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CSF Biomarkers in Alzheimer's Disease (AD), a descriptive classification scheme (A/T/N):

	CSF cut-off values [1]	CSF ATN classification	ATN classification [2] presence of:
Aβ Ratio Aβ1-42 /Aβ1-40	> 0,069 pg/ml	Pathological if lower → **A+** priority is ratio over single measured value Aβ1-42	**Amyloid** **decrease** in CSF Aβ ratio or Aβ1-42 in absence of Aβ1-40 (Or presence in amyloid PET)
Aβ1-42	> 600 pg/ml		
P-Tau181	< 56,5 pg/ml	Pathological if higher → **T+**	**Tangles** **increase** in CSF P-Tau181
T-Tau	< 404 pg/ml	Pathological if higher → **N+**	**Neurodegeneration** **increase** in CSF T-Tau (or presence of atrophy on structural MRI, FDG PET)
	> 1200 pg/ml		See below T-Tau / P-Tau remark

[1] *ref. Alcolea et al., 2019 ACTN; cfr.Perugia data, Lumipulse cut-off values*
[2] *ref. Jack et al., 2016 Neurology*

Ratio T-Tau / P-Tau **or** **T-Tau**	**≥ 14,025** **≥ 1200 pg/ml**	Remark: if T-Tau/P-Tau ratio ≥14,025 (3) or if T-Tau ≥1200pg/ml and if clinically relevant in context of differential diagnosis Creutzfeldt-Jakob disease (diagnostic criteria 'possible CJD' according to WHO/ECDC), **contact biomarkers@uantwerpen.be for further PrPsc RT-QuIC analysis.**

[3] *ref. Foucault-Fruchard et al. 2020 J. Neurol Sci*

Summary of consensus comments for interpretation of biochemical profiles of Alzheimer's disease (AD) biomarkers in CSF

A	T	N	*consensus comment on CSF biochemical profile* [4]	*possible co-occurring pathology* [3]
+	+	+	consistent with AD	See above T-Tau / P-Tau remark
+	+	-	atypical, consistent with AD	
+	-	+	atypical, may be consistent with AD	See above T-Tau / P-Tau remark
+	-	-	consistent with an amyloidopathy	
-	-	-	not consistent with AD	
-	+	+	atypical, not consistent with AD	See above T-Tau / P-Tau remark
-	+	-	atypical, not consistent with AD	
-	-	+	not consistent with AD, may be consistent with other neurodegenerative disease and/or neural damage	See above T-Tau / P-Tau remark

[4] *ref. Jack et al., 2018 Alzheimers Dement; Delaby et al., 2021 Alzheimers Dement*