

Within the recently funded **ERC StG HYPMET (101117082)**, a fully-funded 2-year postdoctoral position (1+1) is available in the group of Gabriele Stevanato, starting *as soon as possible*. The project will be dealing with the set-up of a new parahydrogen-induced polarizer, at 20 K, for in-vitro and in-vivo application. **RF design and implementation is a strong plus**. A specific focus will concern the integration of the newly developed sample shuttle system to our new benchtop NMR (XPulse from OI). Depending on the candidate's interests and skills, there is the possibility to work on designing and implementing NMR pulse sequences for polarization transfer at low and high magnetic fields.

Your tasks

- Develop a 20 K parahydrogen generator for hyperpolarized NMR experiments.
- Develop radiofrequency technology for pulsed experiments at low magnetic field.
- Integrate the currently developed sample shuttle system with NMR detection.
- Perform hyperpolarization NMR experiments at low (1.4 T) and high (9.4 T) magnetic field.
- Present the results at national and international conferences and publish on high-impact peer-reviewed scientific journals.

Your profile

- You have completed your university studies (Phd and/or MSc) in Physics, Engineering, Biomedical technologies, Chemical physics or related fields.
- You have knowledge, practical experience and abilities in magnetic resonance or you're willing to acquire them.
- You will perform goal-oriented scientific work.
- You are willing to coordinate and assist the work of doctoral and master students who will join the group at a later stage.

We offer

- A position within the vibrant and rapidly growing Department of Chemical Sciences at University of Padova.
- The possibility to grow your scientific and management skill.
- A net salary of Eur >2000/month (25000 per year) with possibility of contract extension.
- NMR laboratory equipped with a benchtop NMR system, a 400 MHz liquid-state NMR system (to be delivered and installed during the appointment), a liquid-N₂ fully working parahydrogen generator.

Apply at: <https://pica.cineca.it/unipd/>

PI of the project and contact person:

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<https://sites.google.com/view/gabristevanato/home>