

Curriculum Vitae

Sheema Khan, Ph.D.

Assistant Professor (Tenure-Track)

Department of Immunology and Microbiology
Member of Institute for Cancer Immunotherapy
University of Texas Rio Grande Valley
School of Medicine
McAllen, TX 78504
Phone: +1 (956)-296-1736
E-mail: sheema.khan@utrgv.edu

Education

Undergraduate: *Bachelor of Science*, Biology and Chemistry, University of Kashmir, Jammu and Kashmir, India, 2003

Graduate: *Master of Science*, Medical Microbiology and Immunology, Bundelkhand University, Jhansi, Uttar Pradesh, India, 2006

Doctorate of Science, PhD. Biotechnology and Cancer Pharmacology, Indian Institute of Integrative Medicine (IIIM) C.S.I.R., Jammu and Kashmir, India, 2010

Professional Experience

- 2007-2010** **Junior Research Fellow (CSIR)**, Indian Institute of Integrative Medicine (IIIM), Jammu and Kashmir, India
- 2010-2011** **Postdoctoral Senior Research Fellow (CSIR)**, Indian Institute of Integrative Medicine (IIIM), Jammu and Kashmir, India
- 2012-2013** **Postdoctoral Fellow**, Cancer Biology Research Center, Sanford Research/USD, Sioux Falls, South Dakota, USA

- 2013-2015** **Postdoctoral Fellow**, Department of Pharmaceutical Sciences, University of Tennessee Health Science Center (UTHSC), Memphis, TN, USA
- 2015-2016** **Associate Scientist**, Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN, USA.
- 2016-2019** **Assistant Professor (Research track)**, Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN, USA.
- 2019 –Pre** **Assistant Professor (Tenure track)**, Department of Immunology and Microbiology, University of Texas Rio Grande Valley, Edinburg, TX, USA.

Honors/Awards/Scholarships

1. **Judge**, Graduate Research Day, College of Graduate Health Sciences, Univ. of TN Health Science Center, TN (April, 2019).
2. **New Grant Support Fund, UTHSC**, 2018- Based on the several competitive grants submitted my application was funded for two years for the amount of \$25,000.
3. **Judge**, Annual Postdoc Research Day, Univ. of TN Health Science Center, TN (December 2018).
4. **Dean’s Enhancement Program for Seed Research Grants, 2016** – Based on the recommendation by the review committee, our application was approved; title: “Restitution of microRNA-205 inhibits tumor growth in prostate cancer” for the funding level of \$25,000.
5. **Postdoctoral Fellow Achievement Award** – University of Tennessee, 2014-2015
6. **Best Poster Presentation Award** at Postdoctoral Research Meeting, UTHSC, 2014
7. **Most Outstanding Poster Award**, UTHSC Award Winner, Postdoc research day poster competition, 2014.
8. **First place Travel Award winner**, UTHSC, 2013.
9. **Best oral Presentation Award**, UTHSC postdoctoral research meeting, 2013.
10. **Awarded pilot grant support** for research from National Institutes of Health NIH/NCI 2012 – 2013.
11. **Awarded Senior Research Fellowship** from Council of Scientific and Industrial Research (CSIR), Ministry of Human Resource Development, Government of India, 2010.

Editorial Appointments

Cancer (MDPI) Impact factor: 6.1

Journal Reviewer

1. Neoplasma
2. Anti-cancer agents
3. MDPI Pharmaceuticals
4. Oncotargets and Therapy
5. Cell Biology and Toxicology
6. Cancer Growth and Metastasis
7. Clinical and Experimental Gastroenterology
8. Heliyon
9. *Plos One*
10. Journal for ovarian Cancer
11. Journal of Colloid and Interface Science
12. Journal of Oncotarget

Society Memberships

1. Member Medical Student Evaluation and Promotion Committee (MSEPC), School of Medicine, UTRGV, TX.
2. Member South Texas Center of Excellence in Cancer Research, McAllen, TX.
3. Member American Association for Cancer Research (AACR) since 2012
4. Member UTHSC Postdoctoral Association since 2013
5. Member Pancreas Club since 2015
6. Member Society for Surgery of the Alimentary Tract: SSAT since 2015

Teaching Experience

School of Medicine

MEDI-8119

Module Name: Attack and Defense-Medical students; Total Students: 100

LECTURES: (1 HR EACH)

Week: 15; **Session:** 15.3

Topic: Herpesviruses, Papillomaviruses, & Polyomaviruses

- Identify the structure and genome of herpesviruses, papillomaviruses, and polyomaviruses
- List the steps to the life cycle of each virus
- Explain the clinical presentation of herpesviruses, papillomaviruses, and polyomaviruses

- Delineate the diagnostic approach used to identify each virus

Week: 17; Session: 17.7

Topic: Introduction to Parasitology (Classification, Structure, Replication)

- Describe the biological interactions between organisms and their hosts
- Learn major classification and structure of parasites
- Classify protozoan parasites based on their means of locomotion and mode of reproduction
- Describe biological and morphologic characteristics of pathogenic parasites
- Describe the life cycle of medically important parasites and understand their role in human disease
- Know the malignancies (oncogenesis) associated with parasites
- List antiparasitic agents and their mechanisms of action, resistance, and toxicity to humans

Week: 17; Session: 17.8

Topic: Protozoa, Blood Protozoans

- Categorize protozoa by organ systems infected
- Know the major blood protozoan parasites that are medically important
- Understand their epidemiology, mode of infection and clinical manifestations
- List the measures for their diagnostic evaluation and treatment
- Identify organisms based on a micrograph

Week: 17; Session: 17.1

Topic: Zoonosis Part-1 and Part-2

Part-1

- Define Zoonotic Disease
- Classify zoonoses
- Categorize Transmission of Zoonotic Diseases
- Describe Clinical and Laboratory Findings in Zoonotic Diseases caused by bacteria

Part-2

- Describe Clinical and Laboratory Findings in Zoonotic Diseases caused by chlamydial and rickettsial organisms and by viruses
- Know about Zoonotic Diseases caused by parasites

- Understand the dynamics of transmission and spread of zoonotic diseases including biologic, ecologic and cultural aspects
- Illustrate measures to prevent and control transmission of these diseases

Week: 18; Session: 18.6

Topic: Tissue Protozoans and Enteric Amoebas

- Know the major tissue protozoan parasites that are medically important
- Describe the life cycle of *Trypanosoma*, *Toxoplasma*, *Leishmania* and *Entamoeba* and understand their role in human disease
- Understand their epidemiology, mode of infection and clinical manifestations
- List the measures for their diagnostic evaluation and treatment
- Identify organisms based on a micrograph

Week: 18; Session: 18.7

Topic: Checkpoint Immunotherapy

- Understand the disadvantages & challenges of traditional cancer therapies.
- Know about the multiple cell types in the microenvironment that express PD-1 and PDL-1/2
- Understand mechanisms for PD-L1 upregulation in tumors
- Explain molecular mechanisms of CTLA4 and PD-1 attenuation of T-cell activation
- Understand checkpoint immunotherapy
- Elucidate potential models of how immune checkpoint blockade restores positive costimulation and modulates T-cell activity

Week: 18; Session: 18.8

Topic: Inhibitors Recent Advances

- Know about FDA Approved Immune Checkpoint Inhibitors for Cancer treatment.
- Learn about the potential cancer immunotherapy combinations
- Understand the challenges associated with immune checkpoint inhibitors

Week: 19; Session: 19.7

Topic: Intestinal worms and Arthropods

- Identify and explain the major types of helminths that affect humans
- Describe the pathogenesis and the clinical manifestation of *Schistosoma Species*
- Describe the pathogenesis and the clinical manifestation of *Taenia species*
- Explain the diagnostic tools the therapeutic approach and prevention of helminths
- Describe the various types of Arthropod parasites

School of Medicine

M2M

Module Name: Molecules and Medicine-Medical students; Total Students: 100

LECTURES: (1 HR EACH)

Topic: *Signal Transduction -Part-1*

- Introduction to signal transduction
- Understand the receptor and ligand types in a signaling cascade
- Introduction to G Protein–Coupled Receptors: Structure, mechanism, and drug targets
- Learn different subunits of G-proteins, their effectors and their mechanism of activation
- Significance and physiological effects of G-Protein-coupled receptor signaling
- Location and biological function of major GPCR receptors and their connected G proteins

Second messengers -Part-2

- Introduction to second messengers
- Discuss about the classification of G protein coupled receptor related second messengers
- Understand mechanism of activation of second messengers
- Cell Responses mediated by Cyclic AMP, cyclic GMP, IP3/DAG and Nitric oxide
- Discuss how second messengers can alter both signal transduction and gene expression
- Understand the mechanism of Nitric oxide signaling and elevation of Ca²⁺
- Know about the characteristics, location of Neurotransmitters and the importance in disease processes

Signaling pathways -Part-3

- Discuss about the Receptor and Non-Receptor tyrosine kinases; mechanism and function
- Know about signal proteins that act via Receptor tyrosine kinases
- Understand Receptor dimerization and autophosphorylation
- Learn about PI3K/Akt/mTOR and Mitogen-Activated Protein (MAP) Kinase Pathways
- Understand signaling pathways controlled by ubiquitinylation and protein degradation

Research Interests

Gastrointestinal tumor microenvironment
Microbiome signatures in cancer for Diagnosis and Prognosis
Cancer Immunosurveillance Liver Cancer Health Disparity
Cancer Cell signaling and Drug discovery
Antibody mediated targeted delivery using nanotechnology
Exosome cargo and as delivery vehicles

Candidates Currently Supervising

Poornima Shaji (Master's thesis Supervisor)
Ana Martinez (Master's thesis Supervisor)
Swathi Hola (graduate student supervisor)
Dana Garibaldi Saenz (Internship)
Dawn Jensen (Medical student Internship)
Kimberly Ambrosini (MD Candidate Internship)

Residents/Fellows/Graduate Students Trained

Students

Sonam Kumari, MS (2014, PhD Student, graduated)
Saini Setua, MS (2014, PhD Student, graduated)
Andrew E. Massey (2016, PhD student, graduated)
Kyle Doxtater (2016, PhD student)
Nirnoy Dan (2016, PhD student, graduated Masters)
Pragathi Gunnam Reddy (2017, PhD student)
Kamalika Samanta (2017, PhD student)
Mehdi Chaib (2017, PhD student)
Aditya Ganju (2017, PhD student, graduated)

Medical Residents/MDs

Kabir Khan, MD (2013, Medical Resident)
Zachary Stiles, MD (2017, UTHSC Medical Resident)
Andrew, BS (UTHSC Medical Student 2nd year)
Andrew Duncan Renshaw (UTHSC Medical Student 2nd year)

Post-Doctoral Fellow

Rishi Kumar Gara, PhD
Mohammed Sikander, PhD
Shabnam Malik, PhD
Aditya Ganju, PhD

Summer Students

Nia Johnson (2015, Summer Student)
Bhavin Chauhan (2013-2014, Summer Student)
Ankita Shah (2013, Summer Student)
Nikki Bauer (2012, Summer Student)

Intern/Volunteers (while at UTHSC)

Swathi Balakrishna, MS
Mehreen Naaz Khan, MD

Peer-Reviewed Publications

1. Choi YD, Jung JY, Baek M, Khan S, Song PI, Ryu S, et al. APE1 Promotes Pancreatic Cancer Proliferation through GFR α 1/Src/ERK Axis-Cascade Signaling in Response to GDNF. *Int J Mol Sci* 2020;21.
2. Sonam Kumari, Sheema Khan* (*corresponding author), Radhika Sekhri, Hassan Mandil, Stephen Behrman, Murali M. Yallapu, Subhash C. Chauhan, Meena Jaggi*. Protein Kinase D1 regulates metabolic switch in pancreatic cancer via modulation of mTORC1. *Br J Cancer*. 2020 Jan;122(1):121-131.

3. Sikander M, Malik S, Khan S, Kumari S, Chauhan N, Khan P, Halaweish FT, Chauhan B, Yallapu MM, Jaggi M, Chauhan SC. Novel Mechanistic Insight into the Anticancer Activity of Cucurbitacin D against Pancreatic Cancer (Cuc D Attenuates Pancreatic Cancer). *Cells*. 2019 Dec 31;9(1).
4. **Sheema Khan**, Saini Setua, Sonam Kumari, Nirnoy Dan, Andrew Massey, Bilal Hafeez, Murali M. Yallapu, Zachary Edwar Stiles, Anas Alabkaa, Junming Yue, Aditya Ganju, Stephen Behrman, Meena Jaggi, Subhash C. Chauhan. Superparamagnetic iron oxide nanoparticles of curcumin enhance gemcitabine therapeutic response in pancreatic cancer. *Biomaterials*, 2019 Jul;208:83-97.
5. Massey AE, Sikander M, Chauhan N, Kumari S, Setua S, Shetty AB, Mandil H, Kashyap VK, **Khan S**, Jaggi M, Yallapu MM, Hafeez BB, Chauhan SC. Next-generation paclitaxel-nanoparticle formulation for pancreatic cancer treatment. *Nanomedicine*. 2019 Jun 4;20:102027.
6. Sikander M, Malik S, Chauhan N, Khan P, Kumari S, Kashyap VK, **Khan S**, Ganju A, Halaweish FT, Yallapu MM, Jaggi M, Chauhan SC. Cucurbitacin D Reprograms Glucose Metabolic Network in Prostate cancer. *Cancers* (Basel). 2019 Mar 14;11(3).
7. **Khan S**, Zafar N, Khan SS, Setua S, Behrman SW, Stiles ZE, Yallapu MM, Sahay P, Ghimire H, Ise T, Nagata S, Wang L, Wan JY, Pradhan P, Jaggi M, Chauhan SC. Clinical significance of MUC13 in pancreatic ductal adenocarcinoma. *HPB (Oxford)*. 2018 Jun;20(6):563-572.
8. Pallabita Chowdhury, Prashanth K.B. Nagesh, Elham Hatami, Santosh Wagh, Nirnoy Dan, Manish K. Tripathi, **Sheema Khan**, Bilal B Hafeez, Bernd Meibohm, Subhash C. Chauhan, Meena Jaggi, Murali M. Yallapu. Tannic acid-inspired paclitaxel nanoparticles for enhanced anticancer effects in breast cancer cells. In press, *Cancers* Aug 2018, <https://doi.org/10.1016/j.jcis.2018.09.072>
9. Nagesh PKB, Chowdhury P, Hatami E, Boya VKN, Kashyap VK, **Khan S**, Hafeez BB, Chauhan SC, Jaggi M, Yallapu MM. miRNA-205 Nanoformulation Sensitizes Prostate Cancer Cells to Chemotherapy. *Cancers* (Basel). 2018 Aug 25;10(9).
10. Stiles ZE, **Khan S**, Patton KT, Jaggi M, Behrman SW, Chauhan SC. Transmembrane mucin MUC13 distinguishes intraductal papillary mucinous neoplasms from non-mucinous cysts and is associated with high-risk lesions. *HPB (Oxford)*. 2018 Aug 13. doi: 10.1016/j.hpb.2018.07.009.
11. Chowdhury P, Nagesh PKB, **Khan S**, Hafeez BB, Chauhan SC, Jaggi M, Yallapu MM. Development of polyvinylpyrrolidone/paclitaxel self-assemblies for breast cancer. *Acta Pharm Sin B*. 2018 Jul;8(4):602-614. doi: 10.1016/j.apsb.2017.10.004.
12. Dan N, Setua S, Kashyap VK, **Khan S**, Jaggi M, Yallapu MM, Chauhan SC. Antibody-Drug Conjugates for Cancer Therapy: Chemistry to Clinical Implications. *Pharmaceuticals* (Basel). 2018 Apr 9;11(2).

13. Nagesh PKB, Hatami E, Chowdhury P, Kashyap VK, **Khan S**, Hafeez BB, Chauhan SC, Jaggi M, Yallapu MM. Tannic Acid Induces Endoplasmic Reticulum Stress-Mediated Apoptosis in Prostate Cancer. **Cancers** (Basel). 2018 Mar 7;10(3).
14. Kumari S, **Khan S**, Gupta SC, Kashyap VK, Yallapu MM, Chauhan SC, Jaggi M. MUC13 contributes to rewiring of glucose metabolism in pancreatic cancer. **Oncogenesis**. 2018 Feb 22;7(2):19.
15. Saini Setua, **Sheema Khan**, Kyle Doxtater, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. miR-145: Revival of a Dragon in Pancreatic Cancer. **Journal of Nature and Science**, 3(3):e332, 2017
16. Chowdhury Pallabita, Roberts Allison Michelle, Hafeez Bin, Chauhan Subhash, **Khan Sheema**, Jaggi Meena, Murali M. Yallapu. Magnetic nanoformulations for prostate cancer, **Drug Discovery Today**. 2017.
17. Vijaya Boya, Renn Lovett, Saini Setua, Vaibhav Gandhi, Prashanth K Nagesh, **Sheema Khan**, Meena Jaggi, Subhash C Chauhan, Murali. M. Yallapu. Probing Mucin Interaction Behavior of Magnetic Nanoparticles. **Journal of Colloid and Interface Science**, 2017 Feb 15;488:258-268.
18. Aditya Ganju, **Sheema Khan**, Murali M. Yallapu, Stephen W. Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. miRNA nanotherapeutics for cancer. **Drug Discovery Today**, 2017 Feb;22(2):424-432.
19. Saini Setua, **Sheema Khan**, Murali M. Yallapu, Stephen W. Behrman, Mohammed Sikander, Shabia Shabir Khan, Meena Jaggi, Subhash C. Chauhan. Restitution of Tumor Suppressor microRNA-145 using Magnetic Nanoformulation for Pancreatic Cancer Therapy. **J Gastrointest Surg**. 2016 Aug 9.
20. **Sheema Khan**, Mara C. Ebeling, Mohammad Sikander, Murali M. Yallapu, Tomoko Ise, Satoshi Nagata, Stephen W. Behrman, Subhash C. Chauhan, Meena Jaggi. MUC13 Interaction with Receptor Tyrosine Kinase HER2 Drives Pancreatic Ductal Adenocarcinoma Progression. **Oncogene**, June 20, 2016; Doi:10.1038/onc.2016.218.
21. Prashanth K.B. Nagesh, Nia R. Johnson, Vijaya K.N. Boya, Pallabita Chowdhury, Shadi F.Othman, Vahid Khalilzad-Sharghi, Bilal B. Hafeez, Aditya Ganju, **Sheema Khan**, Stephen W. Behrman, Nadeem Zafar, Subhash C. Chauhan, Meena Jaggi, Murali M. Yallapu. PSMA targeting docetaxel-loaded superparamagnetic iron oxide nanoparticles for prostate cancer. **Colloids and Surfaces B: Biointerfaces** - 2016; 144, 8-20.
22. **Khan S**, Ebeling MC, Chauhan N, Thompson PA, Gara RK, Ganju A, Yallapu MM, Behrman SW, Zhao H, Zafar N, Singh MM, Jaggi M, Chauhan SC. Ormeloxifene Suppresses Desmoplasia and Enhances Sensitivity of Gemcitabine in Pancreatic Cancer. **Cancer Research**. 2015 Jun 1;75(11):2292-304.
23. **Khan S**, Jaggi M, Chauhan SC. Revisiting stroma in pancreatic cancer. **Oncoscience**. 2015 Aug 1;2(10):819-20. PubMed PMID: 26682261.

24. **Khan S**, Chauhan N, Yallapu MM, Ebeling MC, Balakrishna S, Ellis RT, Thompson PA, Balabathula P, Behrman SW, Zafar N, Singh MM, Halaweish FT, Jaggi M, Chauhan SC. Nanoparticle formulation of ormeloxifene for pancreatic cancer. *Biomaterials*. 2015. June; 53: 731–743. doi:10.1016/j.biomaterials.2015.02.082.
25. Zaman MS, **Khan S**, Maher DM, Yallapu MM, Sikander M, Kumari S, Zafar N, Jaggi M, Chauhan SC. Curcumin Nanoformulation for Cervical Cancer Treatment. *Nature Scientific Reports*, 2016 Feb 3;6:20051. PMID: 26837852
26. Yallapu MM, Chauhan N, Othman SF, Khalilzad-Sharghi V, Ebeling MC, **Khan S**, Jaggi M, Chauhan SC. Implications of protein corona on physico-chemical and biological properties of magnetic nanoparticles. *Biomaterials*. 2015 Apr;46:1-12. doi: 10.1016/j.biomaterials.2014.12.045. PubMed PMID: 25678111.
27. Maher DM*, **Khan S*** (***Equal contributors**), Nordquist J, Ebeling MC, Bauer NA, Kopel L, Singh MM, Halaweish F, Bell MC, Jaggi M, Chauhan SC. Ormeloxifene efficiently inhibits ovarian cancer growth. *Cancer Letters*. 2014 Oct 9. pii: S0304-3835(14)00597-7. PubMed PMID: 25306892.
28. **Khan S**, Ebeling MC, Zaman MS, Sikander M, Yallapu MM, Chauhan N, Yacoubian AM, Behrman SW, Zafar N, Kumar D, Thompson PA, Jaggi M, Chauhan SC. MicroRNA-145 targets MUC13 and suppresses growth and invasion of pancreatic cancer. *Oncotarget*. 2014 Sep 15;5(17):7599-609. PubMed PMID: 25277192; PubMed Central PMCID: PMC4202147.
29. Sundram V, Ganju A, Hughes JE, **Khan S**, Chauhan SC, Jaggi M. Protein kinase D1 attenuates tumorigenesis in colon cancer by modulating β -catenin/T cell factor activity. *Oncotarget*. 2014 Aug 30;5(16):6867-84. PubMed PMID: 25149539; PubMed Central PMCID: PMC4196169.
30. Yallapu MM, Katti KS, Katti DR, Mishra SR, **Khan S**, Jaggi M, Chauhan SC. The Roles of Cellular Nanomechanics in Cancer. *Med Res Rev*. 2014 Aug 18. doi:10.1002/med.21329. [Epub ahead of print] PubMed PMID: 25137233.
31. Yallapu MM, **Khan S**, Maher DM, Ebeling MC, Sundram V, Chauhan N, Ganju A, Balakrishna S, Gupta BK, Zafar N, Jaggi M, Chauhan SC. Anti-cancer activity of curcumin loaded nanoparticles in prostate cancer. *Biomaterials*. 2014 Oct;35(30):8635-48. doi: 10.1016/j.biomaterials.2014.06.040. Epub 2014 Jul 12. PubMed PMID: 25028336.
32. Ganju A, Yallapu MM, **Khan S**, Behrman SW, Chauhan SC, Jaggi M. Nanoways to overcome docetaxel resistance in prostate cancer. *Drug Resist Updat*. 2014 Apr;17(1-2):13-23. doi: 10.1016/j.drug.2014.04.001. Epub 2014 Apr 5. PubMed PMID: 24853766; PubMed Central PMCID: PMC4100480.
33. **Khan S**, Ansarullah, Kumar D, Jaggi M, Chauhan SC. Targeting microRNAs in pancreatic cancer: microplayers in the big game. *Cancer Research*. 2013 Nov 15;73(22):6541-7. doi: 10.1158/0008-

- 5472.CAN-13-1288. Epub 2013 Nov 7. Review. PubMed PMID: 24204026; PubMed Central PMCID: PMC3834190.
34. Yallapu MM, Ebeling MC, **Khan S**, Sundram V, Chauhan N, Gupta BK, Puumala SE, Jaggi M, Chauhan SC. Novel curcumin-loaded magnetic nanoparticles for pancreatic cancer treatment. *Mol Cancer Ther.* **2013** Aug;12(8):1471-80. doi: 10.1158/1535-7163.MCT-12-1227. Epub 2013 May 23. PubMed PMID: 23704793; PubMed Central PMCID: PMC3965353.
 35. Zaman MS, Maher DM, **Khan S**, Jaggi M, Chauhan SC. Current status and implications of microRNAs in ovarian cancer diagnosis and therapy. *J Ovarian Res.* **2012** Dec 13;5(1):44. doi: 10.1186/1757-2215-5-44. PubMed PMID: 23237306; PubMed Central PMCID: PMC3539914.
 36. Rah B, Amin H, Yousuf K, **Khan S**, Jamwal G, Mukherjee D, Goswami A. A novel MMP-2 inhibitor 3-azidowithaferin A (3-azidoWA) abrogates cancer cell invasion and angiogenesis by modulating extracellular Par-4. *PLoS One.* **2012**;7(9):e44039. doi: 10.1371/journal.pone.0044039. Epub 2012 Sep 4. PubMed PMID: 22962598; PubMed Central PMCID: PMC3433490.
 37. **Khan S**, Kaur R, Shah BA, Malik F, Kumar A, Bhushan S, Jain SK, Taneja SC, Singh J. A novel cyano derivative of 11-keto- β -boswellic acid causes apoptotic death by disrupting PI3K/AKT/Hsp-90 cascade, mitochondrial integrity, and other cell survival signaling events in HL-60 cells. *Mol Carcinog.* **2012** Sep;51(9):679-95. doi: 10.1002/mc.20821. Epub 2011 Jul 12. PubMed PMID: 21751262.
 38. **Khan S**, Chib R, Shah BA, Wani ZA, Dhar N, Mondhe DM, Lattoo S, Jain SK, Taneja SC, Singh J. A cyano analogue of boswellic acid induces crosstalk between p53/PUMA/Bax and telomerase that stages the human papillomavirus type 18 positive HeLa cells to apoptotic death. *Eur J Pharmacol.* **2011** Jun 25;660(2-3):241-8. doi: 10.1016/j.ejphar.2011.03.013. Epub 2011 Apr 2. PubMed PMID: 21440536.
 39. Kaur R, **Khan S**, Chib R, Kaur T, Sharma PR, Singh J, Shah BA, Taneja SC. A comparative study of proapoptotic potential of cyano analogues of boswellic acid and 11-keto-boswellic acid. *Eur J Med Chem.* **2011** Apr;46(4):1356-66. doi: 10.1016/j.ejmech.2011.01.061. Epub 2011 Feb 3. PubMed PMID: 21334793.
 40. **Khan S**, Malik F, Suri KA, Singh J. Molecular insight into the immune up-regulatory properties of the leaf extract of Ashwagandha and identification of Th1 immunostimulatory chemical entity. *Vaccine.* **2009** Oct 9;27(43):6080-7. doi:10.1016/j.vaccine.2009.07.011. Epub 2009 Jul 21. PubMed PMID: 19628058.
 41. Malik F, Kumar A, Bhushan S, **Khan S**, Bhatia A, Suri KA, Qazi GN, Singh J. Reactive oxygen species generation and mitochondrial dysfunction in the apoptotic cell death of human myeloid leukemia HL-60 cells by a dietary compound withaferin A with concomitant protection by N-acetyl cysteine. *Apoptosis.* **2007** Nov;12(11):2115-33. PubMed PMID: 17874299.

Recent Presentations

1. Stiles ZE, Khan S, Patton KT, Behrman SW, Chauhan SC. Transmembrane Mucin MUC13 Distinguishes Intraductal Papillary Mucinous Neoplasms from Non-Mucinous Cysts and is Associated With High-Risk Lesions. *Mini-oral presentation at Americas Hepato-Pancreato-Biliary Association (AHPBA) 2018 Annual Meeting, Miami, FL. March 9th, 2018.
2. Stiles ZE, Khan S, Patton KT, Behrman SW, Chauhan SC. MUC13 Distinguishes IPMNs from Non-Mucinous Lesions and is Associated With High-Risk Features. *To be presented as a long-oral podium presentation at The Pancreas Club 2018 Annual Meeting, Washington D.C. June 2nd, 2018.
3. 198 / 28 - MUC13 promotes pancreatic tumor-stromal interactions by influencing tumor microenvironment, S. S. Khan, K. Doxtater, S. Kumari, S. Setua, M. Sikander, S. Malik, M. M. Yallapu, S. W. Behrman, S. C. Chauhan, M. Jaggi, April 15, 2018, 1:00 PM - 5:00 PM, AACR 2018, Chicago, Illinois.
4. 1449 / 19 - Aberrant expression of protein kinase D1 influences metabolic reconditioning in pancreatic cancer, S.Kumari, S. Khan, M. M. Yallapu, S. C. Chauhan, M. Jaggi; April 16, 2018, 8:00 AM - 12:00 PM, AACR 2018, Chicago, Illinois.
5. 2110 / 25 - Therapeutic intervention for pancreatic cancer using autologous exosomes, S. Setua, S. Khan, M. Yallapu, S. Kumari, M. Jaggi, S. C. Chauhan; April 16, 2018, 1:00 PM - 5:00 PM, Chicago, Illinois.
6. 4657 / 20 - Docetaxel nanoformulation reverts drug resistance in prostate cancer, P. B. Nagesh, P. Chowdhury, E.Hatami, V. K. Kashyap, B. B. Hafeez, S. Khan, S. C. Chauhan, M. Jaggi, M. Yallapu, April 17, 2018, 1:00 PM - 5:00 PM, AACR 2018, Chicago, Illinois.
7. LB-400 / 28 - Tannic acid induces prostate cancer cell death via unfolded protein response (UPR) and modulation of CHOP, E. Hatami, P. Bhusetty Nagesh, P. Chowdhury, V. K. Kashyap, S. Khan, B. Hafeez, M. Jaggi, S. C. Chauhan, M. Yallapu; April 18, 2018, 8:00 AM - 12:00 PM, AACR 2018, Chicago, Illinois.
8. 13. 5138 / 19 - Comparative profiling for bacterial inhabitation in pancreatic ductal adenocarcinoma and matched adjacent normal tissues, S. S. Khan, P. Banerjee, S. Setua, D. Higgins, S. Kedia, Y. Jiang, M. Jaggi, S. Chauhan, April 18, 2018, 8:00 AM - 12:00 PM, AACR 2018, Chicago, Illinois.
9. 14. M4065 - Docetaxel Loaded Magnetic Nanoparticles for Overcoming Drug Resistance in Prostate Cancer, Pallabita Chowdhury, Prashanth Kumar Nagesh, Elham Hatami, Sheema Khan, Subhash Chauhan, Meena Jaggi, Murali Yallapu, November 13 – Monday Time: 12:00 pm - 01:00 pm, AAPS 2017, San Diego.

10. M7068 - Self- Targeting Nanoparticles as a Potential Therapeutic Model for Targeting Cancer, Pallabita Chowdhury, Elham Hatami, Prashanth Kumar Nagesh, Sheema Khan, Subhash Chauhan, Meena Jaggi, Murali Yallapu, 3:00 PM–4:00 PM Nov 13, 2017, AAPS 2017, San Diego.
11. M5029 - Mir-145 Mediated TRAIL Sensitization In Pancreatic Cancer: Novel Combined Treatment Strategy, Saini Setua, Sheema Khan, Murali Yallapu, Stephen Behrman, Meena Jaggi, Subhash Chauhan, Poster Forum 2 - Monday - 01:00 pm, AAPS 2017, San Diego.
12. M7015 - Therapeutic Perspectives of Tannic Acid in Inducing ER Stress Mediated Unfolded Protein Response (UPR) in Prostate Cancer Cell Death, Prashanth Kumar Bhusetty Nagesh, Pallabita Chowdhury, Vivek Kumar Kashyap, Elham Hatami, Sheema Khan, Bilal Hafeez, Meena Jaggi, Subhash Chauhan, Murali Yallapu, Poster Forum 2 - Monday - 03:00 pm, AAPS 2017, San Diego.
13. Docetaxel loaded magnetic nanoparticles for overcoming drug resistance in prostate cancer: Pallabita Chowdhury, Prashanth K.B. Nagesh, Elham Hatami, Sheema Khan, Subhash C. Chauhan, Meena Jaggi, Murali M. Yallapu, April 20th, 2018, 1:00-3:00 PM, Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.
14. Targeted drug delivery using novel anti-MUC13 conjugated nanoparticles for pancreatic cancer: Nirnoy Dan, Saini Setua, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan, April 20th, 2018, 1:00-3:00 PM , Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.
15. Tannic acid induces endoplasmic reticulum stress-mediated apoptosis in prostate cancer: Elham Hatami, Prashanth K.B. Nagesh, Pallabita Chowdhury, Vivek Kashyap, Sheema Khan, Bilal Hafeez, Subhash C. Chauhan, Meena Jaggi, Murali M. Yallapu, April 20th, 2018, 1:00-3:00 PM, Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.
16. Aberrant expression of protein kinase D1 influences metabolic reconditioning in pancreatic cancer: Sonam Kumari, Sheema Khan, Murali M. Yallapu, Subhash C. Chauhan, Meena Jaggi, April 20th, 2018, 1:00-3:00PM, Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.
17. Targeting muc13 to improve survival in patients who smoke and drink: Kamalika Samanta, Sheema Khan, Saini Setua, Sonam Kumari, Nirnoy Dan, Kyle Doxtater, Pragathi Reddy Gunnam, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan, April 20th, 2018, 1:00-3:00 PM, Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.
18. Therapeutic intervention for pancreatic cancer using autologous exosomes: Saini Setua, Sheema Khan, Andrew Massey, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan, April 20th, 2018, 1:00-3:00 PM, Graduate Research Day, University of Tennessee Health Science Center, Memphis, TN, USA.

19. Saini Setua, Sheema Khan, Murali M. Yallapu, Stephen W. Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. Targeting MUC13 to Overcome the Survival Mechanisms for Improved Response to Chemotherapy. AACR Annual Meeting 2017, April 1 – 5, 2017, Washington, D.C.
20. Saini Setua, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. MUC13 is involved in TRAIL resistance in pancreatic cancer. Graduate research day, 2017. University of Tennessee Health Science Center, USA.
21. Saini Setua, Sheema Khan, Kyle Doxtater, Murali M. Yallapu, Meena Jaggi, and Subhash C. Chauhan. miR-145: Revival of a Dragon in Pancreatic Cancer. Journal of Nature and Science (JNSCI), 3(3):e332, 2017.
22. Nirnoy Dan, Saini Setua, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan Targeted drug delivery using a novel anti-MUC13 conjugated nanoparticles for pancreatic cancer. Graduate research day, 2017. University of Tennessee Health Science Center, USA.
23. Kyle Doxtater, Sheema Khan, Sonam Kumari, Saini Setua, Mohammad Sikander, Shabnam Malik, Murali M. Yallapu, Subhash C. Chauhan, Meena Jaggi. MUC13 promotes pancreatic tumor-stromal interactions by influencing tumor microenvironment. Graduate research day, 2017. University of Tennessee Health Science Center, USA.
24. Sonam Kumari, Sheema Khan, Subash C. Gupta, Vivek K. Kashyap Murali M. Yallapu, Subhash C. Chauhan, Meena Jaggi. MUC13 induced NFκB activation regulates metabolic reprogramming by promoting crosstalk with GLUT-1 receptor. AACR Annual Meeting 2017, April 1 – 5, 2017, Washington, D.C.
25. Sonam Kumari, Sheema Khan, Subash C. Gupta, Vivek K. Kashyap Murali M. Yallapu, Subhash C. Chauhan, Meena Jaggi. MUC13 induced NFκB activation regulates metabolic reprogramming by promoting crosstalk with GLUT-1. Graduate research day, 2017. University of Tennessee Health Science Center, USA.
26. Saini Setua, MS, Sheema Khan, Murali M Yallapu, Stephen W Behrman, Meena Jaggi, Subhash C. Chauhan. Restitution of tumor suppressor mir-145 using magnetic nanoparticles inhibits pancreatic cancer. Invited Oral Talk; 50th Annual Pancreas Club Meeting May 20-21, 2016, San Diego California. SSAT, 57th Annual Meeting May 21-24, 2016, San Diego California.
27. Stephen W Behrman, Sheema Khan, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. MUC13 interaction with receptor tyrosine kinase HER2 drives pancreatic ductal adenocarcinoma progression. SSAT, 57th Annual Meeting May 21-24, 2016, San Diego California. 50th Annual Pancreas Club Meeting May 20-21, 2016, San Diego California.

28. Saini Setua, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. MicroRNA-145 overcomes chemo-resistance in pancreatic cancer leading to combined treatment interventions. Graduate research day, 2016. University of Tennessee Health Science Center, USA.
29. Sonam Kumari, Sheema Khan, Subhash Chauhan, Meena Jaggi. Role of MUC13 as non-hypoxic stimuli inducing HIF-1 α in pancreatic cancer under normoxia. Abstract Number 51, Poster Session 2, American Association of Cancer Research (AACR) Annual Meeting 2016 (April 16-20), New Orleans, LA.
30. Sheema Khan, Mara C. Ebeling, Mohammad Sikander, Aditya Ganju, Murali M. Yallapu, Tomoko Ise, Satoshi Nagata, Stephen W. Behrman, Nadeem Zafar, Jim Y. Wan, Hemendra M. Ghimire, Peeyush Sahay, Prabhakar Pradhan, Meena Jaggi, Subhash C. Chauhan. MUC13 interaction with receptor tyrosine kinase HER2 drives pancreatic ductal adenocarcinoma progression. Abstract Number 4592, Poster Session 8, American Association of Cancer Research (AACR) Annual Meeting 2016 (April 16-20), New Orleans, LA.
31. Vivek K. Kashyap, Sheema Khan, Mohammad Sikander, Diane M. Maher, Santosh Kumar, Namita Sinha, Murali M. Yallapu, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. Comorbidity factors associated with human papillomavirus infectivity: Implications in cervical cancer health disparity. Abstract Number 1745, Poster Session 35, American Association of Cancer Research (AACR) Annual Meeting 2016 (April 16-20), New Orleans, LA.
32. Saini Setua, Sheema Khan, Murali Mohan Yallapu, Mohammed Sikander, Stephen W. Behrman, Meena Jaggi, Subhash C. Chauhan. Mir-145 based magnetic nanoformulation for pancreatic cancer therapy. Abstract Number 1071, Poster Session 6, American Association of Cancer Research (AACR) Annual Meeting 2016 (April 16-20), New Orleans, LA.
33. Prashanth Kumar Bhusetty Nagesh, Nia Johnson, Vijaya K.N. Boya, Pallabita Chowdhury, Aditya Ganju, Bilal Hafeez, Sheema Khan, Meena Jaggi, Subhash C. Chauhan, Murali M. Yallapu. PSMA antibody functionalized docetaxel-loaded magnetic nanoparticles for prostate cancer therapy. Abstract Number 1312, Poster Session 19, American Association of Cancer Research (AACR) Annual Meeting 2016 (April 16-20), New Orleans, LA.
34. Saini Setua, Stephen Behrman, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. Restitution of tumor suppressor miR-145 using magnetic nanoparticles inhibits pancreatic cancer. 50th Annual Pancreas Club Meeting May 20-21, 2016, the Hyatt Regency Mission Bay, San Diego California
35. Sheema Khan, Stephen Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. MUC13- An Early Diagnostic Marker for Pancreatic Ductal Adenocarcinoma. 50th Annual Pancreas Club Meeting May 20-21, 2016, the Hyatt Regency Mission Bay, San Diego California

36. Sheema Khan, Stephen Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. MUC13 Interaction with Receptor Tyrosine Kinase HER2 Drives Pancreatic Ductal Adenocarcinoma Progression. 50th Annual Pancreas Club Meeting May 20-21, 2016, the Hyatt Regency Mission Bay, San Diego California
37. Saini Setua, Stephen Behrman, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. Restitution of tumor suppressor miR-145 using magnetic nanoparticles inhibits pancreatic cancer. Digestive Disease Week (DDW), May 21-24, 2016, Convention Center, San Diego, California
38. Sheema Khan, Stephen Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. MUC13- An Early Diagnostic Marker for Pancreatic Ductal Adenocarcinoma. Digestive Disease Week (DDW), May 21-24, 2016, Convention Center, San Diego, California
39. Sheema Khan, Stephen Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. MUC13 Interaction with Receptor Tyrosine Kinase HER2 Drives Pancreatic Ductal Adenocarcinoma Progression. Digestive Disease Week (DDW), May 21-24, 2016, Convention Center, San Diego, California
40. Mohd Saif Zaman, Neeraj Chauhan, Rishi K. Gara, Diane Maher, Sonam Kumari, Mohammed Sikander, Sheema Khan, Murali M. Yallapu, Meena Jaggi, Subhash C. Chauhan. Smoking Carcinogen (BaP) enhances tumorigenic phenotypes of cervical cancer cells by modulation of HPV oncogenes and microRNA profiles, 182 Poster Session, 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
41. Rishi K. Gara, Sonam Kumari, Sheema Khan, Neeraj Chauhan, Aditya Ganju, Subhash C. Chauhan, Meena Jaggi. Protein Kinase D1 induces autophagic cell death through activation of endoplasmic reticulum stress in prostate cancer cells, 1001 Poster Session, 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
42. Sheema Khan, Murali M. Yallapu, Sonam Kumari, Aditya Ganju, Swathi Balakrishna, Stephen W. Behrman, Nadeem Zafar, Meena Jaggi, Subhash C. Chauhan. Attenuation of pancreatic cancer stemness and growth by a novel magnetic nanoparticle formulation, 3676 Poster Session, 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
43. Sheema Khan, Neeraj Chauhan, Murali M. Yallapu, Mara C. Ebeling, Swathi Balakrishna, Robert T. Ellis, Paul A. Thompson, Stephen W. Behrman, Nadeem Zafar, Man M. Singh, Fathi T. Halaweish, Meena Jaggi, Subhash C. Chauhan. Generation of a novel ormeloxifene nanoparticle formulation for pancreatic cancer treatment, 4392 Poster Session. 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
44. Mohammed Sikander, Sheema Khan, Neeraj Chauhan, Mohd Saif Zaman, Murali Mohan Yallapu, Fathi T. Halaweish, Bhavin Chauhan, Shabnam Malik, Meena Jaggi, Subhash C. Chauhan. Anticancer activity

- of novel cucurbitacin analogue in pancreatic cancer, 4468 Poster Session, 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
45. Murali M. Yallapu, Neeraj Chauhan, Sheema Khan, Meena Jaggi, Aditya Ganju, Diane M. Maher, Mara C. Ebeling, Subhash C. Chauhan. Novel pluronic F127-coated paclitaxel nanoparticles formulation for pancreatic cancer. 5534 Poster Session, 106 American Association of Cancer Research (AACR) Annual Meeting 2015 (April 18-22), Philadelphia, PA.
 46. Zafar Nadeem, Khan Sheema, Behrman Stephen W, Jaggi Meena and Chauhan Subhash. Suppression of Pancreatic Ductal Carcinoma Growth and Invasion By Targeting MUC13 Mucin Through MicroRNA-145- A Tumor Heterograft Study in Mice (Abstract 2467). 2015 United States & Canadian Academy of Pathology Annual Meeting (USCAP), March 23-27 2015, Boston, MA.
 47. Behrman Stephen W, Zafar Nadeem, Khan Sheema, Jaggi Meena and Chauhan Subhash. Surgical management of complicated pancreatic pseudocysts following acute pancreatitis. 49th Annual Pancreas Club meeting, May 15-16, 2015, Washington, DC.
 48. Gara RK, Kumari S, Ganju A, Yallapu MM, Shah A, Khan S, Singh MM, Chauhan SC and Jaggi M. Induction of Autophagy by ormeloxifene and mevastatin through protein kinase D1 in prostate cancer cells. 105 American Association of Cancer Research (AACR) Annual Meeting 2014 (April 5-9), San Diego CA.
 49. Sikander M, Zaman MS, Chauhan N, Yallapu MM, Khan S, Halaweish FT, Chauhan B, Kumari S, Jaggi M and Chauhan SC. A multi-targeted approach for pancreatic cancer treatment by a novel cucurbitacin analogue. 105 American Association of Cancer Research (AACR) Annual Meeting 2014 (April 5-9), San Diego CA.
 50. Ganju A, Sundram V, Miskimins K, Gara R, Khan S, Singh MM, Chauhan SC and Jaggi M. Ormeloxifene attenuates metastatic and glycolytic pathways in breast cancer cells. 105 American Association of Cancer Research (AACR) Annual Meeting 2014 (April 5-9), San Diego CA.
 51. Khan S, Ebeling M, Ansarullah, Chauhan N, Gara R, Jaggi M, Zhao H, Chauhan SC. Approach to enhance delivery and sensitivity of gemcitabine in pancreatic cancer by suppression of desmoplasia. 105 American Association of Cancer Research (AACR) Annual Meeting 2014 (April 5-9), San Diego CA.
 52. Yallapu MM., Ebleling MC., Khan S., Chauhan N., Gupta BK., Sundram V., Jaggi M. and Chauhan SC. Novel curcumin loaded magnetic nanoparticles for pancreatic cancer treatment. 104 American Association of Cancer Research (AACR) Annual Meeting 2013 (April 6-10), Washington DC.
 53. Khan S., Maher D., Ebleling MC., Kumar D., Jaggi M. and Chauhan SC. MicroRNA-145 targets MUC13 and suppresses invasion and metastasis of pancreatic cancer cells. 104 American Association of Cancer Research (AACR) Annual Meeting 2013 (April 6-10), Washington DC.

Collaborating Institutions

- National Institutes of Biomedical Innovation, Health and Nutrition (NIBIOHN), Osaka, Japan.
- University of Washington
- University of California-Davis (UC Davis)
- University of Tennessee Health Science Center, TN
- MD Anderson Cancer Center, TX
- Baptist Memorial Hospital, TN
- Jamia Milia University, New Delhi, India.
- University of Kashmir, Srinagar, India.
- Sher-e-Kashmir Institute of Medical Sciences, Srinagar, India.
- Yale University
- University of Warwick, UK

Ongoing Research Support

Ongoing Research Support

35000459 UTRGV Startup-support 06/24/19 - 05/31/24

Diagnostic and therapeutic targets for treatment of liver and pancreatic cancer

Role: Principal Investigator

Kosten Foundation, Pancreatic cancer Research Foundation 01/01/2021 – 12/30/2021

Memphis, TN

siRNA and miRNA combination therapies for PDAC treatment

Role: Co-Investigator

1R01CA206069-01A1 NIH/NCI 06/24/16 - 05/31/21

Development of a Targeted Nanotechnology platform for Pancreatic Cancer

To develop a curcumin loaded magnetic nanoparticle formulation for altered tumor microenvironment and chemo-sensitization of pancreatic cancer.

Role: co-investigator

1R01CA204552-01

NIH/NCI (PI: Chauhan)

07/11/16 - 05/31/21

Identification of Molecular Signatures for Colon Cancer Health Disparity: To investigate role of MUC13 mucin in colorectal cancer health disparity and evaluate its diagnostic/prognostic potential.

Role: Key personnel

Overlap: None.

Role: co-investigator

Completed Research Support

E073620036

UTHSC

10/01/2017- 6/30/2019

New grant Support: Aspects of a c-type lectin in pancreatic cancer

Role: Principal investigator

P20GM103548

NIH/NCI (Sheema Khan – Principle Investigator)

06/01/2012 - 06/01/2013

A PLGA nanoparticle based miRNA formulation to reprogramme miRNA networks in prostate cancer. The aim is to target the prostate cancer cells on a genetic level by restoring the tumor suppressor, miR-205.

Role: Principal investigator

UT 14-0558

03/01/14-02/28/15 0.24 (CY) months

Kosten Foundation, Memphis

Pancreatic Cancer Treatment

Pancreatic Cancer Treatment using microRNA nanoparticle technology

Overlap: None.

Role: co-investigator

1R01CA142736-01A1

NIH/NCI

06/01/10 - 04/30/16

Aspects of MUC13 Mucin in Cancer

To study the different domains of MUC13 execute specific functions in cancer cells and their suppression will diminish pancreatic cancer cell growth and tumorigenesis.

Role: postdoctoral fellow