NMR Operator Training

Schedule:

Week 1: Device and personal protection rules; introduction to hardware and software.

Week 2: Topspin software basics; lock and shim options; opening the lock window.

Week 3: Sample insertion; recommended volumes; locking on solvent and field stabilization.

Week 4: Creating new 1H and 13C files with edc command.

Week 5: RF tuning and matching of probe (wobb) for 13C and 1H.

Week 6: Magnetic field shimming (topshim gui); evaluation of resolution and sample quality.

Week 7: Automatic 1H pulse calibration (pulsecal) and acceptable pulse lengths.

Week 8: Setting parameters and running 1H measurements (zg); receiver gain (rga).

Week 9: Viewing and understanding parameter lists (ased, eda, edp).

Week 10: Stopping measurements properly (halt, stop, kill).

Week 11: Processing FID: ft, apk, manual phase and baseline correction.

Week 12: Quantitative integration of 1H spectra; integration routine.

Week 13: Setting parameters and running 13C measurements (jmod); proton decoupling considerations.

Week 14: Processing 13C FID: exponential filtering (LB=3 Hz), efp, phase correction, peak picking and calibration.