

PhD and postdoctoral positions in The Frydman Lab

The Frydman lab is seeking candidates for PhD and postdoctoral positions for research in biomedical imaging. The candidates' research will deal with **the development of new in vivo approaches for advancing the study, diagnosis and prognosis of cancer and of pregnancy malformations, based on emerging spectroscopic imaging techniques. The emphasis of these studies will be tailoring the ultrahigh field, multinuclear capabilities available at our Institute (15.2T animal MRI, 7T human MRI, 18.8T microimaging) for optimizing the information available from from MRSI, including observation of low-gamma -hyperpolarized ^{13}C and ^2H - nuclei** (Science Advances, in press, 2024; Scientific Reports. 13, 19998, 2023; NMR Biomedicine, e4995 (2023) - cover of November Issue; Magn. Reson. Med., 86, 2604, 2021 - cover of December issue; Metabolites, 11, 376, 2021; NMR Biomed., 33, e4208, 2020 - cover of March issue; NMR Biomedicine, 31, e3995, 2018 - cover of November issue; Proc. Natl. Acad. Sci. USA, 115, E2429, 2018)

The research of these scientists will complement related research going on in our group in the areas of solid state NMR, ultrafast NMR/MRI acquisition techniques, and MRI human imaging, providing a unique experience for the pursuit of an academic or industrial career. Funding for both positions is available.

While aimed at recruiting scientists with experience in any area of magnetic resonance, applications from candidates which have amassed imaging training during the course of MSc studies will also be positively considered.

The Weizmann Institute, arguably Israel's premier scientific institution, is located in a small, affordable and friendly town at the feet of the Judean hills. It is a research center whose official language is English, and which offers numerous facilities to international visitors, including furnished apartments for postdocs and students. From its inception the Institute has shown an unequivocal commitment to all areas of magnetic resonance, and over the years it has made extensive investments in MR faculty, staff and infrastructure. As a result the Institute possesses several 400 and 600 MHz instruments with microimaging/solids/liquids facilities, an 800 MHz NMR with solids/microimaging/cryoprobe accessories, a 1 GHz NMR machine equipped with three cryoprobes, animal scanners at 7 and 9.4T, a cryoprobe-equipped 15.2T multinuclear animal MRI scanner, 3T and 7T whole-body Prisma and Terra human MRI scanners with massively parallel transmit and receive technologies and multinuclear options, a number of DNP hyperpolarizers, and numerous (dozens) of other NMR instruments placed in various magnetic resonance buildings. Close to ten research groups involved in all areas of magnetic resonance use these facilities and partake of shared research and teaching programs, lending a uniquely vibrant atmosphere for professional development.

Further information on our group's activities and about the postdoctoral program at Weizmann can be found in https://www.weizmann.ac.il/chemphys/Frydman_group, and in <http://www.fgs.org.il/en>

If interested in these positions should please send CV and two letters of reference to lucio.frydman@weizmann.ac.il

