Nathan E. Reticker-Flynn

Assistant Professor
Department of Otolaryngology – Head & Neck Surgery
Stanford University School of Medicine
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Education

Massachusetts Institute of Technology (MIT), Cambridge, MA
PhD Biomedical Engineering, Harvard-MIT Division of Health Sciences and Technology (HST), June 2013
Engineered Approaches to Querying the Microenvironment of Cancer Metastasis, Advisor: **Sangeeta N. Bhatia**
Thesis Committee Members: Richard O. Hynes (chair), Daniel A. Haber, J. Christopher Love

Massachusetts Institute of Technology (MIT), Cambridge, MA
SM Mechanical Engineering, Department of Mechanical Engineering, June 2008
*Design and Fabrication of Microfluidic Valves Using poly(*N*-isopropylacrylamide)*, Advisor: **Sang-Gook Kim**

Tufts University, Medford, MA
BS Mechanical Engineering, Department of Mechanical Engineering, June 2006
Valedictorian, School of Engineering; Summa Cum Laude

Research Experience

Assistant Professor — *Dept. of Otolaryngology – Head & Neck Surgery, Stanford University* — 6/1/2023 – Present

Instructor — *Dept. of Pathology, Stanford University* — 5/1/2021 – 4/30/2023
Postdoctoral Fellow — *Dept. of Pathology, Stanford University* — 11/1/2013 – 4/30/2021
PI: Edgar G. Engleman

- Investigated the role of lymph node metastasis in the generation of systemic immune tolerance and subsequent distant organ dissemination
- Developed a syngeneic mouse model consisting of 300 lymph node metastatic cell lines
- Discovered a conserved epigenetic and transcriptional interferon signaling axis that promotes lymph node metastasis
- Identified a role for MHC-I in evading NK cells during lymph node metastasis
- Discovered that lymph node colonization induces tumor antigen-specific Tregs capable of promoting distant metastasis
- Employed mass cytometry approaches to identify a role for systemic immune responses in effective cancer immunotherapy

PhD Research — *Harvard-MIT Division of Health Sciences and Technology (HST), MIT* — 9/1/2008 – 6/7/2013
PI: Sangeeta N. Bhatia

- Generated an extracellular matrix screening platform to analyze changes in cell-ECM interactions during cancer metastasis
- Identified key alterations in adhesion during this process and the mechanisms underlying these changes
- Investigated the role of perturbed glycan regulation in potentiating interactions with inflammatory leukocytes in the metastatic sites

Masters Research — *Dept. of Mechanical Engineering, MIT* — 9/6/2006 – 8/31/2008
PI: Sang-Gook Kim

- Designed and fabricated temperature-responsive microfluidic valves composed of poly(NIPAAm) that can be actuated remotely with magnetic fields through the incorporation of iron-oxide nanoparticles

Teaching and Mentoring Experience

As an Assistant Professor:

PhD Student Advisor: Norma Gutierrez (current), Cort Breuer (current), Markus Diehl (co-advisor, current)
MS Student Advisor: Alice Wang (current)
Postdoctoral Fellow Advisor: Arash Saeedi (current)
Thesis Committee: Grayson Rodriguez (current)
Thesis Committee Chair: Erin Soon, PhD ('23), R. Andres Parra Sperberg ('23)
Qualifying Exam Committee: Jaclyn Ng (current)

As a student/postdoc/Instructor:

Guest Lecturer

CBIO 275 / IMMUNOL 275: Tumor Immunology and Immunotherapy:

- "Tumor Immune Escape and Tolerance." 8 April 2021, Stanford University.
- "Tumor Immune Tolerance." 29 April 2019, Stanford University.
- "New Approaches in Cancer Immunology and Immunotherapy." 6 December 2017, Stanford University.

Course 10.984: Applications in Biomedical Engineering: "A combinatorial extracellular matrix screening platform identifies conserved alterations during metastasis." September 2012, Massachusetts Institute of Technology.

Teaching Assistant

2.372J/6.777J: Design and Fabrication of Microelectromechanical Systems, MIT
Departments: Mechanical Engineering and Electrical Engineering
Graduate course in MEMS theory and design

ME 001: Introduction to Mechanical Engineering, Tufts University
Department: Mechanical Engineering
Undergraduate course on fabrication, instrumentation, and data acquisition software

Mentoring Undergraduate Students

Mentored nine undergraduate students as research assistants. Students achieved awards including Best Senior Research Project in the Dept. of Biology (MIT) and National Science Foundation Graduate Fellowships. Students who have graduated have since enrolled in PhD and MD programs at a variety of institutions including MIT, Columbia, and Harvard Medical School.

Mentoring Graduate Students

Mentored five Stanford PhD graduate students, one Stanford MD student, and one visiting graduate student during their rotations in the Engleman lab.

Grants, Fellowships, and Honors

Ongoing Support

Melanoma Research Program Team Science Award (CDMRP) 08/2023 – 07/2026
Department of Defense
ME220196P2
Revealing and targeting lipidomic vulnerabilities to treat early-stage melanoma
Major Goals: The major goals of this proposal are to uncover metabolic drivers of lymphatic and distant metastasis and to leverage metabolic vulnerabilities in metastasizing cells to sensitize cancer cells to lipid ROS as a novel therapeutic strategy to inhibit metastasis.
Role: Co-Principal Investigator

NIAID New Innovators Award 07/2023 – 06/2028
National Institutes of Health
DP2 AI177915-01
A modular cell therapy platform for controlling immunological tolerance

Major Goals: The goal of this project is to develop an engineered cell therapy capable of homing to lymph nodes and altering antigen-specific immune tolerance to treat autoimmune diseases and metastatic cancer.
Role: Principal Investigator

Advanced Research Projects Agency for Health (*ARPA-H*) 09/2023 – 02/2029
75N99223S0001
THOR: Targeted Hybrid Oncotherapeuitic Regulation
Major Goals: The goal of this project is to develop a fully implantable device capable of sensing and secreting immunomodulatory agents for the personalized delivery of engineered localized and systematic immunotherapies for the treatment of peritoneal malignancies.
Role: Co-Principal Investigator

Sarafan – ChEM-H: Testing Molecular Hypotheses in Human Subjects 12/2023 – 11/2024
Stanford University
Massively parallel TCR screening of tumor-reactive T cells from human head and neck cancer lymph nodes
Major Goals: The goal of this project is to develop a technology capable of simultaneously screening tumor reactivity of millions of T cell clones derived from head and neck cancer patients.
Role: Principal Investigator

Completed Support

Early Career Investigator Award (Reticker-Flynn) 7/1/2021 – 6/30/2023
METAvivor Research and Support, Inc.
Targeting lymph node-induced immune tolerance to treat metastatic breast cancer
Major goal: To investigate the mechanisms of lymph node metastasis-induced tumor immune tolerance and develop therapies to enhance anti-tumor immunity for stage IV metastatic breast cancer.
Role: Principal Investigator

NIH Ruth L. Kirchstein National Research Service Award (NRSA - F32 CA189408) 2014 – 2017

Awards

Ludwig Center for Molecular Oncology Graduate Fellowship	2012
Martha Gray Prize for Excellence in Research: Biomedical Devices	2012
MIT Presidential Fellow	2006
Valedictorian, School of Engineering, Tufts University	2006
Summa Cum Laude, Tufts University	2006
Mechanical Engineering Prize, Tufts University	2006
Howard Sample Prize in Physics	2004
John and Elsa Gracik Scholarship, ASME	2004
Albert B. & Evelyn H. Black Scholarship	2002 – 2004

Publications

1. McGinnis, C.S.**, Miao, Z., **Reticker-Flynn, N.E.**, Winkler, J., Satpathy, A.T.** "The temporal progression of immune remodeling during metastasis." ***BioRxiv***, May 2023. DOI: 10.1101/2023.05.04.539153 ** Co-corresponding authors
2. **Reticker-Flynn, N.E.**** and Engleman, E.G.**, "Lymph nodes: at the intersection of cancer treatment and progression." ***Trends in Cell Biology***, May 2023, PMID: 37149414, DOI: 10.1016/j.tcb.2023.04.001 ** Co-corresponding authors
3. Linde, I.L., Prestwood, T.R., Qiu, J., Pilarowski, G.O.W., Linde, M.H., Zhang, X., Shen, L., **Reticker-Flynn, N.E.**, Chiu. D.K.C., Sheu, L.Y., Deursen, S.V., Tolentino, L.L., Song, W.C., Engleman, E.G., "Neutrophil-activating therapy for the treatment of cancer." ***Cancer Cell***, February 2023. PMID: 36706760, PMCID: PMC9968410, DOI: 10.1016/j.ccell.2023.01.002
4. Gutwillig, A., Santana-Magal, N., Farhat-Younis, L., Rasoulouniriana, D., Madi, A., Luxenburg, C., Cohen, J., Padmanabhan, K., Shomron, N., Shapira, G., Gleiberman, A., Parikh, R., Levy, C., Feinmesser, M.,

Hershkovitz, D., Zemser-Werner, V., Zlotnik, O., Kroon, S., Hardt, W.-D., Debets, R., **Reticker-Flynn, N.E.**, Rider, P., Carmi, Y., "Transient cell-in-cell formation underlies tumor relapse and resistance to immunotherapy." ***eLife***, September 2022. PMID: 36124553, DOI: 10.7554/eLife.80315

5. Zhang, W., Li, I., **Reticker-Flynn, N.E.**, Good, Z., Chang, S., Goltsev, Y., Samusik, N., Saumyaa, S., Li, Y., Zhou, X., Liang, R., Kong, C.S., Le, Q.T., Gentles, A.J., Sunwoo, J.B., Nolan, G.P., Engleman, E.G., Plevritis, S.K., "Identification of cell types in multiplexed *in situ* images by combining protein expression and spatial information using CELESTA reveals novel spatial biology." ***Nature Methods***, June 2022. PMID: 35654951, PMCID: PMC9728133, DOI: 10.1038/s41592-022-01498-z
6. **Reticker-Flynn, N.E.****, Zhang, W., Belk, J.A., Basto, P.A., Escalante, N.K., Pilarowski, G.O.W., Bejnood, A., Martins, M.M., Kenkel, J.A., Linde, I.L., Bagchi, S., Yuan, R., Chang, S., Spitzer, M.H., Carmi, Y., Cheng, J., Tolentino, L.L., Choi, O., Wu, N., Kong, C., Gentles, A.J., Sunwoo, J.B., Satpathy, A.T., Plevritis, S.K., Engleman, E.G.**, "Lymph node colonization induces tumor-immune tolerance to promote distant metastasis." ***Cell***, May 2022. PMID: 35525247, DOI: 10.1016/j.cell.2022.04.019
   ** Co-corresponding authors
7. **Reticker-Flynn, N.E.**** and Engleman, E.G.**, "Cancer systems immunology." ***eLife***. July 2020. PMID: 32657757, PMCID: PMC7358011.
   ** Co-corresponding authors
8. Santana-Magal N., Farhat-Younis L., Gutwillig A., Gleiberman A., Rasoulouniriana D., Tal L., Netanely D., Shamir R., Blau R., Feinmesser M., Zlotnik O., Gutman H., Linde I.L., **Reticker-Flynn N.E.**, Rider P., Carmi Y., "Melanoma-Secreted Lysosomes Trigger Monocyte-Derived Dendritic Cell Apoptosis and Limit Cancer Immunotherapy." ***Cancer Research***. May 2020. PMID: 32127354
9. Rasoulouniriana, D., Santana-Magal, N., Gutwillig, A., Farhat-Younis, L., Wine, Y., Saperia, C., Tal, L., Gutman, H., Tsivian, A., Brenner, R., Bandora, E.A., **Reticker-Flynn, N.E.**, Rider, P., Carmi, Y., "A distinct subset of FcγRI-expressing Th1 cells exert antibody-mediated cytotoxic activity." ***The Journal of Clinical Investigation***. August 2019. doi.org/10.1172/JCI127590
10. **Reticker-Flynn, N.E.** and Engleman, E.G., "A gut punch fights cancer and infection." ***Nature*** (News and Views article), January 2019. PMID: 30683936.
11. Kenkel, J.A., Tseng, W.W., Davidson, M.G., Tolentino, L.L., Choi, O., Bhattacharya, N., Seeley, E.S., Winer, D.A., **Reticker-Flynn, N.E.**, Engleman, E.G. "A distinct dendritic cell subset suppresses tumor immunity at secondary sites and promotes metastasis in pancreatic cancer." ***Cancer Research***. August 2017. PMID: 28611041, PMCID: PMC5550516.
12. Spitzer, M.H.*, Carmi, Y.*, **Reticker-Flynn, N.E.***, Kwek, S.S., Madhireddy, D., Martins, M.M., Gherardini, P.F., Prestwood, T.R., Chabon, J., Bendall, S.C., Fong, L., Nolan, G.P.**, Engleman, E.G.** "Systemic immunity is required for effective cancer immunotherapy." ***Cell***, January 2017. PMID: 28111070
    *** Co-lead authors**; ** Co-last authors
13. Carmi, Y.*, Prestwood, T.R*., Spitzer, M.H., Linde, I.L., Chabon, J., **Reticker-Flynn, N.E.**, Bhattacharya, N., Zhang, H., Zhang, X., Basto, P.A., Burt, B.M., Alonso, M.N., Engleman, E.G. "Akt and SHP-1 are DC-intrinsic checkpoints for tumor immunity." ***JCI Insight***, November 2016. PMCID: PMC5085602
    *Co-lead authors
14. Bhattacharya, N.*, Yuan, R.*, Prestwood, T.R., Penny, H.L., DiMaio, M.A., **Reticker-Flynn, N.E.**, Krois, C.R., Kenkel, J.A., Pham, T.D., Carmi, Y., Tolentino, L., Choi, O., Hulett, R., Wang, J., Winer, D.A., Napoli, J.L., Engleman, E.G. "Normalizing microbiota-induced retinoic acid deficiency stimulates protective $CD8^+$ T cell-mediated immunity in colorectal cancer." ***Immunity***, September 2016. PMCID: PMC5132405
    *Co-lead authors
15. Braga Malta, D.F., **Reticker-Flynn, N.E.**, da Silva, C.L., Cabral, J.M., Fleming, H.E., Zaret, K.S., Bhatia, S.N., Underhill, G.H. "Extracellular matrix microarrays to study inductive signaling for endoderm specification.**"** ***Acta Biomater.***, April 2016. PMID: 26883775
16. **Reticker-Flynn, N.E.** and Bhatia, S.N. "Aberrant glycosylation promotes lung cancer metastasis through adhesion to galectins in the metastatic niche." ***Cancer Discovery***. February 2015. PMCID: PMC4367955.
    Cover Article. This work was highlighted in *Nature*, *Nature Reviews Cancer*, and *Cancer Discovery*.
17. **Reticker-Flynn, N.E**., Braga Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Underhill, G.H., Hynes, R.O., Jacks, T.E., Bhatia, S.N. "A combinatorial extracellular matrix platform identifies cell-ECM interactions that correlate with metastasis." ***Nature Communications***. 3: October 9, 2012. PMCID: PMC3794716.
    This work was highlighted in *Nature Methods*.

Conferences

Invited Talks and Selected Orals

1. **Reticker-Flynn, N.E.**, (13 November 2023) "Lymph node metastasis and the generation of systemic tumor-specific immune tolerance." *UCSF ImmunoX Seminar Series*, San Francisco, CA.
2. **Reticker-Flynn, N.E.**, Zhang, W., Belk, J.A., Basto, P.A., Satpathy, A.T., Plevritis, S.K., Engleman, E.G. (7 July 2023) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance." *AACR-AHNS Head and Neck Cancer Conference*, Montréal, QC, Canada.
3. **Reticker-Flynn, N.E.**, (4 May 2023) "Roles of systemic immunity in tumor metastasis and effective immunotherapy." *9th International Congress on Cancer Metastasis: Cancer Metastasis through the Lymphovascular System*, San Francisco, CA.
4. **Reticker-Flynn, N.E.**, (17 April 2023) "Roles of systemic immunity in tumor metastasis and immunotherapy." *2023 AACR Annual Meeting*, Orlando, FL.
5. **Reticker-Flynn, N.E.**, Zhang, W., Belk, J.A., Basto, P.A., Satpathy, A.T., Plevritis, S.K., Engleman, E.G. (17 March 2023) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance." *SITC: 2023 Spring Scientific*, Denver, CO.
6. **Reticker-Flynn, N.E.** and Engleman, E.G., (30 November 2022) "Lymph node colonization induces tumor-immune tolerance to promote distant metastasis." European Association for Cancer Research Webinar. *Virtual.*
7. **Reticker-Flynn, N.E.**, Zhang, W., Belk, J.A., Basto, P.A., Satpathy, A.T., Plevritis, S.K., Engleman, E.G. (16 November 2022) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance." *AACR: Cancer Metastasis*, Portland, OR.
8. **Reticker-Flynn, N.E.**, Zhang, W., Belk, J.A., Basto, P.A., Satpathy, A.T., Plevritis, S.K., Engleman, E.G. (7 May 2022) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance." *American Association of Immunologists (AAI) Annual Meeting*, Portland, OR.
9. **Reticker-Flynn, N.E.**, Zhang, W., Belk, J.A., Basto, P.A., Chang, S., Gentles, A.J., Sunwoo, J.B., Satpathy, A.T., Plevritis, S.K., Engleman, E.G. (6 October 2021) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance." *AACR: Tumor Immunology and Immunotherapy* (virtual meeting due to COVID-19).
10. **Reticker-Flynn, N.E.**, Basto, P.A., Zhang, W., Martins, M.M., Chang, S., Gentles, A.J., Sunwoo, J.B., Plevritis, S.K., Engleman, E.G. (12 January 2021) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immunosuppression." *AACR: The Evolving Tumor Microenvironment in Cancer Progression* (virtual meeting due to COVID-19).
11. **Reticker-Flynn, N.E.**, Basto, P.A., Zhang, W., Martins, M.M., Chang, S., Gentles, A.J., Sunwoo, J.B., Plevritis, S.K., Engleman, E.G. (24 June 2020) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immunosuppression." *AACR Virtual Annual Meeting II* (virtual meeting due to COVID-19).
12. **Reticker-Flynn, N.E.**, Basto, P.A., Zhang, W., Bejnood, A., Kenkel, J.A., Martins, M.M., Chang, S., Gentles, A.J., Sunwoo, J.B., Plevritis, S.K., Engleman, E.G. (3 March 2020) "Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immunosuppression." *AACR Special Conference on the Evolving Landscape of Cancer Modeling*, San Diego, CA.
13. **Reticker-Flynn, N.E.**, Basto, P.A., Zhang, W., Bejnood, A., Spitzer, M.H., Carmi, Y.C., Kenkel, J.A., Gentles, A.J., Plevritis, S.K., Engleman, E.G. (18 October 2019) "Lymph node colonization promotes distant tumor metastasis through the induction of immunosuppression." *Stanford University Dept. of Pathology Retreat*, Stanford, CA.
14. **Reticker-Flynn, N.E.**, Basto, P.A., Zhang, W., Bejnood, A., Spitzer, M.H., Carmi, Y.C., Kenkel, J.A., Gentles, A.J., Plevritis, S.K., Engleman, E.G. (15 May 2019) "Lymph node colonization promotes distant tumor metastasis through the induction of systemic immune tolerance." *1st Inaugural Cancer Systems Biology Consortium West Coast Symposium*, Portland, OR.

15. **Reticker-Flynn, N.E.**, Martins, M.M., Basto, P.A., Zhang, W., Bejnood, A., Kenkel, J.A., Gentles, A.J., Sunwoo, J.B., Plevritis, S.K., Engleman, E.G. (1 April 2019) "Lymph node colonization promotes distant tumor metastasis through the induction of systemic immune tolerance." *AACR Annual Meeting 2019*. Abstract 2703. Atlanta, GA.
16. **Reticker-Flynn, N.E.**, Martins, M.M., Basto, P.A., Zhang, W., Bejnood, A., Kenkel, J.A., Gentles, A.J., Plevritis, S.K., Engleman, E.G. (9 November 2018) "Lymph node colonization promotes distant tumor metastasis through the induction of systemic immune tolerance." *Systems Approaches to Cancer Biology (SACB) 2018*, Woods Hole, MA.
17. **Reticker-Flynn, N.E.**, Martins, M.M., Basto, P.A., Zhang, W., Bejnood, A., Kenkel, J.A., Gentles, A.J., Plevritis, S.K., Engleman, E.G. (11 May 2018) "Lymph node colonization promotes distant tumor metastasis through the induction of systemic immune tolerance." *6th Annual Symposium of the Stanford Center for Cancer Systems Biology*, Stanford, CA.
18. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (3 October 2017) "Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance." *AACR Special Conference on Tumor Immunology and Immunotherapy 2017*, Boston, MA.
19. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (13 October 2017) "Lymph node metastasis of tumors represents a critical step in disease progression through its effects on the immune system." *Stanford Postdoctoral Symposium 2017*, Stanford, CA.
20. **Reticker-Flynn, N.E.**, Spitzer, M.H., Carmi, Y.C., Martins, M.M., Engleman, E.G. (15 September, 2017) "Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance." *Stanford Immunology Annual Scientific Conference 2017*, Asilomar Conference Grounds, Pacific Grove, CA.
21. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (26 June, 2017) "Lymph node metastasis facilitates systemic tumor dissemination through induction of tumor immune tolerance." *Stanford Immunology Postdoctoral Symposium 2017*, Stanford, CA.

    *** Awarded Best Abstract Prize**
22. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N., (January 2013) "Development of an Extracellular Matrix Microarray Reveals Changes in Cancer Cells as they Become Metastatic." *MARC: MTL Annual Research Conference 2013*, Cambridge, MA.

    ***Selected as one of two Featured Presentations in the field of MEMS and BioMEMS.**
23. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Xu, M.J., Jacks, T.E., Bhatia, S.N., (October 2012) "ECM Microarrays for Querying Cell-ECM Interactions in Metastasis." *Biomedical Engineering Society Annual Meeting 2012*, Atlanta, GA.
24. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N. (October 2012) "Adhesion of Tumor Cells to ECM Microarrays Identifies Novel ECM Interactions in Metastasis." *Koch Institute Symposium*, Hyannis, MA.
25. **Reticker-Flynn, N.E.**, Muguwe, T., Cooper, R.M., Chakola, S., Toprak, A. (June 2012) "Spontaneous Renal Artery Dissection: A Case Study." Mount Auburn Hospital. *MAH Noon Conference Seminars*, Cambridge, MA.
26. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N., (March-April 2012) "Adhesion of Tumor Cells to ECM Microarrays Identifies Novel ECM Interactions in Metastasis." *AACR Annual Meeting 2012*, Chicago, IL.
27. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Jacks, T.E., Bhatia, S.N., (April 2010) Understanding the Role of the Microenvironment in Metastasis Using ECM Microarrays, *Koch Institute Focus Seminar*, Cambridge, MA.

<u>Poster Presentations</u>

1. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (October 2-3, 2017) "Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance." *2017 NIH NCI Cancer Systems Biology Consortium Annual Meeting*, Cambridge, MA.
2. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (October 1-4, 2017) "Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance." *AACR Special Conference on Tumor Immunology and Immunotherapy 2017*, Boston, MA.

3. **Reticker-Flynn, N.E.**, Martins, M.M., Spitzer, M.H., Carmi, Y.C., Engleman, E.G. (July 11-12, 2017) "Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance." *2017 NIH NCI CSBC/PS-ON Junior Investigator Meeting*, Bethesda, MD.
   *** Conference Co-Chair**
4. **Reticker-Flynn, N.E.**, Yang, A.C., Martins, M.M., Engleman, E.G. (August 29-31, 2016) "Identifying the role of lymph node metastasis in induction of immune tolerance and the promotion of tumor progression", *2016 NIH NCI Cancer Systems Biology Consortium / Physical Sciences-Oncology Network (CSBC/PS-ON) Joint Meeting*, Rockville, MD.
5. **Reticker-Flynn, N.E.**, Yang, A.C., Martins, M.M., Engleman, E.G. (April 23, 2016) "Identifying the role of lymph node metastasis in induction of immune tolerance and the promotion of tumor progression", *2016 Stanford University Dept. of Pathology Retreat*, Stanford, CA.
   *** Awarded a best poster prize in the Postdoc category**
6. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N., (March 2013) "A Novel Extracellular Matrix Microarray Platform Identifies Alterations in Cell Surface Integrin and Glycan Presentation During Metastatic Progression." *Gordon Research Conference: Glycobiology*, Ventura Beach, CA.
7. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N., (January 29, 2013) "Development of an Extracellular Matrix Microarray Reveals Changes in Cancer Cells as they Become Metastatic." *MARC: MTL Annual Research Conference 2013*, Cambridge, MA.
8. **Reticker-Flynn, N.E**., Braga Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N. "Extracellular matrix microarrays identify cell-ECM interactions associated with metastasis." *2012 HST Forum*. Harvard Medical School, Boston, MA. April 19, 2012.
   ***Awarded best poster in the track of 'Biomedical Devices'.**
9. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Lamar, J.M., Xu, M.J., Hynes, R.O., Jacks, T.E., Bhatia, S.N., (October 2011) "Understanding Lung Cancer Metastasis Using Extracellular Matrix Microarrays" *Koch Institute Fall Retreat*, Hyannis, MA.
10. **Reticker-Flynn, N.E.**, Braga-Malta, D.F., Winslow, M.M., Jacks, T.E., Bhatia, S.N., (June-July 2010) "Probing the Effects of Extracellular Matrix on Metastasis", 2010 *Gordon Research Conference: Signal Transduction by Engineered Extracellular Matrices*, Biddeford, ME.
11. **Reticker-Flynn, N.E.**, Lee, H.W., Kim, S.G., "Printing of Temperature-Sensitive Hydrogels For Compact Microfluidic Valves." *The 12th International Conference on Miniaturized Systems for Chemistry and Life Sciences* (μTAS 2008). pp.1027-9. San Diego, CA, Oct 12-16, 2008.
12. **Reticker-Flynn, N.E.**, Lee, H.W., Kim, S.G., "Patterning and Processing of Thermosensitive Hydrogels for Microfluidics Applications" *MEMS at MIT*. Cambridge, MA. April 2007.

Reviewing Service

Ad hoc reviewer: *Cell*, *Cell Reports*, *Cell Reports Methods, Cancer Immunology Research, Trends in Cancer, Clinical & Experimental Metastasis, F1000 Research*, *Nature*
Editorial Boards: *Frontiers in Immunology* (Review Editor)

Outreach and Service

Co-Chair of the 2023 Stanford Immunology Annual Scientific Conference (Nov. 10-12, 2023)
Co-Chair of the Planning Committee for NIH CSBC/PS-ON Junior Investigator Meeting (2016-2017)
Keys to Empowering Youth – Workshops for 11-13 year old girls to learn about science – helped organize workshops at MIT (2008-2013).
HST big buddy program – mentored incoming graduate students to the HST PhD program
Abstract reviewer for the *Annual Biomedical Research Conference for Minority Students* 2011