# Srinivas Nandana, Ph.D.

## PERSONAL


**Citizenship:** Indian
**Status in USA:** Permanent Resident
**Office address:** Department of Cell Biology and Biochemistry
Texas Tech University Health Sciences Center
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## EDUCATION AND TRAINING

**Post-Doctoral Training**
Institution and Location: Cedars-Sinai Medical Center, Los Angeles, CA
Mentor: Leland W.K. Chung, Ph.D.
Field of Study: Cross-talk between prostate cancer and tumor-associated bone microenvironment
Years: 2010 - 2014

**Degree:** Ph.D.
Institution and Location: Vanderbilt University School of Medicine, Nashville, TN
Mentor: Robert J. Matusik, Ph.D.
Field of Study: Cancer Biology
Dissertation Title: Mouse models of prostate cancer progression and bone metastasis
Years: 2002 - 2010

**Degree:** M.Sc.
Institution and Location: Barkatullah University, Bhopal, India
Field of Study: Biotechnology
Years: 1999 - 2001

**Degree:** B.Sc.
Institution and Location: Andhra University, Visakhapatnam, India
Field of Study: Biochemistry, Botany, Biotechnology
Years: 1996 - 1999

## POSITIONS AND EMPLOYMENT

2020-Present: Tenure Track Assistant Professor (Joint Appointment), Dept. of Urology, TTUHSC, Lubbock
2018-Present: Tenure Track Assistant Professor, Dept. of Cell Biology and Biochemistry, TTUHSC, Lubbock
2018-Present: Member, Cancer Center, TTUHSC, Lubbock
2018-Present: Member, Graduate School of Biomedical Sciences - Biotechnology Program, TTUHSC
2018-Present: Member, Graduate School of Biomedical Sciences - Biochemistry, Cellular and Molecular Biology (BCMB), TTUHSC

2014-2018: Project Scientist-Instructor, Cedars-Sinai Medical Center, Los Angeles, CA
2010-2014: Postdoctoral Scientist, Cedars-Sinai Medical Center, Los Angeles, CA
2002-2010: Graduate Student, Vanderbilt University School of Medicine, Nashville, TN
2001-2002: Biology Instructor, T.S.R and T.B.K. College, Andhra University, India
2000-2001: Research Trainee, National Institute of Immunology, New Delhi, India

## AWARDS AND HONORS

2019: Cover Photo, *Cancers*
2007: AACR Travel Award to attend the *Edward A. Smuckler Memorial Pathobiology of Cancer* Workshop
2006: Travel Award, Society for Basic Urologic Research
2002: Fellowship, Interdisciplinary Graduate Program (IGP) in Biomedical Sciences, Vanderbilt University
2000: Dissertation Research Scholarship, Barkatullah University, India

## FUNDED PEER-REVIEWED RESEARCH GRANTS

Nandana (PI) 12/1/2022-11/30/2024
**The Ted Nash Longlife Foundation**
Title: A novel signaling pathway in prostate cancer bone metastasis
Goal: Elucidate the TBX2/NOTCH signaling pathway in prostate cancer bone metastasis
$200,000

X81XWH-16-1-0174 Nandana (PI) 09/30/16-09/29/22 (NCE)

**Idea Development Award (New Investigator), DoD-PCRP**
Title: A novel Immune-Intact Mouse Model of Prostate Cancer Bone Metastasis: Mechanisms of Chemotaxis and Bone Colonization.
Goal: To determine RANKL/RANK and CXCL12/CXCR4 signaling convergence in prostate cancer bone metastasis in the context of immune-intact mice.
$437,500

X81XWH-12-1-0042 Nandana (PI) 09/30/12-09/30/14
**Postdoctoral Fellowship Award, DoD-PCRP**
Title: The role of TBX2 in mediating the RANKL pathway in prostate tumor progression and bone metastasis
Goal: To study the mechanisms by which TBX2 plays a role in prostate cancer bone metastasis and bone remodeling.
$124,200

W81XWH-07-1-0155 Nandana (PI) 11/30/06-11/30/09
**Predoctoral Fellowship Award, DoD-PCRP**
Title: Investigating the role of TBX2 in the inhibition of senescence in prostate cancer.
Goal: To study the role of TBX2 in androgen regulation and prostate cancer progression.
$97,149

## PUBLICATIONS

Pre-prints:

Dutta S., Patel G.K., Khedmatgozar H., Latour D., Tripathi, M.[*] & **Nandana, S**[*]. TBX2 driven switch from Androgen Receptor to Glucocorticoid Receptor signaling confers therapeutic resistance in prostate cancer. bioRxiv May 09, 2023 https://doi.org/10.1101/2023.05.07.539754 ([*]denotes co-corresponding authorship)

Peer-reviewed:

Patel, G. K., Dutta, S., Syed, M. M., Ramachandran, S., Sharma, M., Rajamanickam V., Ganapathy, V., Degraff, D., Pruitt, K., Tripathi, M.[*] & **Nandana, S**[*]. TBX2 drives neuroendocrine prostate cancer through exosome-mediated repression of miR-200c-3p. *Cancers*, 13: 5020. PubMed ID # 34638504 ([*]denotes co-corresponding authorship)

Tharp D., **Nandana S**[*]**.** How Prostate Cancer Cells Use Strategy Instead of Brute Force to Achieve Metastasis. *Cancers* 2019, 11(12). ([*] denotes corresponding authorship) *(Cover Page Story)*

Chu C.Y., Chung L.W.K, Gururajan M., Hsieh C.L., Josson S., **Nandana S**., Sung S.Y., Wang R., Wu J.B., Zhau H.E. Regulatory Signaling Network in the tumor microenvironment of prostate cancer bone and visceral organ metastases and the development of novel therapeutics. Asian Journal of Urology, 2019 Jan;6 (1): 65-81.

**Nandana S.**[*#], Tripathi M.[#], Duan P., Chu C.Y., Mishra R., Liu C., Jin R., Yamashita H., Zayzafoon M., Bhowmick N.A., Zhau H.E., Matusik R.J. and Chung L.W.K.[#] Bone metastasis of prostate cancer can be therapeutically targeted at the TBX2-WNT signaling axis. *Cancer Research*, 2017; Mar 15; 77(6):1331-1344 ([#]contributed equally, [*] denotes co-corresponding authorship).

Tripathi M.[#], **Nandana S.**[#], Billet S., Cavassani K., Chung L.W.K., Posadas E.M., Bhowmick N.A. Modulation of cabozantinib efficacy by the prostate tumor microenvironment. *Oncotarget, Oct 20; 8(50): 87891–87902* ([#] denotes equal contribution)

Gururajan M., Cavassani K.A., Sievert M., Duan P., Lichterman J., Huang J.M., Smith B., You S., **Nandana S.**, Chu G.C., Mink S., Josson S., Liu C., Morello M., Jones L.W., Kim J., Freeman M.R., Bhowmick N., Zhau H.E., Chung L.W., Posadas E.M. SRC family kinase FYN promotes the neuroendocrine phenotype and visceral metastasis in advanced prostate cancer. *Oncotarget*, 2015 Nov 26, Vol 6, No 42: 44072-83

Josson S., Gururajan M., Hu P., Shao C., Chu G.Y., Zhau H.E., Liu C., Lao K., Lu C.L., Lu Y.T., Lichterman J., **Nandana S.**, Li Q., Rogatko A., Berel D., Posadas E.M., Fazli L., Sareen D., Chung L.W. miR-409-3p/5p promotes tumorigenesis, epithelial-to-mesenchymal transition, and bone metastasis of prostate cancer. *Clinical Cancer Res*, 2014 Sep 1; 20(17): 4636-46

**Nandana S.** and Chung L.W.K. Prostate Cancer Progression and Metastasis: Current and Potential Therapeutic Pathways & Mouse Models in Pre-Clinical Research. *American Journal of Clinical and Experimental Urology,* 2014 Jul 12; 2(2): 92-101

**Nandana S.**, Ellwood-Yen K., Sawyers C.L., Wills M.L., Weidow B., Case T.C., Vasioukhin V., and Matusik R.J. Hepsin co-operates with myc in the progression of adenocarcinoma in a prostate cancer mouse model. *Prostate*, 2010 May, 70(6):591-600

Degraff D.J., Yu X., Sun Q., Mirosevich J., Jin R.J., Wang Y., Gupta A., **Nandana S**., Case T., Paul M., Huang H.Y., Shapiro E., Logan S., Suzuki K., Orgebin-Crist M.C., Matusik R.J. The role of Foxa proteins in the regulation

of androgen receptor activity, Chapter 18, 587-615, 2009 *Androgen Action in Prostate Cancer*, Tindall D.J. and Mohler J.

Yi Y., **Nandana S.**, Case T.C., Nelson C., Radmilovic T., Matusik R.J., Tsuchiya K.D. Candidate metastasis suppressor genes uncovered by array comparative genomic hybridization in a mouse allograft model of Prostate Cancer. *Molecular Cytogenetics*, 2009 Sep, 2:18

Tripathi M., **Nandana S.**, Yamashita H., Kirchhofer D. and Quaranta V. Laminin-332 is a substrate for hepsin, a protease associated with prostate cancer progression. *Journal of Biological Chemistry*, 2008 Nov, 283 (45):30576-84

Matusik R.J., Jin R.J., Sun Q., Wang Y., Yu X., Gupta A., **Nandana S.**, Case T.C., Paul M., Mirosevich J., Oottamasathien S., Thomas J. Prostate epithelial cell fate. *Differentiation,* 2008 Jul, 76:(6) 682-98

Levititin F., Weiss M., Hahn Y., Stern O., Papke R.L., Matusik R.J., **Nandana S.**, Ziv R, Pichinuk E., Salame S., Bera T, Vincent J, Lee B., Pastan I, and Wreschner D.H. *PATE* Gene Clusters Code for Multiple, Secreted TFP/Ly-6/uPAR Proteins that are expressed in reproductive and neuron-rich tissues and possess neuromodulatory activity. *Journal of Biological Chemistry*. 2008 Jun, 283(24):16928-16939

Kenchappa P., Yadav A., Singh G., **Nandana S.**, Banerjee K. Rescue of TNF alpha inhibited neuronal cells by IGF-1 involves Akt and c-Jun N-terminal kinases. *Journal of Neuroscience Research*. Mar 2004, 76(4) 466-474

## INVITED TALKS AND PRESENTATIONS

May 2023: TBX2-driven signaling switch from androgen receptor to glucocorticoid receptor confers therapeutic resistance in prostate cancer. *Visiting Professorship, Dept. of Pathology and Laboratory Medicine, Penn State Milton S. Hershey Medical Center and College of Medicine, Hershey, PA*

Nov 2022: TBX2 signaling in the crine-o-logy of prostate cancer progression and metastasis. *Society for Basic Urologic Research (SBUR) Annual Meeting*

Oct 2022: TBX2 signaling in the crine-o-logy of prostate cancer progression and metastasis. *Dept of Urology, TTUHSC, Lubbock*

Apr 2022: TBX2 signaling in the crine-o-logy of prostate cancer progression and metastasis. *Dept. of Cell Biology and Biochemistry, TTUHSC, Lubbock*

Sep 2021: Prostate Cancer Progression: Novel signaling mechanisms and mouse models. *Mizoram University, Mizoram, India*

Aug 2021: TBX2 drives exosome-mediated prostate cancer progression to castrate resistant prostate cancer. *Cancer Center Research Meeting, TTUHSC, Lubbock*

Dec 2020: TBX2 drives exosome-mediated prostate cancer progression to castrate resistant prostate cancer. *Cancer Biology Research Focus Group Seminar Series, TTUHSC, Lubbock*

Dec 2019: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *T.S.R and T.B.K College, Andhra University, Visakhapatnam, India*

Apr 2019: A novel syngeneic mouse model of prostate cancer bone metastasis: mechanisms of chemotaxis and bone colonization. *American Association of Cancer Research (AACR) Annual Meeting, Atlanta*

Mar 2019: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *Cancer Biology Research Focus Group Seminar Series, TTUHSC, Lubbock*

Jan 2019: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *Garrison Institute of Aging Seminar Series, TTUHSC, Lubbock*

Feb 2018: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *Dept. of Cell Biology and Biochemistry, TTUHSC, Lubbock*

Feb 2018: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *University of North Carolina, Dept. of Biological Sciences, Charlotte*

Jan 2018: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *University of Nebraska Medical Center, Dept. of Biochemistry & Molecular Biology, Omaha*

Oct 2017: Prostate Cancer Bone Metastasis: Novel signaling mechanisms and mouse models. *University of Nebraska Medical Center, College of Dentistry, Lincoln*

Sep 2017: Modeling prostate cancer metastasis using xenograft and syngeneic mouse models. *Program Project (P01) Grant Meeting, Cedars-Sinai Medical Center, Los Angeles*

Mar 2017: TBX2-WNT signaling axis – a new therapeutic target for prostate cancer bone metastasis. *Prostate Cancer Foundation (PCF)*

Feb 2017: TBX2-WNT signaling axis – a new therapeutic target for prostate cancer bone metastasis. *Cancer Metabolism Focus Group (CMFG), Cedars-Sinai Medical Center, Los Angeles*

July 2014: TBX2 promotes prostate cancer bone metastasis and growth in the bone microenvironment through WNT signaling. *Gathering for Postdoctoral Scientists (GPS), Cedars-Sinai Medical Center, Los Angeles*

May 2014: TBX2 promotes prostate cancer bone metastasis and growth in the bone microenvironment through WNT signaling. *Program Project (P01) Grant Meeting, Cedars-Sinai Medical Center, Los Angeles*

Nov 2011: Blocking endogenous TBX2 in human prostate cancer cells reduces in vivo invasion, metastasis and growth in the bone microenvironment. *Innovative Minds in Prostate Cancer Today (IMPaCT) Conference, Orlando*

Nov 2009: Mouse models of prostate cancer progression and bone metastasis. *Fred Hutchinson Cancer Research Center, Seattle*

Oct 2009: Mouse models of prostate cancer progression and bone metastasis. *Cedars-Sinai Medical Center, Los Angeles*

Aug 2009: Mouse models of prostate cancer progression and bone metastasis. *Kimmel Cancer Center, Thomas Jefferson University, Philadelphia*

Jan 2009: Hepsin co-operates with Myc in the progression of adenocarcinoma in a prostate cancer mouse model. *Science Hour, Dept. of Cancer Biology, Vanderbilt University, Nashville*

## ABSTRACTS PRESENTED IN CONFERENCES / WORKSHOPS

Dutta S., Patel G.K., Khedmatgozar H., Latour D., Tripathi M., **Nandana S.** TBX2 acts as a molecular switch to downregulate the Androgen receptor and upregulate the Glucocorticoid Receptor signaling in castrate resistant prostate cancer, AACR, Orlando, Florida. June 2023, Cancer Research 83 (11_Supplement): A011-A011

Dutta, S., Patel G.K., Khedmatgozar H., Latour D., Tripathi M., **Nandana S.** Society for Basic Urological Research , SBUR 2022, TBX2 acts a mediator of potential switch from androgen receptor to glucocorticoid receptor signaling. (November 2022).

Patel G.K., Dutta S., Khedmatgozar H., Tripathi M., **Nandana S.** TBX2 promotes prostate cancer bone-metastatic phenotype through exosomal microRNA-375-3p, Cancer Res (2022) 82 (12_Supplement): 5999." AACR, (2022).

Patel G.K., Dutta S., Khedmatgozar H., Tripathi M., **Nandana S.** Student Research Week, TBX2/miR-375-3p/RBPJ drives prostate cancer bone remodelling in an exosome mediated manner. TTUHSC- Lubbock. (2022).

Khedmatgozar H., Brandi L., Dutta S., Patel G., Welsh J., Fokar M., De Riese W., Matusik R.J., **Nandana S**, Tripathi M. Identification of a Candidate Gene that plays key roles in the Pathogenesis and Therapy Resistance in Benign Prostatic Hyperplasia. Society for Basic Urologic Research (SBUR), November 10-13, 2023.

Khedmatgozar H., Brandi L., Dutta S., Patel G., Welsh J., Fokar M., De Riese W., Matusik R., **Nandana S.**, Tripathi M. Identification of a Candidate Gene that plays key roles in the Pathogenesis and Therapy Resistance in Benign Prostatic Hyperplasia. Student Research Week, Feb 28 - Mar 3, 2023, TTUHSC, Lubbock, Texas.

Khedmatgozar H., Brandi L., Dutta S., Patel G.K., Welsh J., Fokar M., de Riese W., Matusik R., **Nandana S**, Tripathi M. Identification of a Candidate Gene that plays key roles in the Pathogenesis and Therapy Resistance in Benign Prostatic Hyperplasia. Society for Basic Urologic Research (SBUR), November 2022.

Do M., Dutta S., Tripathi M., and **Nandana S**. The Role of TBX2 in Prostate Cancer Progression. Undergraduate Research Conference, April, 2023, TTU, Lubbock, Texas.

Khedmatgozar H., Dutta S., Patel G.K., Brandi L., Welsh J., Fokar M., de Riese W., Matusik R.J., **Nandana S**, Tripathi M. Identification of Signature Genes/Pathways and Novel Therapeutic Strategies to Target Benign Prostatic Hyperplasia. BPH and Male LUTS: Intersection between Pathology and Disease Workshop, March 30 – April 1, 2022, Virtual Meeting.

Patel G.K., Dutta S., Khedmatgozar H., Tripathi M. and **Nandana S**. TBX2 promotes Prostate Cancer bone-metastatic phenotype in Prostate through exosomal microRNA-375-3p. Student Research Week, March 2022, TTUHSC, Lubbock, Texas.

Khedmatgozar H., Dutta S., Patel G.K., Brandi L., Welsh J., de Riese W., Hayward S., Franco O., Matusik R.J., **Nandana S.**, Tripathi M. Identification of signature genes, pathways and potential therapeutic agents for Benign Prostate Hyperplasia, using an integrated bioinformatic analysis. Student Research Week, March 2022, TTUHSC, Lubbock, Texas.

Do V., Do M., Dutta S., Tripathi M., and **Nandana S**. The Role of TBX2 in Prostate Cancer Progression. Undergraduate Research Conference, April, 2021, TTU, Lubbock, Texas.

Patel G.K., Dutta S., Khedmatgozar H., Tripathi M. and **Nandana S**. TBX2 promotes Prostate Cancer bone-metastatic phenotype in Prostate through exosomal microRNA-375-3p. AACR Special Conference on Cancer Metastasis, January 2022 (meeting postponed due to COVID-19).

Patel G, Dutta S, Syed M, Ramachandran S, Sharma M, Rajamanickam V, Ganapathy V, DeGraff D, Pruitt K, Tripathi M, and **Nandana S**. TBX2 Drives Neuroendocrine Prostate Cancer through

Exosome-Mediated Repression of miR-200c-3p. Abilene Interdisciplinary Symposium on Cancer and Biomedical Research, October 2021, Virtual meeting.

Syed M.M., Patel G., Dutta S., Brandi L., Zhang F., Welsh J., Khedmatgozar H., De Riese W., Hayward S., Franco O., Matusik R.J., Jin R., **Nandana S.**, Tripathi M. Stromal- Epithelial Crosstalk in Benign Prostatic Hyperplasia. Society for Basic Urologic Research (SBUR), November 2021, Virtual meeting.

Patel G.K., Dutta S., Syed M.M., Ramachandran S., Sharma M., Rajamanickam V., Ganapathy V., DeGraff D.J., Pruitt K., Tripathi M., and **Nandana S**. TBX2 Drives Neuroendocrine Prostate Cancer through Exosome-Mediated Repression of miR-200c-3p. Society for Basic Urologic Research (SBUR), November 2021, Virtual meeting.

Syed M.M., Patel G., Dutta S., Welsh., Warraich I., Hayward S., Franco O., Matusik R.J., **Nandana S.**, Tripathi M. Role of EGR1 in the development and progression of Benign Prostatic Hyperplasia. Student Research Week, March 2021, TTUHSC, Lubbock, Texas.

Do V., Patel G.k., **Nandana S**., Tripathi M. Prostate Cancer Cells Promote Exosome-Mediated Fibroblast Differentiation. Undergraduate Research Conference, March, 2021, TTU, Lubbock, Texas.

Tripathi M., **Nandana S**., Huang J.M., Kato M., Mishra R., Chung L., Xin L., Bhowmick N. Signaling crosstalk within prostate tumor microenvironment mediates castrate resistant disease progression. AACR Special Conference on Advances in Prostate Cancer Research, held from March 12-15, 2020 at the Grand Hyatt Denver in Denver, Colorado (meeting postponed due to COVID-19).

Do V., Patel G.K., Tripathi M., **Nandana S**. TBX2 expression in cancer cells drives exosome-mediated fibroblast differentiation. Undergarduate Research Conference, March, 2020, TTU, Lubbock, Texas

**Nandana S**., Gururajan M., Tripathi M., Chu C., Zhau H, Shiao S, Chung L.W.K. A novel syngeneic mouse model of prostate cancer bone metastasis: Mechanisms of chemotaxis and bone colonization: AACR Annual Meeting 2019; March 29- April 3, 2019; Atlanta, GA.

Tripathi M., **Nandana S**., Huang J.M., Kato M., Mishra R., Chung L.W.K., Xin L., Bhowmick N. Signaling crosstalk within prostate tumor microenvironment mediates castrate resistant disease progression. AACR Annual Meeting 2019; March 29- April 3, 2019; Atlanta, GA.

**Nandana S**, Gururajan M, Shiao S, Chu C and Chung L. Dissecting the role of B cells in Prostate Cancer Bone Metastasis. Society of Basic Urologic Research (SBUR) Annual Meeting 2019; Nov 7-10, 2019; New Orleans, LA.

**Nandana S**, Gururajan M, Tripathi M, Chu C, Zhau H, Shiao S, Chung L. A novel syngeneic mouse model of Prostate Cancer Bone Metastasis: Mechanisms of chemotaxis and bone colonization. American Association of Cancer Research (AACR) Annual Meeting 2019; March 29- April 3, 2019; Atlanta, GA (Selected for Podium Presentation).

Tripathi M, **Nandana S,** Huang J, Kato M, Mishra R, Chung L, Xin L, Bhowmick N. Signaling crosstalk within prostate tumor microenvironment mediates castrate resistant disease progression. American Association of Cancer Research (AACR) Annual Meeting 2019; March 29- April 3, 2019; Atlanta, GA

**Nandana S**, Tripathi M, P Duan, G Chu, HE Zhau, RJ Matusik, Chung LWK. Blocking endogenous TBX2 abrogates prostate cancer bone metastasis through WNT signaling. Cancer Research 76 (14 Supplement), 4131-4131. AACR 107th Annual Meeting 2016; April 16-20, 2016; New Orleans, LA.

Tripathi M., **Nandana S.**, Billet S. Posadas E.M., Chung LW.K. Microenvironment mediates the efficacy of cabozantinib in prostate cancer. Annual Research Day, Cedars-Sinai Medical Center, Feb 2016, Los Angeles, CA.

Tripathi M., **Nandana S.**, Huang J., Kato M., Chung L.W.K., Xin L., Bhowmick N.A. Reciprocal prostate cancer signaling with its microenvironment mediates castrate resistant disease progression. AACR Special Conference – The function of Tumor Microenvironment in Cancer Progression, Jan 2016, San Diego, CA

**Nandana S.**, Tripathi M., Duan P., Chu C., Mishra R., Liu C., Jin R., Yamashita H., Zayzafoon M., Bhowmick N.A., Zhau H.E., Matusik R.J. and Chung L.W.K. TBX2-WNT signaling axis – a new therapeutic target for prostate cancer bone metastasis. The Stem Cell Niche and Cancer Microenvironment Symposium, Cedars-Sinai Medical Center, Nov 2015, Los Angeles, CA

Tripathi M., **Nandana S.**, Billet S., Posadas E.M., Chung L.W.K. Microenvironment mediates the efficacy of cabozantinib in prostate cancer. The Stem Cell Niche and Cancer Microenvironment Symposium, Cedars-Sinai Medical Center, Nov 2015, Los Angeles, CA

**Nandana S.**, Tripathi M., Chu C., Bhowmick N.A., Matusik R.J. and Chung L.W.K. Blocking endogenous TBX2 expression in PC3 prostate cancer cells abrogates bone metastasis in a xenograft mouse model. AACR Special Conference on Tumor Invasion and Metastasis, Jan 2013, San Diego, CA

**Nandana S.,** Tripathi M., Chu C., Matusik R.J. and Chung L.W.K. Blocking TBX2 abrogates bone metastasis in a xenograft mouse model of prostate cancer. Fourth Annual Cancer Institute Research Poster Presentation, Cedars-Sinai Medical Center, June 2012, Los Angeles, CA

**Nandana S.**, Jin R., Yamashita H., Shao C., Matusik R.J. and Chung L.W.K. TBX2, a senescence-related transcription factor mediates its action through BMP2 and RANKL contributing to prostate cancer growth and bone metastasis. 11$^{th}$ International Conference on Cancer-Induced Bone Disease, Dec 2011, Chicago, IL

**Nandana S.**, Matusik R.J. Blocking endogenous TBX2 in PC3 human prostate cancer cells reduces in vivo invasion, metastasis and growth in bone microenvironment. Department of Defense Prostate Cancer IMPACT Meeting, March 2011, Orlando, Florida

Yamashita H., Tripathi M., **Nandana S.,** Ganesan R., Kirchhofer D. and Quaranta V. Laminin-332 is a substrate for hepsin, a protease associated with prostate cancer progression. Hormones and Cancer. Volume 2, Issue 1, pp 3-37. Sixth International Symposium on Hormonal Oncogenesis, Sheraton Grande Tokyo Bay Hotel, Feb 2011, Tokyo, Japan

Tripathi M., **Nandana S.,** Yamashita H., Kirchhofer D. and Quaranta V. Cleavage of Laminin-332 by hepsin and its implications in the progression of prostate cancer. Vanderbilt-Ingram Cancer Center Retreat, Student Life Center Vanderbilt University, May 2009, Nashville, TN

Yu X.$^{*}$, **Nandana S.**$^{*}$, Saliganan A., Case T.C., Paul M., Kim H., Fridman R., Bonfil D.R., Cher M. and Matusik R.J. ($^{*}$contributed equally) The Role of MT1-MMP and PDGF-D in Prostate Cancer Progression. AACR Special Conference, Advances in Prostate Cancer Research, Jan 2009, San Diego, CA

**Nandana S.** and Matusik R.J. TBX2 mediates osteogenic burden of PC3 human prostate cancer cells in the bone microenvironment. SBUR Fall Annual Meeting, Nov 2008, Phoenix, Arizona

**Nandana S.**, Chevillet J., Ellwood-Yen K., Sawyers C.L., Wills M.L., Case T.C., Vasioukhin V., and Matusik R.J. Hepsin co-operates with myc in the progression of adenocarcinoma in a Prostate Cancer mouse model. AACR Edward A. Smuckler Memorial Workshop in Pathobiology of Cancer, Aug 2007, Snowmass, Colorado

**Nandana S.**, Chevillet J., Ellwood-Yen K., Sawyers C.L., Wills M.L., Case T.C., Vasioukhin V., and Matusik R.J. Investigation of the hepsin/myc mouse model in the progression of prostate cancer. SBUR Fall Annual Meeting, Nov 2006, Phoenix, Arizona

**Nandana S.** and Matusik R.J. Investigation of the role of TBX2 in androgen regulation and prostate cancer progression. Vanderbilt University Department of Cancer Biology Annual Retreat, Nov 2005, Lake Barkley State Resort Park, Cadiz, Kentucky

## TEACHING / TRAINING EXPERIENCE

- Graduate School of Biomedical Sciences program. Advanced Protein Biochemistry, Texas Tech University Health Sciences Center (GBCM 6333) - Proteomic Characterization of Protein Function and Dysfunction in Cancer (Spring of 2021, 2022, 2023)

- Graduate School of Biomedical Sciences program. Advanced Cell Biology, Texas Tech University Health Sciences Center (GCMB 6320) - Cell Motility in Cancer Metastasis (Spring of 2020, 2021, 2022, 2023)

- Graduate School of Biomedical Sciences program: The Biology of Cancer, Texas Tech University Health Sciences Center (GBTC 5340) - Cancer Metastasis and Mouse Models to Study Progression (Spring of 2019, 2020, 2022, 2023)

- GBTC Biotechnology Laboratory Methods, Texas Tech University Health Sciences Center (GBTC 5020 001), (Fall of 2021)

**Trainees:**

*Postdoctoral Fellows:*

2019-2021: Girijesh Patel, Ph.D.

*Students and Research Associates:*
2022 Fall: Iffat Jahan, Graduate Student GSBS (Rotation Student)
2021-2022: Research Associate - Hamed Khedmatgozar
2020-2021- Research Mentor for Masters in Biotechnology (M.S.) Student - Mosharaf Mahmud-Syed
2020-2022: Student Volunteer - Vishal Bandaru
2020-Present: Research Mentor for Graduate (Ph.D.) Student - Sayanika Dutta
2023-Present: Research Co-Mentor for Graduate (Ph.D.) Student - Hamed Khedmatgozar
2019-2020: Masters in Biotechnology (M.S.) Rotation Student & Part-Time Assistant - Mosharaf Mahmud-Syed

*Undergraduate Trainees:*
2021-Present: TTU Honors Student - Minh Do
2020-2021: Jonathan Welsh (Research Associate)
2019: Summer Accelerated Biomedical Research (SABR) Student: Darron Tharp (Won 2nd place in the SABR project presentation, Aug 2019)

## PROFESSIONAL SERVICE

2023: Faculty search committee member, Dept. of Cell Biology and Biochemistry, TTUHSC
2023: Instrument purchase committee member, Dept. of Cell Biology and Biochemistry, TTUHSC
2023: Applicant interviewer for the Ph.D. Program in Biomedical Sciences, TTUHSC
2022: Abstract evaluation committee member for the Society for Basic Urologic Research (SBUR) Annual Meeting
Thesis committee member for Ph.D. Students: 1) Dalia Martinez-Marin, 2) Naresh Sah, 3) Tasmin Omy
2019-Present: Poster Judge, Annual (Spring) Student Research Day, GSBS, TTUHSC, Lubbock

2020-2021: Thesis committee member for Masters in Biotechnology (M.S.) Students: Tasmin Omy and Christian Rivera
2019: Faculty search committee member for the Kayla Weitlauf Professorship, Dept. of Cell Biology and Biochemistry, TTUHSC
2019: Applicant Interviewer for the M.S. Biotechnology Program, TTUHSC

**Editorial Board Member and Ad hoc Reviewer**

**Ad hoc Reviewer**

- Oncogene
- Asian Journal of Urology
- Biomolecules (MDPI)
- Cancers (MDPI)
- Scientific Reports

**Editorial Board Member**

Journal of Pathology and Therapeutics

## Faculty Development Activities

2021 Spr: Participated in the Faculty Development Course *Translational and Clinical Research*
2020 Spr: Participated in the Faculty Development Course *Medical Education*
2019 Fall: Participated in the Faculty Development Course *Academic Socialization*

## MEMBERSHIPS

2021-Present: American Society of Andrology
2018-Present: American Association of Indian Scientists in Cancer Research
2016-Present: American Association for Cancer Research
2006-Present: Society for Basic Urologic Research