CURRICULUM VITAE

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GENERAL INFORMATION

DANH TRUONG

Postdoctoral Fellow
University of Texas at MD Anderson Cancer Center
Sarcoma Medical Oncology

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EDUCATION

Doctor of Philosophy, Biomedical Engineering — December 2018
Arizona State University

- Overall GPA: 4.0
- Dean's Fellow
- International Foundation for Ethical Research (IFER) Fellow
- Phoenix Chapter of Achievement Rewards for College Scientists (ARCS) Foundation Burton Scholar

Master of Science, Biomedical Engineering — May 2014
University of Texas Southwestern Medical Center and University of Texas at Arlington

- GPA: 3.6/4.0

Bachelor of Science, Biology — May 2014
University of Texas at Arlington

- Major: Biology with Engineering emphasis
- Minor: Chemistry
- GPA: 3.8/4.0

RESEARCH EXPERIENCE

Postdoctoral Fellow — January 2019 to Present
SMO at UT MDACC – *Houston, TX*

- Leveraging 3D models to recapitulate adipogenesis and osteogenesis
- Analysis of single-cell RNA seq and single-cell ATAC seq data to understand mesenchymal tissue development using an in vitro MSC differentiation model
- Scoring cell fate in liposarcoma and revealing the underlying gene regulatory networks controlling plasticity
- Understanding EMT in osteosarcoma fate and plasticity
- Effect of targeting EWS-FLI1 in Ewing's sarcoma on ES fate and plasticity using CRISPR-Cas9

Graduate Research Associate — July 2014 to December 2018
SBHSE at ASU – Tempe, AZ

- Fabricated microfluidic platforms to model tumor microenvironment with focus on influence of stromal cells (fibroblasts, endothelial cells, macrophages) on cancer invasion
- Studied effect of anti-cancer drug in 3D culture with multiple cell types using microfluidics
- Utilized RNA-Seq to perform differential gene expression and pathway analysis
- Developed method to evaluate cancer migration in real-time within microfluidic model in response to chemoattractants and stromal cells
- Fabricated microfluidic droplet generator for high-throughput genomic sequencing of single cells
- Created injectable hydrogel for cardiovascular regenerative medicine and cell therapy

Research Assistant — October 2012 to June 2014
Bioengineering at UTA – Arlington, TX

- Established anti-thrombogenic drug-loaded biomaterial for biodegradable vascular prosthesis and characterized the biomaterial for biodegradation, cytotoxicity, and biomechanical properties
- Created and optimized method for fabrication of peripheral nerve conduit for sensory and motor enrichment using molecular guidance cues

TEACHING EXPERIENCE

Graduate Teaching Assistant, Biochemistry of Cancer BCH 598 — January 2018 to May 2018
Prof. Joshua LaBaer, School of Molecular Sciences at ASU – Tempe, AZ

- Generated a curriculum for teaching students the basics of cancer biology.
- Worked with students to improve presentations and presenting skills
- Created a feedback system to help students improve

Lab Instructor, Principles of Stem Cell Technology BME 598 — May 2017 to July 2017
Prof. David Brafman, SBHSE at ASU – Tempe, AZ

- Generated a series of presentations to teach hands-on lab skills for culturing of cells
- Worked with students to improve cell culture skills and taught the basics of many different biological assays

Graduate Teaching Assistant, Principles of Stem Cell Technology BME 598 — May 2017 to July 2017
Prof. David Brafman, SBHSE at ASU – Tempe, AZ

- Gave an example lecture on how to present a scientific article and critically analyze it
- Generated a rubric for students to follow when presenting articles
- Expected students to be able to critically dissect a science paper and be able to present the findings to their colleagues
- Set-up a video recording system to record lectures for students

Guest Speaker, The ASU Experience ASU 101 — March 2017
Prof. Thurmon Lockhart, SBHSE at ASU – Tempe, AZ

- Gave an introduction lecture on bioengineering and cancer technologies

Graduate Teaching Assistant, Biomedical Product Design BME 382 — January 2017 to May 2017
Prof. Jerry Coursen, SBHSE at ASU – Tempe, AZ

Graduate Teaching Assistant, Biomedical Product Design BME 382 — August 2016 to December 2016
Profs. Jerry Coursen and Jeffrey LaBelle, SBHSE at ASU – Tempe, AZ

- Facilitated and mentored students on basic statistics, Design of Experiments, and documentation
- Generated a rubric for assessing student's ability to cost-efficient, functional, and marketable product

Lab Instructor, Biomedical Microdevices BME 598 — January 2016 to March 2016
Prof. Mehdi Nikkhah, SBHSE at ASU – Tempe, AZ — February 2017

- Created and led a hands-on workshop for generating microfluidic devices for studying cancer
- Expected students to learn the fundamentals of microfluidic fabrication

MENTORING EXPERIENCE

Graduate Students

Supriya Nagaraju, MS Biomedical Engineering — August 2015 to August 2017

Undergraduate Students

Jes Chauviere, BS Biomedical Engineering — June 2019 to August 2019

Zachary Camacho, BS Biomedical Engineering — January 2018 to December 2018

Alexander Kratz, BS Molecular Science — March 2016 to December 2018

Toan Nguyen, BS Biomedical Engineering — March 2016 to August 2017

Nitish Peela, BS Biomedical Engineering — January 2016 to August 2017

Eric S. Barrientos, BS Biochemistry — August 2015 to December 2018

Allison Llave, BS Biomedical Engineering — August 2014 to May 2016

SCHOLARSHIP

Journal Articles

- Lamhamedi-Cherradi, SE., Maitituoheti, M., Menegaz, BA., Krishnan, S., Vetter, AM., Camacho, P., Wu CC., Beird, HC., Ingram, DR., Ramamoorthy, V., Mohiuddin, S., McCall, D., **Truong, DD.,** Cuglievan, B., Futreal, AP., Velasco, AR., Titus, M., Lazar, AJ., Wang, WL., Ratan, R., Livingston, JA., Rai ,KA., MacLeod, R., Hayes-Jordan, A., Ludwig, JA., (2020). The Androgen Receptor: A Therapeutic Target in Desmoplastic Small Round Cell Sarcoma. *In submission*
- Lamhamedi-Cherradi, SE., Mohiuddin, S., Mishra, DK., Velasco, AR., Vetter, AM., Krishnan, S., Pence, K., McCall, D., **Truong, DD.,** Cuglievan, B., Menegaz, BA., Utama, B., Daw, NC., Molina, ER., Livingston, JA., Gorlick, R., Mikos, AG., Kim, MP., Ludwig, JA., (2020). AXL and YAP/TAZ orchestrate dedifferentiation, cell fate, and metastasis in human osteosarcoma. *In submission*

- Saini, H., Rahmani, K., Veldhuizen, J., Zare, A., Allam, M., Silva, C., Kratz, A., **Truong, D.**, Mouneimne, G., LaBaer, J. and Ros, R., 2020. The role of tumor-stroma interactions on desmoplasia and tumorigenicity within a microengineered 3D platform. *Biomaterials*, p.119975.
- **Truong, D.,** Kratz, A., Park, J.G., Nguyen, T., Barrientos, E.S., Saini, H., Pockaj, B.A., Mouneimne, G., LaBaer, J., Nikkhah, M., (2019). "A human organotypic microfluidic tumor model permits investigation of the interplay between patient-derived fibroblasts and breast cancer cells", *Cancer research*, *79*(12), 3139-3151.
- Xu, C., Kuriakose, AE., **Truong, D.**, Punnakitikashem, P., Nguyen, KT., & Hong, Y., (2018). "Enhancing anti-thrombogenicity of biodegradable polyurethanes through drug molecule incorporation", *Journals of Material Chemistry B*. Accepted. In Press.
- **Truong, D.**, Fiorelli, R., Barrientos, E. S., Luna Melendez, E., Sanai, N., Mehta, S., & Nikkhah, M. (2018) A Three-Dimensional (3D) Organotypic Microfluidic Model for Glioma Stem Cell – Vascular Interactions. *Biomaterials*, *198*, 63-77
- Nagaraju, S.*, **Truong, D.***, Mouneimne, G., & Nikkhah, M. (2018). Microfluidic Tumor–Vascular Model to Study Breast Cancer Cell Invasion and Intravasation. *Advanced healthcare materials.* **** indicates equal contribution.***
- Peela, N., Barrientos, E. S., **Truong, D.**, Mouneimne, G., & Nikkhah, M. (2017). Effect of suberoylanilide hydroxamic acid (SAHA) on breast cancer cells within a tumor-stroma microfluidic model*. Integrative Biology, 9(12), 988-999.*
- Migrino, RQ.*, Truran, S., Karamanova, N., Davies, H., Franco, DA., Serrano, G., Beach, T., Madine, J., **Truong, D**., & Nikkhah, M. (2017). Amyloidogenic Medin Induces Endothelial Dysfunction and Vascular Inflammation through the Receptor for Advanced Glycation Endproducts. *Cardiovascular Research*, *113*(11), 1389-1402. * indicates corresponding author.
- Peela, N.*, **Truong, D.***, Saini, H.*, Chu, H, Mashaghi, S., Ham, SL., Singh, S., Tavana, H., Mosadegh, B & Nikkhah, M. (2017). Innovations in Advanced Biomaterials and Microengineering Technologies Towards Recapitulating the Stepwise Process of the Metastatic Cascade. *Biomaterials, 133,* 176-207*.* **** indicates equal contribution.***
- Navaei, A., Moore, N., Sullivan, R. T., **Truong, D.**, Migrino, R. Q., & Nikkhah, M. (2017). Electrically conductive hydrogel-based micro-topographies for the development of organized cardiac tissues. *RSC Advances*, *7*(6), 3302-3312.
- **Truong, D.,** Puleo, J., Llave, A., Mouneimne, G., Kamm, R. D., & Nikkhah, M. (2016). Breast Cancer Cell Invasion into a Three Dimensional Tumor-Stroma Microenvironment. *Scientific Reports*, *6*.
- Navaei, A.*, **Truong, D**.*, Heffernan, J., Cutts, J., Brafman, D., Sirianni, R. W., ... & Nikkhah, M. (2016). PNIPAAm-based biohybrid injectable hydrogel for cardiac tissue engineering. *Acta biomaterialia*, *32*, 10-23. **** indicates equal contribution.***
- Peela, N., Sam, F. S., Christenson, W., **Truong, D.,** Watson, A. W., Mouneimne, G., ... & Nikkhah, M. (2015). A three dimensional micropatterned tumor model for breast cancer cell migration studies. *Biomaterials*, *81*, 72-83.
- Gao, G., Schilling, A. F., Hubbell, K., Yonezawa, T., **Truong, D.,** Hong, Y., ... & Cui, X. (2015). Improved properties of bone and cartilage tissue from 3D inkjet-bioprinted human mesenchymal stem cells by simultaneous deposition and photocrosslinking in PEG-GelMA. *Biotechnology letters*, *37*(11), 2349-2355.
- Punnakitikashem, P., **Truong, D**., Menon, J. U., Nguyen, K. T., & Hong, Y. (2014). Electrospun biodegradable elastic polyurethane scaffolds with dipyridamole release for small diameter vascular grafts. *Acta biomaterialia*, *10*(11), 4618-4628.

Selected Oral Presentations

- **Truong, D.**, Tannenbaum, A., King, BL., Lamhamedi-Cherradi, SE., Somaiah, N., Feig, BW., Ludwig, J. "The Mesenchymal Tissue Landscape: A scRNA-seq based Metric of Liposarcoma Differentiation". 2020 Trainee Symposium on Organoids & Organs-on-Chip. August 11, 2020
- **Truong, D.**, Lamhamedi-Cherradi, SE. & Ludwig, J. "Liposarcoma Research: Targeting the TME". Presentation to Joe and Mary Moeller Foundation. November 5, 2019
- **Truong, D.** "Microfluidic Models of Tumor-Stroma Interactions to Study the Interplay of Cancer Cells with their surrounding microenvironment". UT MDACC Sarcoma Medical Oncology Grand Rounds. December 3, 2018
- **Truong, D.,** Kratz, A., Park, JG., Barrientos, E., Nguyen, T., Saini, H., Pockaj, B., Mouneimne, G., & Nikkhah, M., "Gene-expression Profiling of Patient-Derived Fibroblast and Breast Cancer Interactions in a Three-Dimensional (3D) Organotypic Microfluidic Platform" Annual Biomedical Engineering Society (BMES) Meeting, Atlanta, GA October 15-20, 2018
- **Truong, D.** "Microfluidic Models of Tumor-Stroma Interactions to Study the Interplay of Cancer Cells with their surrounding microenvironment". UCSF Department of Neurological Surgery. October 15, 2018
- **Truong, D.,** Saini, H., Kratz, A., Barrientos, E., Nguyen, T., Pockaj, B., & Nikkhah, M., "The Influence Of Patient-Derived Fibroblasts On Breast Cancer Invasion Profile Within A Microfluidic Platform" Annual Biomedical Engineering Society (BMES) Meeting, Phoenix, AZ October 11-14, 2017
- Nagaraju, S., **Truong, D.,** & Nikkhah, M., "Tri-layer Microfluidic Platform for Studying Tumor Angiogenesis and Cancer Cell Intravasation" Annual Biomedical Engineering Society (BMES) Meeting, Phoenix, AZ October 11-14, 2017
- **Truong, D.,** Nagaraju, S., & Nikkhah, M., "Microfluidic device to study Tumor-Stromal Interactions", Invited Presentation at University of Arizona Cancer Center, Tucson, AZ May 11, 2017
- **Truong, D.,** Barrientos, ES., Puleo, J., Mouneimne, G., & Nikkhah, M., "Microengineered Tumor-Stroma Platform Investigating the Biochemical Influence of Stromal Fibroblasts on Breast Cancer Invasion" Annual Biomedical Engineering Society (BMES) Meeting, Minneapolis, MN October 5-8, 2016
- **Truong, D.,** Puleo, J., Llave, A., Mouneimne, G., Kamm, R. D., & Nikkhah, M., "Three-dimensional (3D) Invasion of Breast Cancer Cells in a Well-Defined Tumor-Stroma Platform," NanoEngineering for Medicine and Biology Conference (ASME NEMB), Houston, TX, February 20-24, 2015

Selected Poster Presentations

- **Danh D. Truong**, Salah-Eddine Lamhamedi-Cherradi, David C. McCall, Allen Tannenbaum, Eric R. Molina, Antonios G. Mikos, and Joseph A. Ludwig. "Elucidating how the tumor microenvironment dysregulates Ewing's sarcoma cell stemness using a scRNA-seq-based differentiation signature". FusOncC2. Washington, D.C.
- Saini, H., Rahmani, K., Allam, M., Silva, C., Veldhuizen, J., **Truong, D.**, Mouneimne, G., Ros, R., Nikkhah, M. "The Role of Paracrine Signaling between Breast Cancer and Stromal Cells on Remodeling of Tumor Microenvironment ECM". Annual Biomedical Engineering Society (BMES) Meeting, Philadelphia, PA October 16-19, 2019
- Salah-Eddine Lamhamedi-Cherradi, Sana Mohiuddin, Dhruva K Mishra, Kristi Pence, Sandhya Krishna1, Brian A. Menegaz, David McCall, Alejandra Ruiz Velasco, **Danh Dinh Truong**, Branko Cuglievan, Amelia Vetter, Budi Utama, Eric R. Molina, Min P Kim, & Joseph, A Ludwig. "EMT-related transcription factors

and YAP/TAZ orchestrate cell fate in lab-derived osteosarcoma CTCs". Cancer Research UK-AACR Joint Conference: Engineering and Physical Sciences in Oncology. London, UK. October 15-17, 2019

- Sana Mohiuddin MD, Salah-Eddine Lamhamedi-Cherradi Ph.D, Dhruva K Mishra, Kristi Pence, Sandhya Krishnan, Brian A. Menegaz, David McCall MD, Alejandra Ruiz Velasco, **Danh Dinh Truong Ph.D**, Branko Cuglievan MD, Amelia Vetter, Eric R. Molina Ph.D, Min P Kim MD, and Joseph Ludwig MD. "Role of EMT transcription factors in metastatic potential of osteosarcoma" AACR Advances in Pediatric Cancer Research Montreal, QC, Canada September 17-20, 2019
- **Truong, D.**, Fiorelli, R., Barrientos, E. S., Luna Melendez, E., Sanai, N., Mehta, S., & Nikkhah, M. "Interrogating Glioma Stem Cell – Vascular Interactions Using a Three-Dimensional (3D) Organotypic Microfluidic Model" Annual Biomedical Engineering Society (BMES) Meeting, Atlanta, GA October 15-20, 2018
- Xu, C., Kuriakose, AE., **Truong, D.**, Punnakitikashem, P., Nguyen, KT., & Hong, Y. "Non-Thrombogenic, Biodegradable Elastomeric Polyurethane for Blood Contacting Applications". Annual Biomedical Engineering Society (BMES) Meeting, Atlanta, GA October 15-20, 2018
- **Truong, D.**, Saini, H., Kratz, A., Barrientos, ES., Nguyen, T., Pockaj, BA., & Nikkhah, M., "Microengineered Tumor-Stroma Platform Investigating the Effect of Patient-Derived Stromal Fibroblasts on Breast Cancer Cells", 2017 ARCS Foundation Phoenix Scholar Awards Dinner, Phoenix, AZ, April 21, 2017
- **Truong, D.**, Saini, H., Kratz, A., Barrientos, ES., Nguyen, T., Pockaj, BA., & Nikkhah, M., "Microengineered Tumor-Stroma Platform Investigating the Effect of Patient-Derived Stromal Fibroblasts on Breast Cancer Cells", ASU Molecular, Cellular and Tissue Bioengineering (MCTB) Symposium, Tempe, AZ, April 1, 2017
- **Truong, D.,** Puleo, J., Llave, A., Mouneimne, G., Kamm, R. D., & Nikkhah, M., "Microengineered Breast Cancer Invasion Platform," Annual Biomedical Engineering Society Meeting, Tampa, FL, October 7-10, 2015
- **Truong, D.,** Puleo, J., Llave, A., Mouneimne, G., Kamm, R. D., & Nikkhah, M., "Microengineered Breast Cancer Invasion Platform," AZBIO Awards 2015, Phoenix, AZ, October 1, 2015

PATENTS

- Nikkhah, M. & **Truong, D**. (2018). *U.S. Patent App. 2018/052151*. Washington, DC: U.S. Patent and Trademark Office.
- Nikkhah, M., Kamm, R. D., & **Truong, D**. (2016). *U.S. Patent No. 10,017,724*. Washington, DC: U.S. Patent and Trademark Office.

AWARDS AND FUNDING

- Convocation Speaker — December 2018
- Graduate College Completion Fellowship — April 2018
- GPSA Research Grant — March 2018
- Phoenix Chapter of Achievement Rewards for College Scientists (ARCS) Foundation Burton Scholar — February 2018
- Graduate College Fellowship — January 2018
- International Foundation for Ethical Research (IFER) Graduate Fellowship — October 2017
- Outstanding SBHSE Graduate Research Assistant — March 2017

- Phoenix Chapter of ARCS Foundation Burton Scholar — February 2017
- IFER Graduate Fellowship — October 2016
- GPSA Jumpstart Research Grant — May 2016
- Molecular, Cellular, & Tissue Bioengineering Symposium Poster Presentation Award — April 2016
- GPSA Travel Award Grant — January 2016
- SBHSE Block Funding Award — October 2015
- Dean's Fellowship — August 2014 to December 2018

PROFESSIONAL MEMBERSHIPS

- Biomedical Engineering Society — August 2014 to Present
- Tau Beta Pi — November 2015 to Present
- Alpha Eta Mu Beta — August 2016 to Present
- American Association for the Advancement of Science — February 2015 to Present
- Sigma Xi — March 2018 to Present
- American Association for Cancer Research — October 2019 to Present
- Diverse Scholar — June 2019 to Present
- Society of Asian Scientists and Engineers — July 2020 to Present

REFERENCES

I am happy to supply these upon request.