

## **“PHOENIX” TRANSLATIONAL RESEARCH PROGRAM**

### **“Exploring the Systems Biology and Systems Neurophysiology of Alzheimer’s Disease”**

#### **LIST OF MANUSCRIPTS PUBLISHED (44)**

1. Toschi N, Lista S, Baldacci F, Cavedo E, Zetterberg H, Blennow K, Kilimann I, Teipel SJ, Melo dos Santos A, Epelbaum S, Lamari F, Genthon R, Habert MO, Dubois B, Floris R, Garaci F, Vergallo A, Hampel H, and the INSIGHT-preAD study group, for the Alzheimer Precision Medicine Initiative (APMI). Biomarker-guided clustering of Alzheimer’s disease clinical syndromes. *Neurobiol Aging*. 2019. Accepted. IF= 4.398
2. Vergallo A, Houot M, Cavedo E, Lemercier P, Vanmechelen E, De Vos A, Habert MO, Potier MC, Dubois B, Lista S, Hampel H, for the INSIGHT-preAD study group and the Alzheimer Precision Medicine Initiative (APMI). Brain A $\beta$  load association and sexual dimorphism of plasma BACE1 concentrations in cognitively normal individuals at risk for AD. *Alzheimers Dement*. 2019. Accepted. IF= 14.423
3. Cavedo E, Lista S, Houot M, Vergallo A, Grothe MJ, Teipel S, Zetterberg H, Blennow K, Habert MO, Potier MC, Dubois B, Hampel H, for the INSIGHT-preAD study Group and the Alzheimer Precision Medicine Initiative (APMI). Plasma tau correlates with rate of basal forebrain atrophy in older individuals at risk of Alzheimer’s disease. *Neurology* 2019. Accepted. IF= 8.689
4. Hampel H, Lista S, Neri C, Vergallo A; Alzheimer Precision Medicine Initiative (APMI). Time for the systems-level integration of aging: Resilience enhancing strategies to prevent Alzheimer’s disease. *Prog Neurobiol*. 2019 Jul 25:101662. doi: 10.1016/j.pneurobio.2019.101662. IF=10.658
5. Hampel H, Vergallo A, Afshar M, Anderson LA, Arenas J, Benda N, Batrla R, Broich K, Caraci F, Cuello AC, Emanuele E, Haberkamp M, Kiddle SJ, Lucía A, Mapstone M, Verdooner SR, Woodcock J, Lista S. for the Alzheimer Precision Medicine Initiative (APMI). Blood-based systems biology biomarkers for next-generation clinical trials in Alzheimer’s disease. *Dialogues Clin Neurosci*. 2019;21(2)177-191. doi:10.31887/DCNS.2019.21.2/hhampel. IF=3.671
6. Chiesa PA, Cavedo E, Vergallo A, Lista S, Potier MC, Habert MO, Dubois B, Thiebaut de Schotten M, Hampel H, and the INSIGHT-preAD study group, for the Alzheimer Precision Medicine Initiative (APMI). Differential default mode network trajectories in asymptomatic individuals at risk for Alzheimer’s disease. *Alzheimers Dement*. 2019 Jul;15(7):940-950. doi: 10.1016/j.jalz.2019.03.006. IF= 14.423
7. Baldacci F, Lista S, Vergallo A, Palermo G, Giorgi FS, Hampel H. A frontline defense against neurodegenerative diseases: the development of early disease detection methods. *Expert Rev Mol Diagn*. 2019 Jul;19(7):559-563. doi: 10.1080/14737159.2019.1627202. IF=3.326
8. Hampel H, Lista S, Mango D, Nisticò R, Perry G, Avila J, Hernandez F, Geerts H, Vergallo A, for the Alzheimer Precision Medicine Initiative (APMI). Lithium as a Treatment for Alzheimer’s Disease: The Systems Pharmacology Perspective. *J Alzheimers Dis*. 2019 June 04;69(3):615-629. doi: 10.3233/JAD-190197. IF=3.476
9. Vergallo A, Mégret L, Lista S, Cavedo E, Zetterberg H, Blennow K, Vanmechelen E, De Vos A, Habert MO, Potier MC, Dubois B, Neri C, Hampel H, for the Alzheimer Precision Medicine Initiative (APMI). Plasma amyloid beta 40/42 ratio predicts cerebral amyloidosis in cognitively normal individuals

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at risk for Alzheimer’s disease. *Alzheimers Dement.* 2019 Jun;15(6):764-775. doi: 10.1016/j.jalz.2019.03.009. IF= 14.423

10. Hampel H, Goetzl EJ, Kapogiannis D, Lista S, Vergallo A. Biomarker-Drug and Liquid Biopsy Co-development for Disease Staging and Targeted Therapy: Cornerstones for Alzheimer’s Precision Medicine and Pharmacology. *Front Pharmacol.* 2019 Mar 29;10:310. doi: 10.3389/fphar.2019.00310. IF=3.831

11. Sakr FA, Grothe MJ, Cavedo E, Jeliustratova I, Habert MO, Dyrba M, Gonzalez-Escamilla G, Bertin H, Locatelli M, Lehericy S, Teipel S, Dubois B, Hampel H; for the INSIGHT-preAD study group; Alzheimer Precision Medicine Initiative (APMI). Applicability of in vivo staging of regional amyloid burden in a cognitively normal cohort with subjective memory complaints: the INSIGHT-preAD study. *Alzheimers Res Ther.* 2019 Jan 31;11(1):15. doi: 10.1186/s13195-019-0466-3. IF=5.015

12. Ansart M, Epelbaum S, Gagliardi G, Colliot O, Dormont D, Dubois B, Hampel H, Durrleman S, for the Alzheimer’s Disease Neuroimaging Initiative and the INSIGHT-preAD study. Reduction of recruitment costs in preclinical AD trials. Validation of automatic pre-screening algorithm for brain amyloidosis. *Stat Methods Med Res.* 2019 Jan 30:962280218823036. doi: 10.1177/0962280218823036. IF=2.284

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15. Kunkle BW, ..., Hampel H, ..., Pericak-Vance MA. Meta-analysis of genetic association with diagnosed Alzheimer’s disease identifies novel risk loci and implicates Abeta, Tau, immunity and lipid processing. *Nat Genet.* 2019 Mar;51(3):414-430. doi: 10.1038/s41588-019-0358-2. IF=27.125

16. Hampel H, O’Byrant SE, Molinuevo JL, Zetterberg H, Masters CL, Lista S, Kiddle SJ, Batrla R, Blennow K. Blood-based biomarkers for Alzheimer disease: mapping the road to the clinic. *Nat Rev Neurol.* 2018 Nov;14(11):639-652. doi: 10.1038/s41582-018-0079-7. IF=19.819

17. Chiesa PA, Cavedo E, Grothe MJ, Houot M, Teipel SJ, Potier MC, Habert MO, Lista S, Dubois B, Hampel H; INSIGHT-preAD Study Group and the Alzheimer Precision Medicine Initiative (APMI). Relationship between Basal Forebrain Resting-State Functional Connectivity and Brain Amyloid- $\beta$  Deposition in Cognitively Intact Older Adults with Subjective Memory Complaints. *Radiology.* 2019 Jan;290(1):167-176. doi: 10.1148/radiol.2018180268. IF=7.469

18. Hampel H, Mesulam MM, Cuello AC, Khachaturian AS, Vergallo A, Farlow MR, Snyder PJ, Giacobini E, Khachaturian ZS; Cholinergic System Working Group. Revisiting the Cholinergic Hypothesis in Alzheimer’s Disease: Emerging Evidence from Translational and Clinical Research. *J Prev Alzheimers Dis.* 2019;6(1):2-15. doi: 10.14283/jpad.2018.43. IF = -

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20. Peloso GM, van der Lee SJ; International Genomics of Alzheimer's Project (IGAP), Destefano AL, Seshardi S. Collaborators (449): Sims R, ..., Hampel H, ..., and Schellenberg GD. Genetically elevated high-density lipoprotein cholesterol through the cholesteryl ester transfer protein gene does not associate with risk of Alzheimer's disease. *Alzheimers Dement (Amst)*. 2018 Sep 22;10:595-598. doi: 10.1016/j.dadm.2018.08.008. IF= -

21. Hampel H, Cavedo E, Vergallo A; Alzheimer Precision Medicine Initiative (APMI). Reply: Optimal use of cholinergic drugs in Alzheimer's disease. *Brain*. 2018 Sep 1;141(9):e69. doi: 10.1093/brain/awy205. IF=10.848

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25. Vergallo A, Bun RS, Toschi N, Baldacci F, Zetterberg H, Blennow K, Cavedo E, Lamari F, Habert MO, Dubois B, Floris R, Garaci F, Lista S, Hampel H; INSIGHT-preAD study group; Alzheimer Precision Medicine Initiative (APMI). Association of cerebrospinal fluid  $\alpha$ -synuclein with total and phospho-tau(181) protein concentrations and brain amyloid load in cognitively normal subjective memory complainers stratified by Alzheimer's disease biomarkers. *Alzheimers Dement*. 2018 Jul 26. doi: 10.1016/j.jalz.2018.06.3053. IF= 12.74

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27. Hampel H, Vergallo A, Giorgi FS, Kim SH, Depypere H, Graziani M, Saidi A, Nisticò R, Lista S; Alzheimer Precision Medicine Initiative (APMI). Precision medicine and drug development in Alzheimer's disease: the importance of sexual dimorphism and patient stratification. *Front Neuroendocrinol*. 2018 Jul;50:31-51. doi: 10.1016/j.yfrne.2018.06.001. IF=9.425

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29. Buchert R, Lange C, Suppa P, Apostolova I, Spies L, Teipel S, Dubois B, Hampel H, Grothe MJ. Magnetic resonance imaging-based hippocampus volume for prediction of dementia in mild cognitive impairment: Why does the measurement method matter so little? *Alzheimers Dement*. 2018 Jul;14(7):976-978. doi: 10.1016/j.jalz.2018.03.006. IF= 12.74
30. Mattsson N, ..., Hampel H, ..., Ossenkoppele R. Prevalence of the apolipoprotein E  $\epsilon$ 4 allele in amyloid  $\beta$  positive subjects across the spectrum of Alzheimer's disease. *Alzheimers Dement*. 2018 Jul;14(7):913-924. doi: 10.1016/j.jalz.2018.02.009. IF= 12.74
31. Hampel H, Toschi N, Babiloni C, Baldacci F, Black KL, Bokde ALW, Bun RS, Cacciola F, Cavedo E, Chiesa PA, Colliot O, Coman CM, Dubois B, Duggento A, Durrleman S, Ferretti MT, George N, Genthon R, Habert MO, Herholz K, Koronyo Y, Koronyo-Hamaoui M, Lamari F, Langevin T, Lehéricy S, Lorenceau J, Neri C, Nisticò R, Nyasse-Messene F, Ritchie C, Rossi S, Santarnecchi E, Sporns O, Verdooner SR, Vergallo A, Villain N, Younesi E, Garaci F, Lista S; Alzheimer Precision Medicine Initiative (APMI). Revolution of Alzheimer Precision Neurology. Passageway of Systems Biology and Neurophysiology. *J Alzheimers Dis*. 2018;64(s1):S47-S105. doi: 10.3233/JAD-179932. IF= 3.476
32. Brainstorm Consortium, Anttila V, ..., Hampel H, ..., Murray R. Analysis of shared heritability in common disorders of the brain. *Science*. 2018 Jun 22;360(6395). pii: eaap8757. doi: 10.1126/science.aap8757. IF=41.058
33. Lewczuk P, ..., Hampel H, ..., Lista S, ..., Kornhuber J; WFSBP Task Force. Cerebrospinal fluid and blood biomarkers for neurodegenerative dementias: An update of the Consensus of the Task Force on Biological Markers in Psychiatry of the World Federation of Societies of Biological Psychiatry. *World J Biol Psychiatry*. 2018 Jun;19(4):244-328. doi: 10.1080/15622975.2017.1375556. IF= 3.713
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35. Hampel H, Vergallo A, Aguilar LF, Benda N, Broich K, Cuello AC, Cummings J, Dubois B, Federoff HJ, Fiandaca M, Genthon R, Haberkamp M, Karran E, Mapstone M, Perry G, Schneider LS, Welikovitsh LA, Woodcock J, Baldacci F, Lista S; Alzheimer Precision Medicine Initiative (APMI). Precision pharmacology for Alzheimer's disease. *Pharmacol Res*. 2018 Apr;130:331-365. doi: 10.1016/j.phrs.2018.02.014. IF=4.897
36. Hampel H, Toschi N, Baldacci F, Zetterberg H, Blennow K, Kilimann I, Teipel SJ, Cavedo E, Melo Dos Santos A, Epelbaum S, Lamari F, Genthon R, Dubois B, Floris R, Garaci F, Lista S; Alzheimer Precision Medicine Initiative (APMI). Alzheimer's disease biomarker-guided diagnostic workflow using the added value of six combined cerebrospinal fluid candidates: A $\beta$ (1-42), total-tau, phosphorylated-tau,

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38. Baldacci F, Lista S, O'Bryant SE, Ceravolo R, Toschi N, Hampel H; Alzheimer Precision Medicine Initiative (APMI). Blood-Based Biomarker Screening with Agnostic Biological Definitions for an Accurate Diagnosis Within the Dimensional Spectrum of Neurodegenerative Diseases. *Methods Mol Biol.* 2018;1750:139-155. doi: 10.1007/978-1-4939-7704-8\_9. IF= -

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