



Gayong Shim, Ph.D.

School of Systems Biomedical Science,
Soongsil University, Seoul, Korea



Professional Experiences

2020-present

Assistant Professor

School of Systems Biomedical Science, Soongsil University, Seoul, Korea

Honors and Prizes

2018

Trainee Award

Controlled Release Society (CRS), USA

2012

New Star Woman Scientist Award

Women's Bioscience Forum, Seoul, Korea

Selected publications (Co-corresponding author)

1. Quoc-Viet Le, Sungtaek Kang, Jaesung Lee, Hyeseon Park, Jeong Gil Sun, Jaiwoo Lee, **Gayong Shim**, Size-dependent effect of indocyanine green nano-imaging agent for metastatic lymph node detection. *Biomater Res* 2024 (in press)
2. Jinwon Park, Jung Suk Kim, Geon Yang, Hobin Lee, **Gayong Shim (co-corresponding)**, Jaiwoo Lee, Yu-Kyoung Oh, Lysyl oxidase-responsive anchoring nanoparticles for modulation of the tumor immune microenvironment. *J Control Release* 2023; 360: 376-391.
3. Junho Byun, Yina Wu, Jaiwoo Lee, Jung Suk Kim, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, External cold atmospheric plasma-responsive on-site hydrogel for remodeling tumor immune microenvironment. *Biomaterials* 2023; 299: 122162.
4. Dongyoon Kim, Junho Byun Se Ik Kim, Hyun Hoon Chung, Yong-Wan Kim, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, DNA-cloaked nanoparticles for tumor microenvironment-responsive activation. *J Control Release* 2022; 350: 448-459. (***front cover of the issue**)
5. Jaiwoo Lee, Quoc-Viet Le, Seungbeom Ko, Sungtaek Kang, Robert B. Macgregor Jr., **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, Blood-declustering excretable metal clusters assembled in DNA matrix. *Biomaterials* 2022; 289: 121754.
6. Quoc-Viet Le, Jaiwoo Lee, Junho Byun, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, DNA-based artificial dendritic cells for in situ cytotoxic T cell stimulation and immunotherapy. *Bioactive Mater* 2022; 15: 160-172.
7. Dongyoon Kim, Yina Wu, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, Genome-editing-mediated restructuring of tumor immune microenvironment for prevention of metastasis. *ACS Nano* 2021; 15(11): 17635-176565.
8. Quoc-Viet Le, Jaiwoo Lee, Hobin Lee, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, Cell membrane-derived vesicles for delivery of therapeutic agents. *Acta Pharm Sin B* 2021; 11(8): 2096-2113.
9. Yina Wu, Qiaoyun Li, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, Melanin-loaded CpG DNA hydrogel for modulation of tumor immune microenvironment. *J Control Release* 2021; 330: 540-553.
10. **Gayong Shim**, Seungbeom Ko, Joo Yeon Park, Ju Han Suh, Quoc-Viet Le, Dongyoon Kim, Young Bong Kim, Geun Ho Im, Hun Nyun Kim, Yearn Seong Choe, Jihee Cho, Sanghee Kim, Yu-Kyoung Oh, Tannic acid-functionalized boron nitride nanosheets for theranostics. *J Control Release* 2020; 327: 616-626.
11. HobinYang, Quoc-Viet Le, **Gayong Shim (co-corresponding)**, Yu-Kyoung Oh, Young Kee Shin, Molecular engineering of antibodies for site-specific conjugation to lipid polydopamine hybrid nanoparticles. *Acta Pharm Sin B* 2020; 10(11): 2212-2226.