CURRICULUM VITAE

Prepared: 2020-05-20

GENERAL INFORMATION

DANH TRUONG

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

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Houston, TX 77054-3005
Postdoctoral Fellow
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*

- Utilizing stem cell differentiation to study a variety of sarcomas
- Leveraging 3D models to recapitulate adipogenesis and osteogenesis
- Analysis of single-cell RNA seq and single-cell ATAC seq data

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

TECHNICAL SKILLS

- Biology: 2D and 3D Cell culture (cancer, endothelial, fibroblast, macrophage, stem cells), Immunofluorescence Microscopy, Protein quantification, ELISA, Western Blot, PCR, transformation, transfection/transduction, and bioinformatics (NGS, differential gene expression, pathway analysis)
- Engineering: Biomaterials, Polymer Design and Synthesis, Class-100 clean room, SU-8 photolithography, microfluidics, Drop-Seq, Instron machine,
- Computer: R, Python, MATLAB, Photoshop and Illustrator, ImageJ, Data Analysis, Graphpad, COMSOL

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

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

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

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

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

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

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

MENTORING EXPERIENCE

Graduate Students

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

Undergraduate Students

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., 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. *17% acceptance rate.* **** 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.
- Peela, N., **Truong, D.**, Barrientos, E. S., Mouneimne, G., & Nikkhah, M. (2016). Evaluation of anti-cancer drug Suberoylanilide Hydroxamic Acid (SAHA) on cancer cell phenotype in a three-dimensional (3D) breast tumor-stroma platform. In *20th International Conference on Miniaturized Systems for Chemistry and Life Sciences, MicroTAS 2016*. Chemical and Biological Microsystems Society.
- **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. *17% acceptance rate.*
- 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.

Oral Presentations

- 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" 2019 CTOS Annual Meeting. Tokyo, Japan. November 13-16, 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
- Kratz, A., **Truong, D.,** Nguyen, T., Nikkhah, M., "In Cell Western Blotting for Quantifying Protein Expression in 3D Tumor-Stroma Microfluidic Device". Annual Biomedical Engineering Society (BMES) Meeting, Phoenix, AZ October 11-14, 2017
- Saini, H., Rahmani, K., **Truong, D.**, Assefa, E., Mouneimne, G., Ros, R., Nikkhah, M. "A High-Density Tumor Model to Assess Breast Cancer Dispersion and ECM Remodeling under the Influence of Stromal Cells". Annual Biomedical Engineering Society (BMES) Meeting, Phoenix, AZ October 11-14, 2017
- Peela, N., **Truong, D.**, Barrientos, E. S., Mouneimne, G., & Nikkhah, M. (2016). "Effects of HDAC Inhibitors on Breast Cancer Cell Phenotype in a Microengineered 3D Invasion Assay" 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
- Peela, N., Sam, F. S., Christenson, W., **Truong, D.,** Watson, A. W., Mouneimne, G., ... & Nikkhah, M., "A Three Dimensional Micropatterned Tumor Model to Study Breast Cancer Cell Invasion," Annual Biomedical Engineering Society (BMES) Meeting, Tampa, FL, October 7-10, 2015

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
- Saini, H., Rahmani, K., Rodrigues, M., Cai, T., Allam, M., Silva, C., **Truong, D.**, Hu, T., Mouneimne, G., Ros, R., Nikkhah, M. "Identification of Molecular Signaling Cues between Cancer Cells and Stromal Fibroblasts Enhancing ECM Deregulation in a 3D Microengineered Platform". 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
- Nagaraju, S., **Truong, D.,** & Nikkhah, M., "Three-Dimensional Microfluidic Platform to Study the Role of Stromal Cells in Tumor Angiogenesis," Annual Biomedical Engineering Society (BMES) Meeting, Minneapolis, MN, October 5-8, 2016
- Peela, N., **Truong, D.**, Barrientos, ES., Mouneimne, G., & Nikkhah, M., "Evaluation of Anti-Cancer Drug Suberoylanilide Hydroxamic Acid (SAHA) on Cancer Cell Phenotype In A Three-Dimensional (3D) Breast Tumor-Stroma Platform," MicroTAS 2016, Dublin, Ireland, October 9-13, 2016.
- Peela, N., Sam, F. S., Christenson, W., **Truong, D.,** Watson, A. W., Mouneimne, G., ... & Nikkhah, M., "Cellular Tracking in a Three-Dimensional Microengineered Tumor Model," AAAS 2016 Annual Meeting, Washington, DC, February 11-15, 2016
- **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
- Peela, N., Sam, F. S., Christenson, W., **Truong, D.,** Watson, A. W., Mouneimne, G., ... & Nikkhah, M., "A Three Dimensional Micropatterned Tumor Model to Study Breast Cancer Cell Invasion," AZBIO Awards 2015, Phoenix, AZ, October 1, 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

- Anand, S., Desai, V., Vasudevan, S., Nguyen, D., Tran, M., Myint, NSL., Alzoghoul, N., **Truong, D.,** Hong, Y., Cheng, J., Keefer, E., Romero, M., "Sensory and Motor Enrichment using Molecular Guidance Cues," Neural Interface Conferences 2014, Dallas, TX, June 22-25, 2014
- Punnakitikashem, P., **Truong, D**., Menon, J. U., Nguyen, K. T., & Hong, Y., "Electrospun biodegradable elastic polyurethane scaffolds with dipyridamole release for small diameter vascular grafts," The Annual Celebration of Excellence by Students (ACES) symposium 2014, Arlington, TX, March 26, 2014
- Punnakitikashem, P., **Truong, D**., Menon, J. U., Nguyen, K. T., & Hong, Y., "Electrospun biodegradable elastic polyurethane scaffolds with dipyridamole release for small diameter vascular grafts," 40 years of Bioengineering at UTA, Arlington, TX, March 19, 2014

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
Academic Enhancement Scholarship	August 2010 – May 2012
College of Science Dean's List	August 2010 – May 2012
Top 10% Award	August 2009 – May 2012
Outstanding Freshman	August 2009 – May 2012
International Baccalaureate Diploma	June 2009
Parent Teacher Student Association Scholarship	June 2009

PROFESSIONAL MEMBERSHIPS

• Biomedical Engineering Society Student	August 2013 to August 2014
• Biomedical Engineering Society	August 2014 to Present
• Association for Women in Science	November 2014 to Present
• American Association for the Advancement of Science	February 2015 to February 2017
• Arizona BioIndustry Association	April 2015 to December 2018
• American Society of Mechanical Engineers	November 2015 to November 2016
• Tau Beta Pi	November 2015 to Present
• Alpha Eta Mu Beta	August 2016 to Present
• American Association for Cancer Research	October 2019 to Present

REFERENCES

I am happy to supply these upon request.