

Stanford



Dr. Seung-min Park

Sr Res Scientist-Basic Life, Rad/Molecular Imaging Program at Stanford

Bio

EDUCATION AND CERTIFICATIONS

- Sr. Res. Scientist, Stanford University School of Medicine , Radiology
- Instructor, Stanford University School of Medicine , Radiology (2017)
- Assistant Project Scientist, University of California, Berkeley , Bioengineering (2014)
- Postdoctoral Scholar, University of California, Berkeley , Bioengineering (2012)
- Postdoctoral Scholar, Cornell University , Applied Physics (2010)
- Ph.D., Cornell University , Applied Physics (2008)
- B.S., Seoul National University , Physics (2002)

PATENTS

- Seung-min Park. "Microfluidic Encapsulated NEMS Resonators", Cornell University
- Seung-min Park. "Nanofilter devices using elastomeric micro to nanochannel interfaces and methods based thereon", Cornell University
- Ophir Vermesh, Seung-min Park, Sanjiv S. Gambhir, et al. "Magnetizable Intravascular System for Detection and Elimination of Disease-Causing Cells and Toxins", Leland Stanford Junior University
- Seung-min Park, Dawson J. Wong, Chin Chun Ooi, Sanjiv Sam Gambhir, Viswam S. Nair, Shan X. Wang. "A Method of Molecular Analysis Using a Magnetic Sifter and Nanowell System", Leland Stanford Junior University
- Seung-min Park. "Device for rapid identification of nucleic acids for binding to specific chemical targets", Cornell University

LINKS

- LinkedIn: <https://www.linkedin.com/in/seung-min-park-76825227>

Publications

PUBLICATIONS

- **Engineered immune cells as highly sensitive cancer diagnostics** *NATURE BIOTECHNOLOGY*
Aalipour, A., Chuang, H., Murty, S., D'Souza, A. L., Park, S., Gulati, G. S., Patel, C. B., Beinat, C., Simonetta, F., Martinic, I., Gowrishankar, G., Robinson, E. R., Aalipour, et al
2019; 37 (5): 531-+
- **An intravascular magnetic wire for the high-throughput retrieval of circulating tumour cells in vivo.** *Nature biomedical engineering*
Vermesh, O., Aalipour, A., Ge, T. J., Saenz, Y., Guo, Y., Alam, I. S., Park, S., Adelson, C. N., Mitsutake, Y., Vilches-Moure, J., Godoy, E., Bachmann, M., Ooi, et al
2018; 2: 696-705
- **Towards clinically translatable in vivo nanodiagnostics** *Nature Reviews Materials*

- Park, S., Aalipour, A., Vermesh, O., Yu, J., Gambhir, S. S.
2017; 2
- **Molecular profiling of single circulating tumor cells from lung cancer patients** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Park, S., Wong, D. J., Ooi, C. C., Kurtz, D. M., Vermesh, O., Aalipour, A., Suh, S., Pian, K. L., Chabon, J. J., Lee, S. H., Jamali, M., Say, C., Carter, et al
2016; 113 (52): E8379-E8386
 - **A method for nanofluidic device prototyping using elastomeric collapse** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Park, S., Huh, Y. S., Craighead, H. G., Erickson, D.
2009; 106 (37): 15549-15554
 - **An intravascular magnetic wire for the high-throughput retrieval of circulating tumour cells in vivo.** *Nature biomedical engineering*
Vermesh, O., Aalipour, A., Ge, T. J., Saenz, Y., Guo, Y., Alam, I. S., Park, S. M., Adelson, C. N., Mitsutake, Y., Vilches-Moure, J., Godoy, E., Bachmann, M. H., Ooi, et al
2018; 2 (9): 696–705
 - **High-Density Lipoprotein Nanoparticle Imaging in Atherosclerotic Vascular Disease.** *JACC. Basic to translational science*
Leeper, N. J., Park, S. M., Smith, B. R.
2017; 2 (1): 98–100
 - **Deactivated CRISPR Associated Protein 9 for Minor-Allele Enrichment in Cell-Free DNA.** *Clinical chemistry*
Aalipour, A., Dudley, J. C., Park, S. M., Murty, S., Chabon, J. J., Boyle, E. A., Diehn, M., Gambhir, S. S.
2017
 - **High-throughput full-length single-cell mRNA-seq of rare cells.** *PLoS one*
Ooi, C. C., Mantalas, G. L., Koh, W., Neff, N. F., Fuchigami, T., Wong, D. J., Wilson, R. J., Park, S. M., Gambhir, S. S., Quake, S. R., Wang, S. X.
2017; 12 (11): e0188510
 - **Capture and Genetic Analysis of Circulating Tumor Cells Using a Magnetic Separation Device (Magnetic Sifter).** *Methods in molecular biology (Clifton, N.J.)*
Ooi, C. C., Park, S. M., Wong, D. J., Gambhir, S. S., Wang, S. X.
2017; 1634: 153–62
 - **Multigene Profiling of Single Circulating Tumor Cells** *Molecular & Cellular Oncology*
Park, S., Wong, D., Ooi, C., Nesvet, J., Nair, V. S., Wang, S. X., Gambhir, S. S.
2017; 4 (2): e1289295
 - **Dual transcript and protein quantification in a massive single cell array.** *Lab on a chip*
Park, S., Lee, J. Y., Hong, S., Lee, S. H., Dimov, I. K., Lee, H., Suh, S., Pan, Q., Li, K., Wu, A. M., Mumenthaler, S. M., Mallick, P., Lee, et al
2016; 16 (19): 3682-3688
 - **Pref-1 Marks Very Early Mesenchymal Precursors Required for Adipose Tissue Development and Expansion** *CELL REPORTS*
Hudak, C. S., Gulyaeva, O., Wang, Y., Park, S., Lee, L., Kang, C., Sul, H. S.
2014; 8 (3): 678-687
 - **Toward Integrated Molecular Diagnostic System (iMDx): Principles and Applications** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Park, S., Sabour, A. F., Son, J. H., Lee, S. H., Lee, L. P.
2014; 61 (5): 1506-1521
 - **Hemolysis-free blood plasma separation** *LAB ON A CHIP*
Son, J. H., Lee, S. H., Hong, S., Park, S., Lee, J., Dickey, A. M., Lee, L. P.
2014; 14 (13): 2287-2292
 - **Discriminating cellular heterogeneity using microwell-based RNA cytometry.** *Nature communications*
Dimov, I. K., Lu, R., Lee, E. P., Seita, J., Sahoo, D., Park, S., Weissman, I. L., Lee, L. P.
2014; 5: 3451-?
 - **Optical Methods in Studies of Olfactory System** *Bioelectronic Nose*
Lee, S., Park, S., Lee, L. P.

Springer.2014: 191–220

- **Rapid Prototyping of Nanofluidic Systems Using Size-Reduced Electrospun Nanofibers for Biomolecular Analysis** *SMALL*
Park, S., Huh, Y. S., Szeto, K., Joe, D. J., Kameoka, J., Coates, G. W., Edel, J. B., Erickson, D., Craighead, H. G.
2010; 6 (21): 2420-2426
- **Selection and elution of aptamers using nanoporous sol-gel arrays with integrated microheaters** *LAB ON A CHIP*
Park, S., Ahn, J., Jo, M., Lee, D., Lis, J. T., Craighead, H. G., Kim, S.
2009; 9 (9): 1206-1212
- **On-chip coupling of electrochemical pumps and an SU-8 tip for electrospray ionization mass spectrometry** *BIOMEDICAL MICRODEVICES*
Park, S., Lee, K. H., Craighead, H. G.
2008; 10 (6): 891-897
- **Microfluidic encapsulated nanoelectromechanical resonators** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*
Aubin, K. L., Huang, J., Park, S., Yang, Y., Kondratovich, M., Craighead, H. G., Ilic, B. R.
2007; 25 (4): 1171-1174