

Stanford



Jun Hyung Park

Research and Development Science and Engineer 1, Rad/Molecular Imaging Program at Stanford

Bio

CURRENT ROLE AT STANFORD

I joined in Cyclotron and radiochemistry facility in 2014. I focus on routine radiopharmaceutical production, including 18F tracers (18F-Flumazenil, 18F-FTC-146, 18F-FLT, 18F Arag, 18F-FSPG etc.); 11C tracers (11C UCB-J, 11C-raclopride, 11C-PIB, 11C-methionine, 11C DPA-713 etc.); 15O-H₂O and 68Ga-DOTATATE radiochemistry for clinical use and supporting various of pre-clinical studies.

Professional

PROFESSIONAL INTERESTS

Development, optimization of Radiopharmaceuticals,
Radiochemistry,
Cyclotron,
Quality Control

WORK EXPERIENCE

- Radiochemistry Research Assistant - Cyclotron and Radiochemistry Facility, Department of Radiology, School of Medicine, Stanford (9/27/2014 - present)

Publications

PUBLICATIONS

- **PET Imaging of Innate Immune Activation Using 11C Radiotracers Targeting GPR84.** *JACS Au*
Kalita, M., Park, J. H., Kuo, R. C., Hayee, S., Marsango, S., Straniero, V., Alam, I. S., Rivera-Rodriguez, A., Pandrala, M., Carlson, M. L., Reyes, S. T., Jackson, I. M., Suigo, et al
2023; 3 (12): 3297-3310
- **Clinical grade [¹⁵O]O₂ Production for Human Inhalation PET/MRI study**
Park, J., Kellow, R., Watkins, R., Zaharchuk, G., Fan, A., Shen, B.
ELSEVIER SCIENCE INC.2023: S105
- **Development and initial evaluation of a novel 11C-labeled PET tracer to image GPR84 expressing-myeloid cells during neuroinflammation**
Kalita, M., Park, J., Hayee, S., Marsango, S., Carlson, M., Reyes, S., Nagy, S., Straniero, V., Pandrala, M., Jackson, I., Alam, I., Valoti, E., Milligan, et al
SOC NUCLEAR MEDICINE INC.2023
- **Reductions in synaptic marker SV2A in early-course Schizophrenia.** *Journal of psychiatric research*
Yoon, J. H., Zhang, Z., Mormino, E., Davidzon, G., Minzenberg, M. J., Ballon, J., Kalinowski, A., Hardy, K., Naganawa, M., Carson, R. E., Khalighi, M., Park, J. H., Levinson, et al

2023; 161: 213-217

- **MRI quantification of brain oxygenation and relationship with cerebrovascular reactivity in Moyamoya disease using simultaneous [O-15]-water PET/MRI**
Fan, A. P., Chen, D., Shin, D. D., Zhao, M. Y., Park, J., Shen, B., Khalighi, M. M., Holley, D., Halbert, K., Steinberg, G. K., Zaharchuk, G.
SAGE PUBLICATIONS INC.2021: 64-65
- **A Clinical PET Imaging Tracer ([18F]DASA-23) to Monitor Pyruvate Kinase M2 Induced Glycolytic Reprogramming in Glioblastoma.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Beinat, C., Patel, C. B., Haywood, T., Murty, S., Naya, L., Castillo, J. B., Reyes, S. T., Phillips, M., Buccino, P., Shen, B., Park, J. H., Koran, M. E., Alam, et al
2021
- **Effects of the sigma-1 receptor agonist blarcamesine in a murine model of fragile X syndrome: neurobehavioral phenotypes and receptor occupancy.** *Scientific reports*
Reyes, S. T., Deacon, R. M., Guo, S. G., Altimiras, F. J., Castillo, J. B., van der Wildt, B., Morales, A. P., Park, J. H., Klamer, D., Rosenberg, J., Oberman, L. M., Rebowe, N., Sprouse, et al
2021; 11 (1): 17150
- **Cerebrovascular Reactivity Measurements Using Simultaneous 15O-Water PET and ASL MRI: Impacts of Arterial Transit Time, Labeling Efficiency, and Hematocrit.** *NeuroImage*
Zhao, M. Y., Fan, A. P., Chen, D. Y., Sokolska, M. J., Guo, J. n., Ishii, Y. n., Shin, D. D., Khalighi, M. M., Holley, D. n., Halbert, K. n., Otte, A. n., Williams, B. n., Rostami, et al
2021: 117955
- **Thalamic and prefrontal GABA concentrations but not GABAA receptor densities are altered in high-functioning adults with autism spectrum disorder.** *Molecular psychiatry*
Fung, L. K., Flores, R. E., Gu, M. n., Sun, K. L., James, D. n., Schuck, R. K., Jo, B. n., Park, J. H., Lee, B. C., Jung, J. H., Kim, S. E., Saggat, M. n., Sacchet, et al
2020
- **Simultaneous Phase-Contrast MRI and PET for Noninvasive Quantification of Cerebral Blood Flow and Reactivity in Healthy Subjects and Patients With Cerebrovascular Disease** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Ishii, Y., Thamm, T., Guo, J., Khalighi, M., Wardak, M., Holley, D., Gandhi, H., Park, J., Shen, B., Steinberg, G. K., Chin, F. T., Zaharchuk, G., Fan, et al
2020; 51 (1): 183–94
- **Carbon-11 labeled BLZ945 as PET tracer for Colony Stimulating Factor 1 Receptor imaging in the brain**
van der Wildt, B., Miao, Z., Park, J., Reyes, S., Klockow, J., Shen, B., Chin, F.
WILEY.2019: S487–S488
- **Identifying Hypoperfusion in Moyamoya Disease With Arterial Spin Labeling and an [O-15]-Water Positron Emission Tomography/Magnetic Resonance Imaging Normative Database** *STROKE*
Fan, A. P., Khalighi, M. M., Guo, J., Ishii, Y., Rosenberg, J., Wardak, M., Park, J., Shen, B., Holley, D., Gandhi, H., Haywood, T., Singh, P., Steinberg, et al
2019; 50 (2): 373–80
- **Simultaneous phase-contrast MRI and PET for noninvasive quantification of cerebral blood flow and reactivity in healthy subjects and patients with cerebrovascular disease.** *Journal of magnetic resonance imaging : JMIR*
Ishii, Y. n., Thamm, T. n., Guo, J. n., Khalighi, M. M., Wardak, M. n., Holley, D. n., Gandhi, H. n., Park, J. H., Shen, B. n., Steinberg, G. K., Chin, F. T., Zaharchuk, G. n., Fan, et al
2019
- **Striatal dopamine deficits predict reductions in striatal functional connectivity in major depression: a concurrent 11C-raclopride positron emission tomography and functional magnetic resonance imaging investigation.** *Translational psychiatry*
Hamilton, J. P., Sacchet, M. D., Hjernevik, T., Chin, F. T., Shen, B., Kampe, R., Park, J. H., Knutson, B. D., Williams, L. M., Borg, N., Zaharchuk, G., Camacho, M. C., Mackey, et al
2018; 8 (1): 264
- **COMPARISON OF THREE METABOLIC PET RADIOTRACERS IN GLIOBLASTOMA: CELL CULTURE AND ANIMAL STUDIES**
Beinat, C., Patel, C., Murty, S., Haywood, T., Park, J., Xie, Y., Gambhir, S.
OXFORD UNIV PRESS INC.2018: 34

- **F-FTC-146 in humans.** *Journal of nuclear medicine*
Hjørnevik, T., Cipriano, P. W., Shen, B., Hyung Park, J., Gulaka, P., Holley, D., Gandhi, H., Yoon, D., Mitra, E. S., Zaharchuk, G., Gambhir, S. S., McCurdy, C. R., Chin, et al
2017
- **FJFTC-146.** *Molecular imaging and biology*
Shen, B., Park, J. H., Hjørnevik, T., Cipriano, P. W., Yoon, D., Gulaka, P. K., Holly, D., Behera, D., Avery, B. A., Gambhir, S. S., McCurdy, C. R., Biswal, S., Chin, et al
2017
- **Long-Delay Arterial Spin Labeling Provides More Accurate Cerebral Blood Flow Measurements in Moyamoya Patients: A Simultaneous Positron Emission Tomography/MRI Study.** *Stroke*
Fan, A. P., Guo, J. n., Khalighi, M. M., Gulaka, P. K., Shen, B. n., Park, J. H., Gandhi, H. n., Holley, D. n., Rutledge, O. n., Singh, P. n., Haywood, T. n., Steinberg, G. K., Chin, et al
2017; 48 (9): 2441–49
- **Image-derived input function estimation on a TOF-enabled PET/MR for cerebral blood flow mapping.** *Journal of cerebral blood flow and metabolism*
Khalighi, M. M., Deller, T. W., Fan, A. P., Gulaka, P. K., Shen, B., Singh, P., Park, J., Chin, F. T., Zaharchuk, G.
2017: 271678X17691784-?
- **Studying GABA Neurophysiology by Simultaneous [18F]Flumazenil-Positron Emission Tomography and Magnetic Resonance Spectroscopy**
Fung, L., Gu, M., Leuze, C., Hjoernevik, T., Shen, B., Park, J., Flores, R., Reyes, S., Holley, D., Gandhi, H., Jung, J., Lee, B., Kim, et al
NATURE PUBLISHING GROUP.2016: S209
- **Effects of common anesthetic agents on [F-18] flumazenil binding to the GABA(A) receptor** *EJNMMI RESEARCH*
Palner, M., Beinat, C., Banister, S., Zanderigo, F., Park, J. H., Shen, B., Hjoernevik, T., Jung, J. H., Lee, B. C., Kim, S. E., Fung, L., Chin, F. T.
2016; 6
- **Optimization of 15O-H2O dose for cerebral blood flow imaging on a time-of-flight PET/MR scanner**
Deller, T., Khalighi, M., Fan, A., Singh, P., Park, J., Hoehne, A., Shen, B., Chin, F., Zaharchuk, G.
SOC NUCLEAR MEDICINE INC.2016
- **Cerebral Blood Flow Imaging with 15O-H2O PET/MR-Review and Workflow Optimization**
Gandhi, H., Holley, D., Fan, A., Gulaka, P., Mitra, E., Shen, B., Singh, P., Park, J., Chin, F., Zaharchuk, G.
SOC NUCLEAR MEDICINE INC.2016
- **Image-based arterial input function estimation for cerebral blood flow measurement on a PET/MR scanner**
Khalighi, M., Fan, A., Delso, G., Singh, P., Park, J., Hoehne, A., Shen, B., Chin, F., Zaharchuk, G.
SOC NUCLEAR MEDICINE INC.2016
- **PET imaging of tumor glycolysis downstream of hexokinase through noninvasive measurement of pyruvate kinase M2.** *Science translational medicine*
Witney, T. H., James, M. L., Shen, B., Chang, E., Pohling, C., Arksey, N., Hoehne, A., Shuhendler, A., Park, J., Bodapati, D., Weber, J., Gowrishankar, G., Rao, et al
2015; 7 (310): 310ra169-?
- **Clinical grade [F-18]FTC-146: Radiosynthesis of sigma-1 receptor ligand for human PET studies**
Shen, B., Park, J., Arksey, N. C., McCurdy, C. R., Chin, F. T.
WILEY-BLACKWELL.2015: S253
- **Routine Production of [F-18]Flumazenil from Iodonium Tosylate Using a Sample Pretreatment Method: a 2.5-Year Production Report** *MOLECULAR IMAGING AND BIOLOGY*
Moon, B., Park, J., Lee, H., Lee, B., Kim, S.
2014; 16 (5): 619–25
- **Facile aromatic radiofluorination of [F-18]flumazenil from diaryliodonium salts with evaluation of their stability and selectivity** *ORGANIC & BIOMOLECULAR CHEMISTRY*
Moon, B., Kil, H., Park, J., Kim, J., Park, J., Chi, D., Lee, B., Kim, S.
2011; 9 (24): 8346–55

- **Highly efficient production of [F-18]fallypride using small amounts of base concentration** *APPLIED RADIATION AND ISOTOPES*
Moon, B., Park, J., Lee, H., Kim, J., Kil, H., Lee, B., Chi, D., Lee, B., Kim, Y., Kim, S.
2010; 68 (12): 2279–84
- **Intensification of the KOTRON-13 Cyclotron by Optimizing the Ion Source** *JOURNAL OF THE KOREAN PHYSICAL SOCIETY*
Lee, B., Lee, H., Park, J., Moon, B., Kim, S., Lee, W., Jung, K., Chae, S., Km, J.
2010; 57 (6): 1376–80