



Curriculum Vitae

Srinath Pashikanti, Ph.D. M.S.

Associate Professor (Tenured), Biomedical and Pharmaceutical Sciences

Kasiska Division of Health Sciences, LS Skaggs College of Pharmacy,
Idaho State University, Pocatello, ID.

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Education:

May 2014	The University of Kansas, School of Pharmacy, Lawrence, KS, USA Ph.D., Medicinal Chemistry
December 2011	The University of Kansas, School of Pharmacy, Lawrence, KS, USA M.S., Medicinal Chemistry
December 2007	South Dakota State University, Brookings, SD, USA M.S. Chemistry & Biochemistry
May 2002	Kakatiya University, Warangal, India M.Sc. Organic Chemistry with a major in Medicinal Chemistry

Faculty appointments:

April 2025	Received Tenure and Promotion to Associate Professor from Provost Office - ISU
August 2019 – May 2025	Tenure Track - Assistant Professor, Biomedical and Pharmaceutical Sciences, College of Pharmacy, Idaho State University, Pocatello, ID, USA.
2018 - 2019	Clinical Assistant Professor, Biomedical and Pharmaceutical Sciences, College of Pharmacy, Idaho State University, Pocatello, ID, USA.
2016 - 2018	Assistant Professor (non-tenure track), Biomedical and Pharmaceutical Sciences, College of Pharmacy, Idaho State University, Pocatello, ID, USA.

Postdoctoral and industrial pharmaceutical training:

2014 - 2016	Jointly appointed Postdoctoral Fellow, Chemistry Department, Virginia Tech University , Blacksburg, VA, USA and SphynKx Therapeutics, LLC, Charlottesville, VA, USA
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I. Research / Scholarship (21 Peer reviewed; 14 as an ISU faculty member, 1 under review, 2 in-preparation)

PEER-REVIEWED PUBLICATIONS as a Faculty at Idaho State University with scholarship with graduate students, undergraduates, and High school students.

1. Mateen, S., Barrott, J., **Pashikanti, S.*** Synthesis, molecular modeling, and translational studies of medicinal agents targeting sphingolipid biochemistry, **2025, Biomolecules, (Under review).**

2. Ghimire, B., Giri, P., Mateen, S., Pashikanti, S., Habashi, A. A, Comparative Bioavailability Study of Jaspine B: Impact of Nano-Liposomal Drug Delivery System on Pharmacokinetics, **2025**, *Pharmaceutics*, (Under review).
3. **Pashikanti, S.**, Dutta, A. Stereoselective Synthetic Routes to Iminosugars: A Divergent Approach Utilizing a Common Multifunctional Chiral Scaffold. **2024**, *Synthesis* [DOI: 10.1055/a-2353-1618].
4. Paucar, N.E., Leuven, S.V., Jesus, K.D., **Pashikanti, S.**, Mateen, S., Pradhan, S., Sharma, K., Synthesis and Biological Evaluation of Desacetylmaticarin Derivatives Isolated from Basin Big Sagebrush. **2024**, *Separations*, 11, (7), 217.
5. Afrin, F., Mateen, S., Barrott, J., Lai, JCK.; **Pashikanti, S.*** Natural Products and Small Molecules Targeting Cellular Ceramide Metabolism to Enhance Apoptosis in Cancer Cells, **2023**, *Cancers*. 15 (18), 4645.
6. Sharma, K., Almulla, S., Mahato, N., Pradhan, S., Mateen, S., Pashikanti S, 16 Metabolomics of Allium, **2023**, *Edible Alliums*, 270.
7. Anibogwi, R, Jesus, K.D., Pradhan, S., **Pashikanti, S.**, Mateen, S, Sharma, K. Extraction, Isolation and Characterization of Bioactive Compounds from Artemisia and Their Biological Significance: A Review, **2022**, *Molecules* 26 (22), 6995.
8. Pour, S.K., Mateen, S., **Pashikanti, S.**, Barrott, J.J., Habashi, A. A., Formulation, Characterization, and In Vitro/In Vivo Efficacy Studies of a Novel Liposomal Drug Delivery System of Amphiphilic Jaspine B for Treatment of Synovial Sarcoma, **2022**, *Marine Drugs* 20 (8) 509.
9. Paucar, N.E., Kiggins, P., Blad, B., De Jesus, K., Afrin, F, **Pashikanti, S.**, Sharma, K., Ionic liquids for the removal of sulfur and nitrogen compounds in fuels: a review, *Environmental Chemistry Letters*, **2021**, 19, 1205-1228.
10. **Pashikanti, S.**; Foster, D.; Kharel, Y.; Brown, A.M.; Bevan, D. R.; Lynch, K. R.; Santos, W. L.; "In Vivo Active Sphingosine Kinase 2 Inhibitors: Rigid Aliphatic Tail Derivatives Deliver Potent and Selective Analogs" *ACS BIO & MED^{Au} CHEM* **2021**, 2(5), 469-489.
11. De Jesus, K., Rodriguez, R., Baek, D.L., Fox, R., **Pashikanti, S.**, Sharma, K., Extraction of lanthanides and actinides present in spent nuclear fuel and in electronic waste, *Journal of Molecular Liquids*, **2021**, 336, 116006.
12. Mahato, N., Sharma, K., Sinha, M.S., Dhyani, A., Pathak, B., Jang, H., Park, S., **Pashikanti, S.**, Cho, S., Biotransformation of Citrus Waste-1: Production of Biofuel and Valuable Compounds by Fermentation, *Processes*, **2021**, 9, (2), 220.
13. **Pashikanti, S.**, Afrin, F., Meldrum, T., Stegelmeier, J., Pavsek, A., Habashi, Y., Fatema, K., Barrott, J. Quantifying fluorescently labeled ceramide levels in human sarcoma cell lines in response to a sphingomyelin synthase inhibitor. 2019, *Methods and Protocols*, 2019, 2 (3), 76.
14. Tao, A., Huang, Y., Shinohara, Y., Caylor, M. L., **Pashikanti, S.**, Xu, D. ezCADD: A Rapid 2D/3D Visualization-Enabled Web Modeling Environment for Democratizing Computer-Aided Drug Design *J.Chem. Inf. Model* 2018, 59 (1), 18-24.

PEER-REVIEWED PUBLICATIONS as a Postdoc and graduate student

15. **Pashikanti, S.**, Sibley, C.; Nguyen, M. K.; Santos, W.L.; Copper (II)-Catalyzed (E)-Selective Hydrosilylation of Allenes *Synfacts -Highlight* 2016; 12, 0836-0836.
16. **Pashikanti, S.**, Ukani, R., David, S.L., Dutta, A. Total Synthesis and Structure-Activity Relationship Studies of the Cytotoxic Anhydrophytosphingosine Jaspine B (Pachastrissamine)" *Synthesis* 2017, 49, 2089-2100.

17. **Pashikanti, S.**, Sibley, C.; Nguyen, M. K.; Santos, W.L.; Regio- and Stereoselective Copper (II)-Catalyzed Hydrosilylation of Activated Allenes in Water: Access to Vinylsilanes **Organic Letters** 2016, 18, 2443-2446.
18. Foster, A., Li, Y., Runyan, S., Dinh, T., Venadas, S., Chen, J., **Pashikanti, S.**, Datta, A., Ehring, G., Staubli, U; Activity of the enantiomers of erythro-3-hydroxyaspartate at glutamate transporters and NMDA receptors, **Journal of Neurochemisry** 2016; 136, 692 – 697.
19. **Pashikanti, S.**, Boissonneault, G.A., Cervantes, D.L. *Ex vivo* detection of histone H1 modified with advanced glycation end products, **Free Radical Biology and Medicine** 2011; 50, 1410 – 1416.
20. **Pashikanti, S.**, de Alba, D.R., Boissonneault, G.A., Cervantes, D.L. Rutin Metabolites: Novel Inhibitors of Non-oxidative Advanced Glycation End Products, **Free Radical Biology and Medicine** 2010; 48, 656.
21. Cervantes, D.L., **Pashikanti, S.** Rutin derivatives as potent AGE inhibitors and its relevance in diabetes complications, **FASEB J.** 2007 21:646.1.

Publications in preparation / addressing reviewer comments

22. Oman, J, Hayden, A., Sapkota, P., Akaberi, M., Tadesse, S., Schulte, M, K., Pashikanti, S.; Design, Synthesis and Structure – Activity Relationship Studies of Ascorbic acid Analogs Towards Positive Allosteric Modulation of Human $\alpha_9\alpha_{10}$ nAChRs. (manuscript under preparation for *ACS Medicinal Chemistry Letters*, 2024. (under preparation).
23. Afrin, F., Mateen, S., Oman, J., Habashi, A. A., Barrott, J*, **Pashikanti, S*** Jaspine B promotes apoptosis in sarcomas by inhibition of SGMS. 2024, Biochem. (under review).

Books Co-Authored: (1 Book)

1. Histone H1 glycation and rutin metabolites as glycation inhibitors: Nuclear protein glycation *in vivo* and novel natural product AGE inhibitors, **Pashikanti, S.**, Cervantes, D.L., 2008.
http://www.amazon.com/s?ie=UTF8&page=1&rh=n%3A283155%2Cp_27%3ASrinath%20Pashikanti

GRANTSMANSHIP

Grants under review (\$ 697,563)

09/2024 Role: PI. National Institutes of Health – SuRE First R16 – Inducing Apoptosis in Castration-Resistant Prostate Cancer by Targeting SMS1, Amount requested: \$697,563. **(Impact score 33; Council review 05/05/2025)**

Grants Funded for biomedical research efforts at ISU: (\$692,786 from 15 grants)

Funds received externally – \$673,636

Funds received from ISU Internal Seed Grant - \$19,150

05/2025 – 04/2027 Role: Co-PI.,

05/2023 - 04/2025 Role: PI. University of Idaho, INBRE – NIH funding, Design, Synthesis of Novel Ascorbate Analogs Potentiating $\alpha_9\alpha_{10}$ Nicotinic

	Acetylcholine Receptors of Medial Olivocochlear System (MOCS), \$142,500 (Active).
03/2023 – 09/2024	Role: PI. American Association of Colleges of Pharmacy (AAPC), Mitochondrial Membrane disruption using Sphingoid Probes in Cancer Cells. \$ 8,500 (Active).
01/2023 – 06/2023	Role: Co-PI. Idaho Health Department and Welfare, Center for Disease Control, Mitigating COVID-19 by educating High-Risk Populations, Underserved Communities, and hearing impaired in and around Bannock County, ID. \$14,684.
05/2023	Travel Award, Office of Research, Idaho State University, DEPSCoR Day at Montana State University, MT. \$2,500
06/2022	Role: PI. University of Idaho, COBRE: P20GM104420, Data Access Grant (DAG) Chemdraw Professional – Perpetual License, \$3,700.
01/2021 – 12/2022	Role: Co-PI. Idaho Health Department and Welfare, Center for Disease Control, Mitigating COVID-19 by educating High-Risk Populations and Underserved Communities in and around Bannock County, ID. \$17,301.
01/2021 – 12/2024	Role: Co-PI. National Science Foundation, Acquisition of a 400 MHz Nuclear Magnetic Resonance (NMR) Spectrometer at Idaho State University, Award # 2019074, \$329,085 (Active).
01/2022 – 12/2022	Role: PI. Center for Advanced Energy Studies – Idaho National Laboratory – Idaho State University, Incorporation of Sterics in novel Phosphonium Ionic Liquid (PIL) and their effect on Ligand Intermolecular Interactions and Chelation Properties. \$21,213.
01/2021 – 12/2021	Role: PI. Center for Advanced Energy Studies – Idaho National Laboratory – Idaho State University, Synthesis of Conformationally Rigid Phosphonium Ligands for Extraction of Cobalt, \$15,742.
01/2019 – 12/2021	Role: Co-PI. Elsa U. Pardee Foundation, Targeting sphingolipid metabolism in synovial sarcoma, \$98,511.
02/2019	Role: PI. HERC Undergraduate Strategic Initiatives Grant – STEM, Office of Research, Idaho State University, Pocatello, ID. \$2,400.
2019 -2021	Role: PI. Office of Research, Idaho State University, Pocatello, ID. Discovery, Synthesis of probes targeting Sphingomyelin Synthase, a crucial enzyme involved in ceramide metabolism, \$12,218.
2018	Role: PI. Teaching aid for three-dimensional visualization of medicines and macromolecules in Pharm. D., BPSci graduate programs. Kasiska Division of Health Sciences, College of Pharmacy, Idaho State University, Pocatello, ID. \$932.

7/2017 – 6/2018 Role: PI. Synthesis of Chiral Aminobutenolide : A versatile building block, Career Path Internship, College of Pharmacy, Idaho State University, ID. (Role: PI), **\$3,500.**

Grants recommended for funding (1 recommended for funding)

02/2017 – 05/2019 Role: PI. Idaho INBRE – PILOT Award, University of Idaho, ID. Transition state inhibitors of Sphingomyelin Synthase. *The selection committee selected the grant and recommended it for funding. The Office of Finance approved the recommendation but stated, "...Approved but funding pool not enough to fund all approved proposals"* Amount requested: **\$70,320.**

Grants submitted for external funding – Received Reviewers Comments. Reference: ISU Office of Research – CAYUSE system

Total funds requested for the department - **\$8,791,209** from 29 grant applications

01/2025 Role: PI. US Department of Energy FAIR grant partnering with National Lab – AMES National Lab – Experimental and theoretical studies of phosphonium ionic liquids in separation chemistry, Amount requested: \$800,000.

08/2024 Role: PI. US Department of Energy – Basic Sciences – Separation chemistry. Experimental and theoretical studies of phosphonium ionic liquids rigidity on metal chelation. Amount requested: \$999,999.

05/2024 Role: PI. National Institutes of Health – SuRE First R16 – Inducing Apoptosis in Castration-Resistant Prostate Cancer by Targeting SMS1, Amount requested: \$697,563.

03/2024 Role: PI, Idaho State University, Faculty Seed Grant – Project title: Sphingoid Bases Targeting Mitochondrial Function in Cancer Cells Utilizing 3D Organoid System. Amount requested: \$20,000.

10/2023 Role: PI, National Institutes of Health, NIH-R15 FOA – Project title: Cancer cell Mitochondrial Membrane Depolarization Utilizing Sphingoid Based Probes. Amount requested: \$412,962.

09/2023 Role: PI, National Institutes of Health, NIH-SuRE First R16 - Project title: Cancer cell Mitochondrial Membrane Depolarization Utilizing Sphingoid Based Probes; Amount requested: \$693,073.

05/2023 Role: Co-PI, National Institutes of Health, NIH – R16 FOA – Project title: Promoting research excellence by engaging diverse student teams in the creation of innovative pharmaceutical interventions for hearing loss. Amount requested: \$530,232.

04/2023 Role: PI, US Department of Energy – ISU – AMES collaborative Team grant. Project title: A Multidisciplinary Study of Phosphonium Ionic Liquids Harnessing the Combined Strength of Experiment, Theory and Machine Learning. Amount requested: \$749,999.

02/2023 Role: Co-PI, Hearing Health Foundation. Project title: Allosteric Modulation of the MOCS for the treatment and prevention of noise-related hearing loss. Amount requested: \$55,000.

11/2022 Role: Co-PI, Department of Defense, Project title: Allosteric Modulation of the MOCS for the treatment and prevention of noise-related hearing loss. Amount requested; \$335,779.

- 02/2022 Role: Co-PI, National Academy of Medicine, Project title: Drug Development for Age Related Hearing Loss. Amount requested: \$50,000.
- 10/2021 Role: PI, American Association of Colleges of Pharmacy. Project title: Novel Inhibitors of Sphingomyelinase: A model for targeting bacterial phospholipases. Amount requested: \$10,000.
- 04/2021 Role Co-PI. Spencer Foundation, Project title: Advancing equity in faculty response toward students facing higher education challenges. Total amount requested \$100,000.
- 02/2021 Role: PI, National Institutes of Health, R-15 FOA. Project title: Utilizing medicinal chemistry to design novel inhibitors of bacterial phospholipases. (Role PI), Total amount requested \$412,806.
- 02/2021 National Institutes of Health, R-21 FOA. Project title: Accelerating New Drug Discovery for Alpha9/Alpha10 Nicotinic Receptors. (Role CO-PI), Total amount requested \$ 377,681
- 01/2021 Role: PI, INBRE- University of Idaho – UI, Project title : Inhibition of Clostridium perfringens alpha toxin enzymatic activity and signaling using flavonones and phosphatidyl choline mimics. Amount requested \$200,000.
- 10/2020 Role: PI, American Association of College of Pharmacy, Project title: Synthesis & Invitro studies of jaspine B analogs to probe significance of sphingolipid Flux. Amount requested: \$10,000.
- 02/2020 Role: PI, National Institutes of Health - COBRE Proposal, Project title: Inducing Apoptosis of Refractory Prostate Cancer Cells by Targeting Ceramide Metabolism. (Role: PI), Amount requested \$1,327,630.
- 09/2019 Role: PI, American Association of College of Pharmacy, Project title: Development of Phthalimide-Linker Based inhibitors Targeting Sphingosine Kinases. Amount requested: \$10,000.
- 02/2019 University of Idaho – Idaho NASA, Project title: Identification of Secondary Metabolite signature of Thermophilic bacteria in Hot Springs of Idaho: Organic biosignatures for life detection on other worlds, (Role: PI), Amount requested \$24,999.
- 01/2019 Role: PI, National Institutes of Health - COBRE Proposal, Project title: Increasing Apoptosis in Prostate Cancer Cell by Targeting Ceramide Metabolism. (Role: PI), Total amount requested \$1,219,716.
- 02/2018 Role: PI, Idaho State University Internal Faculty Seed Grant. Title: Targeting ceramide metabolizing enzyme as a new avenue to treat pancreatic Cancer. Amount requested \$20,000.
- 02/2018 Role: PI, Title: Identification of Secondary Metabolites in Thermophilic bacteria near isolated hydrothermal regions of Idaho. Idaho NASA EPSCoR. Amount requested \$45,000.
- 03/2018 Role Co-PI Title: Evaluation of Stability Profiles of Drug Products Relevant for Astronauts on Spaceflight Missions beyond Their Labelled Expiration Date. The Translational Research Institute for Space Health (TRISH), Baylor College of Medicine, TX. Amount requested: \$ 300,000.
- 04/2018 Role: PI, Title: *“Color-coded labelling of drug metabolism part structure/s in a drug classification and its effects on student learning outcomes in drug metabolism”* SOTL Grant, American Association of Colleges of Pharmacy, LOI got accepted. Full application postponed submission for the next cycle towards obtaining preliminary data in Cardiovascular Module, Fall 2018. Amount requested: \$ 2,500.
- 12/2017 *Year-Long Science Camp for Underrepresented K-8 Students Designed and Delivered by STEM Undergraduates.* NASA ISGC Pre-College STEM Engagement Grant. (Role: Co-PI) in collaboration with Chemistry Department – ISU. Total amount requested: \$23,631.

- 08/2017 Role: PI, Department of Defense – CDMRP – Prostate Cancer FOA. Project title: Sphingomyelin Synthase as a Therapeutic Target in Prostate Cancer (Role: PI) Requested Direct Costs \$375,000.
- 02/2017 Role: PI, Idaho INBRE, Project title: Transition state inhibitors of Sphingomyelin Synthase. Amount requested: \$70,320.
- 03/2017 Role: Co-PI, Danon Foundation, Title: Quantification of Isoprostanes in Biological Samples using a Metabolomic Approach. Amount requested: \$10,000.
- 8/2016 Role: PI, American Association of Colleges of Pharmacy, Project title: Development of Novel *Inhibitors Targeting Sphingosine Kinases*, Amount requested: \$10,000.

Graduate & Postdoc grant applications (2 grants submitted, 1 funded)

- 09/ 2007 Project title: *Nuclear protein damage in diabetes complications that include cardiovascular disease*, American Heart Association – Midwestern Section, Predoctoral Fellowship, ~ \$ 52,000 for two years. Not Funded. (Role: Graduate Student).
- 04/2016 Project title: *Regio-Chemoselective synthesis of allenolates using copper (II)*, Summer Internship for an undergraduate student. (Role: PI, Funded).

AWARDS

- 2024 **Teacher of the Year 2023**, L.S. Skaggs College of Pharmacy, Idaho State University, ID.
- 2023 **Teacher of the Year 2022**, College of Pharmacy, Idaho State University, ID.
- 2023 **New Investigator Award** – Chemistry Section, American Association of Colleges of Pharmacy (AACP), USA.
- 2022 Chemistry for Climate Action Challenge – **International competition selected for Top 20 Proposals**, The Elsevier Foundation, Germany.
- 2021 **Faculty of the Month – August**, P1 Class, College of Pharmacy, Idaho State University
- 2021 **Teacher of the Year 2020**, College of Pharmacy, Idaho State University, ID.
- 2019 Faculty of the Month – Fall semester P1 Class, College of Pharmacy, Idaho State University
- 2014 – 2016 Postdoctoral Fellowship both in Academia and Industry Sponsored
- 2013 Graduate Scholarly Presentation Travel Award, The University of Kansas.
- 2010 – 2014 Graduate Teaching Assistantship, School of Pharmacy & Chemistry Department, The University of Kansas.
- 2009 Graduate Research Assistantship, School of Pharmacy, The University of Kansas.
- 2008 Graduate Research Assistantship, Biophotonics Lab, South Dakota State University, SD. (PI: Dr. Youngjae You).

- 2007 Graduate Travel Award, Department of Chemistry & Biochemistry, South Dakota State University.
- 2005 – '07 Graduate Student Teaching Assistantship, South Dakota State University.
- 2005 **Excellent Employee Awardee**, Medicinal Chemistry Laboratory, GVK Biosciences, India.
- 2004 Intellectual Property Rights Quiz Competition, Andhra Pradesh Technology Development & Promotion Center, India.
- 2002 Joint CSIR-UGC National Eligibility Test (NET) Lectureship Awardee, Council for Scientific and Industrial Research, University Grants Commission, India.

Distance Learning Technology and Teaching Management Systems

- **Distance Learning Technology (DL) :**
 - Experienced in delivering lectures using DL technology across multiple campuses and sites (Lawrence & Wichita at KU; Pocatello, Meridian & Anchorage at ISU)
 - Delivered Medicinal Biochemistry lectures for Professional Pharmacy Students at The University of Kansas
- **Blackboard Teaching Management systems (Bb world-wide)**
 - As a Teaching Assistant for PharmD. and undergraduate students at KU, I extensively utilized the Blackboard course management system for assignments, grading, and course announcements.
- **Modular Object-Oriented Dynamic Learning Environment (Moodle open-source learning platforms)**
 - As a faculty member in the College of Pharmacy, ISU, I extensively use Moodle for lecture delivery, grading, and course announcements with ISU PharmD. and graduate students.

Pharmaceutical Industrial Research and Mentoring Experience

July 2014 – June 15	SBIR grant initiative in collaboration with Virginia Tech. and SphynKx Therapeutics, LLC. USA. "Design, Synthesis and Structure-Activity Relationship studies of Sphingosine Kinase II inhibitors.
Jan' 2008 – May'08	Research Assistant, Medicinal and Biophotonics Lab , South Dakota State University, USA. <i>Synthesis and application of BODIPY Dye analogs in Photodynamic Therapy</i> - Youngjae You Lab, School of Pharmacy and Pharmaceutical Sciences, gvk SUNY – Buffalo, https://pharmacy.buffalo.edu/content/pharmacy/faculty-staff/faculty/faculty-profile.html?ubit=yjyou
Jan' 04 – June' 05	Research Associate, Medicinal Chemistry Laboratory, GVK Biosciences , India. (https://www.aragen.com).
Jan '03 – Dec 04	Senior Chemistry, Medicinal Chemistry Laboratory, GVK Biosciences , India.
May 02- Dec'02	Trainee Chemist, Medicinal Chemistry Laboratory, GVK Biosciences , India.

July 2014 – June 2015	SBIR grant initiative in collaboration with Virginia Tech and SphynKx Therapeutics, LLC, VA, USA. <i>Design Synthesis and Structure Activity of Sphingosine Kinase II Inhibitors</i>
January 2008 – May 2008	Research Assistant, Medicinal and Biophotonics Lab, South Dakota State University, Brookings, SD, USA. Synthesis and application of BODIPY Dye analogs in Photodynamic Therapy. PI: Dr. Youngjae You, Oklahoma University Health Sciences, Oklahoma City, OK, USA
January 2004 – June 2005	Research Associate, Medicinal Chemistry Laboratory, GVK Biosciences, Hyderabad, India (https://www.gvkbio.com/about-us/corporate-profile/)
January 2003 – December 2004	Senior Chemist, Medicinal Chemistry Laboratory, GVK Biosciences, Hyderabad, India
May 2002 – December 2002	Trainee Chemist, Medicinal Chemistry Laboratory, GVK Biosciences, Hyderabad, India

Invited Talks (8 invited talks)

1. Pashikanti, S*. Chiral Pool Strategy: Applications for Rationale Analog Design, American Association of Colleges of Pharmacy National Symposium, July 2024, Boston, MA.
2. Pashikanti, S*. Stereoselective Synthesis of Sphingoid based natural products and their biological significance, Idaho INBRE conference, May 2023, Moscow, ID.
3. Pashikanti, S*. Chiral pool strategy towards synthesis of Sphingoid Mimics, March 2023. Biomedical and Pharmaceutical Sciences, College of Pharmacy, Idaho State University, Pocatello, ID.
4. Pashikanti, S*. Stereoselective Synthesis of Sphingoid Based Natural Products Utilizing Alpha Amino Acids: An Application of Chiral Pool Strategy, May 2022. Chemistry Department – Idaho State University, Pocatello, ID.
5. Pashikanti, S*. Developing Antifungal Agents for Idaho Crops, Drug Discovery Working Group Consortium – Summer 2022. University of Idaho, Moscow, ID.
6. Pashikanti, S*.; Dutta, A.; Versatility of Chiral Aminobutenolide, a Second-Generation Advanced Intermediate Synthesized from L-Serine – Idaho Academy of Sciences 60th Annual Meeting and Symposium, April, 2018. Boise, ID.
7. Pashikanti, S*.; Kharel, Y.; Brown, A.M.; Bevan, D. R.; Lynch, K. R.; Santos, W. L.; Structure-Activity Relationship Studies of Conformationally Rigid Sphingosine Kinase Inhibitors, 2016, Idaho State University, College of Pharmacy, Pocatello, ID.
8. Pashikanti, S*.; Ukani, R.; David, S.; Dutta, A.; Synthesis and Structure-Activity Relationship Studies of the Cytotoxic Anhydrophytosphingosine Jaspine B - The 50th Annual MIKI Medicinal Chemistry Meeting-In-Miniature, April, 2012, IA.

Research Symposiums & Poster Presentations: (21 Presentations)

(Faculty, College of Pharmacy, Idaho State University, ID.)

1. Pashikanti, S. Total Synthesis and Anticancer Potential of Sphingoid Natural Products Targeting Mitochondrial Membrane Potential, American Colleges of Pharmacy National Symposium July 2024, Boston, MA.

2. Pashikanti, S. Chiral Pool Strategy Applications in Synthetic and Biological Chemistry at Idaho State University, Defense Established Program to Stimulate Competitive Research, Montana State University, May 2023, Bozeman, MT.
3. Shanae, V.L., Mateen, S., Rodriguez, R., Pashikanti, S., Synthesis and Characterization of rigid tetra-alkyl Phosphonium Based Ionic Liquids. Kasiska Division of Health Sciences, April 2023, Pocatello, ID.
4. Oman, J., Sharma, K., Schulte, K. M., Pashikanti, S., Synthesis of Positive Allosteric Modulators (PAMS) Targeting $\alpha 9\alpha 10$ Nicotinic Receptors for Age and Noise Induced Hearing Loss, Kasiska Division of Health Sciences, April 2023, Pocatello, ID.
5. Anderson, L., Skrenes, D., Oman, J., Condie, S., Cleveland, K., Lindsay, R., Pashikanti, S., Chaganaboyana, S., Epidemiological Study: Mitigation of COVID-19 Spread in Bannock County by Community Education in Public Places, Kasiska Division of Health Sciences, April 2023, Pocatello, ID.
6. Omar, J., Schulte, M., Pashikanti, S., Ascorbic acid analogs Targeting $\alpha 9\alpha 10$ nicotinic Acetylcholine receptor, American Chemical Society, National Symposium, Fall 2022, Chicago, IL.
7. Mateen S., Pashikanti, S. Biological Significance of Sphingolipid Probes – Total Synthesis of Spisulosine, American Chemistry Society National Symposium, Fall 2022, Chicago, IL.
8. Mateen, S., Afrin, F., Oman, J., Barrott, J., Habashi, A. A., Dutta, A., Pashikanti, S., Stereoselective Synthesis and Biological Evaluation of Sphingoid Based Natural and nature-like analogs, SKAGGS Symposium – University of Utah, School of Pharmacy, 2022, Salt Lake City, UT.
9. Afrin F, Mateen S, Kharel Y, Pashikanti S Strategy towards the Design, Synthesis & Structure Activity Relationship of γ -Lactam Linker-based Sphingosine Kinase Inhibitors. ACS National Meeting, August, 2021, Atlanta, GA.
10. Afrin F, Mateen S, Barrott J, J.K. Lai, Pashikanti S. Extraction of Microsomal Fraction from Prostate Cancer Cells Toward the Quantification of Ceramide Sphingolipid. KDHS Research and Scholarship Day, April, 2021, Pocatello, ID.
11. Afrin F, Mateen S, Barrott J, J.K. Lai, Pashikanti S. An approach towards Ceramide Sphingolipid quantification by Extraction of microsomal fraction from prostate cancer cells. Graduate Research Symposium, April, 2021, Idaho State University, Pocatello, ID.
12. Afrin F, Triyasakorn K, Barrott J, J.K. Lai, Dutta A, Pashikanti S. Rationale Development of Probes Targeting SMS Enzyme involved in Ceramide Metabolism. Graduate Research Symposium, April, 2020, Idaho State University, Pocatello, ID.
13. Afrin F, Triyasakorn K, Fatema K, Pavcek A, Meldrum T, Barrott J, J.K. Lai, Dutta A, Pashikanti S. Studying the sphingomyelin synthase (SMS) activity in aggressive cancer cells utilizing a fluorescently labelled C6-NBD-Ceramide: A tool for development of SMS probes. Northwest Regional Meeting of the American Chemical Society, June, 2019, Portland, OR,.
14. Afrin F, Triyasakorn K, Fatema K, Pavcek A, Meldrum T, Barrott J, J.K. Lai, Dutta A, Pashikanti S. Studying the sphingomyelin synthase (SMS) activity in aggressive cancer cells utilizing a fluorescently labelled C6-NBD-Ceramide: A tool for development of SMS probes. The Idaho Academy of Science and Engineering Annual Meeting and Symposium, April 2019, Idaho State University, Pocatello, ID,.
15. Afrin F, Obuch K, Kharel Y, Santos W L, Lynch K R, Pashikanti S. Design, Synthesis and Structure-Activity Relationship Studies of Phthalimide linker-based Sphingosine Kinase Inhibitors. ACS National Meeting, Orlando, FL, April, 2019.

16. Afrin F, Triyasakorn K, Fatema K, Pavek A, Meldrum T, Barrott J, J.K. Lai, Dutta A, Pashikanti S. Quantification of Cellular Ceramide by targeting Sphingomyelin Synthase in cancer cells utilizing anhydrophytosphingosine, jaspine B. Graduate research symposium, March, 2019, Idaho State University, Pocatello, ID.
17. Farjana, A.; J.K. Lai; Dong Xu, Pashikanti, S.; Ukani, R.; David, S.; Dutta, A.; Synthesis and biological evaluation of Jaspine B analogs targeting ceramide metabolizing enzyme. Kasiska Division of Health Sciences Research Day, April 2018, Idaho State University, Pocatello, ID.
18. Farjana, A.; J.K. Lai; Dong Xu, Pashikanti, S.; Ukani, R.; David, S.; Dutta, A.; Synthesis of Jaspine B C-2 Alkyl Amine Analogs: Targeting Sphingomyelin Synthase. Roseman Health Sciences Research Symposium, March 14, 2018, South Jordan, UT.
19. Pashikanti, S.; Poon, K.W.C.; Dutta, A.; HIV Protease Targeted Synthesis of Conformationally-Rigid Hydroxyethylene Dipeptide Isosteres: A Combinatorial Approach, Kasiska Division of Health Sciences Research Day, April 2017, Idaho State University, Pocatello, ID.
20. Farjana, A.; Pashikanti, S.; Kharel, Y.; Lynch, K. R.; Santos, W. L.; A Rigid Phthalimide Linker Based Design, Synthesis and Structure-Activity Relationship Studies of Sphingosine Kinase Inhibitors. Graduate Research Symposium 2017, Idaho State University, Pocatello, ID.
21. Pashikanti, S.; Kharel, Y.; Brown, A.M.; Bevan, D. R.; Lynch, K. R.; Santos, W. L.; Structure-Activity Relationship Studies of Conformationally Rigid Sphingosine Kinase Inhibitors, Skaggs Symposium, Idaho State University, College of Pharmacy, Skaggs Biomedical Research Symposium August 2016, Pocatello, ID.

Postdoctoral and Graduate Studies: (10 Presentations)

1. Pashikanti, S.; Kharel, Y.; Brown, A.M.; Bevan, D. R.; Lynch, K. R.; Santos, W. L.; Structure-Activity Relationship Studies of Rigid Sphingosine Kinase Inhibitors, Virginia Tech. Drug Discovery Symposium Sept. 2015.
2. Pashikanti, S.; Sibley*, C.; Nguyen, M. K.; Santos, W.L.; Synthesis of Allenates for Copper (II)-Catalyzed β -Silylation Reaction in Aqueous Solution: A Regio- and Chemoselective Silicon Transfer – Spring Semester Research presentation, Chemistry Department, Virginia Tech, Dec 2014.
3. Pashikanti, S.; Calderone, J. A. Nguyen*, M. K.; Santos, W.L.; Development of an Environmentally Friendly Method for Making Silicon-Carbon Bonds in Water, Chemistry Department, Virginia Tech, May 2014 (Awarded Second Prize).
4. Pashikanti, S.; Ukani, R.; David, S.; Dutta, A.; Synthesis, Structure-Activity Relationship studies and Biological Evaluation of the Cytotoxic Natural Product Jaspine B - 245th ACS National Meeting & Exposition, New Orleans, LA. 2013.
5. Pashikanti, S.; Ukani, R.; David, S.; Dutta, A.; Synthesis, Structure-Activity Relationship studies and biological evaluation of the cytotoxic natural product Jaspine B and analogs - MIKI Meeting, Kansas, 2011.
6. Pashikanti, S.; Dutta, A.; Total Synthesis of Cytotoxic anhydrophyto-sphingosine Jaspine B - MIKI Meeting, Illinois, 2010.
7. Pashikanti, S.; Poon, K.; Clark, J.; Dutta, A; HIV Protease Targeted Synthesis of Conformationally-Rigid Hydroxyethylene Dipeptide Isosteres: A Combinatorial Approach - MIKI Meeting, Minnesota, 2009.
8. Pashikanti, S.; Cervantes, D. L.; Rutin derivatives as potent AGE inhibitors and its relevance in diabetes complications - American Society for Biochemistry & Molecular Biology, Washington D.C. 2007.
9. Pashikanti, S.; Cervantes, D. L.; Rutin metabolites as potent inhibitors of AGEs - American Association of Pharmaceutical Scientists Meeting and Exposition, November 2007.

10. Pashikanti, S.; Cervantes, D. L.; Rutin derivatives as potent Advanced Glycation End product inhibitors and its relevance in diabetes complications - 41st ACS Midwest Regional Meeting 2006.

Professional Affiliations

2007 – <i>present</i>	American Chemical Society, Medicinal and Organic Chemistry Divisions
2008 – <i>present</i>	American Association for Pharmaceutical Scientists – Chemistry Division
2016 – <i>present</i>	American Association of Colleges of Pharmacy- Medicinal Chemistry and Biology sections

Workshops & Symposiums

1. Contemporary Medicinal Chemistry, Department of Medicinal Chemistry, The University of Kansas, December 2008 and December 2009.
2. ExamSoft Training, ISU – Meridian, August 2017.
3. Faculty Development Workshops organized by LS Skaggs College of Pharmacy, at annual retreats and monthly meetings.

Graduate and Undergraduate mentoring/advising

Student/s	Year	Institution
Farjana Afrin – Ph.D. Track	<i>Graduated Fall 2024</i>	Biomedical and Pharmaceutical Sciences, ISU.
Jordan Oman – Ph.D. Track	<i>2025 Fall expected graduation</i>	Biomedical and Pharmaceutical Sciences, ISU.
Sameena Mateen – Ph.D. Track	<i>2025 Fall expected graduation</i>	Biomedical and Pharmaceutical Sciences, ISU.

Graduate and Undergraduate Student Committees (Thesis/Dissertation)

Student	Degree	College
Oliver Tao	Ph.D.	Biomedical and Pharmaceutical Sciences
Sana Khajahpour	Ph.D.	Biomedical and Pharmaceutical Sciences
Arina Ranjit	Ph.D.	Biomedical and Pharmaceutical Sciences
Rahman Hamdard	Ph.D.	Biomedical and Pharmaceutical Sciences
Sabina Yeasmin	Ph.D.	Biomedical and Pharmaceutical Sciences

Service to the Discipline

Professional service	Period	Role
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International Journal of Molecular Sciences	2022 – present	Biochemistry Advisory Panelist and Reviewer
Environmental Chemistry Letters	2020 – present	Editorial Board Member
BMC Chemistry	2019 – present	Editorial Board Member
Cogent chemistry	2016 – 2020	Editorial Board Member
Medicinal Chemistry Research	2017 – present	Reviewer
Nutrients	2019 – present	Reviewer
Pharmaceuticals	2019 – present	Reviewer
RSC Advances	2017 – present	Reviewer
Organic Letters	2019 – present	Reviewer
Metabolites	2019 – present	Reviewer
Molecules	2017 – present	Reviewer
Processes	2019 – present	Reviewer
Pharmaceutics	2019 – present	Reviewer
Catalysts	2019 – present	Reviewer
NIH Grant R grants	October 2024	Reviewer
ISU Research Day Undergraduate and Graduate Symposia	Spring 2022, 2023	Poster / Talks judge for undergraduate presentations.

II. TEACHING

I. Professional Pharmacy Curriculum – Idaho State University (Pocatello, Meridian, Anchorage Campuses)

(6 – Pharm.D courses, 1 – recitation)

Didactic Years	Semester	Course	Course Title	Contact Hours (% of total course hours) & Year
2016-24	Fall	PHAR 9924	Physicochemical Basis of Drug Action (P1 year) – 3 Credits	37 (100%): 2016 33 (71%): 2017-21 12 (30%): 2022-24
2016-24	Fall	PHAR 9962	Pharmacotherapy II – Medicinal Chemistry in Cardiovascular Module (P2 year) – 4 Credits	7 (7%)
2016-24	Fall	PHAR 9961	Pharmacotherapy II – Pulmonary Renal - 4 Credits	4 (1%)
2017-24	Fall	PHAR 9967	Pharmacotherapy VI – Medicinal chemistry in Infectious Disease Module (P3 Year) – 5 credits	17 (22%)
2016-24	Spring	PHAR 9963	Pharmacotherapy III – Medicinal Chemistry in Cardiovascular (P2 Year) – 2 credits	3 (9%)
2016-24	Spring	PHAR 9965	Pharmacotherapy V – Medicinal chemistry in	1 (4%): 2016-22 4 (16%): 2023-24

			Musculoskeletal/Pain Module (P2 Year) – 4 credits	
2016-24	Fall, Spring	Office Hours	➤ 1 hour per week. P1 Review sessions are recorded and posted on the moodle. ➤ 1h per week for P2 and P3 students in pharmacotherapy modules.	100%

II. Graduate Students – Biomedical and Pharmaceutical Sciences, Idaho State University

(4 – Graduate level courses, Dissertation Research, 1- Recitation, Proctoring)

Year	Session	Course/s	Course Title	Total Contact Hours (% of total hours)
2017	Spring	PSCI-5599	Advanced Organic Chemistry - 3 Credits	30 (100%)
2017-24	Fall	PSCI-6620	Principles of Drug Design and Drug Action – 3 Credits	33 (71%)
2017-21	Spring	PSCI 6605	Critical Literature Evaluation	14 (100%)
2018-24	Spring	PSCI 6653	Principles in Biopharmaceutical Analysis – 3 Credits	16 (50%)
2018-24	Full year	PSCI 6698	Dissertation Research – 1 Credit – 4 Credits per semester	100%

III. Professional Pharmacy Curriculum The University of Kansas, KS (Lawrence and Wichita Campuses, ~ 160 students in each class)

Year	Session	Course #	Course Title	Sections
2009 – 2013	Fall	MDCM 602	Medicinal Chemistry Laboratory	01, 02

IV. Pre-professional, Bachelor of Science Students – Chemistry Department, The University of Kansas, Lawrence, KS.

(1- Undergraduate Course, 1 - Recitation, Proctoring)

Year	Session	Course #	Course Title	Sections
2009-2013	Spring	Chem-110L	General Chemistry Laboratory (Only in Lawrence Campus, # Students ~ 40)	01,02
2009-2013	Spring	Chem-110L Recitation	General Chemistry Recitation (30 h every semester)	10 -20 students

V. Pre-professional, Bachelor of Science Students – South Dakota State University

(4- Undergraduate courses, 3 – Recitation, Proctoring)

Year	Session	Course #	Course Title	Sections
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2005-2007	Fall	Biochem 434L, Chem 128 L, Chem 324 L	Biochemistry, General Chemistry and Organic Chemistry Laboratories (# Students ~ 75)	01 each
2005-2007	Spring	Chem 326 L	Organic Chemistry Laboratory (# Students ~ 40)	01
2005-2007	Fall , Spring	Recitation & Tutoring	Biochemistry, Organic, General Chemistry	2 h per week

III. SERVICE

Department:

Committee/Activity	Date	Position
Chaired hiring committee for recruiting Asst. Prof. in Medicinal Chemistry	Spring, 2022	Chair
Hiring Committee for recruiting Research Asst. Prof.	Spring, 2021	Committee Member
Tissue Culture Lab	2019 – present	Member
Chemical Inventory and Laboratory Safety Officer	2017 – present	Member
Online Master and Certificate Program Development	2018 – 2019	Committee Member
Development of Module approach for Physicochemical Basis of Drug Action and Biological Basis of Drug Action	2018 – 2019	Committee Member
Hiring Committee for recruiting an Asst. Prof. in Pharmacy Practice Administrative Services	Spring, Summer 2017	Committee Member
Active participant for recruiting three faculty members in the Department of Biomedical and Pharmaceutical Sciences. • Chair of the Department • Asst. Professor in Pharmacogenomics. • Asst. Professor in PK/PD.	2017	Active participant
Graduate student recruiting	2019 – present	Member

College:

Committee/Activity	Date	Position Held
Faculty Affairs	2022 – present	Member
Assessment and Accreditation	2021 – 2023 and 2016 – 2019	Member
Progressions	2018 – 2022	Member
• Pharm.D. Student interviews • White coat ceremony • Student picnics • Graduation banquet • Graduation ceremony • Judge	2016 – present	Active participant

University:

Committee/Activity	Date	Position Held
Graduate Research Council	2016 – 2017	Member
Environmental Health and Safety	2016 – present	Safety Liaison from dept.
Institutional Biosafety Committee	2018 – present	Member

Professional:

Committee/Activity	Date	Position Held
AAPS Steering committee – Rocky Mountain Discussion Group	2016 – 2017	Member
Medicinal Biochemistry Lab, College of Pharmacy, The University of Kansas, KS.	2009 – 2012	Manager

Community:

Committee/Activity	Date	Position Held
Mitigating COVID-19 spread by community education approaches in Bannock country	2021 – 2023	PI
Organized Diwali Festival cultural significance at Diversity Program Initiative in Marshal Public Library, Pocatello, ID.	Spring 2023	Organizer

References: Upon request