# Newsletter DANNMR

2023 - 3

## 🚀 Exciting News: DANNMR Website Launch 🚀

### The DANNMR Communication Team has been working on a new and more complete website

Get ready for a long-awaited digital upgrade in the world of high-field Nuclear Magnetic Resonance (NMR) spectroscopy as the Danish NMR Consortium (DANNMR) unveil its **new website today!** 🎉 Serving as a platform for 22 research groups across 10 departments and 6 universities in Denmark, our new website is set to redefine collaboration, education, and visibility in the realm of NMR research in Denmark. Explore the new **Impact Section** featuring articles from distinguished NMR researchers, diving into the profound influence of NMR across diverse scientific fields. The new homepage was created by Júlia Díaz Calvete, Jonatan Svendsen and Caspar Elo Christensen.

*Check out the new website today! (www.test.dannmr.dk, please note that it will be transferred to www.dannmr.dk)*

## Departures and arrivals at the DANNMR Community

### Assistant Professor Thibault Viennet joins AU and DANNMR

*Photo: Thibault Viennet*

We welcome **Thibault Viennet** from Lynn (France) to the Danish NMR community. Thibault has been working as a post doc at Harvard and the Dana Farber Cancer Hospital in Boston for the last 6 years and is now starting a position at Aarhus University as an Assistant Professor and is hoping to bring a new angle to the NMR society in Aarhus.

"My research interests are in the mechanisms of protein regulation in human biology and disease. Protein regulation is often 'hidden' in the so-called dark proteome, i.e. the 40% disordered regions that are structurally intractable by crystallography or cryo-EM. Therefore, I am investigating the effect of post-translational modifications targeting disordered domains, at the atomic scale, using solution NMR. I also intend to **establish novel NMR methods** and chemical biology approaches to obtain **NMR-grade phospho-protein samples**, and correlate atomistic information to the cellular fate of phosphorylated proteins." Thibault Viennet explains.

### Student Assistant Jonatan Svendsen closes a chapter in DANNMR

"Now as my position as student assistant has ended, I want to thank the community for the opportunity. It has been a pleasure meeting everyone and getting to know the great community that is the DANNMR Consortium, where I have spent my time hearing about the intriguing possibilities of NMR spectroscopy and how it is used in a plethora of different ways even in a small country like Denmark.

I hope to share this knowledge with you and the world of academia and industry in Denmark to **show others the possibilities of NMR** and make them think about how this tool maybe could be used for their own research as well. Personally, I have learned a lot about NMR spectroscopy and the world of science in general, which I will use in my further academic journey, and I look forward to crossing ways with the people from this community again, maybe even at a future DANNMR meeting.

Best, Jonatan"

*Photo by: Júlia Díaz i Calvete*



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

Check out our other news at: http://test.dannmr.dk/impact

# Instruments

## The National Instrument at Aarhus University

The NMR Laboratory Manager **Dennis Wilkens Juhl** (AU) informs:

"At the Danish Center for Ultrahigh Field NMR Spectroscopy we are working hard to improve our facilities. At the moment we are in the planning process of the coming upgrade of the console for the 950 MHz spectrometer which is expected to be installed before New Year. The new NEO console should give us a very well-functioning state-of-the-art spectrometer.

During 2023 several groups have been using the facilities with support from the NNF grant that also supports the upgrade and we are looking forward to many visits again in 2024.

By the end of October, the long awaited liquid-state 31P probe for the 950 MHz spectrometer was also installed. This probe is equipped with three channels (1H, 13C, 31P) and a lock channel and we are looking forward to test the performance soon.

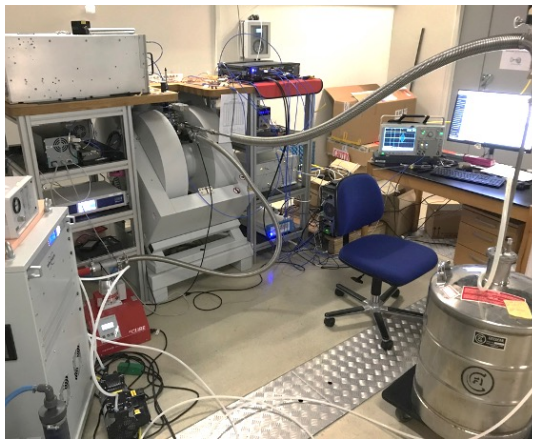

*Photo by: Dennis Wilkens Juhl*

Last but not least, we have been building a world class pulsed EPR/DNP equipment in the same room as the 950 MHz spectrometer (*picture*). A high portion of our local research will be focused on pushing the limits for the performance of this equipment and hopefully we will show amazing pulsed EPR/DNP is during 2024."

# DANNMR Annual Meeting

## Prof. Anders Malmendal (RUC) invites you all to the next DANNMR Annual Meeting 2024

The Danish NMR meeting is the event of the year in Danish NMR where scientists working with all types of NMR at Danish universities and industry come together to share results and ideas, and to socialize. Next year this event will be on January 29-30 at Comwell Hotel in Roskilde. Details will be provided at https://danish-nmr-meeting.dk.

> **The DANNMR Annual Meeting is a great example of the close collaboration within the Danish NMR community. With around a hundred participants this 2023, from all the six Danish universities and a dozen different companies, it illustrates how well functioning the collaboration is.**

*Photo by: Júlia Díaz i Calvete*

Keynote presentations for 2024:

- **Ana Gil, University of Aveiro, Portugal:** *A two-part NMR metabolomics story: optimizing stem cell osteogenic differentiation and searching for markers of therapy resistance in breast cancer*
- **Flemming Hansen, University College London, UK**: *Using deep learning to unleash the full potential of NMR spectroscopy*
- **Leonidas Emmanouilidis, ETH, Switzerland**: A multidisciplinary approach for studying the structure and maturation of protein liquid droplets
- **Thibault Viennet, Aarhus University, DK**: *Novel NMR methods applied to phospho-regulation of cell signaling enzymes*

*Deadline for registration will be December 13th – bring all your group!!*

# Announcements: other coming meetings

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## MR FOOD conference

Unlock the future of NMR research and the latest advancements in Food Science at the XVIII Brazilian Magnetic Resonance Conference and 16th International Conference on the Applications of Magnetic Resonance in Food Science (MR Food)! Join us from **June 3rd to June 8th, 2024**, in the captivating setting of Foz do Iguaçu, Brazil – a triple border where Brazil, Argentina, and Paraguay meet. With **Professor Søren Balling Engelsen** of the University of Copenhagen, Denmark, sitting in the scientific committee.

This event marks the first time **MR Food** ventures outside of Europe. Immerse yourself in the largest NMR event in Latin America, forging connections with leading minds in the field. Explore the stunning Atlantic Forest, witness one of the world's greatest waterfalls, and experience the grandeur of the Itaipú hydroelectric power station, the second largest on the globe. Don't miss this chance to blend science and nature in an unforgettable conference.


## FGMR meeting

In our recent DANNMR steering committee meeting, we proudly announced the appointment of **Niels Chr. Nielsen** from Aarhus University as the Danish NMR representative in the **scientific board of the 2024 FGMR meeting** organized by the **German Chemical Society in Rostock held 9-12 September 2024**. With a wealth of knowledge and experience in NMR spectroscopy across diverse research fields in Denmark, Niels Christian is poised to make valuable contributions to the selection of excellent speakers, ensuring the overall success of this significant event. Recognizing Denmark's internationally visible NMR community, the meeting organizer specifically sought our involvement, and Niels Christian is ready to play a key role in this collaborative effort. Stay tuned for further updates as the program takes shape, and please feel free to reach out if you have any additional requests or inquiries.

In accepting the role as the Danish NMR representative for the 2024 FGMR meeting, Niels Chr. Nielsen expresses his enthusiasm, stating:

> **I look forward to contributing to the vibrant scientific discussions and collaborative spirit that define the international NMR community, representing DANNMR with pride.**
>
> **- Niels Christian Nielsen (AU)**

## DANNMR PI and Manager meeting at Danish NMR meeting

**DANNMR** hosts the annual Academia/Manager/Industry meeting at the Danish NMR meeting where we discuss joint matters as strategy for Danish NMR spectroscopy, joint teaching, opportunities and challenges. This year we will meet before the program of the Danish NMR meeting starts, **Monday January 29th from 10:30 – 12:00**, and the following agenda is planned. Please make sure you plan to participate so we can get all input necessary:

### Preliminary agenda
January 29th 10:30 – 12:00

1) Welcome by the DANNMR steering committee
2) A new Nordic collaboration on NMR education?
3) New Danish ambition for Nordic NMR
4) Status and possibilities at the Danish Center for Ultrahigh Field NMR Spectroscopy

*Break*

1) Presentation of the new DANNMR homepage
2) What data should DANNMR collect and how? Number of students, projects, instruments?
3) How do we secure the next generation of NMR scientists?
4) Wrap up/AOB

# Facilities

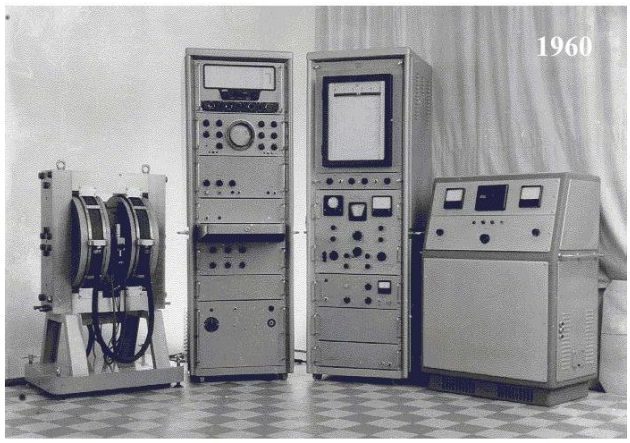
## NMR recycle site

### Opportunity to acquire and sell used NMR equipment:

Many NMR groups within DANNMR have used NMR equipment that others might be able to use. There are companies and university research groups that refurbish used NMR equipment or use parts to make e.g. new probes.

We plan to make a site available within DANNMR where you can list used equipment that might be of interest to others. Here, we will also compile a list of companies and research groups, which might be interested in taking over used equipment. If you know of any research groups that are interested in taking over used equipment, please write name and contact to chgo@dtu.dk.

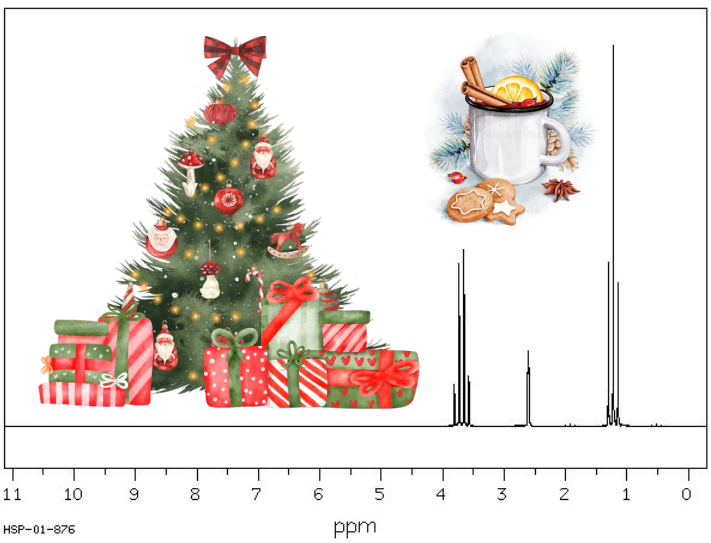
We hope to discuss this with all of you at the **Danish NMR meeting in January 2024.**




# Merry Christmas!

## Best wishes to all our members

We wish you all a very **Merry Christmas** and a **Happy New Year 2024**, when we will see each other and continue working together for keeping this community active and strong! Thank you for all your dedication this year and for making the Danish NMR Consortium such a potent scientific network. We are making a real impact!



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