

Unpublished Work – Submitted or In Press

1. **Parvanian, S.**, Fei, F., Liang, Y., Hayashi, M., Evavold, C., Weissleder, R., & Garriss, C. S. “ALDH expression is linked to immunotherapy non-responsive tumor.” *Nature Immunology*. Submitted.
2. **Parvanian, S.**, Fei, F., Evavold, C., Shik, K. H., Hayashi, M., Weissleder, R., & Garriss, C. S. “JAK1/2 inhibitor-enhanced myeloid-directed innate immunotherapy enables immune rejection of bladder tumors.” *Cell*. Under review.
3. Kim, H. S., Oh, J., Jeon, J., Fei, F., **Parvanian, S.**, Kohler, R., Garriss, C. S., & Weissleder, R. “A ribonucleotide carbohydrate system (iRNC) enhances antigen presentation and controls glioblastoma.” *Nature Nanotechnology*. Under review, 2025.
4. Kaiser, Y., Garriss, C. S., Marinari, E., Kim, H. S., Oh, J., Pedard, M., Halabi, E. A., Choi, M., **Parvanian, S.**, Kohler, R., Migliorini, D., & Weissleder, R. “Intracavitary polarization of myeloid cells controls postoperative glioblastoma recurrence.” *Nature Biomedical Engineering*. In press, 2025.
5. **Parvanian, S.**, Coelho-Rato, L. S., Sultana, G., Silva, M. S., Devre, P. V., Modi, M. K., & Eriksson, J. E. “Vimentin-containing extracellular vesicles drive epithelial to mesenchymal transition.” *Molecular & Cellular Proteomics*. In press, 2025.

ARTICLES (Cited [426](#) times)

1. **Parvanian, S.**, Ge, X., & Garriss, C. S. “Recent developments in myeloid immune modulation in cancer therapy.” *Trends in Immunology*. 2024.
2. Das, R., Ge, X., Fei, F., **Parvanian, S.**, Weissleder, R., & Garriss, C. S. “Lipid nanoparticle-mRNA engineered dendritic cell-based adoptive cell therapy enhances cancer immune response.” *Small Methods*. 2024. <https://doi.org/10.1002/smtd.202400633>
3. Coelho-Rato, L. S., **Parvanian, S.**, Salajkova, S. A., Medalia, O., & Eriksson, J. E. “Intermediate filaments at a glance.” *Journal of Cell Science*. <https://doi.org/10.1242/jcs.261386>
4. **Parvanian, S.**,* Coelho-Rato, L. S.*, Eriksson, J. E., & Patteson, A. E. “The molecular biophysics of extracellular vimentin and its role in pathogen-host interactions.” *Current Opinion in Cell Biology*. 2023. <https://doi.org/10.1016/j.ceb.2023.102233>
5. **Parvanian, S.**,* Coelho-Rato, L. S.*, Patteson, A. E., & Eriksson, J. E. “Vimentin takes a hike – emerging roles of extracellular vimentin in cancer and wound healing.” *Current Opinion in Cell Biology*. 2023. <https://doi.org/10.1016/j.ceb.2023.102246>
6. Coelho-Rato, L. S., **Parvanian, S.**, Modi, M. K., & Eriksson, J. E. “Vimentin at the core of wound healing.” *Trends in Cell Biology*. 2023. <https://doi.org/10.1016/j.tcb.2023.08.004>
7. Gharbavi, M., **Parvanian, S.**, Parvinzad Leilan, M., Tavangar, S., Parchianlou, M., & Sharafi, A. “Nasal drug delivery.” In: *Niosomes-Based Drug Delivery in Targeting the Brain Tumors via Nasal Delivery*, Chapter 14. Springer, 2023. https://doi.org/10.1007/978-3-031-23112-4_14
8. **Parvanian, S.**, Zha, H., Su, D., Xi, L., Jiu, Y., Chen, H., Eriksson, J. E., & Cheng, F. “Exosomal vimentin from adipocyte progenitors protects fibroblasts against osmotic stress and inhibits apoptosis to enhance wound healing.” *International Journal of Molecular Sciences*. 2021. <https://doi.org/10.3390/ijms22094678>

9. **Parvanian, S.**, Yan, F., Li, Q., Su, D., Wang, H., Zhou, Y., Zhang, Y., Coelho-Rato, L. S., Venu, A. P., Yang, P., Zou, X., Jiu, Y., Chen, H., Cheng, F., Eriksson, J. E., & Zheng, G. “Exosomal vimentin from adipocyte progenitors accelerates wound healing.” *Cytoskeleton*. 2020. <https://doi.org/10.1002/cm.21634>
10. Su, D., Tsai, H., Xu, Z., Yan, F., Wu, Y., Xiao, Y., Liu, X., Wu, Y., **Parvanian, S.**, Zhu, W., Eriksson, J. E., Wang, D., Zhu, H., Chen, H., & Cheng, F. “Exosomal PD-L1 functions as an immunosuppressant to promote wound healing.” *Journal of Extracellular Vesicles*. 2019. <https://doi.org/10.1080/20013078.2019.1709262>
11. **Parvanian, S.**, Mostafavi, S. M., & Aghashiri, M. “Multifunctional nanoparticle developments in cancer diagnosis and treatment.” *Sensing and Bio-Sensing Research*. 2017. <https://doi.org/10.1016/j.sbsr.2016.08.002>
12. **Parvanian, S.** “Nanotechnology developments in efficient CRISPR/Cas9 genome editing delivery.” *Global Journal of Nanomedicine*. 2017.
13. Mousavi, A., Salmanian, A. H., Eftekharian, M. H., & **Parvanian, S.** “Simultaneous expression of 5-enolpyruvylshikimate-3-phosphate synthase (epsps) and glyphosate oxidoreductase (gox) in transgenic canola plants towards enhancing resistance to glyphosate herbicide.” *Iranian Journal of Plant Biology*. 2018. <https://doi.org/10.22108/ijpb.2018.108127.1062>

* Shared first authorship

PATENTS

1. **Parvanian, S.** “Freeze-dried exosomes composition and uses thereof.” U.S. Patent Application No. 18/159,352, filed September 14, 2023.
2. Nuopponen, M., **Parvanian, S.**, Eriksson, J. E., Cheng, F., Sheard, J., & Kiuru, T. “A bioreactor and a method for separating cell-derived products from cultured cells and a nanostructured cellulose product.” U.S. Patent Application No. 18/267,503.

CONFERENCE PUBLICATIONS

1. **Parvanian, S.**, Fei, F., Kim, H. S., Weissleder, R., & Garriss, C. S. “Myeloid-directed innate immunotherapy enables immune rejection of bladder tumor.” *FOCIS Conference*, Boston, USA, June 2025.
2. **Parvanian, S.**, Fei, F., Kim, H. S., Liang, Y., Evavold, C., & Garriss, C. S. “Cancer cell intrinsic Aldh1a1 expression drives tumor immune suppression.” *RNA Therapeutics Conference*, Amherst, USA, June 2025.
3. **Parvanian, S.**, Fei, F., Kim, H. S., Weissleder, R., & Garriss, C. S. “JAK1/2 inhibitor-enhanced myeloid-directed innate immunotherapy enables immune rejection of bladder tumors.” *Harvard Medical School Pathology Retreat*, Boston, USA, May 2025.
4. **Parvanian, S.**, Fei, F., Kim, H. S., Weissleder, R., & Garriss, C. S. “JAK1/2 inhibitor-enhanced myeloid-directed innate immunotherapy enables immune rejection of bladder tumors.” *GeneLay Conference*, Boston, USA, March 2025.
5. **Parvanian, S.**, Fei, F., Ge, X., Weissleder, R., & Garriss, C. S. “ALDH expression is linked to immunotherapy non-responsive tumors.” *Arthur and Sandra Irving Cancer Immunology Innovation Retreat*, Boston, USA, July 2024.

6. **Parvanian, S.**, Coelho-Rato, L. S., Sultana, G., Silva, M. S., Devre, P. V., Modi, M. K., & Eriksson, J. E. "Vimentin-containing extracellular vesicles drive epithelial to mesenchymal transition." *IF Gordon Conference*, Barcelona, Spain, July 2024.
7. **Parvanian, S.**, Eriksson, J. E., & Cheng, F. "Vimentin from adipocyte progenitors protects human dermal fibroblasts against osmotic stress" (Poster). *EUROIF Conference*, Rolduc, Netherlands, September 2021.
8. **Parvanian, S.**, Eriksson, J. E., & Cheng, F. "The involvement of vimentin from adipose stem cell-derived exosomes in mediating wound healing" (Oral Presentation). *Receptor Seminar* (Virtual Meeting), October 2020.
9. **Parvanian, S.**, Luoto, J., Eriksson, J. E., & Cheng, F. "The role of adipocyte-derived extracellular vesicles in vimentin-mediated fibrosis." *ISEV Conference*, Tokyo, Japan, April 2019.
10. **Parvanian, S.**, Venu, A. P., Eriksson, J. E., & Cheng, F. "The role of adipocyte-derived extracellular vesicles in vimentin-mediated fibrosis." *EUROIF Conference*, Turku, Finland, June 2019.
11. **Parvanian, S.**, Faghihi, S. S., Akheratdoost, H., & Sharafi, A. "Safety of nanomaterials in cosmetic products." *Professional Symposium on Nanosafety in Human & Environment*, Tehran, Iran, 2013.
12. Sharafi, A., Valimehr, S., **Parvanian, S.**, Karimi, F., Zolghadr, M., & Hashemi Sohi, H. "Production of artificial seeds from hairy root of *Catharanthus roseus*." *17th International Iranian Conference on Biology*, Tehran, Iran, 2012.
13. **Parvanian, S.**, Dehsara, B., Mousavi, A., & Salmanian, A. H. "Evaluation of mutant EPSPS as a selectable marker for transgenic canola regeneration." *8th National Biotechnology Conference & 4th National Biosafety Conference*, Tehran, Iran, 2013.
14. **Parvanian, S.**, Mousavi, A., & Salmanian, A. H. "Construction of pBI170-gox-epsps containing synth-gox and EPSPS (G96A, A183T) genes for transformation of canola toward glyphosate tolerance." *12th International Congress of Genetics*, Tehran, Iran, 2012.

GRANTS and AWARDS

Research Grants and Project Funding

- **ELLA JA GEORG EHRNROOTHIN Foundation** (2025)
Project: Unlocking the Power of Macrophages: High-Throughput Screening for IL-12 and CXCL9 Enhancers for Enhanced Cancer Immunotherapy
- **Yrjö Jahnsson Foundation** (2025)
Project: Leveraging Randomization to Address Noncompliance in Prostate Cancer Screening in Finland
- **Orion Research Foundation** (2024)
Project: Contrasting Immunogenic and Non-Immunogenic Bladder Tumors
- **Maud Kuistila Foundation**, Postdoctoral Grant (2024)
Project: Fibroblast-Derived Extracellular Vesicles Induce EMT in Breast Cancer Epithelial Cells
- **Emil Aaltonen Foundation**, Postdoctoral Grant (2024)
Project: Fibroblast-Derived Extracellular Vesicles Induce EMT in Breast Cancer Epithelial Cells

- **Instrumentarium Science Foundation**, Postdoctoral Grant (2023)
Project: The Role of Fibroblast-Derived Extracellular Vesicles in Inflammatory Bowel Disease-Associated Colorectal Cancer Using an Organ-on-Chip Model
- **K. Albin Johansson Foundation**, Research Grant (2023)
Project: The Role of Fibroblast-Derived Extracellular Vesicles in Inflammatory Bowel Disease-Associated Colorectal Cancer Using an Organ-on-Chip Model
- **Harry Elving's Legacy**, Åbo Akademi University, Travel Award (2022)
Project: Research Visit to Harvard Medical School/Wyss Institute on the Role of Fibroblast-Derived Extracellular Vesicles in IBD-Associated Colorectal Cancer

Thesis Grants

- **Häme University**, MBA Thesis Grant (2023)
Project: Innovation practices to promote sustainability in life science SMEs
- **ELLA JA GEORG EHRNROOTHIN Foundation**, PhD Thesis Grant (2022)
Project: Investigating the Role of Extracellular Vesicles in Mediating Wound Healing

Innovation, Entrepreneurship, and Startup Grants

- **Business Finland**, Innovation Grant (2021)
Project: AVECIN-Biopharma, Product development
- **Business Finland / ELY Keskus**, IPR Strategy Grant (2020)
Project: AVECIN-Biopharma, Assess patentability
- **ELY Keskus**, Startup Research and Development Grant (2020)
Project: AVECIN-Biopharma, Product Development
- **SME Fund**, European Union Intellectual Property Office (EUIPO) (2022)
Project: AVECIN Biopharma, Trade mark registration (EXOTEC)

Awards

- **Distinguished reviewer** of the year by Frontiers in Bioscience Journal, 2024
- **Selected by UNICOM Project for Industry Placement**, Finland (2022)
- **Winner**, SPARK Finland / Stanford Biomedical Innovation and Entrepreneurship Training Course (2020)