



## Aisling Chaney

Instructor, Radiology - Rad/Molecular Imaging Program at Stanford

### Bio

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#### BIO

Neuroimaging biologist with extensive experience in clinical and preclinical multimodal molecular imaging techniques within the field of psychiatric and neurodegenerative disease research.

#### ACADEMIC APPOINTMENTS

- Instructor, Radiology - Rad/Molecular Imaging Program at Stanford

#### HONORS AND AWARDS

- Chair, women in molecular imaging (WIMIN) leadership committee, World molecular imaging society (WMIS) (2022)
- Co-chair, Council of Early Career Investigators in Imaging (CECI2), Academy for Radiology ` Biomedical Imaging Research (2022)
- K99/R00 NIH Pathway to Independence Award, NIA/NIH (2021)
- Young Investigator award 2nd place, World molecular imaging society (WMIS)/ World molecular imaging congress (WMIC) (2021)
- Co-chair, WIMIN (women in molecular imaging) leadership committee, World molecular imaging society (WMIS) (2021)
- Student Travel Stipend, World molecular imaging society (WMIS)/world molecular imaging congress (WMIC) (2021)
- WIMIN (women in molecular imaging) scholar award, World molecular imaging society (WMIS)/world molecular imaging congress (WMIC) (2021)
- Alavi–Mandell Award, Society of Nuclear Medicine and Molecular Imaging (SNMMI) (2020)
- Council of Early Career Investigators in Imaging (CECI2) 2020-21, Academy for Radiology Biomedical Imaging Research (2020)
- Women in Molecular Imaging Network (WIMIN) scholar award, World Molecular Imaging Society (WMIS)/World Molecular Imaging Congress (WMIC) (2020)
- Young investigator of the year award winner, World molecular imaging society (WMIS)/world molecular imaging congress (WMIC) (2019)
- Women in Molecular Imaging Network (WIMIN) scholar award, World Molecular Imaging Society (WMIS)/world molecular imaging congress (WMIC) (2019)
- Student travel stipend award, World Molecular Imaging Society (WMIS)/world molecular imaging congress (WMIC) (2019)
- Best oral presentation, Stanford Neuroscience Forum (2019)
- ERF-SNMMI Postdoctoral Molecular Imaging Scholar Program Grant, Education and Research Foundation for Nuclear Medicine and Molecular Imaging-SNMMI (2018-2020)
- Institute of Population Health Postgraduate showcase prize, individual center winner, Centre of Imaging Sciences, University of Manchester (2016)
- Bio-Imaging Institute fully funded PhD scholarship, University of Manchester (2012-2016)
- Biotechnology and Biological Sciences Research Council fully funded MRes scholarship, BBSRC (2011-2012)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member of the women in molecular imaging network (WIMIN) leadership committee, World Molecular Imaging Society (WMIS) (2017 - present)

- Trainee member, Stanford Radiology Diversity Committee (2018 - present)
- Founder, MIPS/Canary trainee council, Stanford University (2017 - present)
- Member and participant in mentorship program, Association for Women in Science (AWIS) (2017 - present)
- Member, Women in Bio (WIB) (2017 - present)
- Member, European Society of Molecular Imaging (ESMI) (2012 - 2016)
- Member, British Neuroscience Association (BNA) (2011 - 2016)

## LINKS

- LinkedIn: <https://www.linkedin.com/in/aisling-chaney-b9047551/>
- Google Scholar: <https://scholar.google.com/citations?user=MM9Ub8oAAAAJ&hl=en>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Research Focus:

Developing and evaluating imaging techniques to enhance understanding and diagnosis of neurological disorders. My current research focuses on imaging neuroinflammation in neurodegenerative disorders such as stroke, Alzheimer's disease and multiple sclerosis using positron emission tomography (PET) and magnetic resonance (MR) techniques.

My previous research topics include investigating the effects of childhood maltreatment and major depressive disorder on brain morphology.

Specialties:

Neurobiology, neuroimaging, PET imaging, MRS/MRI, neuroinflammation, pre-clinical cognitive assessments, cell culture, science communication.

## Publications

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### PUBLICATIONS

- **Prodromal neuroinflammatory, cholinergic and metabolite dysfunction detected by PET and MRS in the TgF344-AD transgenic rat model of AD: a collaborative multi-modal study** *THERANOSTICS*  
Chaney, A. M., Lopez-Picon, F. R., Serriere, S., Wang, R., Bochicchio, D., Webb, S. D., Vandesquille, M., Harte, M. K., Georgiadou, C., Lawrence, C., Busson, J., Vercouillie, J., Tauber, et al  
2021; 11 (14): 6644-6667
- **11C-DPA-713 versus 18F-GE-180: A preclinical comparison of TSPO-PET tracers to visualize acute and chronic neuroinflammation in a mouse model of ischemic stroke.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*  
Chaney, A. n., Cropper, H. C., Johnson, E. M., Lechtenberg, K. J., Peterson, T. C., Stevens, M. Y., Buckwalter, M. S., James, M. L.  
2018
- **Longitudinal investigation of neuroinflammation and metabolite profiles in the APP<sup>swe</sup> × PS1<sup>e9</sup> transgenic mouse model of Alzheimer's disease** *J Neurochem*  
Chaney, A., Bauer, M., Bochicchio, D., Smigova, A., Kassiou, M., Davies, K. E., Williams, S. R., Boutin, H.  
2017: 318–35
- **Radiosynthesis and initial preclinical evaluation of [11C]AZD1283 as a potential P2Y<sub>12</sub>R PET radiotracer.** *Nuclear medicine and biology*  
Jackson, I. M., Buccino, P. J., Azevedo, E. C., Carlson, M. L., Luo, A. S., Deal, E. M., Kalita, M., Reyes, S. T., Shao, X., Beinat, C., Nagy, S. C., Chaney, A. M., Anders, et al  
2022
- **TRACKING INNATE IMMUNE ACTIVATION IN A MOUSE MODEL OF PARKINSON'S DISEASE USING TREM1 AND TSPO PET TRACERS.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*  
Lucot, K. L., Stevens, M. Y., Bonham, T. A., Azevedo, E. C., Chaney, A. M., Webber, E. D., Jain, P., Klockow, J. L., Jackson, I. M., Carlson, M. L., Graves, E. E., Montine, T. J., James, et al

2022

- **Whole-body PET imaging of T cell response to Glioblastoma.** *Clinical cancer research : an official journal of the American Association for Cancer Research*  
Nobashi, T. W., Mayer, A. T., Xiao, Z., Chan, C. T., Chaney, A. M., James, M. L., Gambhir, S. S.  
2021
- **Visions by Women in Molecular Imaging Network: Antiracism and Allyship in Action.** *Molecular imaging and biology*  
Akam, E., Azevedo, C., Chaney, A. M., Dhanvantari, S., Edwards, K. J., Henry, K. E., Ibhagui, O. Y., Ijoma, J. N., Ikotun, O. F., Mack, K. N., Nagle, V. L., Pereira, P. M., Purcell, et al  
2021
- **Spatiotemporal immunolocalisation of REST in the brain of healthy ageing and Alzheimer's disease rats** *FEBS OPEN BIO*  
Mampay, M., Velasco-Estevez, M., Rolle, S. O., Chaney, A. M., Boutin, H., Dev, K. K., Moendarbary, E., Sheridan, G. K.  
2020
- **Neuroinflammation PET imaging: Current opinion and future directions.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*  
Jain, P., Chaney, A., Carlson, M. L., Jackson, I. M., Rao, A., James, M. L.  
2020
- **Physiological blood-brain transport is impaired with age by a shift in transcytosis.** *Nature*  
Yang, A. C., Stevens, M. Y., Chen, M. B., Lee, D. P., Stahli, D., Gate, D., Contrepolis, K., Chen, W., Iram, T., Zhang, L., Vest, R. T., Chaney, A., Lehallier, et al  
2020
- **TREM1-PET imaging of pro-inflammatory myeloid cells distinguishes active disease from remission in Multiple Sclerosis**  
Chaney, A., Wilson, E., Jain, P., Cropper, H., Swarovski, M., Lucot, K., Vogel, H., Andreasson, K., James, M. L.  
SOC NUCLEAR MEDICINE INC.2020
- **Visualizing innate immune activation in a mouse model of Parkinson's disease using a highly specific TREM1-PET tracer.**  
Lucot, K., Stevens, M., Jain, P., Bonham, T., Webber, E., Klockow, J., Azevedo, E., Chaney, A., Graves, E., Montine, T., James, M.  
SOC NUCLEAR MEDICINE INC.2020
- **Imaging activated immune response following therapeutic vaccination in an orthotopic glioma model with Zr-89-DFO-OX40 mAb PET**  
Nobashi, T., Mayer, A., Xiao, Z., Chan, C., Chaney, A., Gambhir, S.  
SOC NUCLEAR MEDICINE INC.2020
- **Demarcation of Sepsis-Induced Peripheral and Central Acidosis with pH-Low Insertion Cyclic (pHLIC) Peptide.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*  
Henry, K. E., Chaney, A. M., Nagle, V. L., Cropper, H. C., Mozaffari, S., Slaybaugh, G., Parang, K., Andreev, O., Reshetnyak, Y. K., James, M. L., Lewis, J. S.  
2020
- **Development of a CD19 PET tracer for detecting B cells in a mouse model of multiple sclerosis.** *Journal of neuroinflammation*  
Stevens, M. Y., Cropper, H. C., Lucot, K. L., Chaney, A. M., Lechtenberg, K. J., Jackson, I. M., Buckwalter, M. S., James, M. L.  
2020; 17 (1): 275
- **Imaging the invaders: TREM1 as a novel PET imaging biomarker of peripheral infiltrating myeloid cells and potential therapeutic target in multiple sclerosis.**  
Chaney, A., Cropper, H., Johnson, E., Stevens, M., James, M.  
SOC NUCLEAR MEDICINE INC.2019
- **Radiolabeling and pre-clinical evaluation of a first-in-class CD19 PET Tracer for imaging B cells in multiple sclerosis**  
Stevens, M., Cropper, H., Jackson, I., Chaney, A., Lechtenberg, K., Buckwalter, M., James, M. L.  
SOC NUCLEAR MEDICINE INC.2019
- **Longitudinal TSPO-PET imaging of peripheral and central myeloid cells in a mouse model of complex regional pain syndrome.** *Pain*  
Cropper, H. C., Johnson, E. M., Haight, E. n., Cordonnier, S. A., Chaney, A. M., Forman, T. E., Biswal, A. n., Stevens, M. Y., James, M. L., Tawfik, V. L.  
2019
- **Infection Augments Expression of Mechanosensing Piezo1 Channels in Amyloid Plaque-Reactive Astrocytes** *FRONTIERS IN AGING NEUROSCIENCE*  
Velasco-Estevez, M., Mampay, M., Boutin, N., Chaney, A., Warn, P., Sharp, A., Burgess, E., Moendarbary, E., Dev, K. K., Sheridan, G. K.  
2018; 10

- **PET Imaging of Neuroinflammation Using [11C]DPA-713 in a Mouse Model of Ischemic Stroke.** *Journal of visualized experiments : JoVE*  
Chaney, A. M., Johnson, E. M., Cropper, H. C., James, M. L.  
2018
- **In vivo molecular imaging of neuroinflammation in Alzheimer's disease.** *Journal of neurochemistry*  
Chaney, A. n., Williams, S. R., Boutin, H. n.  
2018
- **Effect of childhood maltreatment on brain structure in adult patients with major depressive disorder and healthy participants** *JOURNAL OF PSYCHIATRY & NEUROSCIENCE*  
Chaney, A., Carballedo, A., Amico, F., Fagan, A., Skokauskas, N., Meaney, J., Frodl, T.  
2014; 39 (1): 50-59
- **Neural correlates of treatment outcome in major depression** *INTERNATIONAL JOURNAL OF NEUROPSYCHOPHARMACOLOGY*  
Lisiecka, D., Meisenzahl, E., Scheuerecker, J., Schoepf, V., Whitty, P., Chaney, A., Moeller, H., Wiesmann, M., Frodl, T.  
2011; 14 (4): 521-534