



## Mackenzie Leigh Carlson

Ph.D. Student in Bioengineering, admitted Autumn 2018

### Bio

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#### HONORS AND AWARDS

- TBI2 Fellow, Radiological Sciences Laboratory
- Graduate Research Fellowship Program, National Science Foundation

#### EDUCATION AND CERTIFICATIONS

- Master of Science, Stanford University , BIOE-MS (2020)
- Bachelor of Arts and Sciences, Dartmouth College , Engineering Sciences

### Research & Scholarship

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#### LAB AFFILIATIONS

- Michelle James, James Lab (8/1/2019)
- Michael Zeineh, Zeineh Lab (1/1/2019)

### Publications

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#### PUBLICATIONS

- **Radiosynthesis and initial preclinical evaluation of [11C]AZD1283 as a potential P2Y12R 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
- **Optimizing the Frame Duration for Data-Driven Rigid Motion Estimation in Brain PET Imaging.** *Medical physics*  
Spangler-Bickell, M. G., Hurley, S. A., Deller, T. W., Jansen, F. n., Bettinardi, V. n., Carlson, M. n., Zeineh, M. n., Zaharchuk, G. n., McMillan, A. B.  
2021
- **Hippocampal subfield imaging and fractional anisotropy show parallel changes in Alzheimer's disease tau progression using simultaneous tau-PET/MRI at 3T.** *Alzheimer's & dementia (Amsterdam, Netherlands)*  
Carlson, M. L., Toueg, T. N., Khalighi, M. M., Castillo, J., Shen, B., Azevedo, E. C., DiGiacomo, P., Mouchawar, N., Chau, G., Zaharchuk, G., James, M. L., Mormino, E. C., Zeineh, et al  
2021; 13 (1): e12218

- **Simultaneous FDG-PET/MRI detects hippocampal subfield metabolic differences in AD/MCI.** *Scientific reports*  
Carlson, M. L., DiGiacomo, P. S., Fan, A. P., Goubran, M., Khalighi, M. M., Chao, S. Z., Vasanawala, M., Wintermark, M., Mormino, E., Zaharchuk, G., James, M. L., Zeineh, M. M.  
2020; 10 (1): 12064
- **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
- **A within-coil optical prospective motion-correction system for brain imaging at 7T.** *Magnetic resonance in medicine*  
DiGiacomo, P. n., Maclaren, J. n., Aksoy, M. n., Tong, E. n., Carlson, M. n., Lanzman, B. n., Hashmi, S. n., Watkins, R. n., Rosenberg, J. n., Burns, B. n., Skloss, T. W., Rettmann, D. n., Rutt, et al  
2020