Dear colleagues and friends,

It is our great pleasure to invite you to the 6th annual meeting of the Nordic Neuromodulation Society (NNS) in Aarhus, Denmark 3-4 Oct. 2019.

The NNS ([http://nordicneuro.org/](http://nordicneuro.org/)) is the Nordic regional chapter of the International Neuromodulation Society (INS, [https://www.neuromodulation.com/](https://www.neuromodulation.com/)), a non-profit organization covering the field of neuromodulation in Denmark, Finland, Iceland, Norway, and Sweden. The society welcomes everyone working professionally with neuromodulation within the Nordic region, regardless of profession.

Neuromodulation is an expanding field, not just in number of implants, but also in indications and techniques. This has the potential to help more patients who suffer from conditions that cannot be treated satisfactorily with other means and calls for more collaboration between different specialties and disciplines.

We have elected to let this years’ meeting programme reflect this. The program is expanded from 1½ days to 2 full days, and we have included talks by experts from most neuromodulation disciplines.

In line with our mission to emphasize the multidisciplinary nature of neuromodulation, we have invited a range of experts with a deep knowledge of both their own field, and of neuromodulation in general. We believe this will make for a programme with great value for everyone working with neuromodulation.

This year we have also increased our focus on junior researchers, with dedicated poster spaces and time set aside for flash talks.

The meeting will be preceded by a ½-day free, informal meeting at Aarhus University Hospital with two parallel sessions. One session has Nordic research collaborations and Nordic follow-up criteria for neuromodulation as its topic. The topic for the other session is Nordic nurse collaboration and network.

Aarhus is the 2nd largest city in Denmark, home to the largest hospital and the 2nd largest university in the country. Dating back to the 8th century, Aarhus is today a vibrant, green city marked by a large student population.

At ARoS art museum we have found a lovely, very professional venue for the meeting.

We very much hope to be able to welcome you to two days of science, clinical insights, and social interaction.

Kaare Meier, MD PhD
Chairman, NNS
Chair of the organizing committee
Scientific program:
Pre-meeting (Wednesday 2/10)

The parallel sessions take place at Aarhus University Hospital, Palle Juul-Jensens Boulevard 165, 8200 Aarhus N, Entrance J, Level 1, University Square

1230-1330 Welcome and lunch at the hospital canteen (Café Nord, AUH; go through entrance J and ask for directions)

1400-1700 Parallel session: Nordic Research Collaboration (Room J116-112). Chair: Kaare Meier, MD PhD
   1400-1415 Welcome and introduction (Kaare Meier, DK)
   1415-1530 Nordic research collaboration and registries (Kliment Gatzinsky, SE)
   1530-1600 Break
   1600-1700 Nordic follow-up criteria and intervals (Terje Kirketeig, SE)

1400-1700 Parallel session: Nordic Nurse Forum – The patient perspective (Room J116-113). Chair: Tina Wang Wedelø, RN PhD
   1400-1415 Welcome to the Nordic Nurse Forum (Anne Lene Høst Knudsen, DK)
   1415-1440 Patient experience, SCS: Interview with an SCS-patient (recorded) and discussion (ALK)
   1440-1505 Patient experience, Sacral Nerve Stimulation: Interview with an SNS-patient (recorded) and discussion (tba)
   1505-1525 Break
   1525-1555 Joint teaching of SCS-patients and relatives, experience from Rigshospitalet, Denmark (Thomas Friis Larsen, DK)
   1555-1610 Presentation of technical setup: Implanters integrated information system, an aid for SCS procedures (ALK)
   1610-1700 Future collaboration for Nordic neuromodulation nurses (all)

1830-2000 Welcome dinner: Salling Rooftop, Søndergade 27, 8000 Aarhus C

2000- Welcome reception for all conference delegates: Salling Rooftop
Day 1 (Thursday 3/10)

0900-0930 Registration & breakfast (note: Doors open at 09.00 sharp)

0930-0945 Welcome (Kaare Meier)

0945-1055 Session chair: Kliment Gatzinsky

0945-1025 Kai Lehtimäki, MD PhD (Tampere University Hospital, FI): Psychiatric indications for DBS

1025-1055 Mikkel V. Petersen, MD PhD (Aarhus University Hospital, DK): The promise and perils of new visualisation methods: From tractography to augmented reality in neuromodulation

1055-1125 Coffee break, posters, networking

1125-1235 Session chair: Tina Wang Vedelø

1125-1205 Prof. Bertil Rydenhag, MD PhD (Sahlgrenska Universitetssjukhuset, SE): Vagus nerve stimulation, indications, efficacy and potential complications

1205-1235 Anita Haahr, RN PhD (Aarhus University Hospital, DK): Living with Parkinson’s disease after DBS. Patients’ and spouses’ experiences

1235-1330 Lunch at ARoS

1330-1430 Session: Sacral Nerve Modulation for pelvic floor dysfunction (Session chair: Lilli Lundby)

1330-1350 Thomas Dudding, MD (Southampton Hospital Charity, UK): Technical advances in the use of sacral neuromodulation for pelvic floor dysfunction

1350-1410 Prof. Philip Edward Van Kerrebroeck, MD PhD (Maastricht University Medical Centre, NL): Clinical development and future perspectives

1410-1430 Michael Sørensen, MD PhD (Hvidovre Hospital, DK): Screening and evaluation of SNS patients

1430-1500 Coffee break, posters, networking

1500-1600 Session chair: Kaare Meier

1500-1530 Flash talks (3 x 8+2 min)

1530-1600 Dirk Rasche, MD (Universitätsklinikum Schleswig-Holstein, DE): Intrathecal Drug Delivery for pain

1600-1700 Social event (all): Special guided tour of ARoS; Pain in the Art (note: ticket must be purchased separately)

1830-2230 Conference dinner (all): Restaurant Det Glade Vanvid, Pakkerivej 2b 8000 Aarhus C (note: dinner starts at 1830 sharp!)
Day 2 (Friday 4/10)

0900-0930 Registration & breakfast

0930-1040 Session chair: Jens Chr. Hedemann Sørensen

0930-1010 **Mads Barløse, MD PhD** (Rigshospitalet, DK): *Neuromodulation for chronic headache*

1010-1040 **Cecile de Vos, MSc PhD** (Erasmus MC, NL): *Neuromodulation; Neuroimaging and mechanism of action*

1040-1110 **Coffee break, posters, networking**

1110-1210 Session chair: Mikael von und zu Fraunberg

1110-1140 **Prof. Frank Huygen, MD PhD** (Erasmus MC, NL): *Neuromodulation and CRPS: The need for a multimodal approach to a multi-mechanism disease*

1140-1210 **Niels Sunde, MD PhD** (Aarhus University Hospital, DK): *Stimulation versus ablation in the treatment of tremor, pros and cons*

1210-1250 **General Assembly of the NNS w/ prizes**

1250-1350 **Lunch at ARoS**

1350-1450 Session chair: Bo Bergholt

1350-1420 **Mikael von und zu Fraunberg, MD PhD** (Kuopio University Hospital, FI): *Repetitive transcranial magnetic stimulation (rTMS) and motor cortex stimulation (MCS) in the treatment of atypical facial pain*

1420-1450 **Fredrik Borgström, MSc** (Quantify Research, SE): *Using Swedish real-world data to study costs and outcomes related to spinal cord stimulation*

1450-1530 **Coffee break, posters, networking**

1530-1600 **Astrid Juhl Terkelsen, MD PhD DMSc** (Aarhus University Hospital, DK): *Complex Regional Pain Syndrome - A diagnosis of exclusion*

1600- Adjourn
Remarks to the program:

Topics:
The NNS is an organization for everyone working with neuromodulation. This year’s scientific and clinical programme features presentations on
- Spinal Cord Stimulation (SCS)
- Intrathecal Drug Delivery (ITDD)
- Deep Brain Stimulation (DBS)
- Sacral Nerve Stimulation (SNS)
- Vagus Nerve Stimulation (VNS)
- SphenoPalatine Ganglion and Occipital Nerve Stimulation (SPG and ONS)
- repetitive Transcranial Magnetic Stimulation (rTMS) and Motor Cortex Stimulation (MCS)

Abstracts, Posters & Flash Talks:
Abstract deadline was 1st July 2019 and is now closed.
All abstracts have been reviewed by all members of the scientific committee, and 3 abstracts were selected for flash talks (8 minutes + 2 minutes for Q&A).
Selected for a flash talk are:
Sam Eldabe - Restorative Neurostimulation for Chronic Mechanical Low Back Pain and Multifidus Motor Control Impairment
Terje Kirketeig - Adverse events in a real world study on 534 patients treated with invasive neurostimulation
Per Almqvist - Neuromodulation of trigeminal neuropathic pain with segmented leads for multi-directional stimulation - a pilot study
There is dedicated space for poster viewing in the exhibition area.
There is a €500 cash prize for the best talk and the same for best poster!

General Assembly:
Current bylaws can be found on the NNS website, www.nordicneuro.org. Suggestions for changes should be sent to the Chairman at neuro@kaare.org at least 4 weeks before the meeting.
Please bring any suggestions forth to the assembly. It’s your organization!
Note: The current board is not up for election before the 2020 meeting.
ARoS is the main art museum in Aarhus and one of the largest museums in Northern Europe. Each year, ARoS has about one million visitors, making it the most frequented art museum in Scandinavia.

ARoS features four spacious galleries, an ARoS Focus gallery, and a storey featuring installational art, and offer a large amount of exhibitions and activities all year round.

On the roof of ARoS you can visit Your rainbow panorama, a permanent work of art consisting of a 150-metre-long and 3 metre-wide circular walkway in glass in all the colours of the spectrum, with 360° views of the surrounding city.

ARoS offers a variety of meeting and conference facilities on the 3th floor of the museum; including a modern auditorium, a furnished lounge for informal meetings, poster space, and room for exhibitor booths. The NNS annual meeting will take place in this inspiring and unique setting, surrounded by award-winning world-class architecture and art. The majority of the floor will be accessible for meeting delegates only.

https://en.aros.dk/
**PREMEETING DINNER**

**Salling Rooftop**

The Salling Rooftop is a sensational roof terrace with a café and a urban oasis on the roof of the Salling department store in the centre of Aarhus. From the rooftop there are fabulous panoramic views of the city, including ARoS, Aarhus Cathedral, and many other popular locations.

You can enjoy a delicious meal or a refreshing cocktail or challenge yourself by stepping out on the nerve-wracking Salling SKYWALK - a glass platform 27 meters above the pedestrianised high street 'Søndre Toldbod', from which you can enjoy marvellous views of Aarhus from above.

Søndergade 27, 8000 Aarhus C

[www.salling.dk/rooftop](http://www.salling.dk/rooftop)

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**CONFERENCE DINNER**

**Det glade vanvid**

Det Glade Vanvid restaurant gives you a spectacular all-inclusive gourmet experience in tastefully decorated and informal settings, overlooking the beautiful Aarhus Marina.

The restaurant waiters will use their knowledge and experience to guide you carefully throughout the event.

An appetizer and a three-course meal will be served at the atmospheric tables, from where you can easily reach the restaurant's seven-choice wine buffet, freshly baked bread, and a variety of oils lined up to spoil your taste buds - in unlimited quantities, of course.

Pakkerivej 2b, 8000 Aarhus C

[https://detgladevanvid.dk/](https://detgladevanvid.dk/)
Committees:

Local organizing committee:
Kaare Meier
Professor Jens Christian H. Sørensen
Research Coordinator Anne Sofie Møller Andersen
Project Nurse Anne Lene Høst Knudsen
Medical student Dennis Poulsen
Medical student Linda Elise Østergaard Eriksen

Scientific committee:
Kaare Meier
Jens Chr. Hedemann Sørensen
Lilli Lundby
Michael Sørensen
Helga Gulisano
Bo Bergholt
Thomas Fichtner Bentsen
Lone Nikolajsen
Ala Ouraiby
Audun Stubhaug
Mikael Fraunberg
Kliment Gatzinsky

NNS Board:
Kaare Meier (DK)
Ala Ouraiby (SE)
Audun Stubhaug (NO)
Mikael Fraunberg (FI)
Practical information:

Registration information:
The online registration system can be found at https://auh.safeticket.dk/nns2019
Registration costs for members for the INS/NNS are:
- Early bird (before 1 July 2019; closed) €100
- Regular registration (before 25 Sept 2019; closed) €150
- Late/On-site registration €200
The rates for non-members are €150 extra (€50 students/nurses), which is converted to 1 year’s membership of the NNS / INS.
If you are in doubt whether you are a member of the NNS/INS, send a mail to Maria Punsalan (pudy@neuromodulation.com) from the INS and ask if you are registered as ab active member.
The registration fee includes breakfast, lunch, and coffee Thursday / Friday at the venue, and conference dinner.
Tickets (€7) to the social event Thursday (“Pain in the art”: A special tour of the ARoS Museum of Art) must be purchased separately to conform with MedTech Europe’s guidelines.

Hotels:
There is a large selection of good hotels in the center of Aarhus. You may want to consider:

  The SAS Radisson is located very close to the venue.
- Scandic Aarhus City https://www.scandichotels.com/hotels/denmark/aarhus/scandic-aarhus-city
  Scandic is very centrally located in Aarhus.
  Comwell is a large business hotel in the center of Aarhus.
  Wake Up Aarhus is an inexpensive alternative, very conveniently located right next to the train station.
Travel
Aarhus can be reached by plane to Aarhus Airport (approx. 40 minutes by car/bus), Billund Airport (approx. 80 minutes by car/bus), and Copenhagen Airport (approx. 3½ hours by train), by train from Western Sweden, and by ferry+car from Norway. A detailed overview of travel opportunities can be found here:

Exhibitors
The meeting’s exhibitors include (alphabetically):
Abbott, Boston Scientific, Mainstay Medical, Medtronic, Nevro, Nuvectra, Stimwave
We thank you for your support!

Financial support
We are extremely grateful for the support of the Lundbeck Foundation, https://www.lundbeckfonden.com/en/

MedTech
The event has been assessed by MedTech Europe (https://www.ethicalmedtech.eu/medtech-apps/cvs/view-event/EMT16434). Event ID EMT16166 Nordic Neuromodulation Society’s 6th annual meeting is Compliant.