

Protocol number 1.1

Collecting CSF for the Network

The following protocol is prepared solely for the basic neurochemistry routines of the Competence Network Dementias. Additional research protocols that are designed for the improved determination of novel neurochemical dementia markers will be provided separately. Spinal tap has to be performed under the safety and legal regulations as specified by each local center. Whenever possible, the spinal tap should be performed following the brain imaging to exclude increased intracranial pressure not only by inspection of the optic disk. Overall, collection of CSF for routine CSF/serum analysis should be performed according to your well established internal protocol.

1. Precool (wet ice, 0-2 °C) 16 Matrix-vials.
2. The patient should be in the fasting state, and the spinal tap should be performed in the morning (8-11 AM), preferentially in a sitting position.
3. Perform lumbar puncture collecting CSF into one polypropylene test tube (e.g. Sarstedt tube with a volume scale) **at room temperature**, mix it gently, for the Network project separate 4.5 mL of CSF into another polypropylene tube. The remaining CSF is to be used for the routine analysis.
4. Within 15 min., spin down the tube (1,600 x g, room temperature, 15 min.); pipette supernatant directly into the 16 precooled Matrix-vials, 250 µL into each one. Mark the caps with **BLACK** color.
5. Place the vials into rows **1-2** (the first patient) and **7-8** (the second patient) of a Matrix box (see enclosed diagram). For the project, it is essential to collect enough CSF to fill 16 vials (each vial, 250µL) from one patient. However, if less material has been obtained, leave appropriate positions of the Matrix box empty – do not put there any vials!
5. Freeze at –80 °C immediately until shipment on dry ice. **Never** allow the samples to thaw in between.

NOTE: Performing the initial steps **at room temperature** can only be tolerated in case the maximum time interval between the end of the spinal tap and the aliquoting CSF into precooled Matrix-vials does not exceed 30 min. !!

ADDENDUM: In case of any questions regarding this protocol, do not hesitate to contact Dr. Piotr Lewczuk at Molecular Neurobiology Lab, Department of Psychiatry and Psychotherapy, University of Erlangen-Nuremberg, phone: 09131/8532083, e-mail: Piotr.Lewczuk@psych.imed.uni-erlangen.de