Stanford

Tony Wyss-Coray, PhD

D. H. Chen Professor II

Neurology and Neurological Sciences

NIH Biosketch available Online Resume available Online

CONTACT INFORMATION

- **Alternate Contact**

  Divya Channappa - Research Program Manager, Wyss-Coray Lab

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Bio

BIO

Tony Wyss-Coray is the D.H. Chen Distinguished Professor of Neurology and Neurological Sciences and the Director of the Phil and Penny Knight Initiative for Brain Resilience at Stanford University. His lab studies brain aging and neurodegeneration with a focus on age-related cognitive decline and Alzheimer's disease. The Wyss-Coray research team discovered that circulatory blood factors can modulate brain structure and function and factors from young organisms can rejuvenate old brains. Current studies focus on the molecular basis of the systemic communication with the brain by employing a combination of genetic, cell biology, and –omics approaches in killifish, mice, and humans. Wyss-Coray has presented his ideas at Global TED, the Tencent WE Summit, and the World Economic Forum, and he was voted Time Magazine's "The Health Care 50" most influential people transforming health care in 2018. He co-founded Alkahest Inc. and several other companies targeting Alzheimer's and neurodegeneration and has been the recipient of an NIH Director's Pioneer Award, a Zenith Award from the Alzheimer's Association, and a NOMIS Foundation Award.

ACADEMIC APPOINTMENTS

- Professor, Neurology and Neurological Sciences
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director, Phil and Penny Knight Initiative for Brain Resilience, (2022- present)

HONORS AND AWARDS

- Glenn Award, Glenn Foundation for Medical Research (2015)
- NIH Pioneer Award, NIH Director's Office/NIA (2015)
- Transformative R01, NIH Director's Office/NIA (2013)

- Senior Research Career Scientist, Veterans Administration (2012)
- Distinguished Scholar Award, The John Douglas French Alzheimer's Foundation (2005)
- Zenith Award, Alzheimer's Association (2005)
- Editor, Journal of Neuroinflammation (2004)
- Medical and Scientific Advisory Council, Alzheimer's Association of Northern California & Northern Nevada (2004)

PROFESSIONAL EDUCATION

- M.S., University of Bern, Switzerland , Microbiology (1989)
- Ph.D., University of Bern, Switzerland , Immunology (1992)

LINKS

- Lab Website: http://web.stanford.edu/group/twclab/cgi-bin/
- Alzheimer Disease Research Center: http://med.stanford.edu/adrc.html
- Knight Initiative: https://neuroscience.stanford.edu/initiatives-and-centers/phil-and-penny-knight-initiative-brain-resilience

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our laboratory studies the role of immune and injury responses in neurodegeneration and Alzheimer's disease. We seek to understand how immune responses and injury pathways may modulate neurodegeneration and age-related changes in the brain. We study these pathways in vivo and in cell culture using a number of genetic and proteomic tools. We have been particularly interested in the TGF-beta signaling pathway as a major regulator of biological processes and we are developing genetic and pharmacological agents to manipulate this pathway.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Lehi Acosta-Alvarez, Meena Chakraborty, Rong Chi, Connor Duffy, Sipei Fu, Douglas Henze, Charlotte Herber, Karen Malacon, Siavash Moghadami, Kamsi Nwangwu, Emma O'Connell, Kit Vodehnal, Maya Weigel, Olivia Zhou

Postdoctoral Faculty Sponsor

Zhijian Li, Marvin Reich, Michael Schoof, Bhawika Sharma Lamichhane, Hulya Torun, Andy Tsai, Viktoria Wagner, Albert Ying

Doctoral Dissertation Advisor (AC)

Veronica Bot, Archana Shankar

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology (Phd Program)
- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Toward actionable interventions in human aging (12th ARDD meeting, 2025).** *Aging*
  Dekan, A., Lore, S., Yoon, Y. E., Sjöholm, A., Tyshkovskiy, A., Terskikh, A., Cuervo, A. M., Georgievskaya, A., Heinz, A., Seluanov, A., Adams, A., Tsai, A. P., Murray, et al
  2026; 18 (1): 282-302

- **Large-scale CSF and plasma proteomics reveal immune, synaptic, and extracellular matrix disruptions across neurodegenerative diseases.** *Neuron*
  Ali, M., Timsina, J., Xu, Y., Chen, Y., Gong, K., Western, D., Heo, G., Liu, M., Budde, J., Pottier, C., Schindler, S. E., Morris, J. C., Holtzman, et al
  2026
- **PLCG2 signaling and genetic resilience in Alzheimer's disease.** *Molecular neurodegeneration*
  Tsai, A. P., Martin, A. K., Mi, A., Yeh, A. E., Ramirez Lopez, E., Wyss-Coray, T.
  2026; 21 (1)
- **Mucin-binding protein shuttles enable delivery of brain-targeted therapeutics.** *bioRxiv : the preprint server for biology*
  Shi, S. M., Tender, G. S., Xiong, J., Buff, J. K., Park, H. I., Mendiola, J. H., Wilson, E. N., Abu-Remaileh, M., Bertozzi, C. R., Wyss-Coray, T.
  2026
- **Obesity supersizes macrophage and neutrophil activation after stroke while lipid droplets play a protective role.** *Journal of neuroinflammation*
  Bradshaw, K., Holsten, J., Hahn, O., Foltz, A., Zera, K. A., Zhu, L., Haarslev, C., Wyss-Coray, T., Peterson, T. C., Buckwalter, M. S.
  2026
- **Simultaneous spatial transcriptomics and morphology profiling as tools to explore how microglia change with age.** *Nature aging*
  Henze, D. E., Tsai, A. P., Wyss-Coray, T., Quake, S. R.
  2026
- **Multi-tissue transcriptomic aging atlas reveals predictive aging biomarkers in the killifish.** *Nature aging*
  Costa, E. K., Chen, J., Guldner, I. H., Mboning, L., Schmahl, N., Tsenter, A., Nagvekar, R., Wu, M. R., Moran-Losada, P., Bouchard, L. S., Wang, S., Singh, P. P., Pellegrini, et al
  2026
- **Cellular Aging Signatures in the Plasma Proteome Record Human Health and Disease.** *bioRxiv : the preprint server for biology*
  Ding, D. Y., Bot, V. A., Chen, K. L., Groves, J., Pálovics, R., Masuda, D., Farinas, A., Oh, H. S., Wagner, V., Lu, N., Cruchaga, C., Isakova, A., Schott, et al
  2026
- **APOE-stratified Proteomic and Metabolomic Analysis Reveals Mitochondrial Dysfunction Inflammation and Lipid Dysregulation in Alzheimer's Disease.** *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*
  Li, F., Chen, Y., Western, D., Ali, M., Liu, M., Gong, K., Xu, Y., Lowery, J., Holtzman, D. M., Robins, C., Eicher, J. D., Huang, Y. N., Liu, et al
  2026: e13872
- **MiRNAs shape mouse age-independent tissue adaptation to spaceflight via ECM and developmental pathways.** *Nature communications*
  Grandke, F., Rishik, S., Wagner, V., Engel, A., Ludwig, N., Calcuttawala, K., Kern, F., Keller, V., Krawczyk, M., Stodieck, L., Ferguson, V., Roberts, A., Meese, et al
  2026; 17 (1): 1387
- **Blockade of VCAM1 or VLA4 promotes normal cerebrovasculature and prevents cognitive decline late after stroke**
  Zera, K., Bradshaw, K., Zhu, L., Hahn, O., Foltz, A., Peterson, T., Yousef, H., Lee, D., Mayne, E., Wyss-Coray, T., Buckwalter, M.
  LIPPINCOTT WILLIAMS & WILKINS.2026
- **Targeting immune cells in the aged brain reveals that engineered cytokine IL-10 enhances neurogenesis and improves cognition.** *Immunity*
  Navarro Negredo, P., You, J., Hauptschein, M., Schroer, A. B., Richard, D. J., Abhiraman, G. C., Tsai, A. P., Sun, E. D., Notarangelo, G., Ramirez-Matias, J., Zhou, O. Y., Buckley, M. T., Malacon, et al
  2026
- **In vivo CRISPR screening identifies SAGA complex members as key regulators of hematopoiesis.** *Nature communications*
  Shankar, A., Olender, L., Hsu, I., Miyauchi, M., Pálovics, R., Meaker, G. A., Kaito, S., Rizq, O., Khoo, H. M., Bozhilov, Y., Igarashi, K. J., Bhadury, J., Munson, et al
  2026
- **Ageing promotes microglial accumulation of slow-degrading synaptic proteins.** *Nature*
  Guldner, I. H., Wagner, V. P., Moran-Losada, P., Shi, S. M., Golub, S. W., Hevler, J. F., Chen, K., Meese, B. T., Ghoochani, A., Pulido, E., Oh, H. S., Le Guen, Y., Lu, et al
  2026

- **OMG! A proteomic determinant of neurodegenerative resiliency.** *Molecular neurodegeneration*
  Duggan, M. R., Oh, H. S., Frank, P., Gomez, G. T., Zweibaum, D., Cui, Y., Chen, J., Surapaneni, A., Blew, C. O., Dark, H. E., Joynes, C. M., Kandala, S., Bilgel, et al
  2026

- **CSF proteomic profiling with amyloid and tau pathology identifies distinctive sex-specific alteration of multiple proteins involved in Alzheimer's disease.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Do, A. N., Song, S., Ali, M., Timsina, J., Wang, L., Western, D., Liu, M., Sanford, J., Rosende-Roca, M., Boada, M., Puerta, R., Wilson, E. N., Ruiz, et al
  2026; 22 (1): e71063

- **Past, present and future perspectives on the science of aging.** *Nature aging*
  Ambrosio, F., Artyomov, M. N., Austad, S. N., Barzilai, N., Belmonte, J. C., Belsky, D. W., Benayoun, B. A., Brunet, A., Dönertaş, H. M., Dubal, D. B., Fang, E. F., Feige, J. N., Fried, et al
  2026; 6 (1): 6-22

- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Liu, F., Surapaneni, A., Chen, J., Joynes, C. M., Casanova, R., Zhou, W., Cieza, B., Rutledge, J., Oh, H. S., Boches, A., Wyss-Coray, T., Gomez, G. T., Duggan, et al
  2025; 21 Suppl 2: e100937

- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Kaipa, S., Meka, S. R., Nair, R. V., Channappa, D., Oh, H. S., Moran-Losada, P., Rutledge, J. E., Mormino, E., Zeineh, M., Wyss-Coray, T., Henderson, V., Suryadevara, V.
  2025; 21 Suppl 2: e104186

- **Drug Development.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Kmiecik, M., Chu, M., Zhou, A., Skylar-Scott, I. A., Samudra, N., Tripathi, P., Coburn, M., Wilson, T. N., He, Z., Haddad, F., Wyss-Coray, T., Sha, S. J., Greicius, et al
  2025; 21 Suppl 5: e106859

- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Oh, H. S., Urey, D. Y., Karlsson, L., Zhu, Z., Shen, Y., Farinas, A., Timsina, J., Duggan, M. R., Chen, J., Guldner, I. H., Morshed, N., Yang, C., Western, et al
  2025; 21 Suppl 2: e102349

- **Alzheimer's Imaging Consortium.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Sung, Y. J., Do, A., Song, S., Wang, L., Western, D., Kwon, J., Timsina, J., Liu, M., Budde, J. P., Ruiz, A., Pastor, P., Wyss-Coray, T., Chen, et al
  2025; 21 Suppl 8 (Suppl 8): e110232

- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Groves, J., Oh, H. S., Farinas, A., Bot, V. A., Williams, D. M., Wong, A., Coath, W., Keshavan, A., Moran-Losada, P., James, S. N., Richards, M., Nicholas, J. M., Isakova, et al
  2025; 21 Suppl 2 (Suppl 2): e100995

- **Basic Science and Pathogenesis.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Naz, H., Palovics, R., Yamada, S., Lu, N., Wyss-Coray, T., Li, Q., Zhao, G.
  2025; 21 Suppl 1 (Suppl 1): e106438

- **Basic Science and Pathogenesis.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Sung, Y. J., Do, A., Song, S., Wang, L., Western, D., Kwon, J., Timsina, J., Liu, M., Budde, J. P., Ruiz, A., Pastor, P., Wyss-Coray, T., Chen, et al
  2025; 21 Suppl 1: e107477

- **Spatial and single-cell transcriptomics reveal the reorganization of cerebellar microglia with aging.** *Cell reports*
  Tsai, A. P., Henze, D. E., Ramirez Lopez, E., Haberberger, J., Dong, C., Lu, N., Atkins, M., Costa, E. K., Farinas, A., Oh, H. S., Moran-Losada, P., Le Guen, Y., Isakova, et al
  2025; 44 (12): 116624

- **Autonomous AI Agents Discover Aging Interventions from Millions of Molecular Profiles.** *bioRxiv : the preprint server for biology*
  Ying, K., Tyshkovskiy, A., Moldakozhayev, A., Wang, H., De Magalhães, C. G., Iqbal, S., Garza, A. E., Tskhay, A., Poganik, J. R., Huang, K., Qu, Y., Glubokov, D., Jin, et al

2025

- **Age-related microbiome metabolites alter RNA splicing and chromatin accessibility in the brain.** *bioRxiv : the preprint server for biology*
  Chakraborty, M., Shi, S. M., Porter, I. E., Richard, D. J., Marinov, G. K., Moore, A. A., Blum, J. L., Natarajan, A., Jahng, J. W., Wu, J. C., Lu, S. X., Davidson, S. M., Greenleaf, et al
  2025

- **Long-read genome sequencing and multi-omics in aging and neurodegeneration.** *medRxiv : the preprint server for health sciences*
  Jensen, T. D., Le Guen, Y., Talozzi, L., Yang, S., Gorzynski, J., Peña-Tauber, A., Stewart, I., Ferrasse, A., Nachun, D., Arriaga, M. T., Lee, J., Pulgrossi, R. C., Park, et al
  2025

- **Plasma proteomic signatures of preclinical Alzheimer's disease biomarkers and memory in clinically unimpaired older adults.** *medRxiv : the preprint server for health sciences*
  Trelle, A. N., Cody, K. A., Nguyen, T. T., Winer, J. R., Weiss, S., Sai, I., Channappa, D., Mendiola, J., Al-Rajhi, A., Raghuraman, K., Sha, S. J., Wilson, E. N., Wyss-Coray, et al
  2025

- **Eight decades of follow-up link life course exposures to proteomic organ ageing and longevity.** *medRxiv : the preprint server for health sciences*
  Groves, J. W., Bot, V. A., Ding, D. Y., Nicholas, J., Farinas, A., See-Oh, H., James, S., Wong, A., Williams, D. M., King-Robson, J., Chaturvedi, N., Richards, M., Wyss-Coray, et al
  2025

- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *Proceedings of the National Academy of Sciences of the United States of America*
  Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
  2025; 122 (35): e2504264122

- **Angiopoietin signalling is a central axis of amyloid-driven vascular dysfunction in Alzheimer's disease.** *bioRxiv : the preprint server for biology*
  Flotho, M., Yang, A., Kern, F., Graf, S., Diks, I. F., Shin, H., Zera, K. A., Berdnik, D., Agam, M. R., Channappa, D., Shi, S. M., Belnap, M. A., Simmons, et al
  2025

- **Characterizing Post-Mortem Brain Molecular Taxonomy of Cognitive Resilience and Translating it to Living Humans.** *bioRxiv : the preprint server for biology*
  Batalha, C. M., Yu, L., Zammit, A. R., Poole, V. N., Buchman, A. S., Lopes, K. d., Vialle, R., Abadir, P., Nidadavolu, L., Wyss-Coray, T., Seyfried, N. T., Wang, Y., Tasaki, et al
  2025

- **Defined human tri-lineage brain microtissues.** *bioRxiv : the preprint server for biology*
  Uenaka, T., Jung, S., Kumar, I., Vodehnal, K., Rastogi, M., Yoo, Y., Koontz, M., Thome, C., Li, W., Chan, T., Green, E. M., Chesnov, K., Sun, et al
  2025

- **Luminal Cerebrovascular Proteomics.** *Bio-protocol*
  Shi, S. M., Bertozzi, C. R., Wyss-Coray, T.
  2025; 15 (15): e5411

- **Isolation and Imaging of Microvessels From Brain Tissue.** *Bio-protocol*
  Buff, J. K., Bertozzi, C. R., Wyss-Coray, T., Shi, S. M.
  2025; 15 (15): e5410

- **Blood test estimates organ age and predicts disease risk and lifespan** *NATURE MEDICINE*
  Oh, H., Wyss-Coray, T.
  2025; 31 (8): 2502-2503

- **Protein-based Diagnosis and Analysis of Co-pathologies Across Neurodegenerative Diseases: Large-Scale AI-Boosted CSF and Plasma Classification.** *Research square*
  Xu, Y., Western, D., Heo, G., Nho, K., Huang, Y. N., Liu, S., Oh, H. S., Chen, Y., Timsina, J., Liu, M., Tang, Y., Gong, K., Budde, et al
  2025

- **Mouse lemur cell atlas informs primate genes, physiology and disease.** *Nature*
  Ezran, C., Liu, S., Chang, S., Ming, J., Guethlein, L. A., Wang, M. F., Dehghannasiri, R., Olivieri, J., Frank, H. K., Tarashansky, A., Koh, W., Jing, Q., Botvinnik, et al
  2025

- **A molecular cell atlas of mouse lemur, an emerging model primate.** *Nature*
  Ezran, C., Liu, S., Chang, S., Ming, J., Botvinnik, O., Penland, L., Tarashansky, A., de Morree, A., Travaglini, K. J., Zhao, J., Wang, G., Hasegawa, K., Sin, et al
  2025

- **Gpr37 modulates the severity of inflammation-induced GI dysmotility by regulating enteric reactive gliosis.** *iScience*
  Robertson, K., Hahn, O., Tantry, A., Robinson, B. G., Faruk, A. T., Janakiraman, M., Namkoong, H., Kim, K., Ye, J., Bishop, E. S., Hall, R. A., Wyss-Coray, T., Becker, et al
  2025; 28 (7): 112885

- **The Global Neurodegeneration Proteomics Consortium: biomarker and drug target discovery for common neurodegenerative diseases and aging.** *Nature medicine*
  Imam, F., Saloner, R., Vogel, J. W., Krish, V., Abdel-Azim, G., Ali, M., An, L., Anastasi, F., Bennett, D., Pichet Binette, A., Boxer, A. L., Bringmann, M., Burns, et al
  2025

- **Disruption of the cerebrospinal fluid-plasma protein balance in cognitive impairment and aging.** *Nature medicine*
  Farinas, A., Rutledge, J., Bot, V. A., Western, D., Ying, K., Lawrence, K. A., Oh, H. S., Yoon, S., Ding, D. Y., Tsai, A. P., Moran-Losada, P., Timsina, J., Le Guen, et al
  2025

- **Protein-based Diagnosis and Analysis of Co-pathologies Across Neurodegenerative Diseases: Large-Scale AI-Boosted CSF and Plasma Classification.** *medRxiv : the preprint server for health sciences*
  Xu, Y., Western, D., Heo, G., Nho, K., Huang, Y. N., Liu, S., Oh, H. S., Chen, Y., Timsina, J., Liu, M., Tang, Y., Gong, K., Budde, et al
  2025

- **Plasma proteomics links brain and immune system aging with healthspan and longevity.** *Nature medicine*
  Oh, H. S., Le Guen, Y., Rappoport, N., Urey, D. Y., Farinas, A., Rutledge, J., Channappa, D., Wagner, A. D., Mormino, E., Brunet, A., Greicius, M. D., Wyss-Coray, T.
  2025

- **Cell-surface proteomic profiling identifies CD72 as a regulator of microglial tiling.** *bioRxiv : the preprint server for biology*
  Chan, T. C., Rastogi, M., Williams, M. X., Zhang, S., Shi, S. M., Shuken, S. R., Bartling, T., Wild, K., Atkins, M., Hahn, O., Paulo, J. A., Jereb, S., Shuster, et al
  2025

- **Synaptic proteins that aggregate and degrade slower with aging accumulate in microglia.** *bioRxiv : the preprint server for biology*
  Guldner, I. H., Wagner, V. P., Moran-Losada, P., Shi, S. M., Chen, K., Meese, B. T., Oh, H., Le Guen, Y., Lu, N., Wong, P. S., To, N. S., Garceau, D., Guo, et al
  2025

- **Large-scale plasma proteomic profiling unveils diagnostic biomarkers and pathways for Alzheimer's disease.** *Nature aging*
  Heo, G., Xu, Y., Wang, E., Ali, M., Oh, H. S., Moran-Losada, P., Anastasi, F., González Escalante, A., Puerta, R., Song, S., Timsina, J., Liu, M., Western, et al
  2025

- **A spatio-temporal brain miRNA expression atlas identifies sex-independent age-related microglial driven miR-155-5p increase.** *Nature communications*
  Engel, A., Wagner, V., Hahn, O., Foltz, A. G., Atkins, M., Beganovic, A., Guldner, I. H., Lu, N., Saksena, A., Fischer, U., Ludwig, N., Meese, E., Wyss-Coray, et al
  2025; 16 (1): 4588

- **Cerebrospinal fluid biomarker predicts dementia onset and progression in Alzheimer's disease** *NATURE MEDICINE*
  Oh, H., Wyss-Coray, T.
  2025

- **Parkinson's disease is characterized by vitamin B6-dependent inflammatory kynurenine pathway dysfunction.** *NPJ Parkinson's disease*
  Wilson, E. N., Umans, J., Swarovski, M. S., Minhas, P. S., Mendiola, J. H., Midttun, Ø., Ulvik, A., Shahid-Besanti, M., Linortner, P., Mhatre, S. D., Wang, Q., Channappa, D., Corso, et al
  2025; 11 (1): 96

- **A high-throughput assay platform to discover small molecule activators of the phospholipase PLC-y2 to treat Alzheimer's disease** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Carr, A. J., Hajicek, N., Tsai, A. P., Acharya, P. P., Hardy, P., Meyer, E., Wyss-Coray, T., Pearce, K. H., Sondek, J., Zhang, Q.
  2025; 301 (4): 108356

- **Invigorating discovery and clinical translation of aging biomarkers.** *Nature aging*
  Jacques, E., Herzog, C., Ying, K., Tomusiak, A., Kasamoto, J., Sehgal, R., Paulson, S., Reinhard, J., Träuble, J., Hastings, W. J., Tyshkovskiy, A., Hägg, S., Earls, et al
  2025

- **A cerebrospinal fluid synaptic protein biomarker for prediction of cognitive resilience versus decline in Alzheimer's disease.** *Nature medicine*
  Oh, H. S., Urey, D. Y., Karlsson, L., Zhu, Z., Shen, Y., Farinas, A., Timsina, J., Duggan, M. R., Chen, J., Guldner, I. H., Morshed, N., Yang, C., Western, et al
  2025

- **Proteostasis and lysosomal repair deficits in transdifferentiated neurons of Alzheimer's disease.** *Nature cell biology*
  Chou, C. C., Vest, R., Prado, M. A., Wilson-Grady, J., Paulo, J. A., Shibuya, Y., Moran-Losada, P., Lee, T. T., Luo, J., Gygi, S. P., Kelly, J. W., Finley, D., Wernig, et al
  2025

- **Translating the Post-Mortem Brain Multi-Omics Molecular Taxonomy of Alzheimer's Dementia to Living Humans.** *bioRxiv : the preprint server for biology*
  Iturria-Medina, Y., Poole, V. N., Zammit, A. R., Yu, L., Tasaki, S., Hong, J. H., Lopes, K. d., Batalha, C., Ridwan, A. R., Vialle, R. A., Sanchez-Rodriguez, L., Geddes, M. R., Abadir, et al
  2025

- **Large-scale Plasma Proteomic Profiling Unveils Novel Diagnostic Biomarkers and Pathways for Alzheimer's Disease.** *Research square*
  Cruchaga, C., Heo, G., Thomas, A., Wang, E., Oh, H., Ali, M., Timsina, J., Song, S., Liu, M., Gong, K., Western, D., Chen, Y., Kohlfeld, et al
  2025

- **A spatio-temporal brain miRNA expression atlas identifies sex-independent age-related microglial driven miR-155-5p increase.** *bioRxiv : the preprint server for biology*
  Engel, A., Wagner, V., Hahn, O., Foltz, A. G., Atkins, M., Beganovic, A., Guldner, I. H., Lu, N., Saksena, A., Fischer, U., Ludwig, N., Meese, E., Wyss-Coray, et al
  2025

- **Social disadvantage accelerates aging.** *Nature medicine*
  Kivimäki, M., Pentti, J., Frank, P., Liu, F., Blake, A., Nyberg, S. T., Vahtera, J., Singh-Manoux, A., Wyss-Coray, T., Walker, K. A., Partridge, L., Lindbohm, J. V.
  2025

- **Multi-cohort cerebrospinal fluid proteomics identifies robust molecular signatures across the Alzheimer disease continuum.** *Neuron*
  Ali, M., Timsina, J., Western, D., Liu, M., Beric, A., Budde, J., Do, A., Heo, G., Wang, L., Gentsch, J., Schindler, S. E., Morris, J. C., Holtzman, et al
  2025

- **Proteomic organ-specific ageing signatures and 20-year risk of age-related diseases: the Whitehall II observational cohort study.** *The Lancet. Digital health*
  Kivimäki, M., Frank, P., Pentti, J., Jokela, M., Nyberg, S. T., Blake, A., Lindbohm, J. V., Oh, H. S., Singh-Manoux, A., Wyss-Coray, T., Partridge, L.
  2025; 7 (3): e195-e204

- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *bioRxiv : the preprint server for biology*
  Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
  2025

- **Glycocalyx dysregulation impairs blood-brain barrier in ageing and disease.** *Nature*
  Shi, S. M., Suh, R. J., Shon, D. J., Garcia, F. J., Buff, J. K., Atkins, M., Li, L., Lu, N., Sun, B., Luo, J., To, N. S., Cheung, T. H., McNerney, et al
  2025

- **A single-cell atlas to map sex-specific gene-expression changes in blood upon neurodegeneration.** *Nature communications*
  Grandke, F., Fehlmann, T., Kern, F., Gate, D. M., Wolff, T. W., Leventhal, O., Channappa, D., Hirsch, P., Wilson, E. N., Meese, E., Liu, C., Shi, Q., Flotho, et al
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