1. Magnetic Field Strength of Scanner Used:

[ ]  1.5 T [ ]  3.0 T [ ]  4.0 T [ ]  7.0 T [ ]  Other:T

1. Body part scanned: **[ ]** Brain [ ]  Cervical spine [ ]  Thoracic spine [ ]  Lumbar spine
2. RF receiver coil(s) and number of channels: [ ]  Head coil,[ ]  Neck coil,

(check all that apply) [ ]  Spine Array, [ ]  Body coil (transmit)

1. Sequences used:

[ ]  Single voxel (SVS)

[ ]  Spectroscopic Imaging (SI)-2D

[ ]  SI-3D

[ ]  PRESS

[ ]  STEAM

[ ]  Spin-echo

[ ]  T1 (for segmenting to obtain CSF and tissue-type (GM and WM) composition of MRS voxels used)

[ ]  Other, specify:

1. Spectroscopy sequence parameters
2. For metabolite data acquisition:

Repetition time (TR): ms

TE: ms; For STEAM, TM= ms

Number of averages: Acquisition time: minutes

1. [ ]  SVS
2. Anatomical location of voxel:
3. Voxel size: left-right: mm; anterior-posterior: mm;

inferior-superior: mm

1. Voxel volume: mm3

[ ]  SI

1. Anatomical coverage of CSI-slice or slab:
2. FOV: In-plane: x mm2; z-direction (3D): mm
3. Slice/slab thickness: mm;
4. Matrix size: In-plane: x; z-direction (3D): points
5. Water suppression scheme: [ ]  CHESS [ ]  Other
6. Water signal suppression bandwidth: Hz
7. For water reference data acquisition

TR = ms (if different from the metabolite data acquisition)

TE = ms (if different from the metabolite data acquisition)

Number of averages; Acquisition time: minutes

1. Spectral points (data size): Points
2. Spectral bandwidth: Hz
3. For PRESS, is it symmetric (TE = TE1 + TE2; TE1 = TE2) or asymmetric (TE1 ≠ TE2)?

**[ ]**  Symmetric **[ ]**  Asymmetric, TE1 = ms; TE2 = ms

1. Post processing applied
2. B0-shift correction: [ ]  Yes [ ]  No
3. Eddy-current-induced spectral distortion correction? [ ]  Yes [ ]  No
4. Residual water signal removed? **[ ]**  Yes **[ ]**  No

If Yes, water signal removal filter used:

1. Metabolite concentration reported in: [ ]  Absolute value [ ]  Institutional unit [ ]  Ratio
2. Quantitation takes into account CSF partial volume? [ ]  Yes [ ]  No
3. Spectral fit software used: [ ]  LCM [ ]  jMRUI [ ]  Other
4. Name of the scanner manufacturer:

[ ]  GE [ ]  Siemens [ ]  Philips [ ]  Other:

1. Name of the scanner software and its version number:

Name: Version Number:

## GENERAL INSTRUCTIONS

This CRF includes data typically recorded for MRS. This technique is used to study metabolic changes in diseases affecting the brain. Biochemical information can be obtained in a non-invasive way, as opposed to an MRI which provides information about the structure of the body.

Important note: None of the data elements included on this CRF Module are classified as Core (i.e., required for all ALS studies to collect. All data elements are classified as supplemental (i.e., non Core) and should only be collected if the research team considers them appropriate for their study. Please see the Data Dictionary for element classifications.

## SPECIFIC INSTRUCTIONS

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.