagens Medisin, 16.10.23, "[Kliniske studier i Norge: – NorTrials skal fungere som «én vei inn» og være nasjonalt kontaktpunkt](#)," Kjell-Morten Myhr.

Dagens Medisin, 13.10.23, "[Studie viser økende sykefravær allerede ti år før MS-diagnose: – Et veldig viktig budskap](#)," Øivind Torkildsen.

Dagens Medisin, 12.10.23, "[Studie støtter at B-cellebehandling er effektiv på grunn av endring i immunresponsen mot EBV](#)," Brit Ellen Rød.



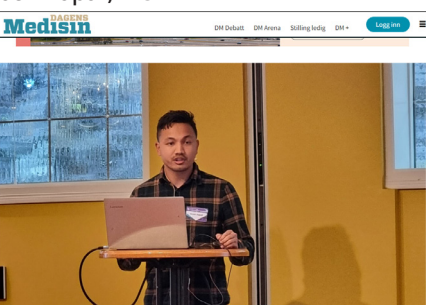
Studie støtter at B-cellebehandling er effektiv på grunn av endring i immunresponsen mot EBV

Dagens Medisin, 11.10.23, "[Økt risiko for migræne før MS-debut](#)," Karine Eid.

LMI, 13.10.23, "[North of the ordinary – norsk aften i Milano](#)," Kjell-Morten Myhr, Øivind Torkildsen.

Aftenposten, 09.10.23, "[Hvorfor kan kysse sykdom føre til MS?](#)" Kjell-Morten Myhr, Øivind Torkildsen. Also in [Bergens Tidende](#) 14.10.23.

Dagens Medisin, 09.10.23, "[Koblet MoBa-data mot MS-registeret for å få svar om D-vitamin](#)," Akash Kapali, MS.



Koblet MoBa-data mot MS-registeret for å få svar om D-vitamin

Er det sollys eller D-vitamin i seg selv som beskytter mot MS? Norsk studie basert på data fra MoBa-undersøkelsen støtter opp om det siste.

KK, 09.10.23, "[MS-syke Julie ble svindlet av «lurelegen» for livsreddende behandling](#)," Lars Bø, i faktaboks.

Dagens Medisin, 05.10.23, "[80 millioner EU-kroner til stort MS-prosjekt](#)," Kjell-Morten Myhr, Øivind Torkildsen

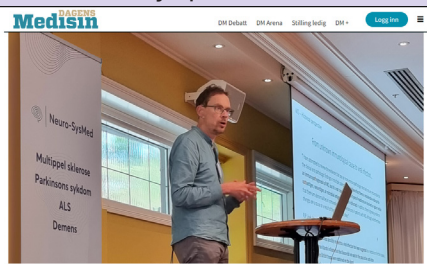


Dagens Medisin, 05.10.23, "[Undersøker om medisiner for andre diagnoser kan ha effekt hos parkinsonspasienter](#)," Julia Tuominen, Parkinson's.

Dagens Medisin, 05.10.23, "[Nærmere en løsning på MS-gåten enn noen gang](#)," Kjell-Morten Myhr, Øivind Torkildsen.

Tidens Krav, 30.09.23, "[Sykdommen har gått i dvale, og jeg vil ikke vekke den](#)," Øivind Torkildsen, RAM-MS.

Dagens Medisin, 29.09.23, "[Svenske forskere skal forsøke å forstå mekanismene bak MS med data fra norske studier](#)," From the Neuro-SysMed Annual Symposium.



Svenske forskere skal forsøke å forstå mekanismene bak MS med data fra norske studier

Professor Fredrik Piehl ved Karolinska i Stockholm deltar i den norsk-ledede internasjonale MS-studien. – Jeg er imponert over hva man har fått til i Bergen, sier Piehl som denne uken var i Bergen på Neuro-SysMed.

MedWatch, 27.09.23, "[Norske forskere leder EU-prosjekt om MS og kysse sykdom](#)," Kjell-Morten Myhr, Øivind Torkildsen. Also in [Nationen](#) 25.09.23, [Nynorsk Pressekontor](#) 22.09.23, [På Høyden](#) 21.09.23.

Dagens Medisin, 26.09.23, "[Studie har undersøkt om det er mulig å predikere depresjon hos MS-pasienter](#)," Frank Riemer, MS.

Dagbladet, 20.09.23, "[Ny studie: MS kobles til sykdom](#)," Kjell-Morten Myhr, Øivind Torkildsen. Also in paper version as "Kan ha løst MS-gåten" and "Tror vi snart kan kurere MS". Also in [Sosialnytt](#) 20.09.23.



VG, 12.09.23, "[Slik vil eldrebølgen endre Norge](#)," Bettina Husebø, dementia.

Dagbladet paper version, 08.09.23, "[Ny studie: Viktig å starte MS-behandlingen tidlig](#)," Øivind Torkildsen, OVERLORD. Also in web version, "[Ny MS-studie: best behandling](#)."

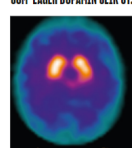
Dagens Medisin, 23.08.23, "[MS-medisiner inkludert på WHO-liste: - Et stort fremskritt for internasjonalt MS-arbeid](#)," Kjell-Morten Myhr, Øivind Torkildsen.



MS-medisiner inkludert på WHO-liste: – Et stort fremskritt for internasjonalt MS-arbeid

VG, 13.08.23, "[Liv Pilbeam \(37\) har Parkinson](#)," Charalampos Tzoulis.

I EN FRISK HJERNE SER GELLENE SOM LAGER DOPAMIN SLIK UT:



DETTE ER DE SAMME GELLENE HOS EN MED PARKINSON

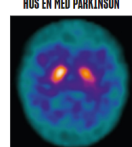


FOTO: CHARALAMPOS TZOULIS

des en blanding av utfask, genetikk og ytre faktorer, sier han.

Liv har tenkt mye på arven sin, genene som datteren har arvet.

Kommer de til å oppleve det samme?

Jeg vil ikke at min sykdom skal definere oppveksten deres, men selvfølgelig gjør den det.

Noen ganger syns hun at firelindene er for omtensomt, for snill.

– Hun sa til meg nå, da jeg var på vei ut her. Mamma, mamma, se på meg!

Datteren let armen henge, riste.

«Jeg er sånn som deg.»

Livs første impuls var å skrike nei. Isteden holdt hun rundt datteren.

«Det håper jeg at du aldri får, lille venn, for det er en del av min sykdom.»

Men Liv har testet seg. Forskerne har ikke funnet noen gener i blodet som kan tilsa at barna vil arve sykdommen.

– Hva er jeg ikke villig til å gjøre for å få mer tid med dem?

Karriereambisjoner og hun er lagt på hylen. Pengene går til oppveier.

Jeg er bevisst på hva jeg vil bruke tiden min på. Familien er det viktigste. →

Aldring og Helse, 22.06.23, "[Boliger til fremme for seniorers helse og livskvalitet](#)," Bettina Husebø.

UjB Nyheter, Det medisinske fakultet, "[Årets Falch-forelesning: Alberto Ascherio](#)," Neuro-SysMed.

Årets Falch-forelesning: Alberto Ascherio

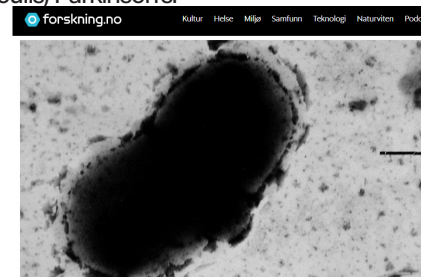
Fire hundre overvarte Harvardprofessors forelesning med tittelen: "The Epstein-Barr virus as the leading cause multiple sclerosis and the possible viral etiology of other neurodegenerative diseases".



Placera, 16.06.23, "[ChromaDex Celebrates the 10th Anniversary of its ChromaDex External Research Program \(CEFP™\), the Industry Leading Research Program Advancing the Science of NAD+ and Healthy Aging](#)," Charalampos Tzoulis, Brage Brakedal.

Dagens Medisin, 16.06.23, "[Mener flere MS-pasienter bør få tilbud om stamcellebehandling i Norge](#)," Øivind Torkildsen.

Forskning.no, 16.05.23, "[Kan parkinson skyldes denne bakterien?](#)," Charalampos Tzoulis, Parkinson's.



LMI, 15.05.23, "[Økning i industristudier innen hjerne helse](#)," Kjell-Morten Myhr.

# RELEVANT CALLS FOR FUNDING

For more information and advice on grants and applications, contact our Research Advisor at Neuro-SysMed Yamila Torres Cleuren ([yamila.torres.cleuren@helse-bergen.no](mailto:yamila.torres.cleuren@helse-bergen.no)). She can among other discuss relevant calls with you, guide your project concept and design, review your proposal for national and international funding sources, from draft to submission stage, and provide advice on implementation of cross-cutting issues into your project.



## Don't know where to start?

What makes a good grant application? What can you apply for? Are you lost in a sea of information with no idea where to begin? We've got you! We're continuing to update and tailor our workshops depending on our researchers, please fill in this form to let us know what kind of training/support you'd like to have: [Neuro-SysMed Career and grant application support \(uib.no\)](#).

## Did you know that UiB has its own dedicated support unit for early stage researchers?

[UiB Ferd Career Center for Early Stage Researchers | University of Bergen](#)

Here is an overview of upcoming UiB courses which may be relevant to you:

20th October 10:15-11:00	<a href="#">Make your research visible using researcher profiles   UiB Library   UiB</a>
26th October 09:00-10:30	<a href="#">Pitch your research</a>
3rd November 10:15-11:00	<a href="#">How can you make your research data open and FAIR?</a>
8th November 14:15-16:00	<a href="#">ChatGPT and similar AI tools in research and writing</a>
8th November 11:30-13:00	<a href="#">Brainbugs</a> (Norwegian: tankevirus), a coping course that won the Health Award 2016
15th November 12:00-16:00	<a href="#">Snakk om forskningen din i media</a> – NB! In Norwegian.
16th November 09:00-12:00	<a href="#">Boost your career by building international networks</a>

## Upcoming deadlines

Here is an overview of the upcoming deadlines for funding, relevant to our Neuro-SysMed students and researchers. For more details, please check the links below, at the Medical Faculty's page on [External Funding Opportunities](#), or ask our Research Advisor Yamila.

### Michael J. Fox Foundation

[Therapeutics Pipeline Program](#). (Parkinson's Disease.) Open deadline during 2023 and 2024.

### Norwegian Research Council

*Groundbreaking research (FRIPRO) – open-ended deadline*

[Researcher Project for Experienced Scientists \(FRIPRO\) \(forskingsradet.no\)](#). Researchers with a PhD more than 6 years ago. Budget: 4-12MNOK. Duration: 3-8 years.

[Researcher Project for Early Career Scientists \(FRIPRO\) \(forskingsradet.no\)](#). Researchers with a PhD between 2-7 years ago. Budget: 4-8MNOK. Duration: 3-4 years.

[Three-year Researcher Project with International Mobility \(FRIPRO\) \(forskingsradet.no\)](#). Researchers with a PhD (less than 7 years ago). Budget: 4.4-4.8MNOK. Duration: 3 years (2 years abroad, 1 in Norway).

### Innovation Grants

**Qualification** – Research Commercialisation from Publicly Funded Research 2023. 2-300 000 NOK, 3-12 months. Open deadline. [Qualification – Research Commercialisation from Publicly Funded Research 2023 \(forskingsradet.no\)](#)

## DID YOU KNOW...

Laurence Bindoff has been keeping busy since he became Professor Emeritus last year. Among other things, he has translated the book "Malfunctions of the energy factory" (Norwegian: "Feil i energifabrikken").



This book started as a science communication project, based on a bilateral partnership between the University of Coimbra (Portugal) and the UiB. It aims to disseminate knowledge about rare diseases, specifically affecting mitochondria. The book is richly illustrated, explaining the problem of the diseases caused by failure in energy production, with a simple and accessible language (available in Portuguese/English and English/Norwegian).

Author is [Manuela Grazina](#) from the University of Coimbra, Portugal. For more information or if you would like to obtain a copy of the book, contact Laurence per e-mail: [Laurence.Bindoff@uib.no](mailto:Laurence.Bindoff@uib.no)

## UPDATE YOUR INFO

### Personal pages

Did you know, that when a research partner, media house or anyone else google you, one of the first ports of call is your personal page at the University of Bergen (if you are a UiB employee.) That's your digital business card. So this is a kind reminder to all who are UiB employees or UiB guest researchers/students, to keep your information updated and professional. This is how you do it:

[How-to in Norwegian](#)

[How-to in English](#)

Here is a [good example](#) of how it should look like.

### Research group pages

Please also have a look at your research group's website. A bit outdated? Please have it updated.

### The Neuro-SysMed website

Neuro-SysMed's web pages are also due for a thorough update, and this will be done in the coming months. If you have any news and updates you would like to share on our website or in the newsletter, please contact [eli.vidhammer@uib.no](mailto:eli.vidhammer@uib.no).

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### Website

[Neuro-sysmed.no](http://Neuro-sysmed.no)

### Events calendar

<https://www.uib.no/en/neuro-sysmed/calendar>

