

Nafis Hasan, PhD

nafis.hsn@gmail.com

Work Experience

Brooklyn Institute for Social Research, Brooklyn, NY

Associate Faculty (2022-Present)

Interests: Biomedical sciences, Science history, Science policy

Pennsylvania Association of Staff Nurses & Allied Professionals, Philadelphia, PA

Organizer (Feb 2024 – Present)

Staff Representative (June 2021-Feb 2024)

Education & Training

Tufts University, Dept of Biomedical Engineering, Medford, MA

Postdoctoral Scholar (Aug 2019- May 2021)

Project: Bioengineered 3D platforms to study glioblastoma development and drug resistance

Advisor: David Kaplan

Tufts University, Graduate School of Biomedical Sciences, Boston, MA

Ph.D., Cell, Molecular & Developmental Biology. (Sept 2013- May 2019)

Thesis: Vitamin D's role in normal and neoplastic breast development

Advisors: Ana M. Soto, Carlos Sonnenschein

Thomas Jefferson University, Philadelphia, PA

Research Technician (Sept 2011- May 2013)

Advisor: Takemi Tanaka

Lafayette College, Easton, PA

B.S., 2011, Major in Biology (Sept 2007-May 2011)

Thesis: Investigation of the roles of ATM and ATR in Tamoxifen-induced apoptosis in 4T1 mouse breast cancer cells

Advisor: Shyamal K. Majumdar

Academic Publications

Hasan N. Science, Politics, Activism in the U.S.: A Three-Body Problem. *Marxism & Sciences* 2023 2(2):13-28.

Hasan N, Zhang Y, Georgakoudi I, Sonnenschein C, Soto AM. Matrix composition modulates vitamin D3's effects on collagen fiber organization by MCF10A cells. *Tissue Eng Part A* 2021 Aug 24 doi: 10.1089/ten.TEA.2020.0371.

Morita Y, Leslie M, Kameyama H, Lokesh GLR, Ichimura N, Davis R, Hills N, **Hasan N**, Zhang R, Kondo Y, Gorenstein DG, Volk DE, Chervoneva I, Rui H, Tanaka T. Functional blockade of E-selectin in tumor-associated vessels enhances anti-tumor effect of Doxorubicin in breast cancer. *Cancers* 2020 12(3): 725.

Hasan N. Marxism and the crisis in modern biology. *Organisms. J Biol Sciences* 2020 3(2):40-53.

Hasan N, Sonnenschein C, Soto AM. Vitamin D3 constrains estrogen's action and influences mammary epithelial organization in 3D cultures. *Sci. Reports* 2019 May 15; 9(1):7423.

Mills J, LaBonty M, **Hasan N**, Seliga A. Comparative vertebrate anatomy and phylogeny. *Tested Studies for Laboratory Teaching: ABLE Proceedings* 2019 40.

Morita Y, Zhang R, Leslie M, Adhikari S, **Hasan N**, Chervoneva I, Rui H, Tanaka T. Pathologic evaluation of tumor-associated macrophage density and vessel inflammation in invasive breast carcinomas. *Oncol Lett.* 2017 14(2).

Kang SA, Blache CA, Bajana S, **Hasan N**, Kamal M, Morita Y, Gupta V, Tzolmon B, Suh SK, Gorenstein DG, Razaq W, Rui H, Tanaka T. The effect of soluble E-selectin on tumor progression and metastasis. *BMC Cancer* 2016 16:331.

Morita Y, Kamal M, Kang SA, Zhang R, Lokesh GL, Thiviyathan V, **Hasan N**, Woo S, Zhao D, Lesli M, Suh S, Razaq W, Rui H, Gorenstein DG, Volk DE, Tanaka T. E-selectin targeting PEGylated-thioaptamer prevents breast cancer metastasis. *Mol Ther Nucleic Acids* 2016 5(12).

Rycroft N, Seliga A, Lubinski T, Stefanik D, Jennings A, Mills J, LaBonty M, Reilley-Luther J, Kamath A, Lohe A, Gallinat A, **Hasan N**, et al. Urban Ecology: Inquiry-based and experiential laboratory exercises for urban ecosystems. *Tested Studies for Laboratory Teaching: ABLE Proceedings* 2016 37.

Sweeney MF*, **Hasan N***, Soto AM, Sonnenschein C. Environmental endocrine disruptors and their effects on human male reproduction. *Rev Endocr Metab Disord.* 2016. (*co-first authors)

Kang SA, **Hasan N**, Mann AP, Zheng W, Zhao L, Morris L, Zhu W, Zhao YD, Suh KS, Dooley WC, Volk D, Gorenstein DG, Cristofanilli M, Rui H, Tanaka T. Blocking the adhesion cascade at the premetastatic niche for prevention of breast cancer metastasis. *Mol Ther* 2015.

Gharbaran R, Goy A, Tanaka T, Park J, Kim CJ, **Hasan N**, Vemulapalli S, Sarojini S, Tuluc M, Nalley K, Bhattacharya P, Pecora A, Suh KS. Fibroblast growth factor-2 (FGF2) and syndecan-1 (SDC-1) are potential biomarkers for putative circulating CD15+/CD30+ cells in poor outcome Hodgkin lymphoma patients. *J Hematol Oncol* 2013 6(62).

Blache C, **Hasan N**, Park J, Suh S, Gorenstein DG, Rui H, Tanaka T. A novel role of soluble E-selectin as a chemoattractant to human leukocytes through the PI3kinase signaling pathway in breast cancer. *Cancer Res* 2013; 73(8 Suppl): Abstract nr 4992.

Hasan N, Mann A, Ferrari M, Tanaka T. Mesoporous silicon particles for sustained gene silencing. *Methods Mol Biol* 2013 1049:481-93. (Book chapter)

Hasan N, Kurt R, Majumdar SK. Investigation of the roles of ATM and ATR in Tamoxifen-induced apoptosis in 4T1 mouse breast cancer cells. *Intl J Life Sci Pharm Res* 2012 2(3):304-320.

Hasan N, Marin I, Majumdar SK. Environmental factors, lifestyle, genes and cancer risks: a perspective. pp. 9-20 in *Environmental Pollution, Ecological Impacts, Health Issues and Management*. Bhattacharya, Ghosh, Majumdar (Eds). 2011. Mudrakar Publisher: India. (Book chapter)

Hasan N, Huffman JE, Marin IA, Majumdar SK. Novel H1N1 and its genetic origin. pp. 91-102 in *Pandemic Influenza Viruses: Science, Surveillance and Public Health*. Brenner et al (Eds). 2011. Sheridan printing company: New Jersey. (Book chapter)

Conferences & Presentations

21st Workshop on Vitamin D, May 16-19 2018, Barcelona, Spain (**Hasan N**, Sonnenschein C & Soto AM) "Vitamin D3 modulates mammary tissue organization".

Charlton Poster Competition, October 2017, Boston, MA (**Hasan N**, Sonnenschein C & Soto AM) “Vitamin D3 constrains estrogen’s action on mammary epithelial morphogenesis”.

Tufts School of Public Health, June 2017, Boston, MA (**Hasan N** & Sweeney MF) “Bisphenol A in daily life: perspectives on health and policy”.

Lowell High School, Honors Biology Class, Jan 2016, Lowell, MA (**Hasan N**) “5000 years of cancer”.

Integrated Sciences Program Poster Session, May 2014 Sackler Graduate School of Biomedical Sciences, Tufts University, Boston, MA (**Hasan N**, Wronski A, Kuperwasser C) “Fluorescent 3D assay for mammary epithelial cell organization *in vitro*”.

86th Annual meeting of the Pennsylvania Academy of Science, April 2010, Camp Hill, PA (**Hasan N**, Marin IA, Majumdar SK) “Investigation of the ATR-mediated checkpoint activation by Tamoxifen induced DNA damage”.

Public Writings

Hasan N. Metastasis: The Rise of the Cancer-Industrial Complex and Horizons of Care. *Common Notions Press* (forthcoming February 2025).

Hasan N. A Time of Monsters. *Red Pepper*. December 2024 [link forthcoming]

Hasan N. The Bloody Rebirth of Bangladesh. *Le Monde Diplomatique*. Oct 2024.
<https://mondediplo.com/2024/10/08bangladesh>

Hasan N. The Spectres Haunting Bangladesh. *Jamhooor*. July 22, 2024. <https://www.jamhooor.org/read/the-spectres-haunting-bangladesh>

Hasan N. Crisis of Identity, Consolidation of Power. *Jamhooor*. May 9, 2023. <https://www.jamhooor.org/read/crisis-of-identity-consolidation-of-power>

Hasan N. Bangladesh: The Next Frontier. *Jamhooor*. Aug 14, 2022. <https://www.jamhooor.org/read/bangladesh-the-next-frontier>

Hasan N. How to Build a Utopia. *Science for the People* vol. 25 (1). Spring 2022.
<https://magazine.scienceforthepeople.org/vol25-1-the-soil-and-worker/how-to-build-a-utopia/> (Book Review)

Hasan N. Rage Against the Machines. *Science for the People* vol. 24 (2). Autumn 2021.
<https://magazine.scienceforthepeople.org/vol24-2-dont-be-evil/rage-against-the-machines/> (Book Review)

Hasan N. “Bangladesh Has No Indigenous People”. *Jamhooor*. Jul 8, 2021. <https://www.jamhooor.org/read/bangladesh-has-no-indigenous-people>

Hasan N., and LaRock, T. The PRO Act could be a game changer for academic labor organizing. *Jacobin*. Apr 21, 2021.
<https://www.jacobinmag.com/2021/04/pro-act-unions-academic-workers-universities>

Hasan N. Language for Liberation: The Class Struggle Behind Ekushey (21st) February. *Jamhooor*. Feb 21, 2021.
<https://www.jamhooor.org/read/2021/2/21/language-for-liberation-the-class-struggle-behind-ekushey-21st-february>

Hasan N & Ramachandran V. An Abolition Politics for the Climate Crisis: Out of the Woods’ Hope Against Hope. *The Trouble*. Dec 16, 2020. <https://www.the-trouble.com/content/2020/12/16/an-abolition-politics-for-the-climate-crisis-out-of-the-woods-hope-against-hope> (Book Review)

Hasan N & Gasser M. The Politics of Imagination. *Science for the People* vol. 23 (2). Summer 2020. <https://magazine.scienceforthepeople.org/vol23-2/green-new-deal-books-review/> (Book Review)

Hasan N. #FreeTheVaccine to end the pandemic. *Science for the People*. June 25, 2020. <https://magazine.scienceforthepeople.org/web-extras/freethevaccine-pandemic-covid-19/>

Hasan N. Black lives matter: in STEM and everywhere. *Tufts Insight*. June 19, 2020. <https://sites.tufts.edu/insight/2020/06/19/black-lives-matter/>

Hasan N. Joe Biden can't cure cancer. *Jacobin*. Mar 10, 2020. <https://www.jacobinmag.com/2020/03/joe-biden-cancer-research-cure-health-care>

Kantor L, Eisenberg A & Hasan N. Energy Democracy Campaigns: Building the Green New Deal from the Ground Up. *The Forge*. Feb 10, 2020. <https://forgeorganizing.org/article/energy-democracy-campaigns-building-green-new-deal-ground>

Hasan N, Speck W & Harrington D. Take Back the Grid: DSA and the Fight for Energy Democracy. *Socialist Forum*. Winter 2019. <https://socialistforum.dsausa.org/issues/winter-2019/take-back-the-grid-dsa-and-the-fight-for-energy-democracy/>

Hasan N. A Road Towards Workers' Solidarity in the Indian Subcontinent. *Cosmonaut*. Jan 18, 2019. <https://cosmonautmag.com/2019/01/a-road-towards-workers-solidarity-in-the-indian-subcontinent/>

Hasan N. Eugenics 2.0: How dialectical materialism can end the nature vs. nurture debate. *Cosmonaut*. Jan 1, 2019. <https://cosmonaut.blog/2019/01/01/eugenics-2-0-how-dialectical-materialism-can-end-the-nature-vs-nurture-debate/>

Hasan N. MA Nurses Say "Yes on 1" and You Should Too. Here's Why. *Boston PEWG*. Aug 20, 2018. <https://bostonpewg.org/2018/08/20/ma-nurses-say-yes-on-1-and-you-should-too-heres-why/>

Hasan N. On Aug 4th, the Bangladesh government tried to kill children for demanding road safety and justice. *Boston PEWG*. Aug 5, 2018. <https://bostonpewg.org/2018/08/05/on-aug-4th-the-bangladesh-government-tried-to-kill-children-for-demanding-road-safety-and-justice/>

Hasan N. Massachusetts Activists on Cusp of BDS Vote in Cambridge City Council. *Left Voice*. Apr 19, 2018. <https://www.leftvoice.org/massachusetts-activists-on-cusp-of-bds-vote-in-cambridge-city-council/>

Hasan N. The Cancer-Industrial Complex: A socialist understanding of why there is no "cure" for cancer yet. *Medium*. Feb 6, 2018. <https://medium.com/the-cancer-industrial-complex>

Hooper A., and **Hasan, N.** 21st Century Cures Act: Boosting biomedical research, but at what cost? *Tufts Insight*. Feb 9, 2017. <https://sites.tufts.edu/insight/2017/02/09/21st-century-cures-act-boosting-biomedical-research-but-at-what-cost/>

Hasan N. Precision Medicine: Too big to fail? *Tufts Insight*. Dec 9, 2016. <https://sites.tufts.edu/insight/2016/12/09/precision-medicine-too-big-to-fail/>

Teaching/Mentoring Experience

Instructor

- Tissue culture workshop, Kaplan Lab, Tufts University, 2020, 2021
- Pathway to PhD program, Tufts University School of Medicine, 2016, 2017, 2018
- BIOBUGS Education & Outreach, Boston University, 2014, 2015, 2016, 2017, 2018
- Techniques workshop on tissue culture for first year CMDB students, Tufts University, Fall 2017

- Graduate Ethics case study design, Tufts University, 2017

Lab Mentor

- IB Biology class, Josiah Quincy Upper School, 2015, 2016, 2017, 2018
- Great Neck Breast Cancer Coalition summer interns, Soto/Sonnenschein Lab, 2015, 2017

Teaching / Lab Assistant

- Comparative Vertebrate Anatomy, Upward Bound: Math & Science, Boston University, 2015, 2016
- Molecular Genetics, Lafayette College, 2011

Tutor

- Graduate Cell Biology, Tufts University, 2014

Scientist Collaborator

- Science Communication Collaborative, Emerson College, 2016, 2017

Honors and Awards

Krinsky Excellence in Teaching Award, Graduate School of Biomedical Sciences, Tufts University 2018

Sackler Biomedical Student Enrichment Fund, Graduate School of Biomedical Sciences, Tufts University, Spring 2018

Honors in Biology, Lafayette College, 2011

Dean's List, Lafayette College, 2011

David A. Portlock Cross-Cultural Relations Award, Lafayette College, 2010