

Novo Nordisk Foundation Pulse EPR Center steering committee meeting

5 November, 2024

Joseph McPeak, last updated 3 Dec 2024

Attended by: Eric McInnes, Susanne Mossin, Joseph McPeak

### *The purpose of the committee*

The steering committee will review and evaluate the performance of the center on a yearly basis to ensure that local management maintains fair and transparent practices in accordance with the governing of relevant procedures, allocation of measurement time, and support of users; and, will advise on the strategic planning of outreach measures to establish new user communities. In the event of a dispute regarding the management of the facility or allocation of resources, the steering committee may act as the primary arbitrators.

### *Overview of the center progress*

The following is an overview of the major milestones achieved in the current reporting year (2024) and encompasses progress from the prior year following the successful delivery and installation of the Pulse EPR spectrometer. When relevant, milestones are either marked by their completion date (Comp) or by their estimated date of completion (Est). Only milestones discussed within the meeting appear in the included summary.

- Delivery and installation of the pulse EPR instrument (Comp: September 2023)
- Installation of the liquid helium infrastructure, including recovery (Comp: September 2023)
  - o Revisions are ongoing.
- Installation of user-accessible data management infrastructure (Est: December 2024)
  - o Network infrastructure has been installed in the facility.
  - o The data storage buffer server has been delivered and installed, but not yet configured.
  - o The user-accessible computational server has been ordered, but not yet delivered.
- Increasing the accessible magnetic field to 1.7 T (Est: November 2024)
- A publicly accessible website (Est: End of year 2024)

- First annual users meeting (Est: End of year 2024)

Number of registered users of the facility: 33

A brief overview of the demographics and research areas of the users was given, with most users investigating quantum materials or catalysts, primarily from within Denmark; though, a few international users have sent samples for measurement.

The center was advertised at three internal symposia, the Danish Chemical Society meeting, two international conferences, and one international summer school.

Results obtained at the center were presented in two international conferences and resulted in three publications.

#### *Recommendations from the committee members on future endeavors*

EM suggests purchasing a benchtop instrument if funding is available to limit the amount of CW experiments performed on the pulse instrument.

EM asks about the goals and status of the center to be achieved by the end of the funding period and what will be required to accomplish these goals, which in turn will dictate effort allocation.

EM stresses the importance of expectation management with respect to engagement of users.

SM suggests predefined measurement blocks for external users to limit efforts towards any single measurement or user result, thereby managing work hours.

SM suggests reaching out to researchers in Sweden and Norway where pulse EPR may be underutilized. Specific suggestions for users were given.

EM suggests more targeted communication with users, with clear expectations and results oriented discussions.

Concerns of costs for access to the center after completion of the funding period were discussed by all committee members.