

Supplementary Materials:

Table S1. Proteins containing Met-Trp-Gln (MWQ) decreased in AD/CN and MCI/CN plasma

Human Protein	Sequence ID
glutaminy-peptide cyclotransferase precursor	NP_036545
anchor protein	AAU94938.1
cadherin EGF LAG seven-pass G-type receptor 3 precursor	NP_001398.2
telomerase protein component 1 isoform 1	NP_009041.2
dedicator of cytokinesis protein 3	NP_004938.1
TSNARE1 protein	AAI43687.1
marginal zone B- and B1-cell-specific protein precursor	NP_057543.2
solute carrier family 22 (organic cation transporter). N-terminal Met-Trp-Gln	EAX02529.1
gem (nuclear organelle) associated protein 5, isoform CRA_b	EAW61624
DOCK4 (GTPase activator)	AAO73565.1
catenin delta-2 isoform 1	NP_001323
integrin alpha subunit	BAA04984.1
acetyltransferase	AAB62398.1
immunoglobulin light chain variable region	AIE57082.1 (*KMWQ)
immunoglobulin kappa chain	AAA99330.1 (KMWQ)
phosphodiesterase 1A, calmodulin-dependent	EAX10972.1 (KMWQ)
calcium channel, voltage-dependent	EAW84361.1
neuronal calcium channel alpha 1A subunit	AAB61613.1
regulator of G-protein signaling like 2	EAW91126.1 (KMWQ)
alpha-1-antitrypsin-related protein	AGI62067.1 (KMWQ)
chromosome 9 open reading frame 79	EAW62739.1 (KMWQ)
spermatogenesis-associated protein 31E1	NP_849150.3 (KMWQ)
phospholipase C epsilon	AAG28341.1 (KMWQ)
nuclear ribonucleoprotein 200 kDa helicase	NP_054733.2 (RMWQ)
claudin-5	NP_003268.2 (PMWQ)
ADP-ribosyltransferase 4	CEK43034.1 (RMWQ)
putative NFkB activating protein	BAC77374 (PMWQ)
SCO-spondin precursor	NP_940857.2 (AMWQ)
dynein heavy chain 3, axonemal isoform 1	NP_060009.1 (SMWQ) (VMWQ)
delta-catenin	GenBank: AAC63103.1 (SMWQY)
ras-related protein Rab-18	NP_001243339.1
TATA binding protein associated factor	AAC68502.1

*The tetra- or pentapeptides (examples in parentheses) containing altered Trp-containing tripeptides were used in the BLAST search as described in Materials and Methods. Amino acids in peptides are shown with one letter code

Table S2. Proteins containing Trp-Gly-Phe (WGF) decreased in AD/CN and AD/MCI plasma.

Human Protein	Database ID
mediator of RNA polymerase II transcription	GenBank: EAW78801.1
urea transporter	NCBI: NP_001139509.1
cholesteryl ester transfer protein	GenBank: AAB59388.1
multiple epidermal growth factor-like domains	NCBI: NP_001258867.1
ADAM metalloproteinase domain	GenBank: EAW51578.1
JAK family protein tyrosine kinase	GenBank: AAA19626.1 (KWGF)
IFN-tyk, tyk2=interferon alpha/beta signaling	GenBank: AAB22747.1 (KWGF)
secretory phospholipase A2 receptor	NCBI: NP_001007268.1 (KWGF)
Synaptopodin 2	GenBank: AAI50630.1 (PWGF)

Table S3. Proteins containing Pro-Lys-Pro (PKP) decreased in AD/CN and AD/MCI in CSF.

Human Protein	Sequence ID
histone-lysine N-methyltransferase 2A	NP_005924.2 (KPKP*) 3 × PKP **
protocadherin Fat 1 precursor	NP_005236.2 (KPKP)
low-density lipoprotein receptor-related	XP_011509485.1 (KPKP)
ubiquitin-conjugating BIR-domain enzyme	AAF75772.1 (KPKP)
titin	ACN81321.1 (KPKP) 12 × PKP
B double prime 1, subunit of RNA polymerase III	AAI46793.1 (KPKP) 4 × PKP
transcription initiation factor IIIB	
zinc finger protein 40 isoform X3	XP_011512857 (KPKP)
adlican	AAF86402.1 (KPKP)
kalirin Huntingtin-associated -interacting protein	XP_016862918.1 (PKP)
transcriptional activator SRCAP	AAD39760.1 (RPPK)
histone-lysine N-methyltransferase 2D isoform X6	XP_006719677.1 (5 × PKP)
obscurin isoform X1	XP_016857932.1
DNA-directed RNA polymerase II	P24928.2
dynactin	GenBank: CAA67333.1 (RPPK)

* The peptides in parentheses were used in BLAST search as described in Materials and Methods.

** Some proteins contain more than one tripeptide altered in neurodegeneration; for instance titin contains 12 PKP peptides (12 × PKP).

Table S4. Human RNA polymerase subunits contain tripeptides decreased in AD or MCI.

RNA polymerase	Sequence ID	Tripeptides Decreased in AD, MCI
RNA polymerase II subunit RPB1	P24928.2	PKP * (AD/CN, AD/MCI), ISK * and ATP * (MCI/CN)
RNA polymerase III subunit RPC1	NP_008986.2	AAD (MCI/CN), MAH (AD/CN)
RNA polymerase III subunit RPC2	NP_060552.4	SDG (AD/CN), LLA × 3 (MCI/CN)

* Amino acids in tripeptides are shown with one letter code.



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