# Samit Shah, PhD, RPh, MBA

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### **PROFILE**

- >12 years progressive leadership experiences as Department Chair, Associate Dean and Dean
- Strong record of teaching and scholarship, including receiving several teaching awards and serving as the endowed Sidney J. Weinberg, Jr Professor at the KGI SOP & Health Sciences
- Experience in the development of several new degree programs including Doctor of Pharmacy, master's degree programs in genetic counseling and genomic data analytics, doctoral program in occupational therapy
- Developed certificate programs in areas such as pharmaceutical industry affairs to meet industry demand and position pharmacy and healthcare students for leadership positions in emerging and non-traditional areas
- Led a strong Biopharmaceutical Sciences research department where most faculty received extramural funding (R03, R21, R01, DOJ, foundation grants)
- Co-chaired development of the 2023-28 University-wide Strategic Plan at Regis University (https://www.regis.edu/about/history-mission/the-future-of-regis/strategic-plan/index)
- Budget planning and fiscal management experience, including serving on Regis University's Budget Development committee that oversees development of the University's >\$100,000,000 annual financial plan
- Experience in fundraising for student scholarships, events and major gifts (including a \$1.5 million gift from Amgen Foundation for development of a new genetic counseling program, \$1 million to establish a genomics education center, \$500,000 from a private donor)
- Experience with multiple professional accreditation bodies and regional accreditation

## **EDUCATION**

### 2010-2012, South University

Master of Business Administration

# 2007-2008, Massachusetts Institute of Technology

- Postdoctoral fellow, Department of Chemistry
- Research focused on the development of a new methodology for site specific labeling of proteins with small molecule probes for studying protein trafficking and function in live mammalian cells

# 2002-2007, <u>University of Missouri – Kansas City</u>

- Ph.D., Pharmaceutical Sciences
- Dissertation Title: Light Activated RNA Interference

## 1998-2002, B.M.S. College of Pharmacy, Gujarat, India

Bachelor of Pharmacy

#### PROFESSIONAL EXPERIENCE

2019-current: Dean and Professor

Regis University School of Pharmacy (RUSOP). Accomplishments:

- Led development of a 3-year (accelerated) PharmD pathway to help motivated students graduate in 3 years, while continuing the traditional 4year program. Creatively developed to maximize overlap and minimize additional teaching to deliver new pathway
- Stabilization of enrollment for the pharmacy program despite a significant national decline in applications to pharmacy programs through strategies such as affiliation agreements with feeder programs, nation-wide prepharmacy club engagement, high school summer camps, etc
- Created a new certificate program in pharmaceutical industry affairs and partnered with the College of Business and Computing to offer MBA, health informatics and data science certificate programs for pharmacy students
- Received approval from Regis University Academic Council (RUAC), University Budget committee (UBC) and Higher Learning Commission (HLC) to launch a new Master's Degree program in Drug Development (MSDD) in Fall 2025
- Development of a new remediation program that improved student progression
- Increased non-tuition school revenue by working with health system partners to provide a contribution to the School for faculty placements.
  Renegotiated residency contracts with partners to reduce Regis contributions
- Developed a new strategic plan for the School
- Established an Industry Advisory Council to expand clinical rotations, collaborations and opportunities for students in the pharmaceutical industry
- Raised money for new student scholarships, student events such as White coat ceremony and graduation banquet, and a \$500,000 gift from a private donor

### Responsibilities:

- Ensure the School's success in contributing to the teaching, scholarship and service missions of the University
- Articulate and implement a vision for the School of Pharmacy
- Collaborate effectively with admission and recruitment staff to market the School's academic programs, enhance the applicant pool and develop new programs to grow the School
- Enhance visibility and recognition of the School with key stakeholders and constituents in the community and profession
- Engage in fundraising activities for the School, and build strong relationship with alumni
- Support interprofessional education efforts
- Maintain professional (ACPE) accreditation, and ensure school requirements are met for regional accreditation
- Build a diverse and inclusive environment and support a shared governance model

2016-2019: Associate Dean of Academic Affairs and Professor of Biopharmaceutical Sciences (Also continued to serve as Biopharmaceutical Sciences Chair until July 2017), KGI School of Pharmacy and Health Sciences (KGI SPHS). Accomplishments:

- Co-chaired ACPE Self-Study that led to full accreditation
- Led development of new master's degree programs in genetic counseling and genomic data analytics
- Fundraising efforts to support development of the new programs (including a \$1.5 million gift from Amgen Foundation for development of a new genetic counseling program and \$1 million to establish a genomics education center)
- Implemented certificate programs in areas including healthcare management, pharmacy informatics and medication therapy outcomes for PharmD students
- Implemented a flipped pedagogy model to deliver the entire PharmD curriculum to improve student learning and outcomes

### Responsibilities:

- Oversee curricular development and academic scheduling, and provide leadership in curricular innovation
- Foster academic excellence that enables successful matriculation through graduation
- Counsel students for academic performance issues
- Oversee academic disciplinary issues
- Create, update and execute college academic affairs policies

- Lead development of new programs within the SPHS including conducting feasibility analysis, proforma development, fundraising efforts, curriculum development and professional and regional accreditation
- Recruit, supervise and evaluate the human genetics and genetic counseling program and medical director

2013 – 2016: Assistant Dean, Department Chair & Associate Professor Department of Biopharmaceutical Sciences, KGI School of Pharmacy & Health Sciences (KGI SPHS). Direct report to the KGI SPHS Dean. Accomplishments:

- Founding department chair. Recruited eight faculty members that developed and implemented the pharmaceutical sciences curriculum for the PharmD program
- Each faculty member received \$240,000 in start-up research funds and most faculty received extramural funding (R03, R21, R01, DOJ, foundation grants)
- Named the endowed Sidney J. Weinberg, Jr Professor in 2014
- Developed strong ties with the healthcare and pharmaceutical industry and participated in unique experiential learning based capstone projects with companies such as BioMarin and Sarepta Therapeutics

### Responsibilities:

- Serve on the School's Executive Council and support and participate in accreditation activities
- Recruit, supervise, evaluate and facilitate professional development of department faculty and staff members
- Provide vision, leadership and collegial environment for the department
- Assign teaching responsibilities, ensure quality of curricular offerings, promote student achievement and a culture of assessment and innovation
- Provide leadership in the development and incorporation of educational goals and strategies, such as implementation of a flipped classroom pedagogy
- Provide opportunities for scholarship and research for faculty and students and help with setting up labs and resources for Department faculty
- Maintain and build collaborative efforts with internal/external partners and healthcare/biotechnology institutions to enhance research opportunities and external funding
- Provide oversight of departmental budget
- Participate in development of a number of policies and procedures including the Faculty and Student handbooks, Faculty development plan, Faculty annual performance evaluation forms, Admissions criteria and the Promotion policy

Jul – Dec 2014: Interim Director of Assessment

KGI School of Pharmacy & Health Sciences (KGI SPHS), Responsibilities:

- Development and implementation of the SPHS Program outcomes and curricular outcomes assessment plan
- Implementation of E\*Value for conducting course and instructor evaluations, creating schedules, student portfolios and faculty portfolios
- Implementation of ExamSoft for curricular mapping and assessment
- Training faculty to use E\*Value and ExamSoft
- Implementation of course-embedded assessments (CEAs) for assessment of SPHS Professional Student Outcomes (PSOs)
- Administration of course evaluations, instructor evaluations, student satisfaction surveys and conducting of student focus groups
- Participate in the Institutional Effectiveness Committee meeting that deals with Institutional WASC accreditation

2012 – 2013: Associate Professor and 2008 – 2012: Assistant Professor

Department of Pharmaceutical Sciences, South University School of Pharmacy (SUSOP). Responsibilities:

- Develop, coordinate and instruct in various courses including medicinal chemistry, molecular biology, biochemistry, pharmaceutical calculations and pharmaceutical analysis
- Develop/participate in research activities
- Participate in continued program development
- Involvement in College and University committee activities

2011 - 2013

Pharmacist in Charge, Healthqwest Frontiers, Savannah, GA. Responsibilities:

- Order bulk medication and prepare individual unit doses of drugs
- Create schedules for a team of 4 pharmacists
- Establish protocols to ensure adherence to DEA regulations
- Conduct monthly audit of pharmacy and biennial pharmacy inventory
- Ensure all medication occurrence reports are properly filled and reconciled in Methasoft software

2009 - 2013

PRN Pharmacist, Rite Aid Pharmacy. Responsibilities:

- Check and verify the prescription and drug-drug interactions
- Dispense medications and counsel patients on proper medication usage and medication related issues

2007 - 2008

Postdoctoral Fellow, Massachusetts Institute of Technology (MIT). Responsibilities:

 Develop a new method to achieve site specific labeling of proteins with fluorophores and photo-crosslinking agents for studying protein trafficking and protein-protein interactions

#### 2005-2006

Mass Spectrometer Curator, School of Pharmacy, University of Missouri-Kansas City (UMKC). Responsibilities:

- Regular tuning and calibration of an Applied Biosystems quadrupole linear ion trap LC/MS/MS mass spectrometer
- Develop methods for various applications and train new users

#### 2004-2005

Teaching Assistant, Medicinal Chemistry I & II, UMKC. Principal duties:

 Grade examinations and assist the instructor in a course covering the chemical properties, mode of action, structure activity relationship and metabolism of medicinally active substances

2002-2007

Research Assistant, Department of Pharm. Sciences, UMKC. Responsibilities:

• Conduct research on regulating gene expression with light and generation of nucleic acid based receptors via ligand templated polymerization

### TEACHING INTERESTS

Medicinal Chemistry, Biochemistry, Molecular Biology, Pharmaceutical Calculations,
Pharmaceutical Analysis, Pharmacogenomics, Leadership & Management

### TEACHING EXPERIENCE

(An asterisk is used to indicate the courses for which I served as a course coordinator/director. RUSOP indicates courses taught at Regis University School of Pharmacy, KGI SPHS indicates courses taught at the KGI School of Pharmacy & Health Sciences, KGI SALS indicates courses taught at the KGI School of Applied Life Sciences, Sav indicates classes taught at South University Savannah campus and Col indicates classes taught via distance education technology at South University Columbia campus.)

Jan - Apr 2025 (Spring semester)

Advanced Topics in Pharmacotherapy (PHRM 790E)

Aug – Dec 2024	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Jan - Apr 2024 (Spring semester)	Advanced Topics in Pharmacotherapy (PHRM 790E)
Aug – Dec 2023	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Jan - Apr 2023 (Spring semester)	Advanced Topics in Pharmacotherapy (PHRM 790E)
Aug – Dec 2022	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Jan - Apr 2022 (Spring semester)	Integrated Pharmacotherapy III (PHRM 703)
Aug – Dec 2021	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Aug – Dec 2020	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Aug – Dec 2019	Pharmacogenomics PHRM 775 (RUSOP)
(Fall semester)	Leadership and Management PHRM 732 (RUSOP)
Aug – Dec 2018	Professional Development Series PHAR 350 (KGI SPHS)
(Fall semester)	Professional Development Series PHAR 450 (KGI SPHS)
January – April 2018 (Spring semester)	Genes & Pharmacogenomics* PHAR 303 (KGI SPHS)
Aug – Dec 2017	Professional Development Series PHAR 550 (KGI SPHS)
(Fall semester)	Professional Development Series PHAR 450 (KGI SPHS)
January – April 2017 (Spring semester)	Genes & Pharmacogenomics* PHAR 303 (KGI SPHS)
January – April 2016	Genes & Pharmacogenomics* PHAR 303 (KGI SPHS)

(Spring semester) Endocrinology, GI & GU PHAR 305 (KGI SPHS) Team Masters Project ALS 400 (KGI SALS) September – December 2015 Team Masters Project ALS 400 (KGI SALS) (Fall semester) Genes & Pharmacogenomics\* PHAR 303 (KGI SPHS) January – April 2015 (Spring semester) Endocrinology, GI & GU PHAR 305 (KGI SPHS) Team Masters Project ALS 400 (KGI SALS) September – December 2014 Team Masters Project ALS 400 (KGI SALS) (Fall semester) September – December 2013 Independent Research ALS 493\* (KGI SALS) (Fall semester) January – March 2013 Molecular Biology PHA 3110\* (Sav and Col) (Winter quarter) September – December 2012 Biochemistry II PHA 3102 (Sav and Col) (Fall quarter) Integrated Sequence IV (ANS) PHA 5367 (Sav and Col) Integrated Sequence V (GI) PHA 5368\* (Sav and Col) June – August 2012 Pharmaceutical Calculations PHA3107\* (Sav and Col) Pharmaceutical Analysis PHA 3115\* (Sav and Col) (Summer quarter) March – May 2012 Integrated Sequence II (ID) PHA 4264\* (Sav and Col) Integrated Sequence IX (Endocrinology) PHA 5372 (Sav) (Spring quarter) Molecular Biology PHA 3110\* (Sav and Col) January – March 2012 (Winter quarter) September – December 2011 Biochemistry II PHA 3102 (Sav and Col) Integrated Sequence IV (ANS) PHA 5367 (Sav and Col) (Fall quarter) Integrated Sequence V (GI) PHA 5368 (Sav and Col) Pharmaceutical Calculations PHA3107\* (Sav and Col) June – August 2011 (Summer quarter) Pharmaceutical Analysis PHA 3115\* (Sav and Col) March – May 2011 Integrated Sequence II (ID) PHA 4264 (Sav and Col)

(Spring quarter) Integrated Sequence IX (Endocrinology) PHA 5372 (Sav) Molecular Biology PHA 3110\* (Sav and Col) January – March 2011 (Winter quarter) September – December 2010 Biochemistry II PHA 3102 (Sav and Col) (Fall quarter) Integrated Sequence IV (ANS) PHA 5367 (Sav) Integrated Sequence V (GI) PHA 5368 (Sav) Integrated Pharmaceutical Skills Lab PHA 3135 (Sav) June – August 2010 Pharmaceutical Calculations PHA3107\* (Sav and Col) (Summer quarter) Pharmaceutical Analysis PHA 3115\* (Sav and Col) March – May 2010 Integrated Sequence II (ID) PHA 4264 (Sav) (Spring quarter) Integrated Sequence IX (Endocrinology) PHA 5372 (Sav) Molecular Biology PHA 3110\* (Sav) January – March 2010 (Winter quarter) September – December 2009 Biochemistry II PHA 3102 (Sav) (Fall quarter) Integrated Sequence IV (ANS) PHA 5367 (Sav) Integrated Sequence V (GI) PHA 5368 (Sav) Integrated Pharmaceutical Skills Lab PHA 3135 (Sav) Pharmaceutical Analysis PHA 3115\* (Sav) June – August 2009 (Summer quarter) March – May 2009 Drug Design and Development PHA 4244\* (Sav) Integrated Sequence IX (Endocrinology) PHA 5372 (Sav) (Spring quarter) January – March 2009 Molecular Biology PHA 3110\* (Sav) (Winter quarter) Biochemistry II PHA 3102 (Sav) September – December 2008 Integrated Sequence IV (ANS) PHA 5367 (Sav) (Fall quarter)

Integrated Sequence V (GI) PHA 5368 (Sav)

Integrated Pharmaceutical Skills Lab PHA 3135 (Sav)

#### RESEARCH INTERESTS

 Chemical biology, Drug delivery, Pharmacogenomics, Instructional Design and Assessment

# PRIMARY RESEARCH TECHNIQUES UTILIZED

<u>Biochemistry and Molecular Biology</u>: Cell culture, transfection, transient & stable transfection, cloning, site-directed mutagenesis, western blot, immunostaining, RNAi, PAGE, radioactive in vitro assays, enzyme kinetics, DNA and RNA extraction, protein and nucleic acid purification techniques, gel filtration chromatography, fluorescence microscopy

Analytical: HPLC, LC-MS, LC-MS/MS, NMR, UV-Vis, Chromatography

Synthesis: Small molecule synthesis and nucleic acid chemistry

### **PUBLICATIONS**

- 1. Pavuluri et al. Consideration of aggressive and strategic approaches to address declining enrollment in US Pharmacy Schools, *Am J Pharm Educ*. 2019, 83 (6) 1239-1250.
- 2. Cotta, K.I.; **Shah, S.**; Almgren M.M.; Macias-Moriarity, L; Mody, V.V.; Adams, P. Effectiveness of flipped classroom instructional model in teaching Pharmaceutical Calculations, *Currents in Pharmacy Teaching and Learning*. 2016, 8: 646-653.
- 3. Mody, V.V.; **Shah, S**; Thomas, M. Compatibility of norepinephrine bitartrate with fluoroquinolones during simulated Y-site administration, *International Journal of Pharmaceutical Compounding*. 2016, 20: 236-238.
- 4. **Shah, S.;** Lal, H.A. Developing a novel siRNA delivery system, *Ther Deliv.* 2015, 6: 1131-33.
- 5. Kala, A.; Jain, P.; Karunakaran, D.; **Shah, S.**; Friedman, S.H. The synthesis of tetramodified RNA for the multidimensional control of gene expression via light-activated RNA interference, *Nature Protocols*.: 2014, 9: 11-20.
- 6. **Shah, S.;** Cox, A.G.; Zdanowicz M.M. Student perceptions of the use of pre-recorded lecture modules and class exercises to enhance learning in a molecular biology course, *Currents in Pharmacy Teaching and Learning*. 2013, 5: 651-658.

- 7. Mody, V.V.; Cox, A.; **Shah, S**; Singh, A.; Bevins, W; Parihar, H. Magnetic nanoparticle drug delivery systems for targeting tumor. *Appl Nanosci*. 2013, 3:145-151.
- 8. Siwale, R.; Meadows, F.; Mody, V.V.; **Shah, S**. Formulation and drug content assay of microencapsulated antisense oligonucleotides to NF-kB using ATR-FTIR. *Adv. Nat. Sci. Nanosci. Nanotechnol.* 2013, 4: 35002.
- 9. Thomas, M.; **Shah, S**. New treatment options for acute edema attacks caused by hereditary angioedema. *Am J Health Syst Pharm*. 2011, 68: 2129-38.
- 10. Cox, A.G.; **Shah, S.** Pharmacognosy of the herbal medicine Hoodia Gordonii, a traditional appetite suppressant. *Pharmacie Globale*. 2011, 7: 10.
- 11. Jain, P.; **Shah, S.**; Friedman, S.H. Patterning of gene expression using new photolabile groups applied to Light Activated RNAi. *J Am Chem Soc.* 2011, 133: 440-446.
- 12. **Shah, S.**; Lynch, L.M.; Macias-Moriarity, L. Crossword puzzles as a tool to enhance learning about anti-ulcer agents. *Am J Pharm Educ*. 2010, 74: 117. (Invited)
- 13. **Shah**, S.; Cox, A.G. A role for IR-β in the free fatty acid mediated development of hepatic insulin resistance?, *Biochemistry Insights*. 2009, 2: 67-69.
- 14. **Shah, S.**; Jain, P.; Kala, A.; Karunakaran, D.; Friedman, S.H. Light activated RNA interference using double stranded siRNA precursors modified using a remarkable regiospecificity of diazo-based photo labile groups., *Nucleic Acids Research*. 2009, 37: 4508-4517. (Article highlighted on the cover of Nucleic Acids Research)
- 15. Baruah, H.; Puthenveetil, S.; Choi, Y.C.; **Shah, S;** Ting, A.Y. An engineered aryl azide ligase for site-specific mapping of protein-protein interactions via crosslinking, *Angewandte Chemie Int. Ed. Eng.* 2008, 47: 7018-7021.
- 16. **Shah, S**.; Friedman, S.H. An ESI-MS method for the characterization of oligonucleotides used for RNAi and other biological applications, *Nature Protocols*. 2008, 3: 351-356.
- 17. **Shah, S**.; Friedman, S.H. Tolerance of siRNA for 5' anti-sense phosphate modifications, *Oligonucleotides*. 2007, 17: 43. (Highlighted by Glen Research in May 2007.)
- 18. **Shah, S**.; Rangarajan, S.; Friedman, S.H. Light Activated RNA Interference, *Angewandte Chemie Int. Ed. Eng.* 2005, 44: 1328-1332.

#### **BOOKS**

1. Lam, J.T.; Gutierrez, M.A.; **Shah, S**. *Pharmacogenomics: A Primer for Clinicians*. McGraw Hill, 2021. (Featured on CPR - https://www.cpr.org/show-segment/genes-help-doctor-tailor-drugs-to-individual-patients/)

### **BOOK CHAPTERS**

- 1. **Shah, S.;** Ha, D. Respiratory Diseases, In: Zdanowicz M, 2<sup>nd</sup> ed. *Concepts in Pharmacogenomics*. American Society of Health-Systems Pharmacists, 2017.
- 2. **Shah, S.**; Webster, K.D. The genetic basis of pharmacogenomics, In: Zdanowicz M, 2<sup>nd</sup> ed. *Concepts in Pharmacogenomics*. American Society of Health-Systems Pharmacists, 2017.
- 3. Webster, K.D.; **Shah, S.** Pharmacodynamics and pharmacogenomics, In: Zdanowicz M, 2<sup>nd</sup> ed. *Concepts in Pharmacogenomics*. American Society of Health-Systems Pharmacists, 2017.
- 4. Vaidya, B; Shah, S.; Gupta, V. Drug delivery to mitochondria: Promising approach for the treatment of liver disease, In: Han D and Kaplowitz N, *Mitochondria in Liver Disease*. CRC Press/ Taylor & Francis, 2016.
- 5. Mody, V.V.; Singh, A.; Deshmukh, R.; **Shah, S**. Thyroid hormones, Iodine and Iodides, and Antithyroid Drugs, In: *Side Effects of Drugs Annual, Volume 37*, Elsevier, 2015.

#### PATENT APPLICATIONS

1. Friedman, S.H, **Shah**, **S.** "Control of gene expression via light activated RNA interference", US Patent Application 20060008907.

### ABSTRACTS AND PRESENTATIONS

- 1. Pharmacogenomics: Personalizing Medicine, Colorado HOSA State Leadership Conference, Denver, CO. (2021)
- 2. A model to successfully transition first-year pharmacy students into a team-based learning environment, Team-Based Learning Collaborative Virtual Annual Meeting. (2021)
- 3. Pharmacogenomics Fundamentals, California Society of Health-System Pharmacists (CSHP) Pharmacogenomics Certificate Program, San Diego, CA. (2018)

- 4. Clinical Implementation of Pharmacogenomics, California Society of Health-System Pharmacists (CSHP) Pharmacogenomics Certificate Program, San Diego, CA. (2018)
- 5. Pharmacogenomics: Harnessing its Potential, Pomona Valley Health Medical Center, Pomona, CA. (2018)
- 6. Pharmacogenomics: A key component of precision medicine, Southern California Genetic Counselors Annual Education Conference, Los Angeles, CA. (2018)
- 7. Role of pharmacists in precision medicine, California Society of Health-System Pharmacists (CSHP) Seminar, Las Vegas, NV. (2017)
- 8. Pharmacogenomics: A Primer for Pharmacists, ACPE-accredited CE program, Inland Empire Pharmacists Association, Claremont, CA. (2016)
- 9. Introduction to the Pharmaceutical Industry: A Novel Required Experiential Course for First Year PharmD Students, Poster presentation at the AACP Annual Meeting, Anaheim, CA. (2016)
- 10. Surface engineered PLGA-PEG nanoparticles for delivery of siRNA to MCF-7 cells. Southern California Conferences for Undergraduate Research, Harvey Mudd College, CA. (2015)
- 11. You are Your Genes: Medical Therapy Designed for You, San Gorgonio section of the American Chemical Society (ACS), Claremont, CA. (2015)
- 12. Flipping a flipped classroom: Practical tips to help flip your class, Keck Graduate Institute Faculty Development Program, Claremont, CA. (2014)
- 13. Engineered PLGA Nanoparticles for Delivery of siRNA in MCF-7 Breast Cancer Cells. 2014 Chapman University Research Days. Orange, CA. (2014)
- 14. Using ExamSoft for tagging questions and curricular mapping, Keck Graduate Institute Faculty Development Program, Claremont, CA. (2014)
- 15. Flipping Pharmacy Classroom: Use of pre-recorded lectures and class exercises to enhance student learning, Keck Graduate Institute Faculty Development Program, Claremont, CA. (2013)
- 16. Modifying siRNAs to achieve selective RNAi activation, Keck Graduate Institute Research Retreat, Claremont, CA. (2013)
- 17. Use of Novel Interactive Molecular Graphics to Teach Principles of CYP450 Drug Metabolism, Poster presentation at the AACP Annual Meeting, Chicago, IL. (2013)

- 18. Proteopedia-Based Jmol/JSmol Molecular Graphics Used to Illustrate CYP450 Drug Metabolism. North American Users Group Molecular Operating Environment Conference 2013, Montreal, Canada. (2013)
- 19. Evaluation of a Hybrid Learning Course Design to Enhance Student Learning of Molecular Biology, Poster presentation at the AACP Annual Meeting, Kissimmee, FL. (2012)
- 20. Effectiveness of Blended Teaching Method for Pharmaceutical Calculations, Poster presentation at the AACP Annual Meeting, Kissimmee, FL. (2012)
- 21. Rewiring the DNA of a molecular biology course: Use of pre-recorded lecture modules and class exercises to enhance learning, South University, Savannah, GA. (2012)
- 22. Optimization of light activated RNA interference using new photolabile groups, Poster presentation at UMKC Health Sciences Research Summit, Kansas City, MO. (2011)
- 23. Chemical Modifications of siRNAs to achieve spatiotemporal control of gene expression, Invited talk at the BIT Annual International Conference of Medichem-2011, Beijing, China. (2011)
- 24. Application of Light Activated RNA Interference (LARI) for the patterning of gene expression, AAPS Annual Meeting and Exposition, Washington, D.C. (2011)
- 25. siRNA based therapeutics: Progress and Challenges, Invited talk at the 61<sup>st</sup> Annual Indian Pharmaceutical Congress, Ahmedabad, India. (2009)
- 26. Optimization of light activated RNA interference using new photolabile groups, National Meeting of the American Chemical Society, Washington, D.C. (2009)
- 27. Light Activated RNA Interference Using photo-cleavable siRNA, Journal of Biomolecular Structure and Dynamics 26, 6: 810. (2009)
- 28. Chemical tools for dissecting cell biology, Talk at FoldRx Pharmaceuticals, Cambridge, MA. (2008)
- 29. Controlling gene expression with light using photolabile modifications on the 5' anti-sense phosphate of siRNA, 39<sup>th</sup> Pharmaceutics Graduate Students Research Meeting, Kansas City, MO. (2007)
- 30. Improvement in light activated RNA interference using terminally modified double stranded RNA precursors of siRNA, Talk at Harvard School of Chemistry and Chemical Biology, Boston, MA. (2007)

- 31. Control of gene expression with light using modified siRNAs, Talk at Massachusetts General Hospital, Harvard Medical School, Boston, MA. (2006)
- 32. Tolerance of siRNA for 5' anti-sense phosphate modifications, Biotechnology Graduate Student Symposium at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, TX. (2006)
- 33. Optimization of light activated RNA interference through site specific modifications, Biological Chemistry Poster Session and Sci-Mix Poster Session at the National Meeting of the American Chemical Society, San Francisco, CA. (2006)
- 34. Optimization and characterization of light activated RNA interference, American Society of Biochemistry and Molecular Biology Annual Meeting, San Francisco, CA. (2006)
- 35. Control of gene expression via light activated RNA interference, American Society of Biochemistry and Molecular Biology Annual Meeting, San Diego, CA. (2005)
- 36. Optimization of light activated RNA interference through variation in modification degree and position, National Meeting of the American Chemical Society, San Diego, CA (2005).
- 37. LARI: Light Activated RNA Interference, Biological Chemistry Poster Session and Sci-Mix Poster Session at the National Meeting of the American Chemical Society, Philadelphia, PA. (2004)
- 38. Light Activated RNA Interference, 36<sup>th</sup> Pharmaceutics Graduate Students Research Meeting, Iowa City, IA. (2004)
- 39. PEDF inhibits expression of genes associated with retinal cell death, Kansas City Life Sciences Research Day, Kansas City, MO. (2003)

### PH.D. THESIS EXAMINER

- In-vitro clonal propagation of some important woody bamboos and ascertaining their clonal fidelity, Served as external examiner for Ph.D. thesis by Harleen Kaur Nadha, Thapar University. (2012)
- Transdermal delivery of newer atypical antipyschotics, Served as external examiner for Ph.D. thesis by Geeta Aggarwal, Punjab University. (2011)

# REVIEWER (SELECTED)

 American Journal of Health Systems Pharmacy (AJHP), Currents in Pharmacy Teaching and Learning (CPTL), Teaching and Learning in Medicine, RNA, Oligonucleotides, Journal of Ocular Pharmacology & Therapeutics, Current Pharmaceutical Design

# **STUDENT ADVISING**

<b>2</b> 016-19	Co-advisor, KGI Oncology Club
<b>2</b> 014-15	Faculty advisor to Sai Gandham, Dara Boroojeni, Aditya Payannavar, Shoshana Arunasalam, Kevin Keller (KGI SALS students) for their TMP project with BioMarin Pharmaceutical
<b>2</b> 015-16	Research advisor to Armando Cortes, Kim Nguyen and Antonio Silva (KGI SPHS, C/O 2018)
<b>2015-16</b>	Research advisor to Parshvi Patel (Summer Undergraduate Research Experience (SURE) program student and thesis project advisor, Pitzer University)
<b>2</b> 014-15	Faculty advisor to Srishti Goel, Michelle Ko, Harshal Lal, Jordan Myint, Suchith Nareddy (KGI SALS students) for their TMP project with Sarepta Therapeutics
<b>2014-15</b>	Research advisor to Sydney Pong (Summer Undergraduate Research Experience (SURE) program student and capstone project advisor, Chapman University)
<b>2</b> 013	Research advisor to Diane Rodden (PPC student C/O of 2014, KGI SALS)
<b>2</b> 012-2013	Class advisor for SUSOP Savannah C/O of 2015
<b>2</b> 008-2013	SUSOP Professional Pharmacy Year 3 grand round advising (~7 students/year)
<b>2</b> 008-2013	SUSOP Professional Pharmacy Years 1 and 2 LPPE student advising for Hospice site (~24 students/year)
<b>2008-2013</b>	SUSOP Professional Pharmacy Year 1 student advising (4 students/year)

# SCHOOL & UNIVERSITY COMMITTEES

•	2024-2025	RU SRHS Dean Search Committee
•	2022	RU Assistant VPEM and VPEM Operations Search committee
•	2022	RU Assistant VP Major Gifts Search Committee
•	2022	RU VP Advancement Search Committee
•	2020-2022	RU University Budget Committee
•	2020-2023	RU Dean's Operations Council
•	2019-current	RU RHCHP Academic Leadership council
•	2019-current	RU School of Pharmacy Executive council, Chair
•	2018-2019	KGI Provost Search committee, Chair
•	2017-2019	KGI Genetics Programs Steering committee, Chair
•	2017-2019	Occupational therapy Prog. Dir. Search committee, Chair
•	2017-2019	ACPE Self-Study, Co-Chair
•	2017-2019	KGI Summer Programs Steering committee
•	2017-2019	KGI MSGDA Program Development committee
•	2017-2019	KGI MSGC Program Advisory Board
•	2017-2019	KGI MSGC Curriculum committee
•	2016-2017	Genetic counseling Prog. Dir. Search committee, Chair
•	2017-2018	KGI School of Medicine Planning committee
•	2017	KGI New Programs and Initiatives committee
•	2016-2018	WASC Accreditation Advisory committee
•	2016-2019	KGI SPHS Progressions committee, Ex officio
•	2014-2016	KGI Program Assessment committee, Chair 2014-15
•	2014-2016	KGI Institutional Effectiveness committee
•	2014	KGI PhD Admission Evaluation committee (Ad Hoc)
•	2013-2019	KGI SPHS Executive council
•	2013-2019	KGI SPHS Curriculum committee, Chair 2016-17
•	2013-2019	KGI SPHS Promotion committee, Chair 2013-16
•	2013-2019	KGI Research Infrastructure committee
•	2013-2014	KGI SPHS Admissions committee
•	2013-2014	KGI Seed Grant Review committee (Ad Hoc)

•	2013-2014	KGI SALS Promotion and Renewal committee (Ad Hoc)
•	2013-2014	KGI SPHS Clinical Sci. Search committees
•	2013-2014	KGI SPHS Administrative Sci. Search committees
•	2013-2014	KGI SPHS Biopharm. Sci. Search committees, Chair
•	2012-2013	SUSOP Proficiency testing committee, Chair (Ad Hoc)
•	2012-2013	SUSOP Promotions committee
•	2012-2013	SUSOP Curriculum committee
•	2012-2013	SUSOP Pharmacy Persistence committee
•	2012-2013	SUSOP Faculty Advisory Council
•	2012	SUSOP Pharmaceutical Sciences Search committee, Chair
•	2011-2013	SUSOP Admissions committee
•	2011	SUSOP Self-study Curriculum sub-committee
•	2011-2012	SU Assessment committee
•	2011-2012	SU Foundations committee
•	2010-2012	SU Teaching and Learning committee
•	2010-2011	SU Faculty-staff advisory committee
•	2010-2013	SUSOP QEP Implementation committee, Trainer
•	2010-2012	SUSOP Chemical Dependence committee
•	2008-2013	SUSOP Didactic and experiential program assessment committee
•	2008-2013	SUSOP Library resources and educational technology committee

# **OTHER SERVICE**

•	2024-current	Volunteer, Food Bank of the Rockies
•	2023-2025	AACP Chemistry Section Awards committee
•	2022-2023	AACP Chemistry research award evaluation committee
•	2020-current	Board of Directors, Tepeyac Community Health Center
•	2018-current	ACPE Site Team Evaluator
•	2017-2018	SoCal Indian Pharmacists Association Student Scholarships Review Committee
•	2016-2017	AACP Graduate Education SIG Leadership Group

•	2016	Pharmacogenomics questions writer for CSHP Seminar Quiz Bowl
•	2015 – 2016	Member of Clinical Pharmacogenetics Implementation Consortium (CPIC), a group working to assist with clinical implementation of pharmacogenetics
•	2015	FPGEE PCOA standard setting, Chicago, IL
•	2014-15	AACP Chemistry Section Nominations Committee
•	2013, 2014	Participated in evaluating summer internship poster presentations by KGI SALS students
•	2012	Participated in judging poster presentations at the 72 <sup>nd</sup> Harden conference held at Robinson College, Cambridge University, UK
•	2012	Helped judge posters at the Memorial Health University Medical Center 2012 Annual Research Day, Savannah, GA
•	2004-06	Founder of Ankur Foundation, an organization dedicated to raising money to facilitate education of underprivileged children in developing countries

### **LICENSURE**

■ Registered Pharmacist, Georgia Board of Pharmacy, 2009 – current

### SELECTED TRAINING & WORKSHOPS

- Ignatian Colleagues Program (ICP), 2022-2024
- CAPTE (Physical Therapy) Developing Programs Workshop, 2018
- AACP Academic Leadership Fellows Program (ALFP), 2017
- ACPE Evaluator Site Training Workshop, 2017
- WASC Navigating Substantive Change Workshop, 2017
- NACDS Community-based Pharmacogenomics Certificate, 2017
- ACPE Self-Study Workshop, 2015
- Illumina understand your genome symposium, 2015
- AACP Annual Meeting Leadership Seminar, 2013
- PharmGenEd Faculty Trainer, 2011
- APhA Pharmacy-based Immunization Delivery, 2011

#### HONORS AND AWARDS

- Alpha Sigma Nu (National Jesuit Honor Society), Honorary inductee, 2025
- KGI School of Pharmacy & Health Sciences Teacher of the Year, 2017
- Keck Graduate Institute Faculty of the Year Award, 2016 (awarded to one faculty member University-wide chosen by peers each year)
- AACP Walmart Scholars Program Faculty Mentor, 2016
- KGI School of Pharmacy & Health Sciences Teacher of the Year, 2015
- Sidney J Weinberg, Jr Professor, 2014
- Class of 2014 South University School of Pharmacy Mortar & Pestle Award, 2012
- South University School of Pharmacy Teacher of the Year, 2011
- Phi Lambda Sigma (The Pharmacy Leadership Society), 2010
- South University School of Pharmacy Teacher of the Year, 2009
- Class of 2011 South University School of Pharmacy Mortar & Pestle Award, 2009
- UMKC Distinguished Doctoral Dissertation Fellowship, 2007
- UMKC-AAPS chapter, Best seminar presentation Award, Fall 2007
- Rho Chi Honor Society (The Pharmacy Honor Society), 2006
- American Chemical Society (ACS) Biological Chemistry Travel Grant Award, 2006
- American Association of Pharmaceutical Scientists (AAPS) Biotechnology Award (sponsored by Pfizer) in recognition of excellence in graduate research, 2006
- UMKC SGA Student Leadership Recognition Award (for Ankur Foundation), 2005
- Faculty of 1000, Publication in Angewandte Chemie selected for review by Faculty of 1000 achieved the status of "most viewed" in the field of chemical biology in May 2005
- American Chemical Society (ACS) Biological Chemistry Travel Grant Award, 2004
- University of Missouri Kansas City Chancellor's Non-Resident Award, 2002-03