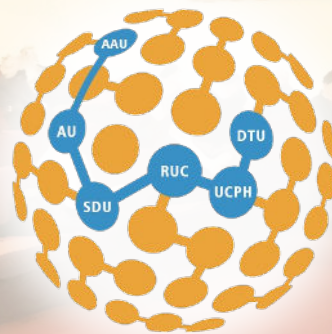


Newsletter

DANNMR

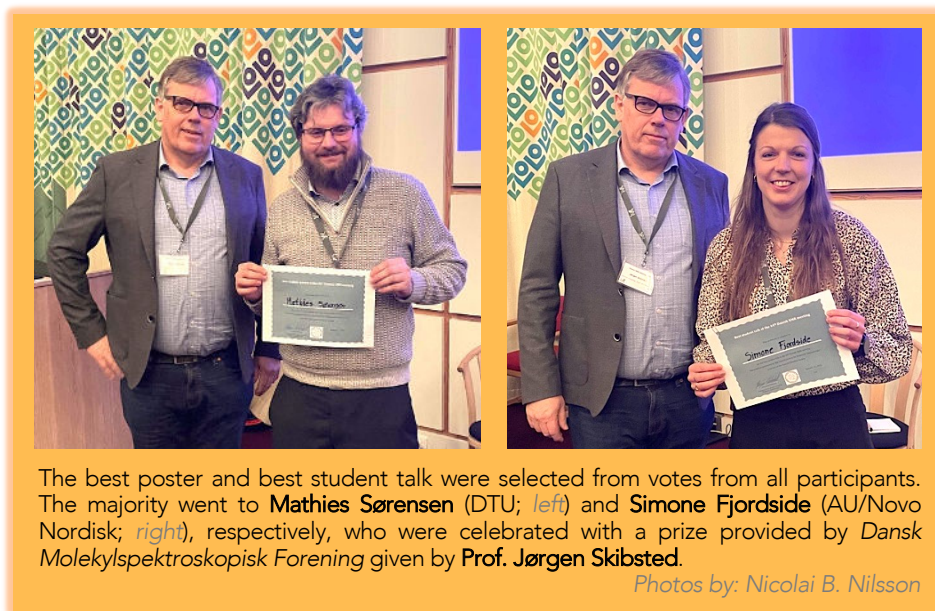


A magnetic moment for DANNMR in Helsingør

2023 - 1

The 44th annual Danish NMR meeting was held at Konventum in Helsingør and started off in Jorns auditorium, where the 96 participants gathered for a short welcome speech held by organizer and principal scientist at Leo Pharma **Flemming Hoffmann Larsen**. The first talk was held by **Prof. Melinda Duer** from Cambridge University. She gave an inspirational talk about the extracellular matrix and the understanding of collagen using solid-state NMR. This was followed by a talk by **PhD Lucas Urbano José** concerning the phosphate removal properties of layered double hydroxides and how they can solve the phosphate shortage problem. The session ended with 28 poster presenters each giving a two-minute flash talk of their projects, which they later presented in detail during the posters-sessions.

The second session of the day included fascinating talks about NMR studies of stratum corneum (**Prof. Daniel Topgaard**), characterization of grafted alginate (**Prof. Finn L. Aachmann**) and metabolic profiling for type 2 diabetes by NMR spectroscopy (**PhD Simone Fjordside**). Finally, **Benjamin Orhan** from Air Liquide gave some insight on the status of the worldwide helium shortage. The two final talks of the day were on quadrupolar patterns (**Dr. Claire Raingeval**) and protein interactions studied by CEST-NMR (**Dr. Frederik Theisen**), before rounding off with a poster session and a delicious dinner.



The best poster and best student talk were selected from votes from all participants. The majority went to **Mathies Sørensen** (DTU; left) and **Simone Fjordside** (AU/Novo Nordisk; right), respectively, who were celebrated with a prize provided by *Dansk Molekylspektroskopisk Forening* given by **Prof. Jørgen Skibsted**.

Photos by: Nicolai B. Nilsson



**NMR opens
new doors every day for
still more unimaginable
scientific progress**
- **Kaare Teilum, UCPH**

The first session on the second day focused mostly on solid state NMR with different talks about subjects such as Solid-State NMR in pharmaceuticals sciences (**Prof. Steven Brown**), MR relaxation in heterogeneous materials (**Dr. Armin Afrough**), calcium-silicate-hydrate (**Dr. Shen-Yu Yang**) and recycled cement (**PhD Jiayi Song**).

After the final poster session of the meeting, vendors from ADC/Labs presented the Computer Assisted Structure Elucidation (CASE) as an alternative to (IN)ADEQUATE. As the meeting neared its end, **Prof. Reinhard Wimmer** from Aalborg University addressed the intriguing case of calmodulin mutations and how NMR can help solve a murder case. The meeting concluded with technical talks regarding tube technology, PENCIL rotors and optimization of NMR by automation. The baton for the annual meeting was passed on the **Prof. Anders Malmendal**, who will organize the next Danish NMR meeting in Roskilde in 2024. We are already looking forward to this encounter!

In the meantime, the Danish NMR Consortium has started an initiative meant to spread the word of the different progresses that are taking place within the groups that use NMR technology around the country. **Jonatan Svendsen**, student assistant from University of Copenhagen, will collect news and stories about the DANNMR community that will gather in coming up newsletters and media content. Feel free to share your advances with him (*contact below*).

If you have any news for the DANNMR newsletter, please contact: jonatan.svendsen@bio.ku.dk

Check out our other news at: <http://dannmr.dk/research.php>

Danish Center for Ultrahigh Field NMR Spectroscopy

Free access, accommodation and transport

The Novo Nordisk foundation grant allowing for an upgrade of the 950 MHz console also provides funding allowing free access to the facilities at The Danish Center for Ultrahigh field NMR spectroscopy. We therefore encourage all potential users to apply for free access at our facility using the application form at nmr.au.dk.

The free access is covering spectrometer expenses; travel to and from the center, and accommodation in Aarhus and all applications will be evaluated by the local facility management before any access can be granted.

Conditions to follow:

- Applications have to go through the website
- Applications have to include a short description of the scientific significance of the experiments and the responsible PI has to confirm the application.
- The application will be evaluated by the local facility management
- **Access** will be granted to the most suitable spectrometer for the task
- **Accommodation** will be at the cheapest local hotel with a SKI agreement (currently WakeUp). A maximum of two persons will be granted accommodation per visit.
- **Transport** methods have to comply with the Aarhus University Travel policy
- Every publication including data from the center must acknowledge the access.

Procedure for application and visits:

1. Contact the laboratory manager in case of any doubts or questions
2. Fill the form on the website
3. Arrange with the local management for most suited time and spectrometer
4. Arrange travel to Aarhus while the local management will book the hotel
5. Prepare your samples as agreed with the local management
6. Come to run your experiments or ship your samples if the local management is to run the experiments for you.
7. Your data will be transferred to you after the visit.
8. Fill the form for travel expenses that you will receive from iNANO staff.



Equipment

Bruker 950	Bruker 700	Bruker 500	Bruker 400
Cryo probe HCN(D)	TXI HCN(D)	TXI HCN(D)	MAS 2.5 mm HXY
MAS 0.7 mm HCN	MAS 1.3 mm HCND	HX (liquid)	MAS 4 mm HXY
MAS 1.9 mm HCND	MAS 2.5 mm HXY	Sample jet	
MAS 2.5 mm Multipurpose	MAS 4 mm HXY	High-pressure system	
MAS 3.2 mm HCN	HRMAS HCP(D)		
HX 4mm broadband	Flow		
Sample jet	Micro-Imaging probe		
In-Cell system	Rheo-NMR		

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