

CURRICULUM VITAE

Santimukul Santra, Ph.D.

Associate Professor of Chemistry

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Education

Ph.D. Department of Chemistry, Indian Institute of Technology (I.I.T.)-Bombay, Mumbai, India, **2006**.

M.S. Department of Chemistry, Banaras Hindu University, Varanasi, India, **2000**.

B.S. Department of Chemistry, Ramakrishna Mission-Narendrapur, University of Calcutta, India. **1998**.

Theses and Dissertation

"Design and Multi-Step Syntheses of Functional Biopolymers Based on 2, 2'-Bis(hydroxymethyl) Propionic Acid, Malonic Acid and beta-Alanine" Ph.D. Dissertation, Department of Chemistry, Indian Institute of Technology-Bombay, Mumbai, India, **2006**. (Mentor: Prof. Anil Kumar)

"Extraction of natural products and herbal pigments from neem leaves and their characterizations", M.S. Project, Department of Chemistry, Banaras Hindu University, Varanasi, India, **2000** (Mentor: Prof. R. S. Khanna).

Employment Profile and Research Experiences

Pittsburg State University, Department of Chemistry, Pittsburg, Kansas, USA:

- Associate Professor, **2018-present**.

- Assistant Professor, **2013-2017**.

Rensselaer Polytechnic Institute, Department of Chemistry and Chemical Biology, Troy, USA:

- Visiting Research Professor, **Summer 2015**.

Kansas Polymer Research Center, Pittsburg State University, Pittsburg, Kansas, USA:

- Research Consultant, **2013-present**

University of Central Florida, Nanoscience Technology Center, Orlando, Florida, USA:

- Research Assistant Professor, **2010-2012**.

- Postdoctoral Research Associate, **2007-2009**.

Indian Institute of Technology-Bombay, Department of Chemistry, Mumbai, India:

- Doctoral Junior Research Fellow, **2000-2003**.

- Doctoral Senior Research Fellow, **2004-2006**.

Banaras Hindu University, Department of Chemistry, Varanasi, India:

- Student Trainee, **1999-2000**.

Teaching Experience

Pittsburg State University, Department of Chemistry, Pittsburg, Kansas (2013-present):

CHEM 887: Advanced Biopolymers and Nanotechnology
CHEM 850: Inorganic and Architecturally Unusual Polymers
CHEM 687: Polymers in Nanotechnology
CHEM 626: Polymer synthesis laboratory
CHEM 625: Polymer Synthesis and Characterizations
CHEM 326: Organic Chemistry I Laboratory
CHEM 325: Organic Chemistry I
CHEM 360: Introduction to Polymer Science and Technology
CHEM 226: General Chemistry II Laboratory
CHEM 225: General Chemistry II
CHEM 216: General Chemistry I Laboratory
CHEM 215: General Chemistry I

Areas of Research Interest

Blend of expertise in the field of 1) developing new biodegradable dendritic polymers and other biomaterials for targeted drug delivery systems, 2) water-based nanotechnology procedures for nanomedicine formulations, 3) biochemical synthesis of activatable prodrugs, MR probes and biologically active theranostic molecules, and 4) fabrication of nanosensors for detection of infectious diseases. Lateral-flow technology for rapid detection.

Biochemical synthesis of new monomers and dendritic polymers (ACS funded). Design and syntheses of tri-functional monomers. Biochemical synthesis of biodegradable hyperbranched polymers (HBPE, Patented technology and licensed) and dendrimers using Novozyme biocatalysts. Click-ene chemistry. Biocompatible drug delivery systems. Polyesters, polyamides, polyester acids, and related polymers. Dendrimer-based nanocomposites. Amino acid and carbohydrate-derived designer dendritic polymers for drug delivery. Bimolecular nonlinear polymerization.

Dendritic polymers-based nanotechnology and drug delivery (NIGMS and SEVA Therapeutics funded). Hyperbranched polymers and dendrimer-based drug delivery system formulations. Drug and imaging agent encapsulations, solvent diffusion, surfactant-free nanoformulations, polymeric nanoparticles. Personalized nanomedicine. Nanochemistry, surface functionalization and targeted drug delivery. *In vitro* and *in vivo* therapeutic assessment, treatment evaluations. Chemotherapy and immunotherapy. Combination therapy and multidrug resistance.

Applications of metallic nanotheranostics in cancer targeting (NIGMS funded). Surfactant free, water-based iron oxide nanoparticles (IONPs, Patented technology), cerium oxide nanoparticles (Nanoceria, Patented technology), Gold nanorods and nanospheres for cancer imaging and targeted therapy. MR imaging and hyperthermia treatment of cancer. Redox properties and anti-oxidant properties. Surface plasmon resonance, photodynamic and photothermal treatment of cancer. Lung, cervical, prostate, breast, ovarian, colon cancer treatment. Cell viability, ROS, apoptosis, necrosis, migration and comet assays.

Biochemical synthesis of activatable prodrug. Design and synthesis of therapeutic drug conjugates (prodrugs) using cleavable and non-cleavable cross-linkers. Proof-of-concept activation of prodrugs using *ex-vitro* mechanisms. Targeted delivery of prodrugs to tumor. Assessment of intracellular prodrug activation using *in vitro* and *in vivo* assays. Study prodrug mechanism of action and the mechanism of cell death.

Activatable MR probe (K-INBRE funded). Magnetic Resonance (MR) imaging and therapy using one-platform. Synthesis of T1 MR activatable probe with drug conjugates and delivery to tumor. Activatable

prodrugs with Gd-DTPA and Bi-DOTA complexes for MR and X-ray CT imaging with therapy. Targeted delivery and treatment monitoring using MR imaging. In vitro assessment of MR imaging and prodrug activation using bench-top magnetic relaxometer and cell-based assays. Translation to clinical MR and mice models for preclinical studies.

Magnetic nanosensors and infectious diseases detections (NIAID and USDA funded). Water dispersible superparamagnetic iron oxide nanoparticles as magnetic resonance nanosensors (MRnS) and pathogen detections. T2 magnetic relaxation (MR) and T1 MR modalities of sensitive detection (Patented technology). Magneto-fluorescent nanosensors (MFnS) technology for the detection of food-borne pathogens, E. coli O154:H7 and cholera. Magnetic and fluorescent-dual modal detection. Magneto-plasmonic nanosensors (MPnS) with magnetic and surface plasmon resonance modalities for sensitive detections of viruses. Zika, Ebola, Influenza and SARS-CoV-2 detections. Point-of-Care (PoC) technology: Nanozyme high throughput assay and lateral flow experiments for detections.

Bio-based polymers for CASE and topical applications (Kansas Soybean funded). Bio-based products for renewable applications. New Patents for two innovative technologies- 1) One-step synthesis of soybean polyols from soybean oil and 2) new biocompatible soybean polymers for skin-care industries. Soybean and corn polyols polymer is synthesized in one-step, instead of 3-steps for the low-cost production of coatings, adhesives, sealants, elastomers (CASE), polyurethane foams and binders. This is to compete with petroleum-based markets. In addition, topical lotions with anti-oxidant, anti-aging and DNA repair properties are formulated from the synthesized soybean-based APIs.

Name of students graduated with Thesis

Blaze Heckert (2015). Thesis title: Development of new Bi-DOTA complex-loaded dendritic polymer nanoparticles for x-ray imaging and treatment of lung cancer.

Jyothi Kallu (2016). Thesis title: Development of Novel Magnetic Nanotheranostics for the Combination therapy of K-RAS driven NSCLC.

Shoukath Sulthana (2016). Thesis title: Development of Functional Nanoceria for Targeted Imaging and Treatment of Non-Small-Cell Lung Cancer.

Riyadh Alnasser (2016). Thesis title: Synthesis and Characterization of Novel Biodegradable Polyester Polymer for Biomedical Applications.

James F. Beach (2017). Thesis title: One-Pot Syntheses and Characterizations of “Click-able” Polyester Polymers for Potential Biomedical Applications.

Shuguftha Naz (2017). Thesis title: Molecularly Targeted Nanomedicine: Role of Hsp90 Inhibitor and Sphorolipids in The Treatment of Lung Cancer.

Wadha Alqahtani (2017). Thesis title: One-Step Synthesis and Characterization of Biodegradable ‘Click-able’ Polyester Polymer for Biomedical Applications.

Elaf Alattas (2017). Thesis title: Synthesis and Characterization of Enzyme Catalyzed Biodegradable “Click-Ene” Polymers for Targeted Cancer Therapy.

Tanuja Tummala (2018). Thesis title: Targeted Triple Drug Regimen for The Treatment of Prostate Cancer.

Momin Ansare (2018). Thesis title: Combination Therapy: PARP Inhibitor Synergizes the Therapeutic Efficacy of Doxorubicin in the Treatment of Prostate Cancer.

Bayan Dous (2018). Thesis title: Synthesis of Doxorubicin-Based Prodrug and Activatable Magnetic Relaxation Nanoprobe for the Imaging and Treatment of Cancer.

Saloni Darji (2019). Thesis title: Nanomedicine-Based Immuno-Chemotherapy for the MR Imaging and Treatment of Triple Negative Breast Cancer.

Ren Bean (2019). Thesis title: "Click-ene" Chemistry: An Efficient Synthetic Strategy for the One-Step Development of Functional Monomers and Polymers.

Zachary Shaw (2020). Thesis title: Synthesis of New Aliphatic Pseudo-Branched Polyester Co-polymers for Biomedical Applications.

Arth Patel (2020). Thesis title: Synthesis of Gadolinium-Doxorubicin Prodrug Carrying Functional Nanoceria for the Targeted Drug Delivery and Cancer Treatment.

Himanshu Polara (2021). Thesis title: Combination Therapy: Dual drug loaded superparamagnetic iron-oxide nanoparticle for targeted MR imaging and treatment of cancer.

Grants, Publications, Patents, Awards and Presentations

Please see attached lists.

Professional Activities

Reviewer (many years for):

Proposals:

- United States Department of Agriculture (USDA)
- ACS Petroleum Research Fund (ACS-PRF)
- Florida Breast Cancer Foundation
- London "Breast Cancer Now" foundation
- Swiss National Science Foundation
- Davidson Institute for Talent Development

Journals:

Langmuir, ACS Applied Materials Interfaces, Molecular Pharmaceutics, Biomacromolecules, Colloids and Surfaces B: Biointerfaces, Molecules, Macromolecules, ACS Applied Bio Materials, Current Nanoscience, International Journal of Nanomedicine, RSC Advances, ACS Omega, ACS Infectious diseases, etc.

Editorial board member:

-Journal of Nanomedicine Research, Journal of Nanomaterials, etc.

Administrative experiences (many years for):

- Graduate advisor of polymer chemistry program
- Chair of chemistry curriculum committee

University services (many years for):

- Curriculum development: BS and MS degrees in polymer chemistry program
- Member of polymer chemistry curriculum committee
- Member of graduate council executive committee
- Member of graduate council

- Member of CAS honors committee
- Member of CAS faculty awards selection committee
- Member of student health fee committee
- Member of MS thesis committee
- Member of "Leadership PSU" class of 2014
- Member of university "host family and moving crew" committee
- Member of departmental summer school, open house and recruitment committees

Scientific and Professional Societies

American Chemical Society (ACS)

- Division of Biological Chemistry: *Member, 2009-present.*
- Division of Polymer Chemistry: *Member, 2011-present.*

Materials Research Society (MRS)

- *Member, 2019-present.*

Scientific Meeting Committee member

ACS Pentasectional Meetings: MoKanOk Section, Pittsburg, KS:

- 65th meeting, April 18, **2020**, *Member.*
- 60th meeting, April 10, **2015**, *Member.*

ACS Midwest Regional Meetings:

- Fall Meeting, October 16, **2013**, Springfield, MO, Symposium on "*Current trends in polymer science*", *Session Chair.*

Pittsburg State University:

- Research colloquium, Pittsburg, Kansas, **2014-2021**; *Session judge.*

Press and Media Coverage on Research

17. ACS Press release on bacteria detection and nanosensors:

<https://www.acs.org/content/acs/en/pressroom/presspacs/2016/acs-presspac-september-21-2016/speedy-bacteria-detector-could-help-prevent-foodborne-illnesses.html>

16. Food Safety News on E. coli detection: <http://www.foodsafetynews.com/tag/tuhina-banerjee/#.V-3IWfkrLIU>

15. New food Economy on pathogen detection using nanosensors: <http://newfoodeconomy.com/rapid-e-coli-detection/AASCU> highlight: <https://www.aascu.org/email/ataascu/@aascu.html>

14. AASCU news on magnetic nanosensors.

https://www.magnetmail.net/actions/email_web_version.cfm?recipient_id=1218090634&message_id=13667778&user_id=AASCU&group_id=1014095&jobid=35656608

13. News on bacteria detection: <http://www.hindustantimes.com/health-and-fitness/scientists-develop-nanosensor-which-can-detect-bacteria-in-food-or-water/story-aXMjPaKbhUXdejttvlziil.html>

12. News on E. coli detection. <https://cosmosmagazine.com/chemistry/a-quick-easy-test-for-e-coli-contamination>

11. <https://www.terumobct.com/location/north-america/pages/home.aspx>

10. <http://www.morningsun.net/news/20161018/finding-e-coli---researchers-target-killer-bacteria>

9. <http://www.fox14tv.com/story/33412276/pitt-state-researchers-develop-rapid-e-coli-detection>

8. <http://www.fourstateshomepage.com/news/new-pitt-state-research-could-help-shed-light-on-foodborne-illness-bacteria>
7. http://www.joplinglobe.com/news/local_news/psu-scientists-create-method-to-detect-harmful-bacteria-in-food/article_ba762d47-c35f-5fa9-b7f6-cd2934bfe617.html
6. Polymer chemistry and cancer targeting research was highlighted in COVER page of University magazine: <http://magazine.pittstate.edu/issue/fall-2014/>
5. Collegio newspaper: <http://psucollegio.com/2014/09/fighting-cancer-one-nano-at-a-time/>
4. Joplin globe newspaper: http://www.joplinglobe.com/news/article_b58ffdd4-3a1d-11e4-a02b-ff0a85e9562c.html
3. TV Channel CODE-12: <http://www.fourstateshomepage.com/story/d/story/polymer-chemistry-lab-cancer-research/42749/J4f-EjApuE6klcWmLA9y7Q>
2. The Morning Sun Newspaper:
<http://www.morningsun.net/article/20140617/NEWS/140619808/0/SEARCH/?Start=1>
1. FOX 35 News channel: <http://www.myfoxorlando.com/story/17586368/medical-tests-in-an-instant>.

GRANTS AND CONTRACTS

Santimukul Santra, Ph.D.

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Total extramural fund secured over \$1,175,000 between 2014-2021.

Currently Funded Projects: (More than \$250,000)

19. 2019-2022. Role: PI. "Development of Magneto-Plasmonic Nanosensors for the Ultrasensitive Detection of Food-Borne Pathogens". United States Department of Agriculture (**USDA**), ID: 2018-07295, \$145,015.00

18. 2020-2021. Role: PI. "Pilot Project: Development of HBPE-based personalized nanomedicine". **Industrial Project**, \$50,047.00

17. 2021-2022. Role: PI. "Energy-Efficient One-Step Synthesis of Soybean Polyols for Technology advancement", Kansas Soybean Commission, **KSC**, \$45,000.00

16. 2019-2021. Role: PI. "Combination Therapy of TNBC: The Hsp90 Inhibitor Synergizes the Therapeutic Efficacy of CT20p Peptide". Three **K-INBRE** Semester Scholar Awards, \$12,000.00

15. 2020-2022. Role: PI. "Magnetic nanosensors for the specific detection of *E.coli* from ballast water", **BOS Global Inc.**, Research grant, \$100,000.00 (*contingent*)

Previously Funded Projects: (More than \$875,000)

14. 2017-2020. Role: PI. "Magnetic Resonance Nanosensors for the Rapid Diagnosis of Influenza". National Institute of Health (**NIH**), Parent R03, ID: 1 R03 AI132832-01. \$138,558.00 (1-year no cost extension)

13. 2019-2020. Role: PI. "Functional magnetic nanosensors for the sensitive detection of zika virus". Bridging Award, **K-INBRE**, National Institutes of Health (NIH-NIGMS) P20 GM103418, \$55,448.00

12. 2019-2020. Role: PI. "One-step polyols synthesis: Technology advancement and commercialization", Kansas Soybean Commission, **KSC**, \$45,000.00

11. 2019-2020. Role: PI. "Topical lotions: Developing new technology for cosmetic industries", Kansas Soybean Commission, **KSC**, \$50,000.00

10. 2019-2020. Role: PI. "Engineered Magneto-Plasmonic Nanosensors for the Ultrasensitive Detection of *E. coli* O157:H7". **K-INBRE** Star-Trainee Award, \$9,000.00

9. 2018-2019. Role: PI. "Acquisition of water purification system". **K-INBRE** core facility support (NIGMS P20 GM103418). \$10,000.00

8. 2016-2018. Role: PI. "Development of new click-ene chemistry for the low-cost synthesis of polymeric materials". **ACS-Petroleum Research Fund (PRF)**, ID: 56629-UNI7. Role: PI, \$55,000.00

7. 2017-2018. Role: PI. "Magnetic nanoprobe for cancer imaging". Bridging Award, **K-INBRE** (NIGMS P20 GM103418), \$54,695.00

6. 2015-2017. Role: PI. "New soybean polymers for industrial applications", Kansas Soybean Commission (**KSC**), ID: PSU/KSC # 1774, \$100,000.00

5. 2016-2017. Role: PI. "Shimadzu Equipment Grant for Research", **Shimadzu** Scientific Instruments, \$130,000.00

4. 2015-2017. Role: PI. "Development of New soybean-based anti-oxidant topical lotion for skin care applications", Kansas Soybean Commission (**KSC**), ID: PSU/KSC # 1763. \$100,000.00

3. 2015-2016. Role: Co-PI. "Polycarbonate from soybean oil-based epoxide and carbon dioxide", Kansas Soybean Commission (**KSC**). \$50,000.00

2. 2014-2015. Role: PI. "Development of novel sulfur-containing theranostic nanomedicines for the targeted X-ray/CT imaging and treatment of cancers". **K-INBRE**, \$31,000.00

1. 2014-2018, Role: PI. "Magnetic Relaxation Nanosensors (MRnS) and Nanomedicines for Biomedical Applications". **K-INBRE** accumulative 4 Star-Trainee Awards and 6 Semester Scholar Awards. \$60,000.00

Proposals under review:

- A) An R15 proposal submitted to NIH in Feb 2021. Role: PI, \$445,000
- B) An R03 proposal submitted to NIH in Feb 2021. Role: PI, \$139,000
- C) An UR proposal submitted to ACS-PRF in Oct 2020. Role: PI, \$70,000

PUBLICATIONS AND PATENTS

Santimukul Santra, Ph.D.

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Lab-Web: www.nanotheranosticlab.com

Peer Reviewed Publications: *Forty-four manuscripts published and two under review.*

44. S. Naz, T. Banerjee, F. Totsingan, K. Woody, R. A. Gross, **S. Santra**. "Therapeutic Efficacy of Lactonic Sphorolipids: Nanoceria-Assisted Combination Therapy of NSCLC using HDAC and Hsp90 Inhibitors". **Nanotheranostics**, **2021**, *5*, 391-404.

43. V. Jain, T. Shelby, T. Patel, E. Mekhedov, J. P. Petersen, J. Zimmerberg, A. Ranaweera, D. Weliky, P. Dandawate, A. Shrikant, S. Sulthana, Y. Vasquez, T. Banerjee, **S. Santra**. "A Bimodal Nanosensor for Probing Influenza Fusion Protein Activity Using Magnetic Resonance Imaging". **ACS Sensors**, **2021**, *in press*.

42. T. Banerjee, T. Patel, O. Pashchenko, R. Elliott, **S. Santra**. "Rapid Detection and One-Step Differentiation of Cross-Reactivity Between Zika and Dengue Virus using Functional Magnetic Nanosensors". **ACS Applied Bio Materials**, **2020**, DOI: 10.1021/acsabm.0c01264.

41. **S. Santra**, Z. Shaw, R. Narayanam, T. Banerjee. "Selective O-alkylation of Bis-MPA: A Facile Synthetic Approach to Develop Biodegradable Polymers for Drug Delivery Applications". **ACS Applied Polymer Materials**, **2020**, *2*, 3465.

40. **S. Santra**, R. Bean, B. Heckert, Z. Shaw, V. Jain, L. Shrestha, R. Narayanam, Q. Austin. "Alkene-Azide Chemistry: A Facile, One-Step, Solvent- and Catalyst-Free Approach for Developing New Functional Monomers and Polymers". **Polymer Chemistry**, **2020**, *11*, 3723.

39. Z. Shaw, A. Patel, T. Butcher, T. Banerjee, R. Bean and **S. Santra**. "Pseudo-Branched Polyester Copolymer: An Efficient Drug Delivery System to Treat Cancer". **Biomaterials Science**, **2020**, *8*, 1481 (Cover page).

38. P. Dandawate, G. Kaushik, D. Subramaniam, C. Ghosh, S. Chowdhury, D. Standing, P. Ramamoorthy, A. Manzardo, A. Sayed, T. Banerjee, **S. Santra**, M. Butler, S. Padhye, J. Baranda, A. Kasi, W. Sun, O. Tawfik, D. Coppola, M. Malafa, S. Umar, M. Soares, S. Saha, S. Weir, A. Dhar, R. Jensen, S. Thomas and S. Anant. "Targeting Prolactin Receptor using an Antipsychotic to Suppress Pancreatic Ductal Adenocarcinoma". **Gastroenterology**, **2019**, *5*, 1433.

37. R. Alnasser, Z. Shaw, and **S. Santra**. "Hyperstar Polyester-Based Functional Nanotheranostics for the Targeted Drug Delivery and Treatment of Cancer". **ChemNanoMat**, **2019**, *5*, 1506.

36. T. Banerjee, T. Tummala, R. Elliott, B. Wesley, V. Jain, L. Hadorn and **S. Santra**. "Multimodal Magneto-Fluorescent Nanosensor for Rapid and Accurate Detection of Blood-Borne Pathogens". **ACS Applied Nano Materials**, **2019**, *2*, 5587.

35. J. Kallu, T. Banerjee, S. Sulthana, S. Darji, R. Higginbotham, C. Fletcher, N. N. Gerasimchuk and **S. Santra**. "Nanomedicine-Assisted Combination Therapy of NSCLC: New Platinum-Based Anticancer Drug Synergizes the Therapeutic Efficacy of Ganetespib". **Nanotheranostics**, **2019**, *3*, 120.

34. M. R. Abedin, S. Umapathi, H. Mahendrakar, T. Laemthong, H. Coleman, D. Muchangi, **S. Santra**, M. Nath, S. Barua. "Polymer Coated Gold-Ferric Oxide Superparamagnetic Nanoparticles for Theranostic Applications". *Journal of Nanobiotechnology*, **2018**, 16:48.
33. R. Elliott, T. Banerjee and **S. Santra**. "ZIKA: An Emerging Disease Requiring Prevention and Awareness". *PLoS Neglected Tropical Diseases*, **2018**, 12, e0006486.
32. O. Pashchenko, T. Shelby, T. Banerjee and **S. Santra**. "A comparison of optical, electrochemical, magnetic, and colorimetric point-of-care biosensors for infectious disease diagnosis". *ACS Infectious Diseases*, **2018**, 4, 1162.
31. R. Elliott and **S. Santra**. "Nanomedicine: Tackling Undruggable Non-Small Cell Lung Cancer". *Journal of Nanomedicine Research*, **2018**, 7, 173.
30. A. Carr, A. Khaled, R. Bassiouni, O. Flores, D. Nierenberg, H. Bhatti, P. Vishnubhotla, J. Manuel Perez, **S. Santra** and A. Khaled. "Targeting chaperonin containing TCP1 (CCT) as a molecular therapeutic for small cell lung cancer". *Oncotarget*, **2017**, 8, 110273.
29. T. Shelby, T. Banerjee, I. Zegar and **S. Santra**. "Highly Sensitive, Engineered Magnetic Nanosensors to Study the Ambiguous Activity of Zika Virus". *Scientific Reports*, **2017**, 7, 7377.
28. T. Shelby, S. Sulthana, J. McAfee, T. Banerjee and **S. Santra**. "Foodborne Pathogens Screening Using Magneto-Fluorescent Nanosensor: Rapid Detection of E. coli O157:H7". *J. Vis. Exp. (JoVE)*, **2017**, 127, e55821.
27. O. Flores, **S. Santra**, C. Kaittanis, R. Bassiouni, Annette R. Khaled, J. Grimm and J. M. Perez. "PSMA-Targeted Theranostic Nanocarrier for Prostate Cancer". *Theranostics*, **2017**, 7, 2477-2494.
26. B. Heckert, T. Banerjee, S. Sulthana, S. Naz, R. Alnasser, D. Thompson, G. Normand, J. Grimm, J. M. Perez and **S. Santra**. "Design and Synthesis of New Sulfur-Containing Hyperbranched Polymer and Theranostic Nanomaterials for Bimodal Imaging and Treatment of Cancer". *ACS Macro Letters*, **2017**, 6, 235-240.
25. S. Sulthana, T. Banerjee, J. Kallu, SR. Vuppala, B. Heckert, S. Naz, T. Shelby, O. Yambem, **S. Santra**. "Combination Therapy of NSCLC Using Hsp90 Inhibitor and Doxorubicin Carrying Functional Nanoceria". *Molecular Pharmaceutics*, **2017**, 14, 875-884.
24. S. Naz, J. Beach, B. Heckert, T. Tummala, O. Pashchenko, T. Banerjee, **S. Santra**. "Cerium Oxide Nanoparticles: A "Radical" Approach to Neurodegenerative Disease Treatment". *Nanomedicine*, **2017**, 12, 545-553.
23. T. Banerjee, T. Shelby, **S. Santra**. "How nanosensors may detect pathogen contamination before it ever reaches the dinner table". *Future Microbiology*, **2017**, 12, 97-100.
22. T. Shelby, T. Banerjee, J. Kallu, S. Sulthana, I. Zegar, **S. Santra**. "Novel Magnetic Relaxation Nanosensors: An Unparalleled "Spin" on Influenza Diagnosis". *Nanoscale*, **2016**, 8, 19605.
21. T. Banerjee, S. Sulthana, T. Shelby, B. Heckert, J. Jewell, K. Woody, V. Karimnia, J. McAfee, **S. Santra**. "Multiparametric Magneto-fluorescent Nanosensors for the Ultrasensitive Detection of Escherichia coli O157:H721". *ACS Infectious Diseases*, **2016**, 2, 667-673.
20. C. Kaittanis, T. M. Shaffer, A. Ogirala, **S. Santra**, J. M. Perez, G. Chiosis, Y. Li, L. Josephson, J. Grimm. "Environment-responsive nanophores for therapy and treatment monitoring via molecular MRI quenching". *Nature Communications*, **2014**, 5, 3384.

Before joining as an Assistant Professor at Pittsburg State University:

19. **Santra, S.** Jativa, D. J. Kaittanis, C. Normand, G. Grimm, J. Perez, J. M. "Gadolinium-Encapsulating Iron Oxide Nanoprobes as Activatable NMR/MRI Contrast Agent". *ACS Nano*, **2012**, *6*, 7281.

18. Boohaker, R. Zhang, G. Lee, M. Nemecek, K. **Santra, S.** Perez, J. Manuel; Khaled, A. "Rational Development of a Cytotoxic Peptide to Trigger Cell Death". *Molecular Pharmaceutics*, **2012**, *9*, 2080-2093.

17. C. Kaittanis, H. Boukhriss, **S. Santra**, J. F. Valentine, S. A. Naser, J. M. Perez. "Hybridizing magnetic relaxation nanosensors facilitate the rapid and sensitive detection of an intracellular pathogen in human peripheral leukocytes". *PLoS One*, **2012**, *7*, e35326.

***Featured** in Genetic Engineering and Biotechnology News Magazine. Featured in www.nano.gov website of National Nanotechnology Initiative group. Posted on National Institute of General Medical Science (NIH) website. Posted on Sciencedaily.com website. Posted on Europapress.com website. Posted on Eurekalert.com website. Posted on today.ucf.com website. Interviewed on FOX 35 news channel.

16. C. Kaittanis, **S. Santra**, A. Asati, J. M. Perez. "A Cerium Oxide Nanoparticle-based Device for the Detection of Chronic Inflammation via Optical and Magnetic Resonance Imaging". *Nanoscale*, **2012**, *4*, 2117-2123.

15. **S. Santra**, C. Kaittanis, O. J. Santiesteban, J. M. Perez "Cell-Specific, Activatable and Theranostic Prodrug for Dual Targeted Cancer Imaging and Therapy". *J. Am. Chem. Soc.*, **2011**, *133*, 16680-16688.

14. **S. Santra**, C. Kaittanis, O. J. Santiesteban, J. M. Perez "Trifunctional Targeting". *ACS Chem. Biol. (Spotlight)*, **2011**, *6*, 1143-1143.

13. **S. Santra**,* J. M. Perez. "Facile, One-Step, Selective N-Alkylation of Amino Acids: Novel Polyamino Acid-Based Theranostic Nanoagents for Targeted Cancer Therapy". *Biomacromolecules*, **2011**, *12*, 3917-3927.

12. C. Kaittanis, **S. Santra**, O. J. Santiesteban, T. Henderson, J. M. Perez "The Assembly State between Magnetic Nanosensors and their Targets Orchestrates their Magnetic Relaxation Response". *J. Am. Chem. Soc.*, **2011**, *133*, 3668-3676.

11. A. Asati, C. Kaittanis, **S. Santra**, J. M. Perez. "pH-Tunable Oxidase-Like Activity of Cerium Oxide Nanoparticles Achieving Sensitive Fluorogenic Detection of Cancer Biomarkers at Neutral pH". *Anal. Chem.*, **2011**, *83*, 2547-2553.

10. C. Kaittanis, T. Banerjee, **S. Santra**, O. J. Santiesteban, K. Teter, J. M. Perez. "Identification of Molecular-Mimicry-Based Ligands for Cholera Diagnostics using Magnetic Relaxation". *Bioconjugate Chemistry*, **2011**, *22*, 307-314.

9. A. Asati, **S. Santra**, C. Kaittanis, J. M. Perez. "Surface chemistry-dependent cell localization and cytotoxicity of cerium oxide nanoparticles". *ACS Nano*, **2010**, *4*, 5321-5331.

8. **S. Santra**, C. Kaittanis, J. M. Perez. "Cytochrome c Encapsulating Theranostic Nanoparticles: A Novel Bifunctional System for targeted delivery of therapeutic membrane-impermeable proteins to tumors and imaging of cancer therapy". *Molecular Pharmaceutics*, **2010**, *7*, 1209-1222.

7. Kaittanis, C., **Santra, S.**, Perez, J. M. Emerging nanotechnology-based strategies for the identification of microbial pathogenesis. *Adv. Drug Deliv. Rev.*, **2010**, *62*, 408.

6. **Santra, S.**, Kaittanis, C., Perez, J. M. Aliphatic Hyperbranched Polyester: A New Building Block in the Construction of Multifunctional Nanoparticles and Nanocomposites. *Langmuir*, **2010**, *26*, 5364.

5. **Santra, S.**, Kaittanis C., Grimm J. and Perez J. M. Drug/Dye-Loaded, Multifunctional Iron Oxide Nanoparticles for Combined Targeted Cancer Therapy and Dual Optical/MR-Imaging. *Small*, **2009**, 5, 1862.

4. Asati, A., **Santra, S.**, Kaittanis, C., Nath, S., Perez, J. M. Oxidase-like activity of polymer-coated cerium oxide nanoparticles. *Angew. Chem. Int. Ed. Engl.*, **2009**, 48, 2308.

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3. Kaittanis, C., **Santra, S.**, Perez, J. M. Role of nanoparticle valency in the nondestructive magnetic-relaxation-mediated detection and magnetic isolation of cells in complex media. *J. Am. Chem. Soc.*, **2009**, 131, 12780.

2. **S. Santra** and A. Kumar. "Facile synthesis of aliphatic hyperbranched polyesters based on diethylmalonate and their irreversible molecular encapsulation". *Chem. Comm.*, **2004**, 2126.

1. A. Kumar, A. Q. Contractor, A. V. Ambade, T. Ranganathan, K. Krishnamoorthy, S. P. Mishra, U. P. Ojha, **S. Santra**, M. Kanungo "Novel approaches for novel materials". *Int. J. Plast. Tech.*, **2003**, 6, 73.

PATENTS

Patents: Fifteen Issued Patents and Patent Applications. One patent licensed to a pharma-company.

15. **S. Santra**. "One-Step Synthesis of Soybean Polyols". **US Patent Appl. No. 63/015,167**.

14. **S. Santra**. "Triethylene Glycol-Functionalized Triglyceride Polyol Polymers". **US Patent Appl. No. 63/017,873**.

13. J. M. Perez, **S. Santra**. "Synthesis of hyperbranched amphiphilic polyester and theranostic nanoparticles thereof." **US Patent Issued. Patent # 8,372,944 B1**.

12. J. M. Perez, **S. Santra**. "Multimodal, Multifunctional Polymer Coated Nanoparticles" **US Patent Issued. Patent # 8,236,284 B1**.

11. J. M. Perez, A. Asati, **S. Santra**, C. Kaittanis. "Differential Tumor Cell Cytotoxicity via Contact with Coated Cerium Oxide Nanoparticles". **US Patent Issued. Patent # 10,213,458**.

10. J. M. Perez, A. Asati, C. Kaittanis, S. Nath and **S. Santra**, "Oxidase activity of polymer coated cerium oxide nanoparticles". **US Patent Issued. Patent # 10,261,074**.

9. J. M. Perez, C. Kaittanis, A. Asati, **S. Santra** "A cerium-oxide-nanoparticle-based device for the detection of Reactive oxygen species and monitoring of chronic inflammation". **US Patent Issued. Patent # 8,795,733**.

8. J. M. Perez, **S. Santra**. "Bi-DOTA complex-loaded dendritic polymer nanoparticles". **US Patent Appl. No. 62/362,323. International Patent Appl. No. PCT/US2017/042145**.

7. A. Khaled, J. M. Perez, **S. Santra**, C. Kaittanis, O. Santiesteban, J. Grimm. "Methods and compositions for theranostic nanoparticles". **U.S. patent Appl. No. 62/153,912**.

6. J. M. Perez, A. Asati, **S. Santra**, C. Kaittanis "Application Device for Inducing Cytotoxicity to Tumor Cells via Coated Cerium Oxide Nanoparticles". **U.S. patent Appl. No. 14/862,559.**
5. J. M. Perez, **S. Santra**. "Activatable imaging contrast agents". **US Patent Appl. No. 13,936,933.**
4. J. M. Perez, A. Asati, **S. Santra**, C. Kaittanis "Surface Charge Dependent Cell Localization and Cytotoxicity of Cerium Oxide Nanoparticles". **U.S. patent Appl. No. 61/537,102.**
3. **Santra, S.** Kumar, A. *et.al.*, "Malonic acid-based monomers and polymers". **Indian Patent Appl. 664/MUM/2006.**
2. **Santra, S.** Kumar, A. *et al.*, "*N*-alkylation of amino acids and their application in polymer synthesis". **Indian Patent Appl. 775/MUM/2006.**
1. **Santra, S.** Kumar, A. *et.al.*, "*O*-alkylation of β , β -disubstituted hydroxyl- compounds and its applications in Polymer syntheses". **Indian Patent Appl. 776/MUM/2006.**

AWARDS AND SCHOLARSHIPS

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Faculty Awards:

- Excellence in Teaching Award*, College of Arts & Sciences, Pittsburg State University, Pittsburg, **2021**.
- Outstanding Faculty Scholarship Award*, Pittsburg State University, Pittsburg, KS, **2020**.
- Excellence in Research Award*, College of Arts & Sciences, Pittsburg State University, Pittsburg, **2020**.
- Bridging Award*, K-INBRE (NIGMS), **2019**.
- Outstanding Undergraduate Research Faculty Mentor Award*, Pittsburg State University, KS, **2019**.
- Core Facility Award*, K-INBRE (NIGMS), **2018**.
- Excellence in Teaching Award*, College of Arts & Sciences, Pittsburg State University, Pittsburg, **2018**.
- Bridging Award*, K-INBRE (NIGMS), **2017**.
- Excellence in Research Award*, College of Arts & Sciences, Pittsburg State University, Pittsburg, **2017**.
- Outstanding Faculty Scholarship Award*, Pittsburg State University, Pittsburg, KS, **2017**.
- Undergraduate New Investigator Award*, ACS-Petroleum Research Fund, **2016**.
- Outstanding Undergraduate Research Faculty Mentor Award*, Pittsburg State University, KS, **2015**.
- Excellence in Research Award*, College of Arts & Sciences, Pittsburg State University, Pittsburg, **2014**.
- Best Oral Presentation Award*, NanoFlorida Symposium, USF-Tampa, **2012**.
- Best Poster Presentation Award*, NanoFlorida Symposium, UCF-Orlando, **2010**.
- Senior Research Fellowship*, National Eligibility Test, Government of India, **2004**.
- Junior Research Fellowship*, National Eligibility Test, Government of India, **2000**.

Annual Faculty Performance Appraisal:

- Exceptional Performance*, **2015-2021**.
- Meritorious Performance*, **2014**.

Student Awards (2013-present):

2021:

- 90. *Best BIO-KANSAS Graduate Poster Award* to Truptiben Patel from Capitol Research Summit, Topeka.
- 89. *Excellence in Research Award* to Nilamben Panchal from polymer chemistry, PSU.
- 88. *Excellence in professional service Award* to Raghunath Narayanam from polymer chemistry, PSU.
- 87. *Excellence in Teaching Award* to Truptiben Patel from polymer chemistry, PSU.

2020:

- 86. *Graduate distinguished thesis Award* to Zachary Shaw, PSU.
- 85. *Semester Scholar Award* to Drake Shaw, K-INBRE, KS.
- 84. *Semester Scholar Award* to Caine Duran, K-INBRE, KS.
- 83. *Best Graduate Poster Award* to Raghunath Narayanam, Bio-Kansas Capitol Research Summit, Topeka.
- 82. *Excellence in research Award* to Raghunath Narayanam from polymer chemistry, PSU.
- 81. *Excellence in professional service Award* to Nilamben Panchal from polymer chemistry, PSU.

80. *Excellence in professional service Award* to Rutul Patel from polymer chemistry, PSU.
79. *Undergraduate Physical Chemistry Award* to Truptiben Patel from chemistry, PSU.
78. *Graduate scholarship Award* to Himanshu Polara from chemistry, PSU.
77. *Outstanding research in cellular/molecular biology Award* to Vedant Jain from Biology, PSU.
76. *Best Oral Presentation Award* to Vedant Jain, 18th K-INBRE Symposium, KS.

2019:

75. *Star-Trainee Award* to Vedant Jain, K-INBRE, KS.
74. *Semester Scholar Award* to Thai Butcher, K-INBRE, KS.
73. *Polymer chemistry excellence in research Award* to Saloni Darji, PSU.
72. *Polymer chemistry excellence in teaching Award* to Saloni Darji, PSU.
71. *Polymer chemistry excellence in teaching Award* to Ren Bean, PSU.
70. *Chemistry excellence in Research Award* to Arth Patel, PSU.
69. *Polymer chemistry excellence in scholarship Award* to Ren Bean, PSU.
68. *Best undergraduate poster Award* to Vedant Jain, Capitol Research Summit, Topeka, KS.
67. *Best undergraduate poster Award* to Vedant Jain, PSU research colloquium.
66. *Chemistry excellence in professional service Award* to Himanshu Polara, PSU.
65. *Kansas Bioscience Best Poster Award* to Zachary Shaw, Capitol Research Summit, Topeka, KS.
64. *Polymer chemistry excellence in Professional Service Award* to Zachary Shaw, PSU.
63. *Best undergraduate poster Award* to Denise Muchangi, Capitol Research Summit, Topeka, KS.
62. *BIO-KANSAS Best Graduate Poster Award* to Zachary Shaw, Capitol Research Summit, Topeka, KS.
61. *Best Poster Presentation Award* to Vedant Jain, K-INBRE, KS.
60. *Best Poster Presentation Award* to Rebekah Elliott, K-INBRE, KS.

2018:

59. *Missouri Valley-Parental Drug Association Award* to Ren Bean, Capitol Research Summit, KS.
58. *PSU Best Graduate Poster Award* to Ren Bean, Capitol Research Summit, Topeka, KS.
57. *Star-Trainee Award* to Denise Muchangi, K-INBRE, KS.
56. *BIO-KANSAS Best Graduate Poster Award* to Ren Bean, Capitol Research Summit, Topeka, KS.
55. *Best Poster Presentation Award* to Sneha Ramanujam, PSU.
54. *Polymer chemistry graduate research award* to Ren Bean, PSU.
53. *Polymer chemistry graduate teaching award* to Zachary Shaw, PSU.
52. *Semester Scholar Award* to Vedant Jain, K-INBRE, KS.
51. *Best Biochemistry student award* to Oleksandra Pashchenko, Chemistry, PSU.
50. *Best Poster Presentation Award* to Wesley Brantley, K-INBRE, KS.
49. *Polymer chemistry graduate scholarship award* to Tanuja Tummala from PSU.
48. *Best Poster Presentation Award* to Ren Bean, K-INBRE, KS.
47. *Chemistry graduate scholarship award* to Bayan Dous, PSU.

2017:

46. *University Scholar Award* to Quentin Austin, K-INBRE, KS.
45. *Star-Trainee Award* to Sasha Pashchenko, K-INBRE, KS.
44. *Semester Scholar Award* to Lok Shrestha, K-INBRE, KS.
43. *Excellence in Research Award* to Shuguftha Naz, Department of Chemistry, PSU.
42. *Excellence in Scholarship Award* to Tanuja Tummala, Department of Chemistry, PSU.
41. *Excellence in Teaching Award* to James Beach, Department of Chemistry, PSU.
40. *Excellence in Professional Service Award* to Elaf Alattas, Department of Chemistry, PSU.
39. *Undergraduate Research Award* to Sasha Pashchenko, Department of Chemistry, PSU.
38. *Undergraduate Research Award* to Laci Hadorn, Department of Chemistry, PSU.

2016:

37. *Travel Award* to Shuguftha Naz and Tyler Shelby, Pittsburg State University.
36. *Best Poster Presentation Award* to Shuguftha Naz, ACS Pentasectional Conference, Oklahoma.
35. *Best Oral Presentation Award* to Jyothi Kallu, PSU Research Colloquium.
34. *Best Poster Presentation Award* to Shoukath Sulthana, PSU Research Colloquium.

33. *Best Poster Presentation Award* to Jyothi Kallu, PSU Research Colloquium.
32. *Best Poster Presentation Award* to Kalee Woody, PSU Research Colloquium.
31. *Best Poster Presentation Award* to Tyler Shelby, PSU Research Colloquium.
30. *Best Teaching Assistant Award* to Shoukath Sulthana, Chemistry, PSU.
29. *Best Graduate Assistant Award* to Jyothi Kallu, Polymer Chemistry, PSU.
28. *Distinguished Graduate Thesis Award* to Blaze Heckert, Polymer Chemistry, PSU.
27. *Star-Trainee Award* to Laci Hadorn, K-INBRE, KS.
26. *Semester Scholar Award* to Sasha Pashchenko, K-INBRE, KS.
25. *BIO-KANSAS Best Graduate Poster Award* to Shoukath Sulthana, Capitol Research Summit, Topeka.
24. *Best Undergraduate Poster Presentation Award* to Tyler Shelby, K-INBRE, KS.
23. *Oral Presentation recognition* to Jyothi Kallu, K-INBRE, KS.

2015:

22. *University Scholar Award* to Jessica Jewell, K-INBRE, KS.
21. *Semester Scholar Award* to Deaven Thompson, K-INBRE, KS.
20. *Star-Trainee Award* to Tyler Shelby, K-INBRE, KS.
19. *Best UG Poster Presentation Award* to Blaze Heckert, Chemistry PSU.
18. *Best Graduate Oral Presentation Award* to Jyothi Kallu, Polymer Chemistry, PSU.
17. *Best UG Poster Award* to Deaven Thompson, Chemistry, PSU.
16. *Best Graduate Poster Award* to Shoukath Sulthana, Polymer Chemistry, PSU.
15. *Best Undergraduate Poster Award* to Kalee Woody, Capitol Research Summit, Topeka, KS.
14. *Best Poster Presentation Award* to Jyothi Kallu, Bio-Kansas, Capitol Research Summit, Topeka, KS.
13. *Best Graduate Poster Presentation Award* to Jyothi Kallu, Capitol Research Summit, Topeka.
12. *Best Poster Presentation Award* to Kalee Woody, K-INBRE, KS.
11. *Best Poster Presentation Award* to Blaze Heckert, K-INBRE, KS.

2014:

10. *Star-Trainee Award* to Blaze Heckert, K-INBRE, KS.
9. *Best UG Oral Presentation Award* to Kalee Woody, Chemistry, PSU.
8. *William & Mary Fern Souder Scholarship* to Dagen Worthington, Polymer Chemistry, PSU.
7. *Best UG Poster Presentation Award* to Blaze Heckert, Chemistry, PSU.
6. *Semester Scholar Award* to Kalee Woody, K-INBRE, KS.
5. *Best UG Research Award* to Blaze Heckert, Chemistry, PSU.
4. *Best Graduate Teaching Award* to Nelson Elbers, Chemistry, PSU.
3. *Best UG Poster Presentation Award* to Kalee Woody, Chemistry, PSU.
2. *Semester Scholar Award* to Deaven Thompson, K-INBRE, KS.

2013:

1. *Semester Scholar Award* to Blaze Heckert, K-INBRE, KS.

LECTURES AND PRESENTATIONS

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115. "Activatable MR Prodrug for Targeted Delivery and Treatment of Cancer". Truptiben Patel, Arth Patel, Zachary Shaw, Tuhina Banerjee, Santimukul Santra. Research colloquium, Pittsburg State University, April 14, 2021 (oral presentation).
114. "Detection of Food-Borne Pathogens using nanozyme technology". Nilamben Panchal, Vedant Jain, Rebekah Elliott, Samantha Knoblauch, T. Banerjee, Santimukul Santra. Research colloquium, Pittsburg State University, April 14, 2021 (oral presentation).
113. "Nanoceria-Delivered Magnetic Resonance Probe: A Multimodal Theranostic Tool to Identify, Treat, and Monitor Cancer". Truptiben Patel, Arth Patel, Zachary Shaw, Tuhina Banerjee, Santimukul Santra. Capitol Graduate Research Summit, Topeka, KS, February 18, 2021. (poster presentation).
112. "Nanozyme: A Developing Nanotechnology for the Detection of Food-Borne Pathogens". Nilamben Panchal, Vedant Jain, Rebekah Elliott, Samantha Knoblauch, T. Banerjee, Santimukul Santra. Capitol Graduate Research Summit, Topeka, KS, February 18, 2021. (poster presentation).
111. "Energy-efficient one-step synthesis of soybean polyols for technology advancement". Santimukul Santra. * Kansas Soybean Commission (KSC), KS, Dec 4th, 2020.
110. "Polyethylene glycol-based drug delivery system for the targeted treatment of cancer". Thai Butcher, Zachary Shaw, Arth Patel, Tuhina Banerjee, Santimukul Santra. Capitol undergraduate Research Summit at Topeka, KS, March 04, 2020. (poster presentation).
109. "Nanozyme-technology for the detection of food-borne pathogens". Vedant Jain, Nilam Panchal, Tuhina Banerjee, Santimukul Santra. Capitol undergraduate Research Summit at Topeka, KS, March 04, 2020. (poster presentation).
108. "Synthesis of doxorubicin-based prodrug and activatable MR nanoprobe for the imaging and treatment of cancer". Raghunath Narayanam, Bayan Daus, Tuhina Banerjee and Santimukul Santra. Capitol Graduate Research Summit at Topeka, KS, February 26, 2020. (poster presentation).
107. "Magneto-Plasmonic Nanosensors (MPNs) for the Multiparametric Detection of E. Coli O157:H7". Nilamben Panchal, Vedant Jain, Tuhina Banerjee, and Santimukul Santra. 18th K-INBRE Symposium, Kansas City, MO, 18th January, 2020. (poster presentation).
106. "Design and Synthesis of Functional Nanomedicine for the Targeted Treatment of Prostate Cancer". Thai Butcher, Zachary Shaw, Arth Patel, Tuhina Banerjee, and Santimukul Santra. 18th K-INBRE Symposium, Kansas City, MO, 18th January, 2020. (poster presentation).
105. "Nanozyme: A Developing Nanotechnology for the Detection of Food-Borne Pathogens". Vedant Jain, Nilam Panchal, Tuhina Banerjee, and Santimukul Santra. 18th K-INBRE Symposium, Kansas City, MO, 18th January, 2020. (Oral presentation).

104. "Functional MRnS for the rapid detection of zika virus and assessment of cross-reactivity". Raghunath Narayanam, Tyler Shelby, Tuhina Banerjee and Santimukul Santra. 18th K-INBRE Symposium, Kansas City, MO, 18th January, 2020. (poster presentation).
103. "Synthesis of Activatable Theranostics and Functional Drug Delivery Systems." Santimukul Santra,* Department of Chemistry, Oklahoma State University, Stillwater, OK. September, 2019. (Colloquium presentation).
102. "Combination Therapy of Prostate Cancer: PARP Inhibitor Synergizes the Therapeutic Efficacy of Doxorubicin". Himanshu Polara, Momin Ansare, Tuhina Banerjee, and Santimukul Santra. ACS Pentasectional conference, Norman, OK, April 13, 2019. (oral presentation).
101. "Synthesis of doxorubicin-based prodrug and activatable MR nanoprobe for the imaging and treatment of cancer". Arth Patel, Bayan Daus, Tuhina Banerjee and Santimukul Santra. ACS Pentasectional conference, Norman, OK, April 13, 2019. (oral presentation).
100. "Magneto-Plasmonic Nanosensor for the Detection of Ebola Virus". Denise Muchangi, Saloni Darji, Sneha Ramanujam, Zachary Shaw, Tuhina Banerjee, and Santimukul Santra. Research colloquium, Pittsburg State University, April 10, 2019. (poster presentation).
99. "Magnetic Resonance Nanosensors for the investigation of influenza binding and fusion mechanism". Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant, Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. Research colloquium, Pittsburg State University, April 10, 2019. (poster presentation).
98. "Personalized Drug-cocktail Nanomedicine for the treatment of prostate cancer". Ren Bean, Laci Hardon, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant and Santimukul Santa. ACS National meeting and exposition, Orlando, FL. April 2, 2019. (poster presentation).
97. "Liposome-coated iron oxide nanoparticles (LIONS): A dynamic approach for the investigation of influenza fusion mechanisms." Tuhina Banerjee, Tyler Shelby and Santimukul Santra. ACS National meeting and exposition, Orlando, FL. April 2, 2019. (oral presentation).
96. "Development of Functional Magnetic Relaxation Nanosensors for the Investigation of Zika Binding and Fusion Mechanism". Saloni Darji, Tuhina Banerjee and Santimukul Santra. ACS National meeting and exposition, Orlando, FL. April 2, 2019. (poster presentation).
95. "TNF- α and sphorolipids: Combination approach for the treatment of prostate cancer". Zachary Shaw, Lok Shrestha, Jyothi Kallu, James Beach, Tuhina Banerjee, Richard Gross and Santimukul Santra. ACS National meeting and exposition, Orlando, FL. April 2, 2019. (poster presentation).
94. "Engineered Multifunctional Nanomedicines for the Targeted Drug Delivery and Treatment of Cancer." Santimukul Santra,* Department of Chemical and Biochemical Engineering, Missouri University of Science and Technology, Rolla, MO. April 29, 2019. (poster presentation).
93. "Magneto-Plasmonic Nanosensor for the Detection of Ebola Virus." Denise Muchangi, Saloni Darji, Sneha Ramanujam, Zachary Shaw, Tuhina Banerjee, and Santimukul Santra. Capitol Graduate Research Summit at Topeka, KS, March 20, 2019. (poster presentation).
92. "Magnetic Resonance Nanosensors for the Investigation of Influenza Binding and Fusion Mechanisms." Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant, Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. Capitol Graduate Research Summit at Topeka, KS, March 20, 2019. (poster presentation).

91. "TNF- α and sphorolipids: Combination approach for the treatment of prostate cancer". Zachary Shaw, Lok Shrestha, Jyothi Kallu, James Beach, Tuhina Banerjee, Richard Gross and Santimukul Santra. Capitol Graduate Research Summit at Topeka, KS, Feb 26, 2019. (Best poster presentation award).
90. "Combination Therapy: PARP Inhibitor Synergizes the Therapeutic Efficacy of Doxorubicin in the Treatment of Prostate Cancer". Momin Ansare, Saloni Darji, Sneha Ramanujam, Tanuja Tummala, Tuhina Banerjee, Santimukul Santra. 17th K-INBRE Symposium, Kansas City, MO, January 19, 2019. (poster presentation).
89. "Synthesis of Doxorubicin-Based Prodrug and Activatable MR Nanoprobe for the Imaging and Treatment of Cancer". Rebekah Elliott, Bayan Ahmad S Dous, Saloni Darji, Tuhina Banerjee, and Santimukul Santra. 17th K-INBRE Symposium, Kansas City, MO, January 19, 2019. (poster presentation).
86. "Development of Functional Magnetic Relaxation Nanosensors for the Investigation of Zika Binding and Fusion Mechanism". Saloni Darji, Tuhina Banerjee and Santimukul Santra. K-INBRE Symposium at Kansas City, MO, January 19, 2019. (poster presentation).
85. "Magneto-Plasmonic Nanosensor for the Detection of Ebola Virus". Denise Muchangi, Saloni Darji, Zachary Shaw, Sneha Ramanujam, Tuhina Banerjee and Santimukul Santra. 17th K-INBRE Symposium, Kansas City, MO, January 19, 2019. (poster presentation).
84. "Magnetic Resonance Nanosensors for the Investigation of Influenza Binding and Fusion Mechanisms." Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant, Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. 17th K-INBRE Symposium, Kansas City, MO, Janary 19, 2019. (poster presentation).
83. "Synthetic Biopolymers in Nanotechnology: A New Era of Targeted Drug Delivery and Cancer Therapy". Santimukul Santra.* Department of Chemistry, Missouri State University, Springfield, MO 65897, November 8, 2018.
82. "One-step polyols: Technology advancement and commercialization". Santimukul Santra* and Jian Hong. Kansas Soybean Commission (KSC), KS, Nov 30th, 2018.
81. "Development of new soybean-based anti-oxidant topical lotion for skin care applications". Tuhina Banerjee and Santimukul Santra.* Kansas Soybean Commission (KSC), KS, Nov 30th, 2018.
80. "Gedunin Synergizes the Therapeutic Effect of CT20p Peptide in Cancer Treatment". Saloni Darji, Tanuja Tummala, Tuhina Banerjee, Annette Khaled, Shrikant Anant and Santimukul Santra. ACS-Midwest at Iowa, Oct 21-23, 2018. (poster presentation).
79. "Personalized Drug-cocktail Nanomedicine for the Treatment of Prostate Cancer". Ren Bean, Quentin Austin, Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant# and Santimukul Santra. Graduate Capitol Research Summit at Topeka, KS, February 20, 2018 (Best Graduate poster presentation).
78. "Magnetic nanosensor platform for the fast and accurate detection of bacterial contaminations in platelet concentration". Ren Bean, Quentin Austin, Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant# and Santimukul Santra*.ACS Pentasectional at Tulsa, OK, April 21, 2018 (poster presentation).
77. "Magnetic Resonance Nanosensors for the Investigation of Influenza Binding and Fusion Mechanisms". Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant,

- Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. Research colloquium, Pittsburg State University, April 11, 2018. (poster presentation).
76. "Personalized Drug-cocktail Nanomedicine for the Treatment of ProstateCancer ". Ren Bean, Quentin Austin, Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant and Santimukul Santra. Research colloquium, Pittsburg State University, April 11, 2018. (poster presentaton).
 75. "Herbal Drug Synergizes the Therapeutic Effect of CT20p Peptide in Cancer Treatment". Saloni Darji, Tanuja Tummala, Tuhina Banerjee, Annette Khaled, Shrikant Anant and Santimukul Santra. ACS Pentasectional at Tulsa, OK, April 21, 2018. (poster presentation).
 74. "Revolutionary treatment for prostate cancer: A combination approach using TNF-alpha and sophorolipids". Zachary Shaw, Lok shrestha, Jyothi Kallu, James Beach, Tuhina Banerjee, Richard Gross and Santimukul Santra. Research colloquium, Pittsburg State University, April 11, 2018. (poster presentation).
 73. "Magnetic Resonance Nanosensors for the Investigation of Influenza Binding and Fusion Mechanisms". Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant, Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. ACS Pentasectional at Tulsa, OK, April 18, 2018. (poster presentation).
 72. "Magnetic Resonance Nanosensors for the Investigation of Influenza Binding and Fusion Mechanisms". Vedant Jain, Tyler Shelby, Elena Mekhedov, Joshua Zimmerberg, Prasad Dandawate, Shrikant Anant, Ahinsa Ranaweera, David Weliky, Tuhina Banerjee and Santimukul Santra. 16 th K-INBRE Symposium, Kansas City, MO, Janary 13, 2018. (poster presentation).
 71. "Olaparib and Doxorubicin carrying Translational Nanotheranostics for the treatment of Prostate Carcinomas". Tanuja Tummala, Momin Ansare, Saloni Darji, Kalee Woody, Tuhina Banerjee and Santimukul Santra. Research colloquium, Pittsburg State University, April 11, 2018. (poster presentation).
 70. "Herbal Drug Synergizes the Therapeutic Effect of CT20p Peptide in Cancer Treatment". Saloni Darji, Tanuja Tummala, Tuhina Banerjee, Annette Khaled, Shrikant Anant and Santimukul Santra. Research colloquium, Pittsburg Satate University, April 11, 2018. (poster presentation).
 69. "Personalized nanomedicine: A new era of targeted cancer therapy". Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (Invited oral presentation).
 68. "TNF- α and sophorolipids: Combination approach for the treatment of prostate cancer". Zachary Shaw, Lok Shrestha, Jyothi Kallu, James Beach, Tuhina Banerjee, Richard Gross and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
 67. "Magnetic nanosensor platform for the fast and accurate detection of bacterial contaminants in platelet concentrates". Wesley Brantley, Ren Bean, Tanuja Tummala, Tuhina Banerjee and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (Best poster presentation award).
 66. "Targeted Nanomedicine: Role of Hsp90 Inhibitor and Sophorolipid in the Treatment of Cancer". Vedant Jain, Shuguftha Naz, Tuhina Banerjee, Filbert Totsingan, Richard Gross and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster Presentation).
 65. "Personalized Nanomedicine for the Combination Therapy of Prostate Cancer". Tanuja Tummala, Saloni Darji, Shuguftha Naz, Tuhina Banerjee and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).

64. "Early detection of zika and dengue viruses with functionalized magnetic nanosensors". Oleksandra Pashchenko, Tyler Shelby, Tuhina Banerjee and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
63. "Multiparametric Magneto-Fluorescent Nanosensors for Ultrasensitive Detection of E. coli O157:H7". Saloni Darji, Tuhina Banerjee, Tyler Shelby, James McAfee and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
62. "Drug Cocktail Carrying Nanomedicine for the Treatment of Cancer". Ren Bean, Quentin Austin, Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
61. "Synthesis and characterization of enzyme catalyzed biodegradable "click-able" polymers for targeted cancer Therapy". Wadha Alqahtani, Richard Gross and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
60. "Synthesis and characterization of enzyme catalyzed biodegradable "click-ene" polymers for biomedical applications". Elaf Alattas, Richard Gross and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 12-14, 2018. (poster presentation).
59. "Synthesis and characterization of enzyme catalyzed biodegradable "click-able" polymers for targeted cancer Therapy ". Wadha Alqahtani, Richard Gross and Santimukul Santra. ACS Midwest Regional Meeting, Kansas Memorial Union, Lawrence, Oct 18-20, 2017. (Poster presentation).
58. "Synthesis and characterization of enzyme catalyzed biodegradable "click-ene" polymers for biomedical applications". Elaf Alattas, Richard Gross and Santimukul Santra. 254th ACS National Meeting & Exposition, Washington DC, Aug 20-25th, 2017 (poster presentation).
57. "Development of Designer Nanomedicines and Nanosensors: Important Roles in Human Health". Santimukul Santra, Tuhina Banerjee, Tyler Shelby, Blaze Heckert, Shoukath Sulthana, Shuguftha Naz, James McAfee and Irene Zegar. 253rd ACS National Meeting & Exposition, San Francisco, CA. Apr 2-6th, 2017 (poster presentation).
56. "Molecularly Targeted Nanomedicine: Role of Hsp90 Inhibitor and Sophorolipid in the Treatment of Cancer". Shuguftha Naz, Jyothi Kallu, Tuhina Banerjee, Richard Gross, Filbert Totsingan and Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (Oral Presentation).
55. "Dual modal Nanosensors for the Early Detection of Escherichia Coli O157:H7". Tuhina Banerjee, Shoukath Sulthana, Tyler Shelby, James McAfee and Santimukul Santra. 253rd ACS National Meeting & Exposition, San Francisco, CA. Apr 2-6th, 2017 (poster presentation).
54. "Targeted combination therapy of prostate cancer". Tanuja Tummala, Shuguftha Naz, Tuhina Banerjee and Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (poster presentation).
53. "Drug Cocktail Carrying Nanomedicine for the Treatment of Prostate". Laci Hadorn,, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (poster presentation).
52. "PSMA-Receptor Targeting Translational Magnetic Nanoprobes: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Shuguftha Naz, Laci Hadorn, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. Pittsburg State University, KS, April 6th, 2017. (poster presentation).

51. "Combination Therapy of Prostate Cancer Utilizing Functionalized Iron Oxide Nanoparticles carrying TNF- α and Lactonic Sophorolipids". James Beach, Tuhina Banerjee, Jyothi Kallu, Ryan Higginbotham, Richard Gross and Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (oral presentation).
50. "One-step Synthesis and Characterization of Biodegradable 'Click-able' Polyester Polymer for Biomedical Applications". Wadha Alqahtani, Shuguftha Naz, James Beach, Tanuja Tummala, Richard Gross and Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (poster presentation).
49. "Rapid Diagnosis of H5N1 and H7N9 Influenza with Novel Magnetic Nanosensor". Oleksandra Pashchenko, Tuhina Banerjee, Tyler Shelby, and Santimukul Santra. Research symposium, Pittsburg State University, KS, April 6th, 2017. (poster presentation).
48. "PSMA-Receptor Targeting Translational Magnetic Nanoprobes: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Shuguftha Naz, Laci Hadorn, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. ACS Pentasectional Conference, March 24-25th, 2017, Cameron University, Lawton, OK (poster presentation).
47. "Drug Cocktail Carrying Nanomedicine for the Treatment of Prostate". Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. ACS Pentasectional Conference, March 24-25th, 2017, Cameron University, Lawton, OK. (poster presentation).
46. "Targeted combination therapy of prostate cancer". Tanuja Tummala, Shuguftha Naz, Tuhina Banerjee, Santimukul Santra. ACS Pentasectional Conference, March 24-25th, 2017, Cameron University, Lawton, OK. (poster presentation).
45. "PSMA-Receptor Targeting Translational Magnetic Nanoprobes: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Shuguftha Naz, Laci Hadorn, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. Annual Capitol Research Summit, Feb 15th, 2017, Topeka, KS. (poster presentation).
44. "Drug Cocktail Carrying Nanomedicine for the Treatment of Prostate Cancer". Laci Hadorn, Shuguftha Naz, Tuhina Banerjee, Shrikant Anant, Santimukul Santra. Annual Capitol Research Summit, Feb 15th, 2017, Topeka, KS. (poster presentation).
43. "Nanomedicine: An emerging modern technology for the treatment of cancer". Santimukul Santra.* Science Café, Wichita. September 12th, 2016.
42. "Non-Small-Cell-Lung-Cancer Treatment Using Hsp90 Inhibitor Carrying Magnetic Nanotheranostics". Kalee Woody, Jyothi Kallu, Deaven Thompson, Tuhina Banerjee, Nikolay N. Gerasimchuk and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 16-17, 2016 (Poster presentation).
41. "Novel Magnetic Nanosensor for the Rapid Detection of Influenza Virus and Comparative Analysis of Entry Blocker Proteins". Tyler Shelby, Tuhina Banerjee, Jyothi Kallu, Irene Zegar and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 16-17, 2016 (Best poster presentation award, 1st position).
40. "Designer Polymeric Nanotheranostics for the Detection and Treatment of Cancer". Blaze Heckert, Tuhina Banerjee, Riyadh Alnasser and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 16-17, 2016 (Poster presentation).
39. "New MR Activatable Nanoprobe for the Multiparametric Imaging and Treatment of Prostate Cancer". Jyothi Kallu, Jessica Jewell, Tuhina Banerjee, and Santimukul Santra*. K-INBRE conference at Kansas City, MO, Jan 16-17, 2016 (Oral presentation recognition).

38. "New Multi-Functional Nanoceria for the Treatment of Lung Cancer". Shoukath Sulthana, Tuhina Banerjee, Jyothi Kallu and Santimukul Santra. Annual Capitol Research Summit, Feb 2nd, 2016, Topeka, Best BIO-KANSAS Poster presentation award).
37. "Novel Magnetic Nanosensor for the Rapid Detection of Influenza Virus and Comparative Analysis of Entry Blocker Proteins". Tyler Shelby, Tuhina Banerjee, Jyothi Kallu, Irene Zegar and Santimukul Santra. Annual Capitol Research Summit, Feb 18, 2016, Topeka, (PSU Best Poster presentation).
36. "Novel drug cocktail-carrying anti-oxidant nanoceria for the treatment of cancer". Shuguftha Naz, Tuhina Banerjee, Jyothi Kallu, Shoukath Sulthana, Filbert Totsingan, Richard Gross and Santimukul Santra. ACS Pentasectional Conference, April 8th, 2016, Oklahoma Wesleyan University, (Best Poster presentation award).
35. "Novel Magnetic Nanosensor for the Rapid Detection of Influenza Virus and Comparative Analysis of Entry Blocker Proteins". Tyler Shelby, Tuhina Banerjee, Jyothi Kallu, Irene Zegar and Santimukul Santra. ACS Pentasectional Conference, April 8th, 2016, Oklahoma Wesleyan University, (Poster Presentation)
34. "Non-Small-Cell-Lung-Cancer Treatment Using Hsp90 Inhibitor Carrying Magnetic Nanotheranostics". Kalee Woody, Jyothi Kallu, Deaven Thompson, Tuhina Banerjee, Nikolay N. Gerasimchuk and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2016 (Best poster presentation award).
33. "Novel drug cocktail-carrying anti-oxidant nanoceria for the treatment of cancer". Shuguftha Naz, Tuhina Banerjee, Jyothi Kallu, Shoukath Sulthana, Filbert Totsingan, Richard Gross and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2016 (poster presentation).
32. "Novel Magnetic Nanosensor for the Rapid Detection of Influenza Virus and Comparative Analysis of Entry Blocker Proteins". Tyler Shelby, Tuhina Banerjee, Jyothi Kallu, Irene Zegar and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2016 (Best poster presentation award).
31. "New MR Activatable Nanoprobe for the Multiparametric Imaging and Treatment of Prostate Cancer". Jyothi Kallu, Jessica Jewell, Tuhina Banerjee, and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2016 (Best poster and oral presentation awards).
30. "New Multi-Functional Nanoceria for the Treatment of Lung Cancer". Shoukath Sulthana, Tuhina Banerjee, Jyothi Kallu and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2016 (Best poster presentation award).
29. "Novel drug cocktail-carrying anti-oxidant nanoceria for the treatment of cancer". Shuguftha Naz, Tuhina Banerjee, Jyothi Kallu, Shoukath Sulthana, Filbert Totsingan, Richard Gross and Santimukul Santra. ACS Midwest Regional Meeting (MWRM), Manhattan, KS, October 26, 2016 (oral presentation).
28. "In the Age of Nano-Bio Technology: Designer Nanotheranostics to Target Cancer and Infectious Diseases". Santimukul Santra.* Colloquium presentation, Department of Biology, Wichita State University. September 21st, 2015.
27. "Inhibitor-Induced Combination Therapy of K-RAS Driven NSCLC". Blaze Heckert, Deaven Thompson, Kalee Woody and Santimukul Santra. 250th ACS National Meeting & Exposition, Boston, MA. August 16-20th, 2015 (Poster Presentation).
26. "Innovative Anti-Oxidant Nanoceria for the Early Diagnosis and Treatment of Lung Cancer". Shoukath Sulthana, Blaze Heckert, Jyothi Kallu and Santimukul Santra. 250th ACS National Meeting & Exposition, Boston, MA. August 16-20th, 2015 (Poster Presentation).

25. "Non-Small-Cell-Lung-Cancer Treatment Using Hsp90 Inhibitor Carrying Magnetic Nanotheranostics". Jyothi Kallu, Blaze Heckert, Shoukath Sulthana and Santimukul Santra. 250th ACS National Meeting & Exposition, Boston, MA. August 16-20th, 2015 (Poster Presentation).
24. "Functional Magnetic Nanoprobes: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Deaven Thompson, Blaze Heckert, Shoukath Sulthana, Santimukul Santra. 250th ACS National Meeting & Exposition, Boston, MA. August 16-20th, 2015 (Poster Presentation).
23. "Non-Small-Cell-Lung-Cancer Treatment Using Hsp90 Inhibitor Carrying Magnetic Nanotheranostics". Jyothi Kallu, Blaze Heckert, Shoukath Sulthana and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2015 (Best Oral presentation award, 1st position).
22. "Inhibitor-Induced Combination Therapy of K-RAS Driven NSCLC". Blaze Heckert, Deaven Thompson, Kalee Woody and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2015 (Best poster presentation award, 1st position).
21. "Functional Magnetic Nanoprobes: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Deaven Thompson, Blaze Heckert, Shoukath Sulthana and Santimukul Santra. Research symposium, Pittsburg State University, KS, 2015 (Best poster presentation award, 2nd position).
20. "Innovative Anti-Oxidant Nanoceria for the Early Diagnosis and Treatment of Lung Cancer". Shoukath Sulthana, Blaze Heckert, Jyothi Kallu, Santimukul Santra. Research symposium, Pittsburg State University, KS, 2015 (Best poster presentation award, 1st position).
19. "PSMA-Receptor targeting magnetic nanoprobes: Novel nanotheranostics for the treatment of prostate carcinomas". Kalee Woody, Shoukath Sulthana, Jyothi Kallu and Santimukul Santra. Annual Capitol Research Summit, Feb 11-12th, 2015, Topeka, PSU undergraduate poster award winner.
18. "Non-Small-Cell Lung Cancer treatment using Hsp90 inhibitor carrying magnetic nanotheranostics". Jyothi Kallu, Kalee Woody, Tuhina Banerjee and Santimukul Santra. Annual Capitol Research Summit, Feb 11-12th, 2015, Topeka, Best poster BIO-KANSAS award and best PSU graduate poster award winner.
17. "PSMA-Receptor targeting magnetic nanoprobes: Novel nanotheranostics for the treatment of prostate carcinomas". Kalee Woody, Shoukath Sulthana, Jyothi Kallu and Santimukul Santra. K-INBRE, Jan 17-18th, 2015, Best poster award winner.
16. "Inhibitor-induced combination therapy of K-RAS driven NSCLC". Blaze Heckert, Deaven Thompson, Kalee Woody and Santimukul Santra. K-INBRE, Jan 17-18th, 2015, Best poster award winner.
15. "Gadolinium-Encapsulating Iron Oxide Nanoprobe as Activatable NMR/MRI Contrast Agent". Santimukul Santra, Shoukath Sulthana, Deaven Thompson, J. Manuel Perez. ACS Midwest Regional Meeting, University of Missouri, Columbia, Nov 12-15th, 2014 (Oral presentation).
14. "Highly economic, one-step synthesis of soybean polyols for industrial applications". Santimukul Santra.* Kansas Soybean Commission (KSC), KS, Dec 4th, 2014.
13. "Development of new soybean-based anti-oxidant topical lotion for skin care applications". Santimukul Santra.* Kansas Soybean Commission (KSC), KS, Dec 4th, 2014.
12. "Targeting PSMA-Receptors with Glutamated Magnetic Nanoparticles: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Kalee Woody, Blaze Heckert, Jyothi Kallu and Santimukul Santra. ACS Midwest Regional Meeting, University of Missouri, Columbia, Nov 12-15th, 2014 (Poster presentation).

11. "Anti-Oxidant Nanotheranostics for the Detection and Treatment of Cancer". Matthew Reddick, Blaze Heckert, Kalee Woody, Deaven Thompson and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 17-18, 2014 (Poster presentation).
10. "Activatable nanoprobe for cancer targeting". Santimukul Santra, Blaze Heckert, Kalee Woody and Deaven Thompson. K-INBRE conference at Kansas City, MO, Jan 17-18, 2014 (Poster presentation).
9. "Design and Synthesis of Novel Polymeric Nanotheranostics for the Targeted Imaging and Treatment of Cervical Cancer". Matthew Reddick, Blaze Heckert and Santimukul Santra. Topeka, Feb 12, 2014 (Poster presentation).
8. "Targeting PSMA-Receptors with Glutamate-Conjugated Magnetic Nanoparticles: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Kalee Woody, Santimukul Santra. Graduate Research symposium, Pittsburg State University, KS, April 16, 2014 (Best oral presentation award, 1st position).
7. "Functional Nanotheranostics for the Detection and Treatment of Cancer". Megan Burdick, Blaze Heckert, Santimukul Santra. Annual Research symposium, Pittsburg State University, KS, April 16, 2014 (Best poster presentation award, 3rd position).
6. "Targeting PSMA-Receptors with Glutamate-Conjugated Magnetic Nanoparticles: Novel Nanotheranostics for the Treatment of Prostate Carcinomas". Kalee Woody, Santimukul Santra. Annual Research symposium, Pittsburg State University, KS, April 16, 2014 (Best poster presentation award, 2nd position).
5. "Polymeric Nanotheranostics for the Detection and Treatment of Cancer". Blaze Heckert and Santimukul Santra. Graduate symposium, Pittsburg State University, KS, 2014 (Poster).
4. "Introducing Soybean-Based Therapeutic Nanogels for the Treatment of Cancers and Soybean Diseases". Kansas Soybean Commission (KSC). Santimukul Santra.* KS, USA, 2013.
3. "Introducing Soybean-Based Anti-oxidant and Theranostic Nanogels for Human Health". Missouri Soybean Merchandising Council (MSMC). Santimukul Santra.* MO, USA, 2013.
2. "Designer Polymeric Nanotheranostics for the Detection and Treatment of Cancer". Blaze Heckert, Kalee Woody and Santimukul Santra. K-INBRE conference at Kansas City, MO, Jan 17th, 2014 (Poster).
1. "In the Age of Polymer Science: Polymeric "Nano-Bio" Theranostics to Solve the Environmental and Human Health Problems". Santimukul Santra.* ACS MWRM conference, Springfield, MO, Oct 16-19, 2013.

* By invitation.