Stanford



Hannah Ennerfelt

Postdoctoral Scholar, Neurology and Neurological Sciences

Bio

HONORS AND AWARDS

- ADRC REC Fellow, Stanford ADRC (2026-2028)
- Postdoctoral fellowship, Knight Initiative for Brain Resilience (2024-2026)
- Postdoctoral fellowship, Bright Focus Foundation (2024-2026)
- Biomedical Science Outstanding Graduate Student Award - Neuroscience, University of Virginia (2023)
- Michael J. Peach Outstanding Graduate Award, University of Virginia (2023)
- Wagner Fellow, University of Virginia (2021)
- Fulbright Scholar, Sweden (2017-2018)
- Biology Faculty Award, Salisbury University (2017)
- Barry M. Goldwater - Honorable Mention, Goldwater Foundation (2016)
- John and Mary-Clair Roth Honors Thesis Prize, Salisbury University (2016)

PROFESSIONAL EDUCATION

- PhD, University of Virginia , Neuroscience/Neuroimmunology (2022)
- BS; BA, Salisbury University , Biology; Psychology (2017)

STANFORD ADVISORS

- Katrin Andreasson, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **A new blueprint of brain border immunity.** *Nature immunology*
  Ennerfelt, H. E., Andreasson, K. I.
  2026

- **CARD9 attenuates Aβ pathology and modifies microglial responses in an Alzheimer's disease mouse model.** *Proceedings of the National Academy of Sciences of the United States of America*
  Ennerfelt, H., Holliday, C., Shapiro, D. A., Zengeler, K. E., Bolte, A. C., Ulland, T. K., Lukens, J. R.
  2023; 120 (24): e2303760120

- **SYK coordinates neuroprotective microglial responses in neurodegenerative disease.** *Cell*
  Ennerfelt, H., Frost, E. L., Shapiro, D. A., Holliday, C., Zengeler, K. E., Voithofer, G., Bolte, A. C., Lammert, C. R., Kulas, J. A., Ulland, T. K., Lukens, J. R.

2022; 185 (22): 4135-4152.e22

- **The role of innate immunity in Alzheimer's disease.** *Immunological reviews*
  Ennerfelt, H. E., Lukens, J. R.
  2020; 297 (1): 225-246

- **NAD+ depletion drives age-related monocyte hyperinflammation after stroke and is reversed by nicotinamide riboside.** *Journal of neuroinflammation*
  Cabrera, M., Eastman, B., Ennerfelt, H., Alsaadi, A. I., Alexandrova, L., Ay, Y. A., Huang, J., Wang, Q., Blacher, E., McReynolds, M. R., Andreasson, K. I., Iweka, C. A.
  2025

- **STING deletion protects against amyloid β-induced Alzheimer's disease pathogenesis.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Thanos, J. M., Campbell, O. C., Cowan, M. N., Bruch, K. R., Moore, K. A., Ennerfelt, H. E., Natale, N. R., Mangalmurti, A., Kerur, N., Lukens, J. R.
  2025; 21 (5): e70305

- **Inflammasome signaling in astrocytes modulates hippocampal plasticity.** *Immunity*
  Zengeler, K. E., Hollis, A., Deutsch, T. C., Samuels, J. D., Ennerfelt, H., Moore, K. A., Steacy, E. J., Sabapathy, V., Sharma, R., Patel, M. K., Lukens, J. R.
  2025

- **Clusterin induced by OPC phagocytosis blocks IL-9 secretion to inhibit myelination in a model of Alzheimer's disease.** *Heliyon*
  Beiter, R. M., Raghavan, T. P., Suchocki, O., Ennerfelt, H. E., Rivet-Noor, C. R., Merchak, A. R., Phillips, J. L., Bathe, T., Lukens, J. R., Prokop, S., Dupree, J. L., Gaultier, A.
  2025; 11 (1): e41635

- **Restoring hippocampal glucose metabolism rescues cognition across Alzheimer's disease pathologies.** *Science (New York, N.Y.)*
  Minhas, P. S., Jones, J. R., Latif-Hernandez, A., Sugiura, Y., Durairaj, A. S., Wang, Q., Mhatre, S. D., Uenaka, T., Crapser, J., Conley, T., Ennerfelt, H., Jung, Y. J., Liu, et al
  2024; 385 (6711): eabm6131

- **TREM1 disrupts myeloid bioenergetics and cognitive function in aging and Alzheimer disease mouse models.** *Nature neuroscience*
  Wilson, E. N., Wang, C., Swarovski, M. S., Zera, K. A., Ennerfelt, H. E., Wang, Q., Chaney, A., Gauba, E., Ramos Benitez, J. A., Le Guen, Y., Minhas, P. S., Panchal, M., Tan, et al
  2024

- **The Alzheimer's disease risk factor INPP5D restricts neuroprotective microglial responses in amyloid beta-mediated pathology.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Samuels, J. D., Moore, K. A., Ennerfelt, H. E., Johnson, A. M., Walsh, A. E., Price, R. J., Lukens, J. R.
  2023; 19 (11): 4908-4921

- **SSRI treatment modifies the effects of maternal inflammation on in utero physiology and offspring neurobiology.** *Brain, behavior, and immunity*
  Zengeler, K. E., Shapiro, D. A., Bruch, K. R., Lammert, C. R., Ennerfelt, H., Lukens, J. R.
  2023; 108: 80-97

- **The meningeal transcriptional response to traumatic brain injury and aging.** *eLife*
  Bolte, A. C., Shapiro, D. A., Dutta, A. B., Ma, W. F., Bruch, K. R., Kovacs, M. A., Royo Marco, A., Ennerfelt, H. E., Lukens, J. R.
  2023; 12

- **Meningeal lymphatic dysfunction exacerbates traumatic brain injury pathogenesis** *NATURE COMMUNICATIONS*
  Bolte, A. C., Dutta, A. B., Hurt, M. E., Smirnov, I., Kovacs, M. A., McKee, C. A., Ennerfelt, H. E., Shapiro, D., Nguyen, B. H., Frost, E. L., Lammert, C. R., Kipnis, J., Lukens, et al
  2020; 11 (1): 4524

- **AIM2 inflammasome surveillance of DNA damage shapes neurodevelopment.** *Nature*
  Lammert, C. R., Frost, E. L., Bellinger, C. E., Bolte, A. C., McKee, C. A., Hurt, M. E., Paysour, M. J., Ennerfelt, H. E., Lukens, J. R.
  2020; 580 (7805): 647-652

- **Disruption of peripheral nerve development in a zebrafish model of hyperglycemia.** *Journal of neurophysiology*
  Ennerfelt, H., Voithofer, G., Tibbo, M., Miller, D., Warfield, R., Allen, S., Kennett Clark, J.

2019; 122 (2): 862-871