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International Institute of Nano and Molecular Medicine (**I²NM²**), Department of Radiology, School of Medicine,
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Curriculum Vitae

Professional Experience

Research Assistant Professor
I^2NM^2, University of Missouri-Columbia, MO, USA (February 2010-Present)

Group Leader, Biomedical Synthesis Group
I^2NM^2, University of Missouri-Columbia, MO, USA (September 2010-Present)

Senior Post-doctoral fellow
I^2NM^2, University of Missouri-Columbia, MO, USA (July 2007- Jan 2010)

Post-doctoral fellow-Part time
SUNY at Buffalo (UB), Buffalo, NY, USA (February 2006- June 2007)

Post-doctoral fellow
Roswell Park Cancer Institute (RPCI), Buffalo, NY, USA (July 2004-June 2007)

Senior Research Fellow
Central Drug Research Institute (CDRI)-Lucknow, India (September 2002-June 2004)

Post Graduate Research Trainee
Central Drug Research Institute (CDRI)-Lucknow, India (August 1999-August 2002)

Education

Ph.D., Medicinal/Synthetic Organic Chemistry (Advisor: Dr. D. K. Dikshit) **2004**
CDRI-Lucknow/Kumaun University-Nainital, India
Thesis entitled "Design and Synthesis of Novel Thrombin Inhibitors."

Master of Science, Major: Organic Chemistry (Advisor: Prof. C. Pandey) **1999**
Kumaun University-Nainital, India
Thesis entitled "Composition of essential oil from seeds of Cumin cyminum L."

Bachelor of Science, Major: Chemistry-Biology **1997**
Kumaun University-Nainital, India

Significant Achievements

- 10+ years of post-PhD experience in design and executing research projects in highly collaborative environment involving researchers form science, engineering, medical and veterinary fields.
- Co-authored **33+** scientific publications in peer-reviewed journals with more than **800+** citations.
- Co-invented **7** US/International patents including one **licensed** patent to a pharmaceutical company.

Supervisory and Leadership roles

- Documented reputation as a leader; demonstrated technical proficiency, scientific creativity, independent thoughts, and ability to effectively collaborate with others.
- Supervised postdoctoral fellows, graduate and undergraduate students.
- Designed and supervised summer research projects for undergraduate students.
- Ability to initiate and direct the design, synthesis, purification, and characterization of bioactive compounds.
- Capable of providing guidance to peers, colleagues and teams.
- Direct involvement in the chemistry lab with an exceptional grasp of state of the art chemistry techniques and extensive experience in structure-guided drug design and data analysis.
- Excellent written and oral communication skills.
- Delivered several research presentations, written manuscripts and periodic progress reports.

Awards & Honors

- Senior Research Fellowship Award **2002**
  Council of Scientific and Industrial Research-CSIR, New Delhi, India.

- Post Graduate Research Traineeship Award **1999**
  Central Drug Research Institute-CDRI, Lucknow, India.

- Merit certificate (2nd rank in entire University System) **1999**
  University M. Sc. Chemistry examination, Kumaun University, Nainital, India.

Reviewer Service

- European Journal of Medicinal Chemistry
- Medicinal Chemistry Research
- Anti-cancer Agents in Medicinal Chemistry
- Bioorganic & Medicinal Chemistry Letters
- Journal of Controlled Release
- Chemical Communications
- RSC Advances
- Grant Reviewer for various funding agencies.

Scientific Affiliations

- Member of American Chemical Society
- Member of Sigma Xi (The scientific Research Society)

Scientific Collaborations

- Prof. Louis M. Rendina, University of Sydney, lou.rendina@sydney.edu.au
- Prof. Ravindra Pandey, Roswell Park Cancer Institute-Buffalo, ravindra.pandey@roswellpark.org
- Prof. Lixin Ma, University of Missouri-Columbia, mal@missouri.edu.
- Dr. Rajiv Kumar, Northeastern University, Boston, r.kumar@neu.edu

Research Interests

- Development of minimally invasive molecular imaging probes (for MRI, fluorescence, X-Ray/CT) for early diagnosis of cancers and other lesions.
- Stimuli-responsive fluorescence and MRI based sensors for various metal ions, sugars, pH, reactive oxygen species (ROS), and glutathione.

- Multi-modal imaging probes for powerful and early detection of cancers and other disease e.g. MRI-fluorescence, X-Ray/CT-fluorescence hybrid imaging techniques.
- Surface engineered biodegradable polymers and nanoparticles for theranostic applications.
- Medicinal chemistry of amino acids, boranes, carboranes and porphyrins as it relates to drug discovery.
- Polyfunctional dendritic structures for theranostics application.

Research Experience

*I^2NM^2, University of Missouri-Columbia (**Mentor: Prof. M. F. Hawthorne**)* *(July 2007-Present)*

High-performance MRI contrast agents.

- Designed and accomplished new efficient methods of functionalization of the *closo*-B_{12}^{2-} cage.
- Synthesized several metal chelating ligands (DOTA, DTPA, and DTTA).
- Designed and executed the synthesis of novel vertex-differentiated *closo*-B_{12}^{2-} cage.
- Synthesized, characterized and evaluated nanomolecular high-performance MRI contrast agents.
- Designed and synthesized cRGD-conjugated high-performance MRI contrast agents.
- Designed, synthesized and evaluated novel contrast agents for MR angiography (MRA).

High-payload targeted delivery of pharmaceuticals.

- Designed and supervised the synthesis of novel multi-functional nanomolecular scaffolds carrying multiple copies of cytotoxic drugs e.g. carboplatin, chlorambucil and 5-fluorouracil.
- Designed and accomplished synthesis of several click reaction compatible heterobifunctional PEG linkers for bioconjugation.
- Designed and supervised the synthesis of novel multi-functional theranostic nanomolecular scaffolds for treatment (BNCT) imaging (fluorescence and MRI).

Development of bimodal imaging probes.

- Designed, synthesized and evaluated bimodal imaging probes for MRI and Fluorescence imaging.
- Designed, synthesized and evaluated bimodal imaging probes for ^{19}F-MRI and Fluorescence imaging.
- Designed and synthesized bimodal imaging probes for X-Ray/CT/XRF and Fluorescence imaging.

Molecular Sensors.

- Designed and synthesized molecular sensors for the detection of biologically relevant metals, enzymes and other cellular stimuli.

Boron Neutron Capture Therapy (BNCT).

- Synthesized boron-rich oligomeric phosphate diesters (OPDs) via step-wise solution phase phosphoramidite chemistry for BNCT application.
- Developed cationic liposomes formulation for OPDs to enhance their cellular localization.
- Synthesized and liposome formulation of first carborane appended phospholipid for BNCT applications.
- Worked on synthesis and applications of click-reaction based dendrimers.

Carborane as hydrophobic pharmacophore.

- Designed and synthesized first carborane based neuro-muscular blockers.

- Designed and synthesized first carborane appended β-carbolines for potential pharmacological activity.

*SUNY at Buffalo (UB), NY (**Mentor: Prof. P. N. Prasad & Prof. R. K. Pandey**)* *(February 2006- June 2007)*

- Worked on the synthesis and characterization of organically modified silica (ORMOSIL) nanoparticles for their use in delivery of photosensitizers for photodynamic therapy (PDT) and tumor imaging.
- Developed the post-loading techniques for the delivery of porphyrins using silica and polyacrylamide nanoparticles for PDT.

*Roswell Park Cancer Institute (RPCI), Buffalo, NY (**Mentor: Prof. R. K. Pandey**).* *(July 2004-June 2007)*

- Worked towards the synthesis of theranostic agents useful for PDT and MR/Fluorescence/PET imaging.
- Worked on the chemistry of Porphyrins.
- Synthesized several nanoparticles precursors for silica and polyacrylamide nanoparticles preparation.

*Central Drug Research Institute (CDRI)-Lucknow, India (**Mentor: Dr. D. K. Dikshit**). (August 1999-June 2004)*

- Synthesized library of tetrahydro-*β*-carbolines, hydantoins via solution-phase and solid phase combinatorial synthesis as new class of thrombin inhibitors.
- Synthesized several biologically active heterocycles using natural amino acids as chiral pool.
- Developed cycloaddition-hydrogenolysis strategy for the synthesis of 2, 4 disubstituted pyroglutamtes.
- Developed new synthetic route for the analogs of Lactacystin, a naturally occurring proteasome inhibitor.
- Developed a short synthesis of natural product (+)-Preussin, a natural product with potent antifungal activity.

Patents

1. *United States Patent No.* **US7,501,509 B2,** Date: Mar. 10, **2009** "Water soluble tetrapyrollic photosensitizers for photodynamic therapy" Ravindra K. Pandey, Amy Gryshuk, **Lalit N. Goswami** William Potter and Allan Oseroff.

2. *United States Patent No.* **US7,897,140 B2**, Date: March 1, **2011** "Multi DTPA conjugated tetrapyrollic compounds for phototherapeutic contrast agents" Ravindra K. Pandey, **Lalit N. Goswami,** Joseph Spernyak, Peter Kanter and Richard Mazurchuk.

3. *United States Patent Publication No.* **2011/0223102** (Licensed to Pharmaceutical company), Date: Sept. 15, **2011**, "Multimodality Agents for Tumor Imaging and Therapy" Ravindra K. Pandey**,** Suresh K. Pandey, **Lalit N. Goswami,** Allan Oseroff, Shipra Dubey, Sajjad Munawwar and Stephanie Pincus.

4. *International Application No.:* PCT/WO 2009/038660, Date**:** 26 March **2009.** "Multimodality Agents for Tumor Imaging and Therapy" Ravindra K. Pandey**,** Suresh K. Pandey, **Lalit N. Goswami,** Allan Oseroff, Shipra Dubey, Sajjad Munawwar.

5. *US patent Publication No*., **20110288234,** Date**:** Nov. 24, **2011**. "Silica Nanoparticles postloaded with photosensitizers for drug delivery in Photodynamic Therapy" Ravindra K. Pandey, **Lalit N. Goswami,** Allan Oseroff, Stephanie Pincus, Janet Morgan, Paras N. Prasad and Earl J. Bergey.

6. *International Application No*.: **WO/2009/105209**, Date**:** August 27, 2009 "Silica Nanoparticles postloaded with photosensitizers for drug delivery in Photodynamic Therapy" Ravindra K. Pandey, **Lalit N. Goswami,** Allan Oseroff, Janet Morgan, Paras N. Prasad and Earl J. Bergey.

7. *International Application No*.: **WO/2009/038659** Date: March 26, **2009** "Organically Modified Silica Nanoparticles with covalently incorporated photosensitizers for drug delivery in PDT" Ravindra K. Pandey, **Lalit N. Goswami,** Allan Oseroff, Janet Morgan, Paras N. Prasad, Earl J. Bergey, Tymish Y. Ohulchanskyy and Indrajit Roy.

Publications **Citations: 832+**

1. **Lalit N. Goswami**, Aslam A. Khan, Satish S. Jalisatgi and M. Frederick Hawthorne, "Synthesis and *In Vitro* Assessment of a Bifunctional Closomer Probe for Fluorine (^{19}F) Magnetic Resonance and Optical Bimodal Cellular Imaging", ***Chem. Commun***., *50*, 5793-5795 (**2014**).

2. **Lalit N. Goswami**, Lixin Ma, Peter J. Kueffer, Satish S. Jalisatgi and M. Frederick Hawthorne, "Synthesis and Relaxivity Studies of a DOTA-based Nanomolecular Chelator Assembly Supported by an Icosahedral *Closo*-B_{12}^{2-} -Core for MRI: A Click Chemistry Approach", ***Molecules***, *18*, 9034-9048 (**2013**).

3. **Lalit N. Goswami**, Lixin Ma, Shatadru Chakravarty, Quanyu Cai, Satish S. Jalisatgi, M. Frederick Hawthorne, "Discrete Nanomolecular Polyhedral Borane Scaffold Supporting Multiple Gadolinium (III) Complexes as a High Performance MRI Contrast Agent", ***Inorg. Chem***., 52, 1694-1700 (**2013**).

4. **Lalit N. Goswami**, Zachary H. Houston, Saurav J Sarma, Satish S. Jalisatgi and M. Frederick Hawthorne, "Efficient Synthesis of Diverse Heterobifunctionalized Clickable Oligo(ethylene glycol) Linkers: Potential Applications in Bioconjugation and Targeted Drug Delivery**",** ***Org. Biomol. Chem***., 11, 1116-1126 (**2013**).

5. **Lalit N. Goswami**, Lixin Ma, Quanyu Cai, Saurav J. Sarma, Satish S. Jalisatgi, and M. Frederick Hawthorne, "cRGD Peptide-Conjugated Icosahedral *closo*-B_{12}^{2-} Core Carrying Multiple Gd^{3+}-DOTA Chelates for $\alpha_v\beta_3$ Integrin-Targeted Tumor Imaging (MRI)", ***Inorg. Chem***., 52, 1701-1709 (**2013**).

6. Nadine S. James, Tymish Y. Ohulchanskyy, Yihui Chen, Penny Joshi, Xiang Zheng, **Lalit N. Goswami**, Ravindra K. Pandey, "Comparative Tumor Imaging and PDT Efficacy of HPPH Conjugated in the Mono- and Di-Forms to Various Polymethine Cyanine Dyes: Part – 2", ***Theranostics,*** 3, 703-718 (**2013**).

7. Manivannan Ethirajan, Ping Chen, Tymish Y. Ohulchanskyy, **Lalit N. Goswami**, Anurag Gupta, Avinash Srivatsan, Mahabeer P. Dobhal, Joseph R. Missert, Paras N. Prasad, Karl M. Kadish, and Ravindra K. Pandey, "Regioselective Synthesis, Photophysical and Electrochemical studies of Position-20 Substituted Cyanine dye-Purpurinimide Conjugates. Incorporation of Ni(II) in the Conjugate Enhances its Tumor-Uptake and Fluorescence Imaging Ability", ***Chem. Eur. J.,*** 19, 6670–6684 (**2013**).

8. **Lalit N. Goswami**, Zachary H. Houston, Saurav J. Sarma, Hairong Li, Satish S. Jalisatgi, M. Frederick Hawthorne, "Synthesis of Vertex-Differentiated Icosahedral closo-Boranes: Polyfunctional Scaffolds for Targeted Drug Delivery", ***J. Org. Chem***., 77, 11333–11338 (**2012**).

9. **Lalit N. Goswami**, Shatadru Chakravarty, Mark W. Lee, Satish S. Jalisatgi and M. Frederick Hawthorne, "Extensions of the Icosahedral Closomer Structure Using Azide-alkyne Click Reactions", ***Angew. Chem. Int. Ed***., 50, 4689-4691 (**2011**).

10. Penny Joshi, Manivannan Ethirajan, **Lalit N. Goswami**, Avinash Srivatsan, Joseph R. Missert and Ravindra K. Pandey, "Synthesis, Spectroscopic, and in Vitro Photosensitizing Efficacy of Ketobacteriochlorins Derived from Ring-B and Ring-D Reduced Chlorins via Pinacol−Pinacolone Rearrangement", ***J. Org. Chem.,*** 76, 8629−8640 (**2011**).

11. Anurag Gupta, **Lalit N. Goswami**, Manivannan Ethirajan, Joseph Missert, K.V.R. Rao, Tymish Ohulchansky, Indrajit Roy, Janet Morgan, Paras N. Prasad and Ravindra K. Pandey, "Organically modified silica nanoparticles as drug delivery vehicles in photodynamic therapy", ***J. Porphyrins Phthalocyanines***, 15, 401–411 (**2011**).

12. Shouyan Wang, Wenzhe Fan, Gwangseong Kim, Hoe Jin Hah, Yong-Eun Koo Lee, Raoul Kopelman, Manivannan Ethirajan, Anurag Gupta**, Lalit N. Goswami**, Paula Pera, Janet Morgan, and Ravindra K. Pandey, "Novel Methods to Incorporate Photosensitizers Into Nanocarriers for Cancer Treatment by Photodynamic Therapy" ***Lasers in Surgery and Medicine***, 43, 686–695 (**2011**).

13. **Lalit N. Goswami**, William H. White, III, Joseph A. Spernyak, Manivannan Ethirajan, Yihui Chen, Joseph R. Missert, Janet Morgan, Richard Mazurchuk and Ravindra K. Pandey, "Synthesis of Tumor-Avid Photosensitizer−Gd(III)DTPA Conjugates: Impact of the Number of Gadolinium Units in T1/T2 Relaxivity, Intracellular localization, and Photosensitizing Efficacy", ***Bioconjugate Chem***., 21, 816–827 (**2010**).

14. Joseph A. Spernyak, William H. White, III, Manivannan Ethirajan, Nayan J. Patel, **Lalit N. Goswami**, Yihui Chen, Steven Turowski, Joseph R. Missert, Carrie Batt, Richard Mazurchuk and Ravindra K. Pandey, "Hexylether Derivative of Pyropheophorbide-a (HPPH) on Conjugating with 3-Gadolinium(III) Aminobenzyldiethylenetriaminepentaacetic Acid Shows Potential for in Vivo Tumor Imaging (MR, Fluorescence) and Photodynamic Therapy" ***Bioconjugate Chem***., 21, 828–835 (**2010**).

15. **Lalit N. Goswami**, Manivannan Ethirajan, Mahabeer P. Dobhal, Min Zhang, Joseph R. Missert, Masayuki Shibata, Karl M. Kadish and Ravindra K. Pandey "Remarkable Features of the McMurry, Reaction Conditions in Dimerization of Formyl-and 2-Formylvinylpurpurinimides. Electrochemistry of Monomeric Ni(II) Purpurinimide and the Corresponding Dyads", ***J. Org. Chem***., 74, 568-579 (**2009**).

16. Rajiv Kumar, Indrajit Roy, Tymish Y. Ohulchanskyy, **Lalit N. Goswami**, Adela C. Bonoiu, Earl J. Bergey, Kenneth M. Tramposch, Anirban Maitra and Paras N. Prasad, "Covalently Dye-Linked, Surface-Controlled, and Bioconjugated Organically Modified Silica Nanoparticles as Targeted Probes for Optical Imaging", ***ACS Nano***, 2, 449–456 (**2008**).

17. Tymish Ohulchansky, I Roy, **Lalit N. Goswami**, Earl. J. Bergey, Ravindra K. Pandey, Allen R. Oseroff and Paras N. Prasad, "Organically Modified Silica Nanoparticles with Covalently Incorporated Photosensitizer for Photodynamic Therapy of Cancer", ***Nano Lett.,*** 7, 2835 -2842 (**2007**).

18. **Lalit N. Goswami**, Yihui Chen, Joseph Missert, Guolin Li, Alex Pallenberg, and Ravindra K. Pandey, "Conversion of Bacteriochlorophyll-a to Bacteriopurpurin-18: A Useful Synthon for the Construction of Bioactive Agents for Cancer Therapy", ***Heterocycles***, 71, 1929-1949 (**2007**).

19. Amy Gryshuck, Yihui Chen, **Lalit N. Goswami**, Suresh K. Pandey, Allan Oseroff and Ravindra K. Pandey, "Structure-Activity Relationship Among Purpurinimides and Bacteriopurpurinimides: Trifluoromethyl Substituent Enhanced the PDT Efficacy", ***J. Med. Chem***., 50, 1754-1767 (**2006**).

20. Andrei N. Kozyrev, Yihui Chen, **Lalit N. Goswami**, Walter A. Tabaczynski and Ravindra K. Pandey, "Characterization of Porphyrins, Chlorins and Bacteriochlorins Formed via Allomerization of

Bacteriochlorophyll-a. Synthesis of Highly Stable Bacteriopurpurinimides and their Metal Complexes", ***J. Org. Chem***., *71*, 1949-1960 (**2006**).

21. Ravindra K. Pandey, **Lalit N. Goswami**, Yihui Chen, Joseph R. Missert, Allan Oseroff, and Thomas J. Dougherty, "Nature: A Rich Source for Developing Multifunctional Agents. Tumor-Imaging and Photodynamic Therapy", ***Lasers in Surgery and Medicine***, *38,* 445-467 (**2006**).

22. Andrew Rosenfeld, Janet Morgan, **Lalit N. Goswami**, Tymish Ohulchansky, Xiang Zheng, Paras N. Prasad, Allan Oseroff and Ravindra K. Pandey, "Photosensitizers Derived from 132-Oxo-methyl Pyropheophorbide-a: Enhanced Effect of Indium (III) as a Central Metal in In Vitro and In Vivo Photosensitizing Efficacy", ***Photochemistry and Photobiology***, 82, 626–634 (**2006**).

23. Allan R. Oseroff, Janet Morgan, E. James Bergey, Paras N. Prasad, Raoul Kopelman, Yong Eun Koo, **Lalit N. Goswami** and Ravindra K. Pandey, "Tumor-avid photosensitizers target molecular and nanoparticle based diagnostic agents for multimodality imaging and image-guided PDT", ***J. Porphyrins Phthalocyanines***, 10, 363-363 (**2006**, Symposium series).

24. Ravindra K. Pandey, Yihui Chen, Amy Gryshuk, **Lalit N. Goswami** and Allan Oseroff, Chemistry and spectroscopic characteristics of bacteriochlorins derived from bacteriochlorophyll-a", ***J. Porphyrins Phthalocyanines***, 10: 366-366 (**2006**, Symposium series).

25. Guolin Li, Adam Slansky, Mahabeer P. Dobhal, **Lalit N. Goswami**, Andrew Graham, Yihui Chen, Peter Kanter, Ronald A. Alberico, Joseph Spernyak, Janet Morgan, Richard Mazurchuk, Allan Oseroff, Zachary Grossman and Ravindra K. Pandey, "Chlorophyll-a Analogs Conjugated with Aminophenyl DTPA as potential Bifunctional Agents for Tumor Imaging (MRI) and Photodynamic Therapy", ***Bioconjugate Chemistry***, *16,* 32-42 (**2005**).

26. Stuti Srivastava, **Lalit N. Goswami**, Dinesh K. Dikshit, "Progress in the Design of Low Molecular Thrombin Inhibitors", ***Medicinal Research Reviews***, 25, 66-92 (**2005**).

27. Dinesh. K. Dikshit, **Lalit N. Goswami**, Vishnu S. Singh, "A short synthesis of Preussin: Use of allyldimethylsilyl as masked hydroxyl", ***Synlett***., 11, 1737-1739 (**2003**).

28. Stuti Srivastava, **Lalit N. Goswami** and Dinesh K. Dikshit, "Use of S-Proline as chiral auxillary in α-alkylations of carboxylic acids", ***Indian Journal of Chemistry***, 42B, 10, 2628-2631(**2003**).

29. Anjana Maheshwari, **Lalit N. Goswami**, B. C. Joshi, Raja Roy & Dinesh K. Dikshit, "Imminium ion chemistry at C-2 of pyroglutamates: Unexpected Formation of 1,4-Methano-3-oxa-6-t-butyl-7-azabicyclo[7.3.0]decan-2,8-dione", ***Indian Journal of Chemistry,*** 42B, 154-158 (**2003**).

30. **Lalit N. Goswami** and Dinesh K. Dikshit, "Sequential alkylations on Pyroglutamates: A novel approach to chiral (+)-Lactacystin analogs", ***Med. Chem. Res.***, *12,* 300-300 (**2003**, Symposium series).

31. **Lalit N. Goswami**, Stuti Srivastava, Sharad Kumar Panday and Dinesh K. Dikshit, "Cycloaddition-hydrogenolysis strategy for the synthesis of 2, 4 disubstituted pyroglutamtes", ***Tetrahedron Letters***, 42, 7891-7892 (**2001**).

32. **Lalit. N. Goswami**, D. Mishra, S. K.Panday and D. K. Dikshit, "A new approach to 4-Arylmethyl Pyroglutamtes", ***Med. Chem. Res.***, 10, 54-54 (**2001**, Symposium series).

33. C. Pandey and **Lalit. N. Goswami**, "Composition of essential oil from seeds of Cumin cyminum L.", ***Indian Perfumer***, 44, 265-266 (**2000**).

Presentations:

1. **International Society for Magnetic Resonance in Medicine** (ISMRM) 23rd Annual Meeting & Exhibition May 30 - June 5 **2015**, Toronto, ON, Canada. "High Relaxivity MRI Contrast Agents based on a closo-borane platform." Shatadru Chakravarty, Lixin Ma, **Lalit N. Goswami**, Satish S. Jalisatgi, and M. Frederick Hawthorne (Abstract accepted).

2. **The Midwest Regional Meeting of the ACS**, November 12-15, **2014**, University of Missouri, Columbia, MO. "Icosahedral *Closo*-B_{12}^{2-} -core Supporting DTPA-based Multimeric Chelator Assembly as a High-field MRI Contrast Agent." **Lalit N. Goswami**, Shatadru Chakravarty, Lixin Ma, Aslam A. Khan, Satish S. Jalisatgi and M. Frederick Hawthorne (Poster Presentation).

3. **Missouri Tech Expo**, October 16, **2014**, University of Missouri, Columbia, MO (Attended).

4. **248th ACS National Meeting**, San Francisco, August 10-14, **2014** (Attended).

5. **Missouri Tech Expo**, September 19, **2013**, University of Missouri, Columbia, MO (Attended).

6. **4th Annual Nanofrontiers Symposium,** June 6-7 **2013**, University of Missouri, Columbia, MO. "Current Research at the International Institute of Nano & Molecular Medicine" Shatadru Chakravarty; Zachary H. Houston; Charles A. Maitz; Peter J. Kueffer; Oleg Bondarev; Alexei Pushechnikov; Aslam A. Khan; Saurav J. Sarma; Natalia I. Shlyakhtina; Kuanysh Z. Kabytaev; Monika R. VanGordon; Thomas A. Everett; Brett Meers; Quanyu Cai; **Lalit N. Goswami**; Alexander V. Safronov; George R. Kracke; Lixin Ma; Satish S. Jalisatgi; M. Frederick Hawthorne (Poster Presentation).

7. **Missouri Nano Frontiers Symposium**, Columbia, MO, USA, November 17-19, **2009**. "Synthesis of Highly Efficacious MRI and X-Ray Contrast Enhancement Agents" **Lalit N. Goswami**; Shatadru Chakravarty; Peter Kueffer; Lixin Ma; Satish S. Jalisatgi; Mark W. Lee; M. Fredrick Hawthorne (Poster Presentation).

8. **A celebration of Nano & Molecular Medicine**, University of Missouri, Columbia, MO. October 20-22, **2008** (Attended).

9. ***NCI Nanotechnology Alliance Investigators Meeting***, October 25-26, **2006**, San Diego Marriott La Jolla, California, USA. "Design, Synthesis and Characterization of Photosensitizer-Conjugated ORMOSIL Precursors for Photodynamic Therapy and Tumor Imaging" Ravindra K. Pandey, **Lalit N. Goswami**, I. Roy, Tymish Ohulchansky, Janet Morgan, E. J.Bergey, Paras N. Prasad and Allan R. Oseroff.

10. ***NCI Nanotechnology Alliance Investigators Meeting***, October 25-26, **2006**, San Diego Marriott La Jolla, California, USA. "Organically Modified Silica (ORMOSIL) Nanoparticles for Delivery of Photosensitizers for Photodynamic Therapy (PDT)" Tymish Ohulchansky, I Roy, Ravindra K. Pandey, **Lalit N. Goswami**, E. J.Bergey, Janet Morgan, Paras N. Prasad and Allan R. Oseroff.

11. ***NCI Nanotechnology Alliance Investigators Meeting,*** October 25-26, **2006**, San Diego Marriott La Jolla, California, USA. "Photodynamic Therapy (PDT) *In Vitro* and *In Vivo* with Organically Modified Silica (ORMOSIL) Nanoparticles using the Hydrophobic Photosensitizer HPPH (2-devinyl-2-(1-hexyloxyethyl) pyropheophorbide a)" Janet Morgan, Ivan Charamisinau, I Roy, Dhurba J Bharali, Tymish Ohulchansky, **Lalit N. Goswami**, Ravindra K. Pandey, Paras N. Prasad, E. J.Bergey and Allan R. Oseroff.

12. ***International Conference on Porphyrins and Phthalocyanines*** (ICPP-4), July 2-7, **2006**, Rome, Italy. "Tumor-avid photosensitizers target molecular and nanoparticle based diagnostic agents for

multimodality imaging and image-guided PDT", Allan R. Oseroff, Janet Morgan, E. James Bergey, Paras N. Prasad, Raoul Kopelman, Yong Eun Koo, **Lalit N. Goswami** and Ravindra K. Pandey.

13. ***International Conference on Porphyrins and Phthalocyanines*** (ICPP-4), July 2-7, **2006**, Rome, Italy. Chemistry and spectroscopic characteristics of bacteriochlorins derived from bacteriochlorophyll-a", Ravindra K. Pandey, Yihui Chen, Amy Gryshuk, **Lalit N. Goswami** and Allan Oseroff.

14. ***International Conference on Current Trends in Drug Discovery Research (CTDDR),*** February 17-20, **2004**, Central Drug Research Institute, Lucknow, India. "Sequential alkylations on Pyroglutamates: A novel approach to chiral (+)-Lactacystin analogs" **Lalit N. Goswami** and Dinesh K. Dikshit.

15. ***International Conference on Drug Discovery and Process Research*** (***DDPR)***, January 23-25, **2003**, Shivaji University, Kolhapur, India. "Combinatorial synthesis and biological evaluation of b-Carboline-Hydaintoin based libraries as Antithrombotic agents" **Lalit N Goswami,** Prashant Sharma, M. Dikshit and Dinesh K. Dikshit.

16. ***International Conference on Current Trends in Drug Discovery Research (CTDDR),*** February 11-15, **2001**, Central Drug Research Institute, Lucknow, India. "A new approach to 4-Arylmethyl Pyroglutamtes" **Lalit. N. Goswami,** D. Mishra, S. K. Panday and D. K. Dikshit.

References:

1. Professor M. F. Hawthorne
   Director, I^2NM^2
   Department of Radiology, School of Medicine
   University of Missouri-Columbia
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2. Professor Ravindra K. Pandey, Ph.D.
   Distinguished Member
   Cellular Stress Biology
   Roswell Park Cancer Institute
   Elm and Carlton Streets
   Buffalo, NY 14263, USA
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3. Professor Louis M. Rendina
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4. Dr. Dinesh K. Dikshit, Ph.D.
   Retd. Scientist G
   Medicinal & Process Chemistry Division
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   Sophisticated Analytical Instruments Facility
   Central Drug Research Institute
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5. Professor Diwan S. Rawat
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