

The Israeli 2024 Magnetic Resonance Meeting

In Memory of
Prof. Asher Schmidt

Supported by



Technion, Schulich faculty of Chemistry, Hall 1

Program

Morning Session

9:15 - 9:40

- Morning Gathering and Coffee

9:45 - 9:55

- Opening Remarks (10 min)

Nimrod Moiseyev, Technion

9:55 - 10:20

- **Lecture 1 (25 min, discussion included)**

Ira Ben Shir, Technion

**Molecular Insights into Biomineralization Through Solid-State NMR:
Celebrating Prof. Asher Schmidt's Contribution**

10:20 - 10:45

- **Lecture 2 (25 min, discussion included)**

Daniella Goldfarb, Weizmann

**^{19}F electron-nuclear double resonance as a tool for structural studies
biological and chemical systems**

10:45-11:00

- **Short Lecture 1 (15 min)**

Hyla Allouche-Arnon, Weizmann

**From PET to MRI: *In vivo* Mapping the HSV1-TK Reporter Gene with “hot-spot”
2H-MRI Using Synthetic Deuterated Thymidine Analog**

11:00- 11:25

- **Lecture 3 (25 min, discussion included)**

Yishay Manassen, BGU

STM NMR

11:25- 11:40 short Coffee Break (15 min)

11:40 - 12:05

- **Lecture 4 (25 min, discussion included)**

Moti Freiman, Technion

**Model-Based Self-Supervised Motion Correction for Robust Cardiac T_1
Mapping**

12:05 - 12:30

- **Lecture 5 (25 min, discussion included)**

Eike Brunner, TU Dresden Germany (via zoom)

Solid-State NMR Investigations of Silica Biomineralisation in Diatoms

12:30-12:45

- **Short Lecture 2 (15 min)**

Yuval Steinberg, Weizmann

The Composition and Structure of the SEI on Na-Ion Anodes Revealed by Exo- and Endogenous Dynamic Nuclear Polarization - NMR Spectroscopy

12:45-13:00

- **Short Lecture 3**

Shira Haber, BGU

Chemical Upcycling of Polymers: Insights from NMR Methodology

Lunch and Poster Session

13:00- 14:00

- **Lunch and Poster Viewing, 60min**
-

Afternoon Session

14:00 - 14:40

- **Faculty Colloquium (40 min)**

Amir Goldbourt, TAU

Dynamics averaging of anisotropic NMR interactions reveal different dynamic behaviour in filamentous phage capsids

14:40 - 15:05

- **Lecture 6 (25 min, discussion included)**

Roni King, former veterinarian at Nature & Parks Authority

Wildlife rabies-the disease and the Oral Rabies Vaccination

15:05 - 15:10 Short break following the colloquium

15:10 - 15:35

- **Lecture 7 (25 min, discussion included)**

Lucio Frydman, Weizmann

Can NMR Spectroscopy be of Help for Preventing Deaths from Pancreatic Cancer?

15:35 - 16:00

- **Coffee Break (25 min)**

16:00 - 16:15

- **Short Lecture 4 (15 min)**

Eyal Laster, TAU

High-field hyperpolarization of ^{13}C nuclei using NV centers in diamond

16:15 - 16:40

- **Lecture 8 (25 min, discussion included)**

Or Perelman, TAU

AI-Based Interventions Along the Molecular MRI Pipeline: The Quest for Speed, Specificity, and Histological Fidelity

16:40 - 17:05

- **Lecture 9 (25 min, discussion included)**

Gil Goobes, Bar Ilan

Regulation of mineral films on bone apatite crystals and early mineralization events by non-collagenous bone proteins

17:05 - 17:20

- **Closing Remarks (15 min)**