NMR Operator Training II.

Schedule:

Week 1: General introduction to the NMR laboratory and instrument. Overview of safety rules.

Week 2: Introduction to the basic functions of the NMR software; basic setup of the NMR instrument (locking, tuning, shimming).

Week 3: 1H pulse calibration, 1D 1H NMR measurement.

Week 4: Experimental parameters of 2D 1H–1H correlation spectroscopy (COSY).

Week 5: Measurement parameters of 2D 1H–1H total correlation spectroscopy (TOCSY).

Week 6: Experimental parameters of 2D 1H–1H nuclear Overhauser effect spectroscopy (NOESY, ROESY).

Week 7: Practicing the independent setup of homonuclear 2D NMR experiments.

Week 8: Experimental parameters of heteronuclear single-bond 2D NMR (HSQC).

Week 9: Experimental parameters of heteronuclear multiple-bond 2D NMR (HMBC).

Week 10: Basics and measurement of water suppression 1H NMR (WATERGATE sequence).

Week 11: Practicing the correct setup and measurement of the studied 2D NMR experiments.

Week 12: Practicing the correct setup and measurement of the studied 2D NMR experiments.