

# DACH-ISMIRM Annual Meeting 2024

## Poster Session Wednesday, September 04, 16:30-17:45

### Hyperpolarization and Metabolic Imaging

- P101 *Implementation of SLIC-SABRE hyperpolarization of  $1\text{-}^{13}\text{C}$  pyruvate*
- P102 *Implementing a Xenon polarizer for in vitro and in vivo imaging*
- P103 *Metabolic imaging with deuterated Glucose (and HP pyruvate) in a colitis model*

### MRI System Hardware and Technical Innovations

- P201 *A Low-Cost Magnetic Measurement System for Low-Field MRI Magnets based on a Motion Tracked Flexible-Joint Robot with 5 Degrees of Freedom*
- P202 *Automated Gas Delivery System for Parahydrogen-Induced Polarisation at up to 10 bar*
- P203 *Easy Rebuildable Cubic 3-Axis Positioning Robot Based on Open-Source Hardware: Validated via Camera-Based Motion Tracking and Initial Application in Magnetic Low Field Mapping*
- P204 *Inductively coupled coils for 1.5 T, 3 T and 7 T MRI*
- P205 *SQUID based Method of Evaluating Noise Characteristics of High Temperature Superconductors used in Novel Low Field MRI Scanner Designs*

### MRI Sequence Development and Optimization

- P301 *CEST MRI multi-pool quantification through simplified model-based analysis*
- P302 *Direct Encoded Signal Control with Phase Distribution Graphs for readout-tailored multipulse pTx optimization*
- P303 *Implementing whole brain spectroscopy on a vendor agnostic pulse programming platform*
- P304 *Optimization of multi-VENC compressed sensing 4D flow MRI for high-resolution neurovascular applications*
- P305 *SNR requirements for quantitative frequency-modulated bSSFP*
- P306  *$T_2$  mapping based on frequency-modulated bSSFP*
- P307 *The impact of fat-navigator resolution on motion parameter estimation accuracy*
- P308 *Ultra-Low Frequency MR Elastography*

### Clinical and Biological Applications

- P401 *Association Between Arterial Hypertension and Spinal Degeneration: An MRI-Based Cross-Sectional Study*
- P402 *Automatic evaluation of the properties of the glymphatic system using diffusion MRI data*
- P403 *Cardiac CINE imaging at 0.55T – a comparison to 1.5T*
- P404 *How similar is quantitative MRI in the human brain measured ex vivo and in vivo?*
- P405 *Impact of image registration and fibre orientation on the DTI-ALPS-index*
- P406 *Neurobiochemical correlates of long-term neuropsychiatric consequences of COVID-19 disease*
- P407 *Optogenetic fPET/fMRI Reveals Distinct Roles of the Substantia Nigra in Motor and Cognitive Processes*
- P408 *Semi-Automated Segmentation Pipeline for Dynamic MRI Analysis of Knee Joint Kinematics*
- P409 *Tract masks for refined analysis of diffusion properties in motor tracts related to functional recovery after stroke in mice*
- P410 *Unravelling yeast metabolism with real-time deuterium magnetic resonance spectroscopy*

