#### NRC-RPD Consortium

National Reference Center rare disease [NRC] for (rapidly) progressive dementia's [RPD] for diagnosing Creutzfeldt-Jakob disease (ddCJD)

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Guidelines toward a unified protocol for handling of CSF and plasma for neurodegenerative protein biomarkers

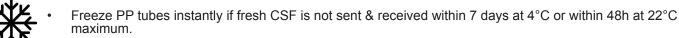
### **CSF** collection & treatment



- Lumbar puncture (LP) at level L3/L4 or L4/L5
- Discard the first 2ml of CSF



- Collect at least 2x 1ml-1,5ml CSF directly into 1,5ml polypropylene (PP) Low Bind (LoB) tubes\*.
  Note: If no PP LoB tubes are available, please be aware to still use PP tubes with an according volume to the sampling.
  Sparsely filled tubes, use of double volume sized+ tubes, or decanting into secondary tubes leads to aberrations.
- Centrifugation and transfer into new PP LoB tubes of CSF after LP is not necessary if erythrocyte count is <1000/µl or no visible blood contamination.</li>



# EDTA plasma collection & treatment (optional)



EDTA plasma, mirrored to the CSF sampling, needs to be prepared in the clinical lab within 2h after blood draw.



• Decant at least 2x 1ml-1,5ml Plasma directly into 1,5ml LoB PP tubes\*.

Note: If no PP LoB tubes are available, please use PP tubes with an according volume to the sampling. Sparsely filled tubes, use of double volume sized+ tubes, or decanting into secondary tubes leads to aberrations.

 Freeze PP tubes instantly at -80°C and always send on dry ice. This can be done batchwise if no immediate clinical timeframe. If not sent together with CSF, please add sampling date.



Note: To accelerate scientific research into the diagnosis of these neurodegenerative disorders we would like to ask a blood sample (plasma sample) in addition to your CSF sample. This appended plasma sample will be stored in the IBB Biobank like CSF samples.

### Direct shipment or storage for batch shipment

- Include 2 forms: our Biomarker request sheet which includes an informed consent and a request for relevant clinical data; your lab subcontracting form.

IB?

- Ship fresh CSF within 7 days (max 4°C) or 48h (max 22°C); Frozen CSF must be kept in frozen condition while shipping.
- Ship plasma always frozen, preferably at -80°C

Sample receipt: Labo klinische biologie UZA, route 169



## Drie Eikenstraat 655

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\*Polypropylene LoB tube references validated for direct testing\*

#### Low protein Binding screw cap tubes \*Order nr 72.703.600 - 1,5ml micro tube SARSTEDT AG & Co. KG

(Order nr 62.610.018 (10ml) for 5-8 ml volumes - use only in upright position)

References

The Alzheimer's Association international guidelines for handling of cerebrospinal fluid for routine clinical measurements of amyloid β and tau, Hansson et al, Alzheimer's Dement., 2021. Guidelines for the standardization of preanalytic variables for blood-based biomarker studies in Alzheimer's disease research, O'Bryant et al, Alzheimers Dement., 2016. Toward a unified protocol for handling of CSF before β-amyloid measurements, Janelidze et al., Alzheimer's research & Therapy, 2019.