

Publications ([My NCBI](#))

Peer-Reviewed Journal Articles

1. Petrenko VA and **Gillespie JW**. Paradigm Shift in Bacteriophage-mediated Delivery of Anti-Cancer Drugs: From Targeted Magic Bullets to Self-Navigated Magic Missiles. *Expert Opinion on Drug Delivery*. 2017 Mar; 14(3): 373-384. doi:10.1080/17425247.2016.1218463
2. **Gillespie JW**, Wei L, and Petrenko VA. Selection of Lung Cancer-Specific Landscape Phage for Targeted Drug Delivery. *Combinatorial Chemistry and High Throughput Screening*. 2016; 19(5): 412-422.
3. Gross, AL, **Gillespie JW**, and Petrenko VA. Promiscuous tumor targeting phage proteins. *Protein Engineering, Design & Selection*. 2016 Jan; 29(3): 93-103. doi:10.1093/protein/gzv064
4. **Gillespie JW**, Gross AL, Puzyrev AT, Bedi D, and Petrenko VA. Combinatorial synthesis and screening of cancer cell-specific nanomedicines targeted via phage fusion proteins. *Frontiers in Microbiology*. 2015 Jun; 6:628. doi:10.3389/fmicb.2015.00628
5. Wang T, Yang S, Mei LA, Parmar CK, **Gillespie JW**, Praveen KP, Petrenko VA, and Torchilin VP. Paclitaxel-Loaded PEG-PE-Based Micellar Nanopreparations Targeted with Tumor-Specific Landscape Phage Fusion Protein Enhance Apoptosis and Efficiently Reduce Tumors. *Molecular Cancer Therapeutics*. 2014 Dec; 13(12):2864–75. PMID: PMC4258532 doi:10.1158/1535-7163.MCT-14-0052
6. Bedi D, **Gillespie JW**, and Petrenko VA. Selection of pancreatic cancer cell-binding landscape phages and their use in development of anticancer nanomedicines. *Protein Engineering, Design & Selection*. 2014 July; 27(7):235-243. PMID: PMC4064708 doi:10.1093/protein/gzu020
7. Wang T, Hartner WC, **Gillespie JW**, Praveen KP, Yang S, Mei LA, Petrenko VA, and Torchilin VP. Enhanced tumor delivery and anticancer activity in vivo of liposomal doxorubicin modified with MCF-7-specific phage fusion protein. *Nanomedicine*. 2014 Feb; 10(2):421-430. PMID: PMC3946195 doi:10.1016/j.nano.2013.08.009
8. Bedi D, **Gillespie JW**, Petrenko VA Jr, Ebner A, Leitner M, Hinterdorfer P, and Petrenko VA. Targeted delivery of siRNA into breast cancer cells via phage fusion proteins. *Molecular Pharmaceutics*. 2013 Feb; 10(2):551-559. PMID: 23215008 doi:10.1021/mp3006006
9. Bedi D, Musacchio T, Fagbohun OA, **Gillespie JW**, DelInnocentes P, Bird RC, Bookbinder L, Torchilin VP, and Petrenko VA. Delivery of siRNA into breast cancer cells via phage fusion protein-targeted liposomes. *Nanomedicine*. 2011 June; 7(3):315-323. PMID: PMC3108001 doi:10.1016/j.nano.2010.10.004
10. Jayanna PK, Bedi D, **Gillespie JW**, DelInnocentes P, Wang T, Torchilin VP, Bird RC, and Petrenko VA. Landscape phage fusion protein-mediated targeting of nanomedicines enhances their prostate tumor cell association and cytotoxic efficiency. *Nanomedicine*. 2010 Aug; 6(4):538-546. PMID: PMC2952829 doi:10.1016/j.nano.2010.01.005

Conference Proceedings

1. **Gillespie JW**, Petrenko VA. *In silico* prediction of influenza interaction sites with host cells using an artificial phage display evolution system. *J Vaccines Vaccin. Annual Congress on Vaccines, Therapeutics & Travel Medicine: Influenza & Infectious Diseases*; 2016 December 01; Atlanta, GA, USA. c2016.

Books, Monographs, and Text Books

1. **Gillespie JW**, Gross AL, Puzyrev AT, Bedi D, and Petrenko VA. (2017). Combinatorial synthesis and screening of cancer cell-specific nanomedicines targeted via phage fusion proteins. In Rakonjac J, Das B, and Derda R (eds.), *Filamentous Bacteriophage in Bio/Nano/Technology, Bacterial Pathogenesis and Ecology*. 101-116. Lausanne: Frontiers Media. doi:10.3389/978-2-88945-095-4

Dissertation

1. **Gillespie JW**. Development and Screening of Targeted Anticancer Nanomedicines (Doctoral dissertation; Department of Pathobiology, Auburn University, AL). 2015 July.

Patents

1. Petrenko VA, **Gillespie JW**, and Gross AL inventors; Auburn University, Auburn, AL assignee. Paradigm Shift in Bacteriophage-Mediated Delivery of Anti-Cancer Drugs: From Targeted Magic Bullets to Self-Navigated Magic Missiles. US Provisional Patent Application No. 62/332,147. Issued: May 5, 2016. AU IP No 2016-015-02.
2. Petrenko VA, Bedi D, Fagbohun OA, **Gillespie JW** inventors; Auburn University, Auburn, AL assignee. Targeted particles comprising landscape phage fusion proteins and heterologous nucleic acid. US Patent No 9,226,972. Issued: Jan 5, 2016. AU IP No 2010-062-03.