

Keykavous Parang, Pharm.D., Ph.D.

Full Professor

Chapman University School of Pharmacy

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EDUCATION

Sept. 1992-Aug. 1997 Ph.D. in Medicinal Chemistry, Faculty of Pharmacy, University of Alberta (Drs. L. I. Wiebe, E. E. Knaus, Supervisors)

Jan. 1984-Jan. 1989 Pharm.D., Faculty of Pharmacy, University of Tehran (Dr. A. Shafiee, Supervisor)

RESEARCH EXPERIENCE

April 2020-March 2022 **Associate Dean of Research, Innovation, and Global Affairs, Full Professor of Medicinal Chemistry and Pharmacology,** Chapman University School of Pharmacy

July 2013-April 2020 **Associate Dean of Research, Graduate Studies, and Global Affairs, Full Professor of Medicinal Chemistry and Pharmacology,** Chapman University School of Pharmacy

April 2014-Present **Adjunct Faculty** of Chemistry and Biochemistry, Schmid College of Science and Technology, Chapman University

January 2016-Present **Volunteer/Affiliate Faculty,** Division of Nephrology and Hypertension, Department of Medicine, University of California, Irvine, School of Medicine

July 2016-Present **Member,** Center for Targeted Drug Delivery, Chapman University School of Pharmacy

- Sept. 2013-Present** **Member**, Chao Family Comprehensive Cancer Center, University of California, Irvine
- Nov. 2012-Present** **Adjunct Faculty**, Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University
- July 2013-July 2015** **Research Professor**, Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island
- July 2008-June 2013** **Full Professor**, Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island
- March 2013-Present** **Adjunct Faculty**, International Center for Chemical and Biological Sciences, University of Karachi
- May 2012-June 2013** **Program Coordinator, Rhode Island IDeA Network of Biomedical Research Excellence (INBRE) sponsored by NIH, (\$20 million)**
- January 2010-Dec. 2010** **Sabbatical Research**, Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University
- Nov. 1, 2000-Oct. 2017** **Visiting scientist (Scholar)**, Department of Pharmacology and Molecular Sciences, School of Medicine, Johns Hopkins University
- April 2006-July 2008** **Associate professor**, Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island
- Oct. 2000-April 2006** **Assistant professor**, Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island
- July 1999-Oct. 2000** **Postdoctoral fellow**, Department of Pharmacology and Molecular Sciences, **School of Medicine, Johns Hopkins University (Burrough Wellcome Fund) (Dr. Philip A. Cole)**
Chemical cross-linking agents for identification of substrates for protein kinases, Bisubstrate ATP-peptide inhibitors of tyrosine kinases.
- Jan. 1999-July 1999** **Postdoctoral fellow**, Department of Bioorganic Chemistry, Rockefeller University (Dr. Philip A. Cole)
Tyrosine analogs as alternative substrates for protein kinase Csk.

Sept. 1997-Jan. 1999 **Postdoctoral fellow**, Department of Chemistry, University of Alberta (Dr. Ole Hindsgaul)

Sulfation and phosphorylation of carbohydrates and nucleosides using solid-phase organic synthesis.

Sept. 1992-Aug. 1997 **Ph.D.**, Faculty of Pharmacy, University of Alberta (Drs. L. I. Wiebe, E. E. Knaus, Supervisors)

1. Synthesis, biodistribution, pharmacokinetic, and biological evaluation of 5'-O-myristoyl derivatives of 3'-azido-3'-deoxythymidine (AZT) and 3'-fluoro-3'-deoxythymidine (FLT) as prodrugs for the treatment of AIDS and hepatitis B.
2. Synthesis, antifungal and antiviral activities of myristic acid analogs.
This research project involved the design and synthesis of double-barreled myristoyl and heteroatom-modified myristoyl derivatives of nucleoside analogs for the treatment of AIDS and Hepatitis B.
3. Synthesis of derivatives of 2-fluoromethyl and 3-fluoromethyl tyrosine.
4. Synthesis of 4-hydroxymethyl-2-nitro-1-trityl-imidazole.
5. Synthesis of 1'- and 2,2'-deuterated nucleosides.

Jan. 1992-Sept. 1992 **Sabbatical leave**, Faculty of Pharmacy, University of Alberta (Drs. L. I. Wiebe, E. E. Knaus, Supervisors)

Jan. 1989-Dec. 1991 **Ph.D. student**, Faculty of Pharmacy, University of Tehran (Dr. A. Shafiee, Supervisor)

Synthesis of derivatives of 1-phenylethyl substituted 1,2,4-triazoles and imidazoles as spermicides.

Jan. 1984-Jan. 1989 **Pharm.D. thesis**, Faculty of Pharmacy, University of Tehran (Dr. A. Shafiee, Supervisor)

Synthesis of substituted 2-(1-methyl-5-nitro-2-imidazolyl)quinolines, effective drugs against tropical diseases.

LEADERSHIP AND MISCELLANEOUS WORK EXPERIENCE

April 2020-March 2022

Associate Dean of Research, Innovation, and Global Affairs, Chapman University School of Pharmacy

2021

Export Control Working Group, Chapman University

July 2013-April 2020

Associate Dean of Research, Graduate Studies and Global Affairs, Chapman University School of Pharmacy

2013-Present	Collecting and reporting grant data to AACP for grant ranking
2017-Present	A member of Chapman University Research Advisory Panel
2020-Present	A member of Chapman University Faculty Personnel Committee (FPC)
2020-Present	A member of Thematic Pathway for Reaffirmation (TPR) Self-Study Committee: Excellence through Research and Creative Activity for Chapman University WASC Accreditation
Sept 2018-April 2020	Computational and Data Sciences (CADS) Graduate Steering Committee Member
2013-April 2020	A member of the Graduate Coordinator Committee at Chapman University
2013-Present	<p>Wrote and succeeded in a collaborative proposal between CUSP and Schmid College of Science and Technology for a new joint Nutritional Pharmacology position (Dr. John Miklavcic)</p> <p>I also led and got approval for several joint appointments at CUSP, such as Dr. Amir Raz, Dr. Hillard Kaplan, Dr. Gennady Verkhivker, and Dr. Marco Bisoffi</p>
February 2016-Present	Science Committee Ex Officio
September 2014-April 2020	Graduate Program and Research Committee Ex Officio, Chapman University School of Pharmacy
2014-2015	Search Committee Chair for hiring Graduate Program Coordinator; Search Committee Chair for hiring NMR Faculty Position, Search Committee Member for hiring Grant and Subcontract Coordinator in Rinker Campus; A Search Committee Member for Safety Administrator at Rinker Campus

July 2013-January 2015	Curriculum Committee Member, Chapman University School of Pharmacy
September 2014-Present	Admission and Interviewing Pharmacy Students, Chapman University School of Pharmacy
June 2013-April 2022	Dean Council Member, Contributed to WASC and ACPE Application, Served in ACPE Steering Committee, Chapman University School of Pharmacy
June 2013-April 2022	Senior Leadership Council Member, Chapman University School of Pharmacy
September 2014-2020	Chapman University Graduate Program Coordinators Committee Member
September 2013-Present	Search Committee Chairs for Various Faculty positions and two founding Department Chairs, Chapman University School of Pharmacy
June 2013	Second founding member of Chapman University School of Pharmacy, Served in several committees, such as FRC, Item Review Committee, and other committees as a founding member
May 2012-July 1, 2013	Program Coordinator, Rhode Island IDeA Network of Biomedical Research Excellence (INBRE) sponsored by NIH (\$20 million). Wrote the renewal application that was funded in 2014 after my move to Chapman
October 2011-September 30, 2012	International Conference Committee Chair Frontiers in Pharmaceutical Sciences: Global Perspectives, Kingston, Rhode Island, September 28-30, 2012
November 2012-September 14, 2012	One Day Symposium Committee Member
May 2012	Initiated international collaboration between Technical University Braunschweig, Germany, and the College of Pharmacy after an invitation by IEP program. Dean Jordan and Associate Dean Cho accompanied me on

this trip. A German delegation was invited to the International Conference for follow-up visit.

February 2011

Initiated and established international collaboration between Dean of College of Pharmacy and University of Delhi and Indian Birla Institute of Technology and Science. President Dooley and Dean Jordan traveled to India and two MOUs were signed for student and faculty exchange.

February 2011

Along with Dean Jordan initiated a discussion for establishing research collaboration between the URI College of Pharmacy and the International Center for Chemical and Biological Sciences. One MOU was signed following our visit.

February 2011

Along with Dean Jordan and Dean Zawia initiated a discussion between the URI College of Pharmacy and the U.A.E. University

DEVELOPMENT OF EDUCATIONAL AND RESEARCH PROGRAMS

2022

Summer High School Internship Program: Worked with the Science Committee, Dr. Simin Rahighi and Dr. Laura Cook, to design, discuss, and start Summer High School Internship Program (currently ten students have registered)

2021-2022

Drafted the initial **SWOT analysis** for the research business plan and Chapman WSCUC TPR for WASC that was completed by faculty across Chapman. After the analysis, it will be used for research strategic planning.

2019-2022

Annual Research Day: Designing and assisting Science Committee in organizing the annual research day

2020-2021

Safe opening of the research facility at Chapman University School of Pharmacy and ramping up research with Dean's council

- 2019-2020 With the support of the **Graduate Committee**, we accomplished two-semester and competitive tuition per credit model
- 2016-2020 Started the graduate students **AAPS Chapter** to organize several training opportunities, career, and resume workshops for the students
- 2014-2020 Organized visit to several pharmaceutical companies (Par Pharmaceutical, Siegfried) and FDA headquarter for the graduate students
- 2019 Organized **USP workshop** at Chapman University School of Pharmacy with the assistance of Dean's Council, USP CEO conducted a one-day workshop on the regulatory aspects of drug development.
- 2014-2020 Organized monthly meetings of the **Southern California Discussion Group of the American Association of Pharmaceutical Scientists (AAPS)** and **bi-annual USP-FDA meetings**
- 2019-2022 Designed **collaborative funding mechanism** with Science Committee, Drafted bridge funding mechanism with the Science Committee
- 2013-2022 Received many **in-kind donations** from pharmaceutical companies that are used in the core facility or by faculty
- 2013-2020 Developed several **internship opportunities** for students to work in local industries, such as Par Pharmaceutical and Siegfried
- 2013-2020 **Outreach to pharmaceutical and Biotech Companies and regulatory agencies:** 11 funded proposals by faculty at CUSP. In addition to Industry Advisory meetings and dinners, faculty have made or initiated relationships with Artemis International, Siegfried, Bioniz Therapeutics, Eyvance, Nitto Avecia Pharma, Akviva, Endocyclic Therapeutics, AJK

Biopharmaceutical, Amgen, Masimo, CHOC hospital, and FDA. Two research Centers, CTDD and Structure Biology, were established that are used by the pharmaceutical industry.

2013-2020

Established several collaborations with foreign institutions for sharing graduate students, visiting fellow programs, and research collaborations. We expanded collaboration with the International Center for Chemical and Biological Sciences (ICCBS). A new MOU with universities in India and Vietnam were approved. Additional funded trainees from Egypt and India have been approved and will visit Chapman in 2022. The collaboration with the ICCBS in Pakistan was continued. CUSP hosted a number of international Fulbright fellows, SERB, Mission, and RAMAN Fellows.

2019

Design and build a **new laboratory for SAS faculty and students** with support software after consultation with faculty in Social and Administrative Sciences based on their needs

2016

Started **4+1 BS/MSPS program** at Chapman University School of Pharmacy

2014-2015

Got SACM approval to recruit students from Saudi Arabia at CUSP. The number of MS students during my service per year ranged 12-19 students per year after the second year until my term ended.

2018

Organized and led Chapman University School of Pharmacy **Research Retreat** with the Science Committee and faculty

2018

Developed the **authorship guidelines** with the Science Committee

2018

Proposed the B.S. in **Pharmaceutical Sciences**, Wrote the curriculum and application for submission

2013-Present	Space allocation, biosafety cabinet hoods, and maintenance of the core facility, collecting the information from the faculty for their research needs and generating priority list, and acquired many high-end equipment
2013-2015	Contributed to establishing two research centers, Center for Targeted Drug Delivery and Structure Biology Research Center , with the help of faculty
2016-Present	Implemented strategic initiatives, such as exploring summer research internships for high school students, promoting collaboration through CUSP faculty seminars, and inviting high-profile clinical faculty as guest lecturers
2018-2019	Coordinated and worked with other faculty and Dr. Enrique Seoane-Vazquez to get approval in M.S. in Regulatory Affairs and M.S. in Patient Safety, Chapman University School of Pharmacy
February 2015-2016	Wrote the application with the help of faculty, led the efforts, and initiated Ph.D. in Pharmaceutical Sciences, Received WASC accreditation, Chapman University School of Pharmacy
2014	Organized a one-day grant workshop for CUSP faculty
July 2013- Sept 2014	Wrote the application, led the efforts, and initiated M.Sc. in Pharmaceutical Sciences, Chapman University School of Pharmacy
June 2013-Present	Establishing and maintaining the research infrastructure and core facility and enhancing research activities at Chapman University of School of Pharmacy. The school was ranked 38th among 140 pharmacy schools in 2021 AACP ranking. For 2022 ranking that is expected to be announced in June, the faculty have received a grant total of \$7.8 million

June 2013-	Assisted and worked with other faculty in successful accreditation of the Pharm.D. program at Chapman University: contributed to drafting and revising ACPE application in collaboration with other Dean Council members and Self-Study ACPE report and preparation for ACPE visit. I wrote, reviewed, and revised a number of standards.
2014-2019	Helped in Organizing Industry Dinner Nights
Dec. 10-12, 2015	Western Compendial Discussion Group and AOAC International Southern California Section (SCS)
2014-2016	Organizer, The Southern California Pharmaceutical Discussion Group (SCPDG), Every Second Thursday Presentation
May 2012-June 2013	Graduate and Research Committee
January 2011-April 2011	Space committee
September 2010-Jan. 2012	Assessment committee member
September 2010-Jan. 2012	Curriculum committee member
September 2008-Jan. 2010	Scholastic Standing Committee Member
December 2006-June 2007	Serving as a member of the evaluation committee for the Dean of Pharmacy
January 2006-August 2006	Serving in two search committees for two faculty positions in the Department of Biomedical and Pharmaceutical Sciences and Department of Cell and Molecular Biology
March 2004-April 2007	Senator representing the College of Pharmacy in University of Rhode Island Senate
2007	Advisor for Pharmacy professional students, class of 2009

2002-2007	A member of the organizing committee of the Annual AAPS-NERDG in Rocky Hill, CT
April 2004-April 2007	Organizing INBRE Seminar Series
Oct. 2000-Present	Serving in Graduate Student Thesis Committees: I have been serving on several graduate student thesis committees (more than 120 graduate students).
May 1996-April 1997	Vice President Operations, HUB Community Association, U. of Alberta
February 1997	Leadership Retreat, University of Alberta
May 1995-April 1997	Sports Unit Manager, University of Alberta
May 1995-April 1997	A member of COSL committee (Council of student life), University of Alberta
August 1996	Leadership Retreat, University of Alberta
September 2-4, 1996	Leadership in Residence, University of Alberta
May 1995-April 1996	Vice President Programming, HUB Community Association, U. of Alberta
Sept. 1995- Dec. 1995	Teaching assistant in Radioisotope Tracer Methodology (Pharm. 601, Faculty of Pharmacy, University of Alberta)
1994	Volunteer, HUB community association, University of Alberta
1994	Leadership Program (Speechcraft)
1993-1996	Vice President Finance (Treasurer), Pharmacy Graduate Student Association Faculty of Pharmacy, University of Alberta
1989-1991	Teaching in Organic Chemistry, General Chemistry, Instrumental Analysis and Medicinal Chemistry (Faculty of Pharmacy, University of Tehran)

FACULTY MENTORSHIP

- Served as the official mentor of three faculty, **Dr. Hamid Montazeri, Dr. Sun Yang, and Dr. Simin Rahighi**. I have met with mentees in monthly, bimonthly meetings, or as needed to discuss projects, review grants as needed, and provide feedback and assistance. As a few examples of my success in mentoring faculty, Dr. Montazeri and Dr. Yang have received external funding from **PhRMA foundation, AJK Biopharmaceutical (Montazeri)**, and **NIH (Yang)** in collaborative or independent research.
- Worked and mentored other faculty members. For instance, **Dr. Miao Zhang** NIH's phase 2 funding was dependent on developing lead compounds with high potency. My laboratory was able to develop potent hit compounds for **his phase II NIH application**, which led to the funding. Furthermore, the developed compounds are currently under consideration for licensing agreement with Interlaken Co.
- Worked, collaborated, and/or mentored other faculty, Dr. Marco Bisoffi, Dr. Jerika Lam, Dr. Genady Verkhivker, Dr. Jason Yamaki, Dr. Khaled Elsaid, Dr. Surya Nauli, Dr. Innokentiy Maslennikov, Dr. Rakesh Tiwari, Dr. Aftab Ahmed, Dr. Reza Mehvar, and Dr. Jennifer Totonchy in several collaborative research projects of mutual interest and/or published in peer-reviewed journals. Most of the collaborations are focused on the projects independently designed by the above investigators.

Advocating Faculty Research

- **Advocacy.** I have been **an advocate of promoting faculty research and assisting them to succeed as my first priority**. As Associate Dean of Research, one major part of my work was advocating and promoting all faculty research activities and successes to General Public.
- **CUSP Research Highlights.** I started publishing **CUSP Research Highlights** in Summer of 2020.
 - The first issue was published on August 18, 2020: **NIH Funds Three R01 Grants at Chapman University School of Pharmacy**.
 - The second issue was published on October 6, 2020, with the theme: **Three Assistant Professors, Three Paths Forward**.
 - The theme of the third issue was **research collaboration**. These issues were widely distributed among Pharmacy Schools across the country and Chapman University.
 - I have asked faculty to submit their research stories to be shared with Media Services as needed.

- **NIH INBRE Program coordinator** at the University of Rhode Island. Supporting faculty at the University of Rhode Island, Brown university, and five community colleges.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

1. American Chemical Society (1996-Present)
2. American Peptide Society (2018-Present)
3. American Association for the Advancement of Science (1999-present)
4. American Association of Pharmaceutical Scientists (AAPS) (1993-1995) (2004-Present)
4. The Johns Hopkins Medical and Surgical Association (2002-Present)
5. American Diabetes Association (2004-2013)
6. American Association of Colleges of Pharmacy (February 2001-2008)
7. SIGMA XI (The Scientific Research Society) (November 2000-November 2001)
8. Distinguished member of PIRE Advisory Board, NSF, University of Rhode Island Partnership in International Research and Education (PIRE) (2008)
9. American Pharmacists Association (2015-Present)

SCIENTIFIC JOURNAL EDITOR OR EDITORIAL ADVISORY BOARD

1. The Executive Guest Editor of "*Current Pharmaceutical Design*" (2001-Present)
2. Editorial Advisory Board "*Current Medicinal Chemistry, Central Nervous System Agents*" (June 2004-Present)
3. Editorial Advisory Board of "*Recent Patent Reviews on CNS Drug Discovery*" (March 2005-Present)
4. Editorial Board member of "*Perspectives in Medicinal Chemistry*" (January 2007-Present).
5. Editorial Board Member of "*Open Biochemistry Journal*" (June 2007-Present)
6. Editorial Board Member of "*Daru Journal of Pharmaceutical Sciences*" (Aug. 2008-Present)
7. Editorial Board Member of Associate Editors, "*The Beilstein Journal of Organic Chemistry*" (December 2008-Present)
8. Editorial Board Member, "*Journal of Herbal Drugs*" (Aug. 2009-Present)
9. Editorial Advisory Board, "*Chemistry Biology Interface*" (September 2011-Present)
10. Honorary Editorial Board, "*Research and Reports in Transdermal Drug Delivery*" (Dec. 2011-Present)
11. Editorial Board Member of "*Journal of Pharmacological & Biomedical Analysis*" (June 2012-Present)

12. Editor "*Chemical Biology Letters*" *Integrated Science Publishing*" (June 2015-Present)

13. Editorial Board Member "*Molecules*" (Oct. 2018-present)

14. Editorial Board Member "*Frontier in Nanotechnology*" (April 2022-present)

PEER REVIEW ACTIVITY AND GRANT REVIEW ACTIVITY

- Reviewer for *Organic Letters*, *Bioorganic Medicinal Chemistry Letters*, *Bioorganic Medicinal Chemistry*, *Journal of Combinatorial Chemistry*, *Current Pharmaceutical Design*, *Tetrahedron Letters*, *Journal of Organic Chemistry*, *Chemistry and Biology*, and *Journal of Medicinal Chemistry*, *ChemMedChem*, *Molecular Pharmaceutics*
- Center For Scientific Review, NIH, *Microbicidal Preclinical Development Program*, ZRG1 AARR-1, August 7-9, 2001
- Center For Scientific Review, NIH, *Microbicidal Preclinical Development Program* ZRG1 AARR-1, December 9, 2002.
- Center For Scientific Review, NIH, *Microbicidal Preclinical Development Program*, ZRG1 AARR-1, July 9, 2003.
- Center For Scientific Review, NIH, *Drug Delivery & Drug Discovery SBIR/STTR Panel*, ZRG1 SSS-L (10), June 30, 2003- July 01, 2003.
- Center For Scientific Review, NIH, *Microbicidal Preclinical Development Program*, ZRG1 AARR-A 51, December 8-9, 2003.
- Center For Scientific Review, NIH, *Microbicide Innovation R21/R33 program*, ZAI1 BLG-A (S1), May 23-24, 2006.
- Ad Hoc Reviewer, INSF, *Development of COX-2 Inhibitors*, December 2006.
- Reviewer, *2006 Assessment of Research Doctorate Programs*, National Research Council (NRC), December 2006.
- *The Estonian Science Foundation*, Evaluation of proposals, July 2008.
- *Organic and Macromolecular Chemistry CAREER Panel*, National Science Foundation (NSF), October 6-7, 2008.
- Center For Scientific Review, NIH, *Microbicide Innovation R21/R33 program (MIP IV)*, ZAI1 RB-A (J1) 2, November 20-21, 2008.

- Center For Scientific Review, NIH, *Microbicide Innovation R21/R33 program (MIP VI)*, ZAI1 RB-A (J1), December 2-3, 2010.
- Cancer Drug Discovery Peer Review Committee, *American Cancer Society*, June 23-24, 2011.
- Cancer Drug Discovery Peer Review Committee, American Cancer Society, January 19-20, 2012.
- Cancer Drug Discovery Peer Review Committee, American Cancer Society, June 14-16, 2012.
- City University of New York, Cuny Collaborative Research Grant Proposal Review, April 6, 2013.
- NIH, Sustained Release for Antiretroviral Treatment or Prevention (SRATP) of HIV Infection (UM1), ZAI1-JBS-A-M1, April 6-7, 2015.
- Grant Reviewer for Puerto Rico Science, Technology, and Research Trust, Fall 2014, August 2015, March 2017-2019.
- Grant Reviewer for Kazakhstan National Center of Science and Technology Evaluation, Fall 2014.
- Member, Cancer Drug Discovery Peer Review Committee, American Cancer Society, August 1, 2012-February 1, 2016.
- Grant Reviewer for Kazakhstan National Center of Science and Technology Evaluation, Fall 2017.
- Grant Reviewer for Kazakhstan National Center of Science and Technology Evaluation, Fall 2020.
- Grant Reviewer for Puerto Rico Science, Technology, and Research Trust, March 2021

AWARDS AND HONORS

<u>Year</u>	<u>Award</u>	<u>Awarding Agency/Institution</u>	<u>Nature of Award</u>
2021	CUSP Culture Award: Diversity and Inclusion	Chapman University School of Pharmacy	Recognition
2019	AIMS Award	ATOMWISE	Artificial Intelligence Research
2017	AACP Catalyst Program: Accelerating Research Leadership, 2017-2018	AACP	Fellowship
2017	Journal Stars Author	Molecular Pharmaceutics, American Chemical Society ACS publication	Recognized as a highly prolific author for Molecular Pharmaceutics, American Chemical Society ACS publication, 2017
2015	AACP Teacher of the Year	American Association of Colleges of Pharmacy	Teaching Recognition
2014	Outstanding Intellectual Property Development	University of Rhode Island	Efficient Synthesis of CN2097 and RC7 and Their Analogs
2014	Outstanding Intellectual Property Development	University of Rhode Island	Synthesis of Maplexin J
2014	Outstanding Intellectual Property Development	University of Rhode Island	Phenolic Compounds with Antioxidant and Anti-Cancer Properties
2014	Outstanding Intellectual Property Development	University of Rhode Island	Antibacterial Peptides Containing Arginine and Tryptophan Residues
2013	Outstanding Intellectual Property Development	University of Rhode Island	Solid-phase synthesis of modified oligonucleotides containing diphosphodiester inter-nucleotide linkages.

2013	Outstanding Intellectual Property Development	University of Rhode Island	Preparation of quebecol and its analogs as anti-cancer agents.
2012	Research Excellence Award	College of Pharmacy University of Rhode Island	Recognition
2012	M2012 Travel Scholarship	Microbicides: From Discovery to Delivery	Travel scholarship and invitation for giving an oral presentation
2011	Outstanding Researcher	University of Rhode Island	Recognition
2011	The Rho Chi Society The Academic Honor Society in Pharmacy Beta Pi Chapter	University of Rhode Island	Honorary Member
2010	M2010 Travel Scholarship	Microbicide: Building Bridges in HIV Prevention Organizing Committee	Travel scholarship and invitation for giving an oral presentation
2009	Harry and Elsa Jiler—American Cancer Society Professors Meeting Travel Scholarship	American Cancer Society	Travel scholarship and invitation for giving an oral presentation
2009	Honorary Fellow of the Indian Society Chemists and Biologists (ISCB)	Indian Society Chemists and Biologists	Honorary Fellow
2004	Outstanding Intellectual Property Development	University of Rhode Island	Research: Recognition for Discovery of the Docking Site of Tyrosine Kinases
2004	Outstanding Intellectual Property Development	University of Rhode Island	Research: Recognition for Discovery of Bisubstrate Inhibitors of Protein Tyrosine Kinases as Anticancer Agents
2004	Outstanding Intellectual Property Development	University of Rhode Island	Research: Recognition for Discovery of Novel Bisubstrate Antifungal Derivatives
2003	Listed in Marquis Who's Who in America	Marquis Who's Who	Honor

2001	Commercial Innovation Award	Slater Center For Biomedical Technology	Research: Industrial Innovation Research
1998	American Chemical Society Travel Grant	American Chemical Society	Research Travel Award
1997-1999	Alberta Heritage Foundation for Medical Research Postdoctoral Fellowship	Alberta Heritage Foundation for Medical Research	Postdoctoral Fellowship Scholarship
1997	The Most Positive Influence Award	University of Alberta	Service Honorary Award
1996	Golden Bulb Light Award	University of Alberta	Service
1994-1996	Alberta Heritage Foundation for Medical Research Studentship Scholarship	Alberta Heritage Foundation for Medical Research	Ph.D. Student Scholarship
1995	J. Gordon Graduate Student Award	University of Alberta	Research
1994	Dr. Wu Hong Fund Poster Prize	University of Alberta	Research, Poster Prize
1993	Mike Wolowyk Graduate Scholarship	University of Alberta	Research
1993	Myer Horowitz Graduate Scholarship	University of Alberta	Research

PROFESSIONAL AND TECHNICAL EXPERIENCE

1. Medicinal chemistry.
2. Nano-based drug design and drug delivery tools.
3. Peptide synthesis and application as enzyme inhibitors and drug delivery tools.
4. Biomaterials characterization using Transmission Electron Microscopy (TEM), Scanning Electron Microscopy (SEM), and Dynamic Light Scattering (DLS)
5. Cell-based assays and imaging techniques (flow cytometry, fluorescence microscopy, confocal microscopy).
6. Solid-phase organic synthesis and combinatorial chemistry.
7. Synthetic organic chemistry of lipids, peptides, nucleosides, nucleic acids, carbohydrates, and heteroaromatics.
8. Analytical and spectroscopy methods like HPLC, NMR, IR, UV, and MS.
9. Enzymatic reactions and enzyme kinetic studies.
10. Molecular modeling and quantitative structure-activity relationship (QSAR) using Insight II, Biosym, Hyperchem, Rasmol, ViewerLite, ChemPro. Software.
11. Techniques in molecular biology (electrophoresis, cloning of DNA, hybridization, gene transfection).
14. Using radioactive compounds for biological assays like enzymatic studies.

MY RESEARCH

My research has been published in 221 peer-reviewed publications, 14 issued or pending patents, and 187 meeting abstracts.

<https://www.ncbi.nlm.nih.gov/myncbi/keykavous.parang.1/bibliography/public/>.

PUBLICATIONS

1. Shafiee, A., Pirouzzadeh, B., Ghasemian, F., **Parang, K.** Synthesis of 2-acetyl-1-methyl-5-nitroimidazole. *J. Heter. Chem.* (1992) 29, 1021-1023 and *Cheminform* (1992) 23, 50.
2. Shafiee, A., **Parang, K.**, Khazen, M., Ghasemian, F. Synthesis of substituted 2-(1-methyl-5-nitro-2-imidazolyl)quinolines. *J. Heter. Chem.* (1992) 29, 1859-1861.
3. Sharifan, A., **Parang, K.**, Zorrieh-Amirian, H., Nazarinia, M., Shafiee, A. Synthesis of 1-substituted 1,2,4-triazoles, imidazoles and benzimidazoles. *J. Heter. Chem.* (1994) 31, 1421-1423.
4. **Parang, K.**, Knaus, E. E., Wiebe, L. I., Sardari, S., Daneshtalab, M., Csizmadia, F. Synthesis and antifungal activities of myristic acid analogs. *Arch. Pharm.-Pharm. Med. Chem.* (1996) 329, 475-482.
5. **Parang, K.**, Wiebe, L. I., Knaus, E. E., Huang, J. S., Tyrrell, D. L., Csizmadia, F. *In vitro* antiviral activities of myristic acid analogs against human immunodeficiency and hepatitis viruses. *Antiviral Research* (1997) 34, 75-90.
6. **Parang, K.**, Wiebe, L. I., Knaus, E. E. Syntheses and biological evaluation of 5'-O-myristoyl derivatives of thymidine against human immunodeficiency virus (HIV-1). *Antiviral. Chem. Chemother.* (1997) 8, 417-427.
7. **Parang, K.**, Knaus, E. E., Wiebe, L. I. Synthesis, *in vitro* anti-HIV structure-activity relationships and stability of 5'-O-myristoyl analogue derivatives of 3'-azido-2',3'-dideoxythymidine as potential prodrugs of 3'-azido-2',3'-dideoxythymidine (AZT). *Antiviral. Chem. Chemother.* (1998) 9, 311-323.
8. **Parang, K.**, Wiebe, L. I., Knaus, E. E. *In vivo* pharmacokinetic parameters, liver and brain uptake of (±)-3'-azido-2',3'-dideoxy-5'-O-(2-bromomyristoyl)thymidine as potential prodrug of 3'-azido-3'-deoxythymidine. *J. Pharm. Pharmacol.* (1998) 50, 989-996.
9. **Parang, K.**, Knaus, E. E., Wiebe, L. I. Synthesis, *in vitro* anti-HIV activity, and biological stability of 5'-O-myristoyl analogue derivatives of 3'-fluoro-2',3'-dideoxythymidine (FLT) as potential prodrugs of FLT. *Nucleosides & Nucleotides* (1998) 17, 987-1008.
10. **Parang, K.**, Wiebe, L. I., Knaus, E. E., Huang, J. S., Tyrrell, D. L. *In vitro* anti-hepatitis B virus activities of 5'-O-myristoyl analogue derivatives of 3'-fluoro-2',3'-dideoxythymidine

- (FLT) and 3'-azido-2',3'-dideoxythymidine (AZT). *J. Pharm. Pharmaceut. Sci.* (1998) 1, 107-113.
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164. Mozaffari, S.; Tavakoli, K.; Khungar, B.; Tiwari, R.; **Parang, K.** Amphiphilic cell-penetrating hybrid cyclic-linear peptides as a drug delivery system. *256th ACS National Meeting & Exposition*, Boston, MA, United States, August 19-23, **2018**, MEDI-249.
165. Coyle M.; Amirrad, F.; Nabiee, R.; Lamboy, R.; Mahdipoor, P.; **Parang K.**, Montazeri Aliabadi H. Simultaneous targeting of mTOR and mLST8 in human breast cancer cells. *AACR Targeting PI3K/mTOR Signaling Special Conference*. Boston, MA. November 30-December 3, **2018**; *Molecular Cancer Research* **2020**, 18 (10), 43-43.
166. Akinwale, A.; Yamaki, J.; **Parang, K.**; Tiwari, R. K. Evaluation of structure-activity relationship of cyclic peptides [W₄R₄] and amphipathic fatty acyl-cyclic [W₄R₄K] as potential antibacterial agents against pathogenic bacteria. *26th American Peptide Symposium*, Monterey, California. June 22 – 27, **2019**.
167. Park, S. E.; Shamloo, K.; Kristedja, T.; Darwish, S.; Bisoffi, M.; **Parang, K.**; Rakesh Tiwari. Fibronectin and integrin-targeted peptide anticancer drug conjugates for prostate cancer. *26th American Peptide Symposium*, Monterey, California. June 22 – 27, **2019**.
168. Mohammed, E.; Mozaffari, S.; Tiwari, R. K.; **Parang, K.** Comparative molecular transporter properties of cyclic peptides containing tryptophan and arginine residues formed through disulfide cyclization. *26th American Peptide Symposium*, Monterey, California. June 22–27, **2019**.
169. Akhtar, U.; Megeressa, M.; Basir, S.; **Parang, K.**; Ahmed, A. Proteomic and cytotoxic characterization of proteins from Cuscuta (Dodder) tendrils. 33rd Annual Symposium of Protein Society June 30-July 3, **2019**. Seattle, WA. *Protein Science*, 2020; 28, 161-162 (Conference Proceeding).

170. Darwish, S.; Mozaffari, S.; Tiwari, R. K.; **Parang, K.** Synthesis and evaluation of bicyclic peptides containing arginine and tryptophan residues as molecular, 258th ACS National Meeting & Exposition, San Diego, CA, United States, August 25-29, **2019**, MEDI-320.
171. Darwish, S.; Fong, S.; Yang, S.; Tiwari, R. K.; **Parang, K.** Synthesis and evaluation of cyclic peptide-dasatinib conjugates as antimelanoma agents. 258th ACS National Meeting & Exposition, San Diego, CA, United States, August 25-29, **2019**, MEDI-321.
172. Kumar, S.; Tiwari, R.; **Parang, K.** Amphiphilic tricyclic peptides: Design, synthesis, and biological evaluation as molecular transporters” 14th Peptide Therapeutics Symposium, October 24-25, **2019**, Salk Institute for Biological Studies, La Jolla, CA.
173. Alasmari, A.; Mozaffari, S.; **Parang, K.**; Montazeri Aliabadi, H. Cyclic-linear hybrid peptides as siRNA delivery system. Gordon Conference: Chemistry and Biology of Peptides, Ventura, CA, United States, February 10-14, **2020**.
174. Akinwale, A. K.; Yamaki, J.; **Parang, K.**; Tiwari, R. K. Fatty acyl-cyclic [W₄R₄K] as potential antibacterial agents against pathogenic bacteria. Chemistry and Biology of Peptides, Gordon Research Conference, Ventura Beach Marriott, Ventura, CA, US. February 10-14, **2020**.
175. Salehi, D.; Mandal, D.; Tiwari, R. K.; **Parang, K.** Amphiphilic cell-penetrating peptides containing natural and unnatural amino acids as drug delivery agents. Chemistry and Biology of Peptides, Gordon Research Conference, Ventura, CA, US. February 10-14, **2020**.
176. Salehi, D, Mohammed, E. H. M, Mandal, D, Tiwari, R., **Parang, K.** Amphiphilic cell-penetrating peptides containing natural and unnatural amino acids as drug delivery tools and antimicrobial agents. *Peptide Therapeutics Symposium*, October 23, **2020**.
177. Lohan, S., Mohammed, E. H. M., Mandal, D., Tiwari, R., **Parang, K.** Design and evaluation of cyclic and linear amphiphilic peptides against multidrug-resistant bacterial pathogens. *Peptide Therapeutics Symposium*, October 23, **2020**.
178. Yu, W., Park, S. H., Zhang, M., Salem, N., **Parang, K.**, Nam, Y. W., Zhang, M. Evaluation of positive allosteric modulators of SK2 channels using QPatch. Society for Neuroscience Global Connectome. January 11-13, **2021**.
179. Salehi, D., Mohammed, E. H. M., Mozaffari, S., Mandal, D., Tiwari, R., **Parang, K.** Amphiphilic Cell-Penetrating Peptides Containing Natural and Unnatural Amino Acids as Drug Delivery Tools and Antimicrobial Agents. ACS Spring 2021 (Virtual Meeting), 261st ACS National Meeting, April 5-16, **2021**.

180. Khayyatnejad, S., Tiwari, R. K., **Parang, K.** Hybrid cyclic-linear cell-penetrating peptides containing alternative positive and hydrophobic residues as molecular transporters. ACS Spring 2021 (Virtual Meeting), 261st ACS National Meeting, April 5-16, **2021**, MEDI.
181. Zoghebi, K., Tiwari, R., **Parang, K.** Cyclic cell-penetrating peptide-doxorubicin conjugate to overcome multi-drug resistance in cancer. Fall **2021** (Virtual Meeting), 262nd ACS National Meeting, 8/25/2021, MEDI.
182. Sajid, M. I., Lohan, S., Kato, S., **Parang K.**, Tiwari, R. K. A physical mixture of antibiotic and synthetic antimicrobial cyclic peptide proves to be more effective than respective chemical conjugate against multi-drug-resistant bacteria. 16th Annual Peptide Therapeutics Symposium, October 21-22, **2021**, La Jolla, CA
183. Lohan, S., Mandal, D., Choi, W., Konshina, A. G., Tiwari, R. K., Efremov, R. G., Maslennikov, I, **Parang, K.** Short cationic membrane active antimicrobial peptides: A detailed structural insight of the membrane-bound peptides using 2D-NMR and molecular dynamic simulations. 16th Annual Peptide Therapeutics Symposium, October 21-22, **2021**, La Jolla, CA.
184. Mandal, D., Lohan, S., Mohammed, E. H. M., Tiwari, R., Montazeri Aliabadi, H., **Parang K.** Peptide-Based Strategy for Nucleic Acid Delivery. 16th Annual Peptide Therapeutics Symposium, October 21-22, **2021**, La Jolla, CA.
185. Zoghebi, K., Sanner, M. F., Hanna, S., Mozaffari, S., Rahighi, S., Tiwari, R. K., **Parang K.** Cyclic peptides containing tryptophan and arginine residues as protein kinase inhibitors. 16th Annual Peptide Therapeutics Symposium, October 21-22, **2021**, La Jolla, CA.
186. Moreno, J., Tiwari, R., **Parang, K.** Hybrid-amphipathic peptides for enhanced antibacterial activity and protein delivery. Spring **2022**, ACS National Meeting, San Diego, 3/23/**2022**, MEDI.
187. Kim, L. Tiwari, R., **Parang, K.** Cyclic and linear cell-penetrating peptides composed of tryptophan (WW) and arginine (RR) residues as molecular transporters. Spring **2022**, ACS National Meeting, San Diego, 3/23/**2022**, MEDI.

INVITED ORAL PRESENTATIONS

1. **Parang, K.** Chemistry and Biology of Phosphorylation, College of Pharmacy, *Long Island University*, February 2000.
2. **Parang, K.** Chemistry and Biology of Phosphorylation, College of Pharmacy, *Idaho State University*, April 2000.
3. **Parang K.** Chemistry and Biology of Phosphorylation, College of Pharmacy, *University of Illinois at Chicago*, Sept. 8, 2001.
4. **Parang, K. Keynote Speaker**, Implementing Mechanism Based Approaches to Protein Kinase Inhibitor Design and Functional Analysis, *Discovery Tech 2001*, November 28, 2001, Palm Beach, Florida.
5. **Parang, K.** Novel bifunctional Antifungal Agents, Intellectual Property Committee, *University of Rhode Island*, April 24, 2003.
6. **Parang, K. Keynote Speaker**, Designing Bisubstrate Analog Inhibitors for Protein Kinases. *Cambridge Healthtech Institute's Protein Kinase Targets*, Strategies for Drug Development, June 10, 2003, Boston, Massachusetts.
7. **Parang, K.** Bisubstrate Inhibitors of Protein Tyrosine Kinases as Anticancer Agents. Intellectual Property Committee, *University of Rhode Island*, August 6, 2003.
8. **Parang, K. Keynote Speaker**, Novel Approaches in Designing Protein Kinase Inhibitors. *Genentech*, October 3, 2003, San Francisco, California.
9. **Parang, K.** Opportunities in Biology and Chemistry of Phosphorylation for Drug Discovery, *University of Alberta*, Canada, June 10, 2005.
10. **Parang, K.** Chirality in Drug-Receptor Interactions, *University of Alberta*, Canada, June 10, 2005.
11. **Parang, K.** Chemistry and Biology of Phosphorylation, Department of Chemistry, *University of Rhode Island*, Sept. 12, 2005.
12. **Parang, K.** Synthesis of Modified DNA Molecules Containing Diphosphate or Dithiophosphate Bridges Using Novel Diphosphorylating Reagents, Intellectual Property Committee, *University of Rhode Island*, Sept. 16, 2005.
13. **Parang, K.** Evaluation of Reactivity and Stability of Peptides and Proteins for Pharmaceutical Formulations, *University of Rhode Island*, November 18, 2005.
14. **Parang, K.** Chemistry and Biology of Phosphorylation, Department of Medicinal Chemistry, *University of Utah*, January 19, **2006**.

15. **Parang, K.** Chemistry and Biology of Phosphorylation, *Texas Tech School of Pharmacy*, November 20, **2006**.
16. Ahmadibeni, Y., Hanley, M., Agarwal, H. K., **Parang, K.** Applications of polymer-bound phosphitylating reagents in the synthesis of organophosphorus compounds. *233rd ACS National Meeting*, Chicago, IL, United States, March 29, **2007**, ORGN-240.
17. **Parang, K.** Research Experiences and Opportunities at the Interface of Chemistry and Biology, Research Seminar Series, November 23, **2007**, University of Rhode Island.
18. **Parang, K.** Understanding the Regulation, Activation, and Interactions of Protein Tyrosine Kinases for Rational Design of the Next Generation of Inhibitors, *Akron University*, November 27, **2007**.
19. **Parang, K.** Research Experiences and Opportunities at the Interface of Chemistry and Biology Moffit Cancer Center, February 6, **2008**.
20. **Parang K.**, New Strategies in Designing Protein Kinase Inhibitors. *International Conference on the Interface of Chemistry-Biology in Biomedical Research*, Piloni, India, February 23, **2008** (Invited lecture).
21. **Parang, K.** Research Experiences and Opportunities at the Interface of Chemistry and Biology. *The 11th Iranian Pharmaceutical Sciences Conference IPSC2008*, Kerman, August **2008**.
22. Gupta, A., Bothun, G. D., Deluca, R., Ye, G., **Parang, K.** Interaction mechanisms between a homologous series of tripodal cationic peptides and lipid bilayer membranes. *American Institute of Chemical Engineers (AIChE) annual meeting*, Philadelphia, November 16, **2008**, 196/1-196/5.
23. **Parang, K.** Designing protein tyrosine kinase inhibitors, 13th **ISCBC** International Conference on Interplay of Chemical and Biological Sciences, New Delhi, India, Feb. 28, **2009**.
24. **Parang, K.** Design and evaluation of multifunctional anti-HIV agents. Research Seminar Series, University of Rhode Island, July 17, **2009**.
25. Ahmadibeni, Y., **Parang, K.** Solid-phase phosphitylating reagents: design and application in the synthesis of phosphorylated biomolecules. 61st Southeast Regional Meeting of the American Chemical Society, San Juan, Puerto Rico, October 21-24, **2009**, SRM-473.
26. Gupta, A., Deluca, R., Ye, G., Mandal, D., **Parang, K.**, Bothun, G. D. Lipid vesicles, disks, and interlamellar attachments: Aggregation effects of cell penetrating peptides on zwitterionic-anionic vesicles. 238th ACS National Meeting, Washington, DC, United States, August 16-20, **2009**, COLL-053.

27. **Parang, K.** Design and evaluation of multifunctional anti-HIV agents. T3D-2010 International Symposium on Trends in Drug Discovery and Development New Delhi, India, January 5-8, **2010**.
28. **Parang, K.** Nucleoside-polymer conjugates as anti-HIV microbicides. Current Trends in Pharmaceutical Research: Focus on Orphan Diseases, Patna, India, January 10, **2010**.
29. **Parang K.** Research Experiences and Opportunities at the Interface of Chemistry and Biology, University of Puerto Rico Humacao, April 20, **2010**.
30. **Parang K.** Designing Protein Tyrosine Kinase Inhibitors, University of Puerto Rico San Juan, April 21, **2010**.
31. **Parang K.,** Agarwal, H., Doncel G. 5'-O-Fatty acyl ester derivatives of 3'-fluoro-2',3'-dideoxythymidine (FLT) as microbicidal agents. M2010 Microbicides, Pittsburgh, May 25, **2010**.
32. Gupta, A., Shirazi, A., **Parang K.,** Bothun, G. Self-Assembled Peptide-Amphiphile/Lipid Mixtures Nanoscale Science and Engineering forum session (AIChE 2010 Meeting), November 12, 2010, Salt Lake City, Utah.
33. **Parang K.** Peptide nanostructures as molecular transporters of therapeutic Agents. University of Delhi, India, Jan. 31, 2011.
34. **Parang K.** Designing protein kinase inhibitors. Delhi Indian Institute of Technology, India, Jan. 31, 2011.
35. **Parang K.** Peptide nanostructures as molecular transporters of therapeutic Agents. BITS, Pilani, India, Feb. 2, 2011.
36. **Parang K.** Peptide nanostructures as molecular transporters of therapeutic Agents. ISCBC, Rajkot, India, Feb. 5, 2011.
37. Nasrolahi Shirazi, A.; Tiwari, R.; Mandal, D.; **Parang, K.** Enhanced drug delivery by linear and cyclic peptides containing tryptophan and lysine through capping of gold nanoparticles. 2011 *Southeastern Regional Meeting of the American Chemical Society (SERMACS 2011)*. Medicinal Chemistry, Oct. 26, 2011.
38. Ahmadibeni, Y.; Williams, T.; Seeram, T.; Seeram, N.; **Parang, K.** Triphenylmethanol derivatives: Synthesis and application as acid-base indicators for acid-base titrations. 2011 *Southeastern Regional Meeting of the American Chemical Society (SERMACS 2011)*. Medicinal Chemistry, Oct. 27, 2011.
39. **Parang, K.,** Peptide nanostructures as molecular transporters of therapeutic Agents. Rhode Island College. *February 15, 2012*.

40. **Parang, K.**, Agarwal, H., Doncel, G. Novel lipophilic fatty acyl derivatives of lamivudine and emtricitabine as potential microbicidal agents. *M2012 International Microbicide Conference*, Sydney, Australia, April 18, 2012.
41. **Parang K.** Peptide nanoparticles as molecular transporters of therapeutic agents. Technical University Braunschweig, Germany, May 7, 2012.
42. **Parang K.**, Peptide nanostructures as molecular transporters of therapeutic agents. Roger Williams University, February 20, 2013.
43. **Parang K.**, Molecular modeling of peptide nano self-assemblies. The Rhode Island Consortium for Nanoscience and Nanotechnology. University of Rhode Island, March 6, 2013.
44. **Chikkara, B.**, Parang, K. Fatty acyl and peptidic Adriamycin synthesis and evaluation as new Prodrugs with novel pharmacological profile for cancer treatment*" 3rd Annual National Convention of Association of Pharmacy Professionals' Dharmsinh Desai, University, Nadiad, Gujarat, January 18, 2014.
45. **Parang K.** Peptide nanostructures as molecular transporters of therapeutic agents. 11th International Symposium in Pharmaceutical Sciences. Ankara, Turkey, June 9-12, 2015.
46. **Parang K.** Peptide nanostructures as molecular transporters of therapeutic agents. Pacifichem 2015, Honolulu, Hawaii, December 16-20, 2015.
47. **Parang K.** Peptides as Drug Delivery Agents, Chapman University School of Pharmacy, January 13, 2017.
48. **Parang K.** Peptides as Drug Delivery Agents, Summer Undergraduate Research Fellowship Program, Chapman University, July 5, 2017.
49. **Parang K.** Peptides as Drug Delivery Agents, Summer Undergraduate Research Fellowship Program, Chapman University, July 19, 2018.
50. **Parang K.** Medicinal Chemistry for Anti-Infectious Diseases Drug Discovery, H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences, November 14, 2018.
51. **Parang K.** Design and Establishing Structure-Activity Relationship of Amphiphilic Peptides as Antibacterial Agents, H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences, November 14, 2018.
52. Ajayi David Akinwale, Neda Riahifard, Sajid Muhammad Imran, Sandeep Lohan, Jason Yamaki, **Keykavous Parang**, Rakesh Tiwari, Development of Amphipathic Cyclic Peptides as Antimicrobial

Agents against Resistant Pathogenic Bacteria. 15th Annual Keck Graduate Institute Research Symposium. Pomona College, Claremont, CA, January 10, 2020.

53. **Parang, K.** MedicRes Medical research Support, Ankara, Turkey, Cyclic peptides ad drug delivery and antibacterial agents, Virtual Presentation, October 26, 2020.
54. **Parang, K.** COMSTECH (Committee on Scientific and Technological Cooperation for the promotion and cooperation of science and technology), Cyclic peptides Anticancer Drug Delivery, July 13, 2021. Virtual International Presentation (<https://www.youtube.com/watch?v=m8AcE3msG5k>).
55. **Parang, K.** COMSTECH (Committee on Scientific and Technological Cooperation for the promotion and cooperation of science and technology), Overview of Prodrugs, July 26, 2021. Virtual International Presentation (<https://www.youtube.com/watch?v=T3377LiaY1Q>).
56. Two broadcasted TV research interviews about COVID-19 treatments (<https://www.youtube.com/watch?v=2lv45oY8uVY>; <https://www.youtube.com/watch?v=eL7-QZZDG-0>)
57. **Parang, K.** Keynote Address, International Conference on Frontiers in Chemical Research, Tiruchirappalli, Tamil Nadu, India, Design and Application of Cyclic Peptides for Anticancer Drug Delivery, February 3, 2022.

FUNDED GRANT PROPOSALS

My laboratory has been funded with **\$5.48 million** from NIH, American Cancer Society, NSF, Industry, USAID-CONRAD, Kay Foundation, and many other funding agencies since October 2000. About **\$1.8 million** of this amount has been received since my arrival at Chapman. A number of my recent grant applications to NIH and DOD have been scored favorably. I have also managed **\$20 million** grant from NIH as INBRE Program coordinator at the University of Rhode Island.

I have been listed among the world's career **top 2% of scientists** (<https://doi.org/10.17632/btchxktzyw.3>), as reported by Stanford University (August 01, 2021). My publications have been cited 6,516 times, and my **current h-index is 43**. <https://scholar.google.com/citations?user=9tb0wPkAAAAJ&hl=en>

.I am ranked at Chapman as number 10 researcher according to SD Scientific Index: <https://www.adscientificindex.com/scientist.php?id=881985>

1. "Tyrosine Kinase Inhibitors as Anti-Cancer Agents", *Special Research Funding*, University of Rhode Island Research Office, \$3,500 June 2001 for equipment purchase (Role: PI).
2. "Investigator, "Bioisosteres of Tyrosine Phosphate as Inhibitors of SH2 Domain of Tyrosine Kinases", *Biomedical Research Infrastructure Network (BRIN) Grant* (P.I.: Dr. Zahir Shaikh), NIH, PR16457-01, 9/30/01-8/31/04 (~\$120,000 for Summer Salary support, travel, student support, supplies).
3. "Molecular Modeling Laboratory Initiative", *URI Teaching with Technology Student Assistants Program (TTSA)*, Information and Instructional Technology Services, University of Rhode Island, October 2001, I got support for one student.
4. "Designing Prodrugs Against Human Immunodeficiency Virus", *URI Foundation*, \$2,000 for supplies, March 2002 (Role: PI).
5. Principal Investigator, "Molecular Modeling Laboratory Initiative", *University of Rhode Island Foundation Competitive Grant Application*, \$4,800, Jan. 1, 2002 through Jan 1, 2003 (Role: PI).
6. "Bisubstrate Analogs of Protein Tyrosine Kinases against Cancer", Medical Research Grant, *Rhode Island Foundation*, \$10,000, February 2003-March 2004 (Role: PI).
7. "Antimycotic Drug Development", *Slater Center for Biomedical Technology*, May 2001, \$100,101, March 2002-January 2004 (Role: PI).
8. "Drug Development against Osteoporosis", *The University of Rhode Island Council for Research*, \$5,910, 08/01/2005-12/31/2005 (Role: PI).

9. "Novel Bifunctional Anti-HIV-1 Agents as Microbicides with and without Contraceptive Activity," *American Foundation for Pharmaceutical Education (AFPE)*, \$5,000, 07/01/2005-05/01/2006 (Role: PI).
10. "Antimycotic Drug Development", Principal Investigator, *URI Foundation*, \$7,500, December 2005 (Role: PI).
11. "Solid-Phase Triphosphorylation of Nucleosides", *Helicos BioSciences Corporation*, \$13,680, September 2006 (Role: PI).
12. "Solid-Phase Triphosphitylating Reagents", *Biota Corporation*, \$4,975, September 2006 (Role: PI).
13. "Design and Synthesis of Cyclic Octapeptides as Nanotube Drug Delivery System", *Rhode Island Sea Grant and Honors Program*, \$798, 01/8/2008 (Role: PI).
14. "Novel Bifunctional Anti-HIV-1 Agents as Microbicides With and Without Spermicide Activity", *Contraceptive Research and Development (CONRAD)*, MSA-03-367, \$751,117, 12/01/03-12/31/09 (Role: PI).
15. "Synthesis and Development of Novel Neuroprotective Agents", *Brown University/STAC*, \$28,000, 08/01/09-5/31/10 (Role: PI).
16. "Synthesis of KP-17", *CONRAD*, PPA-09-028, \$43,804, 09/01/09-03/31/10 (Role: PI).
17. (Co-PI) "Establishment of an Animation and 3-D Stereo Visualization Facility", *Champlin Foundations Grant*, Approved Nov. 2003, \$106,000 (PI. Dr. Bongsup Cho).
18. Investigator, "Mechanistic Studies of Protein Tyrosine Kinase Activation by Arsenite", *INBRE NIH P20 RR016457*, \$76,795, 08/1/04-08/01/05.
19. (Co-PI, 25% effort, \$178,635), "Mechanistic Studies and Inhibitor Design for Protein Tyrosine Kinases", *American Cancer Society*, RSG CDD-106966 (Total grant \$714,543) 08/01/04-08/01/09 (P.I.: Dr. Gongqin Sun).
20. (Co-PI, 15% effort, \$130,000), "Local Immunosuppression for Liver Transplantation", *NIH*, 1R01 GM069869 (Total grant \$866,980) 04/01/05-04/01/09, (PI. Dr. Reza Mehvar).
21. (Co-PI, 20% effort, \$172,800), "Mechanism of PTK Substrate Recognition and Specificity", *NIH*, 1R01CA111687 (Total grant \$864,000) March 2005-December 2009 (PI: Dr. Gongqin Sun).
22. (Mentor and Sponsor), "Fatty Acyl Amide Derivatives of Doxorubicin: Synthesis and in vitro Anticancer Activities", Undergraduate Research Initiative (Total grant \$800) 03/01/2010-08/31/2010 (Student Nicole St. Jean).
23. (Mentor and Sponsor), "Self-Assembled Cyclic Peptides as Nanostructures", Undergraduate Research Initiative (Total grant \$1,161) 01/01/2010-06/31/2010 (Students

Doujia Li, Can Nguyen, Phouthone Malayphone

24. (Co-PI, 30% effort, \$31,607), "Controlled Release and Medicated Combination Devices for the Treatment of Bone Fractures and Other Bone Disorders", *IllumiOss Medical, Inc.*, (Total grant \$105,357), 11/01/10-06/01/12 (PI: Dr. David Worthen).
25. (Mentor and Sponsor), "Development of Neuroprotective PDZ-Domain Inhibitors for Treatment of Stroke", *American Heart Association*, 11POST5820019 (Total grant \$94,000) 12/31/11-12/31/12 (Postdoc.: Rakesh Tiwari).
26. (Mentor and Sponsor), "Designing Cell-Penetrating Cyclic Peptides as Molecular Transporters", Undergraduate Research Initiative (Total grant \$1,200) 03/01/2012-08/31/2012 (Students Brian Sullivan and Kellen McCaffrey).
27. "The Tick-Bite Patch", *Rhode Island Science & Technology Advisory Council (STAC)*, RIRA-CA-2011, (Total grant \$199,479) (01/01/2011-12/31/2012) (PI. Dr. Thomas Mather) (Role: PI, Multiple PI grant).
28. Treatment of Stroke Using a Novel PDZ Binding Peptidomimetic Drug, NIH, 1R43NS074651-01 (Total grant \$352,596, my portion \$75,723), 09/01/11-08/31/12) (Role: PI, Multiple PI grant).
29. "Novel Bifunctional Anti-HIV-1 Agents as Microbicides", CONRAD/USAID, PPA-09-035, \$340,567, 11/01/09-07/01/12 (Role: PI).
30. "Development of Src Kinase Inhibitors as Anticancer Agents". *American Cancer Society*, RSG-07-290-01-CDD, \$627,000, 07/01/2007-07/01/2012 (Role: PI).
31. "Synthesis of Bicyclic Peptides as Antimicrobial Agents", *Joint Supervision Mission Grant*, Egyptian Cultural Sector- Ministry of Higher Education. \$10,000, 01/01/2012-01/01/2013 (Role: PI).
32. "Synthesis and Evaluation of Peptides Synthesized through Click Chemistry", *Programme de bourses Libye-Amérique du Nord*, Academic Manager for the Libyan North American Scholarship, \$24,000 (\$6,000/year), 12/01/2012-12/01/2016 (Role: PI).
33. "Design, Green Synthesis And Structure–Activity Relationship Of Novel Indolyl Nicotinonitriles Conjugated To Water Soluble Cellulose Derivative As Tumor Necrosis Factor Alpha (TNF-A) Antagonists For The Treatment of Rheumatoid Arthritis", *Joint Supervision Mission Grant*, Egyptian Cultural Sector- Ministry of Higher Education. \$10,000, 01/15/2013-01/01/2014 (Role: PI).
34. (Mentor and Sponsor), "Synthesis and Evaluation of Multifunctional Cyclic Peptide-Doxorubicin-Folic acid Conjugates as Selective Anticancer Agents", Undergraduate Research Initiative (Total grant \$1,200) 01/15/2013-06/31/2013 (Students Brian Sullivan and Kellen McCaffrey).

35. "Synthesis of Organophosphorus Compounds Using Solid-Phase Reagents", *NSF*, CHE 0748555, \$300,000, 02/01/2008-02/01/2013 (Role: PI).
36. "Synthesis of Cyclic Pyranopterin Monophosphate (cPMP) and the Prodrugs", *Alexion* (Total grant \$139,656) (4/01/2012-10/01/2013) (Role: PI).
37. "Molecular Modeling of Peptide Nano Self-Assemblies", *RIN²*, \$8000 (8/31/2012-8/31/2013) (Role: PI).
38. "Purification of Cyclic Peptides and Chiral Compounds", *Waters Academic Grant*, \$12,000 (12/15/2012-04/01/2013) (Role: PI).
39. "Synthesis of Molybdopterin and its Analogs", \$213,179 *Alexion*, (8/1/13-Present) (Role: PI).
40. "Synthesis of Peptide-Drug Conjugates", Egyptian Cultural Sector- Ministry of Higher Education. \$10,000 (01/15/2014-01/01/2015) (Role: PI).
41. "A Novel BDNF Potentiator for Treating Cognitive Dysfunction in Angelman Syndrome", *Alexion* (Subcontract from Brown University), \$30,500 (2/1/15-2/1/16) (Role: PI).
42. "Impact of PUFAs on HIV-1 Replication", Chapman University Faculty Research and Development Council, Scholarly/Creative Activity Grant, \$2,094 (5/2016-/2017) (Role: Co-PI).
43. Channel Research Program, Egyptian Government Scholarship and Research Fund, Cell-Penetrating Antimicrobial Peptides as Antibiotics Molecular Transporters, Support Mrs. Eman Abdel Hamid Mansour Mohamed (\$34,698), May 2018-2019 (Role: PI).
44. Channel Research Program, Egyptian Government Scholarship and Research Fund, Cell-Penetrating Antimicrobial Peptides as Antibiotics Molecular Transporters, Support Mrs. Eman Abdel Hamid Mansour Mohamed (\$34,698), May 2019-2020 (Role: PI).
45. Designing Cell-Penetrating Antimicrobial Peptide-Capped Metal Nanoparticles as Molecular Transporters of Antibiotics against Pathogenic Bacteria, *AJK Biopharmaceutical* (\$628,916), (9/14/2018-3/31/2023) (Role: PI).
46. Rational Design of Peptide Inhibitors of NF-kappa B Signaling, Rahighi, R., Parang, K. Maslennikov, I. *Faculty Opportunity Fund*, \$15,000, 2019 (Role Co-PI).
47. Design and Evaluation of Amphiphilic Peptide-Based Platforms for siRNA Delivery, *AJK Biopharmaceutical* (\$330,899) (02/01/2019-02/28/2023) (Role: PI with Dr. Montazeri).
48. Machine Learning Platform for Drug Design of Tyrosine Kinase Inhibitors: Integrating Chemistry, Biology and Data Science for Discovery of Anti-Cancer Therapeutic Agents.

Gennady M. Verkhivker (PI), Keykavous Parang (PI), Maduka Ogba (Co-Investigator), Rakesh Tiwari (Co-Investigator), *Kay Family Foundation*, \$100,000, 08/1/19-05/31/2022 (Role: PI).

49. Design and Evaluation of Long-Acting EFdA-Fatty Acid Conjugates, NXS-19-008, \$439,605, CONRAD/USAID (06/15/2019-06/14/2022) (Role: PI).

PAST AND CURRENT COLLABORATORS IN U.S.

1. Dr. Geoff Bothun, Assistant Professor, Department of Chemical Engineering at University of Rhode Island. Dr. Bothun and I are collaborating in studying the interactions of amphipathic peptides with phospholipid bilayer.
2. Dr. Niall Howlett, Associate Professor, Department of Cell and Molecular Biology at University of Rhode Island. Dr. Howlett and I are collaborating on evaluation of peptides as delivery tools for siRNA.
3. Dr. Gongqin Sun, Professor, Department of Cell and Molecular Biology at University of Rhode Island: I am a co-PI (25% effort) in a project titled, "Mechanistic Studies and Inhibitor Design for Protein Tyrosine Kinases" funded by *American Cancer Society* and a project titled "Mechanism of PTK substrate recognition and specificity" funded by NIH (1R01CA111687).
4. Dr. Wei Lu, Department of Biomedical and Pharmaceutical Sciences at University of Rhode Island. Dr. Lu and I are collaborating on evaluation of cyclic peptides and cyclic peptide-capped gold nanoparticles in xenograft mice model.
5. Dr. Navindra Seeram, Department of Biomedical and Pharmaceutical Sciences at University of Rhode Island. Dr. Seeram and I are collaborating on the synthesis of Quebecol.
6. Dr. Kerry LaPlante, Department of Biomedical and Pharmaceutical Sciences at University of Rhode Island. Dr. LaPlante and I are collaborating on design and evaluation of amphiphilic peptides as antibacterial agents.
7. Dr. David Rowley, Department of Biomedical and Pharmaceutical Sciences at University of Rhode Island. Dr. Rowley and I are working on synthesis and evaluation of antimicrobial peptides.
8. Dr. David Worthen, Department of Biomedical and Pharmaceutical Sciences at University of Rhode Island. Dr. Worthen and I are collaborating on determining the stability of a lipophilic anti-HIV agent.

9. Dr. Thomas Mather, URI Center for Vector-Borne Disease, University of Rhode Island. Dr. Mather and I are collaborating on design Tick vaccine using peptides synthesized in my laboratory.
10. Dr. Gustavo F. Doncel, Professor, Department of Obstetrics and Gynecology, Eastern Virginia Medical School, Norfolk, VA. Dr. Doncel and I are collaborating in design and evaluation of anti-HIV microbicides. Funded by CONRAD.
11. Dr. Reza Mehvar, Professor, Texas Tech. College of Pharmacy. Dr. Mehvar (PI) and I are collaborating in a project titled "Local Immunosuppression for Liver Transplantation" funded by NIH (1R01 GM069869).
12. Dr. Solomon H. Snyder, Professor, Dept Neuroscience, Johns Hopkins Medical School. Dr. Snyder and I are collaborating in designing pyrophosphate derivatives of IP7 to investigate protein pyrophosphorylation. A manuscript in this subject was published in PNAS (**2007**, *104*, 15305-15310).
13. Dr. John Marshall, Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University, "Design and evaluation of peptides as neuroprotective agents".
14. Dr. Dennis Goebel, Department of Anatomy and Cell Biology Wayne State University, Dr. Goebel and I are collaborating on design and evaluation of peptides containing polyarginine and cysteine residues as neuroprotective agents".
15. Dr. Robert Buckheit, Imquest BioSciences, Inc., I am collaborating with this company in developing anti-HIV microbicides.

INTERNATIONAL COLLABORATORS

1. Dr. Ashok Prasad, Department of Chemistry, University of Delhi, India. "Collaboration in the area of the synthesis of anti-cancer agents".
2. Dr. Nestor Carballeira, Department of Chemistry, University of Puerto Rico, "Evaluation of modified fatty acids as antifungal agents".
3. Dr. Aziz Ghahary, Department of Surgery, University of British Columbia, "Evaluation of self-assembled peptides for tissue engineering".
4. Dr. Sunil Sharma, Department of Chemistry, University of Delhi, India. "Collaboration in the area of the synthesis of anti-cancer agents".
5. Dr. Akhilesh K. Verma, Department of Chemistry, University of Delhi, India. "Collaboration in the area of the synthesis of anti-cancer agents".
6. Dr. Anil Kumar, Department of Chemistry, Birla Institute of Technology, India. Dr. Kumar and I are collaborating with Dr. Seeram for the synthesis of Quebecol, anticancer agents,

and ionic liquids.

7. Dr. Arpita Yadav, University Institute of Engineering & Technology, C.S.J.M. University, Kanpur 208024. Molecular modeling of cyclic peptides and determination of mechanism of self assembly.
8. Dr. Dalip Kumar, Department of Chemistry, Birla Institute of Technology, India. Dr. Kumar and I are collaborating in synthesis and evaluation of Src kinase inhibitors.
9. Dr. Mohamed Ashraf Ali, Institute for Research in Molecular Medicine, Universiti Sains Malaysia, Malaysia. Dr. Kassim and I are collaborating in the synthesis and evaluation of benzimidazole derivatives.

Organizing Conference and Symposiums

Program	Date	Title of symposium
Annual CUSP Research Day	2021, 2019, 2018	A member of Organizing Committee
USP WCDG-AOAC SCS Conference	Dec. 2017, May 2018 Dec.2018, 2019	Drug Regulatory Affairs
USP WCDG-AOAC SCS Conference	May, Dec. 2015, May 2016	Drug Regulatory Affairs
Fifth Annual AAPS-Northeast Regional Discussion Group planning committee	April 22nd, 2002	Impact of Genome Therapeutics on Drug Delivery
Sixth Annual AAPS-Northeast Regional Discussion Group planning committee	April 28, 2003	Overcoming Physical, Chemical, and Biological Barriers to Drug Delivery
Seventh Annual AAPS-Northeast Regional Discussion Group Planning Committee	April 26, 2004	Cellular Targeting and Drug Delivery
Organizing INBRE Seminar	April 2004- April 2007	Related Topics to Toxicology, Biology, and Drug Discovery
Eighth Annual AAPS-Northeast Regional Discussion Group Planning Committee	April 22, 2005	Successful Prediction of In Vivo Performance of Oral Dosage Forms from In Vitro/ In Silico Studies
Ninth Annual AAPS-Northeast Regional Discussion Group Planning Committee	April 28, 2006	Drugs from Discovery to the Clinic
Tenth Annual AAPS-Northeast Regional Discussion Group Planning Committee	April 20, 2007	Methods and Applications for the Optimization of Pre-clinical Oral Dosage Formulations
12 th International Conference on The Interface of Chemistry-Biology in Biomedical Research (ISCBC)	February 22-24, 2008	Scientific Advisory Board
Drug Therapy in the 21st Century: Discovery and Clinical Use	September 14, 2012	A member of organizing committee
1st International Conference on Frontiers in Pharmaceutical Sciences: Global Perspectives	September 28-30, 2012	Conference Chair

MAJOR PROFESSOR FOR UNDERGRADUATE STUDENTS, GRADUATE STUDENTS, AND POSTDOCTORAL FELLOWS

I have shown a successful mentorship and collaborative record during my career. In addition to mentoring many faculty, I have supervised 25 postdoctoral fellows or visiting scientists, 32 graduate students, including 14 Ph.D. students and 18 M.S. students, and 60 undergraduate students.

<u>Student</u>	<u>Degree</u>	<u>Thesis or Non-Thesis Option</u>
Ali Saleh	B.Sc.	Summer Student
Amie Tiemo	B.Sc.	Summer Student
Meredith Selecky	B.Sc.	Summer Student
Amelia Lyman	B.Sc.	Summer Student
Carrie Funk	B.Sc.	Summer Student
Megrose Quiterio	B.Sc.	Academic year
Michael Zompa	B.Sc.	Summer Student
Elana Viola	B.Sc.	Academic year
Cang Nguyen	B.Sc.	Summer Student
Sojin Kim	B.Sc.	Summer Student
Phouthone Malayphone	B.Sc.	Academic year
Thuytien Dang	B.Sc.	Academic year
Daravuth Hav	B.Sc.	Academic year
Julia Robidoux	B.Sc.	Summer Student
Victoria Lomas	B.Sc.	Summer Student
Jared Bolton	B.Sc.	Academic year
Brian Sullivan	B.Sc.	Academic year
Kellen McCafferly	B.Sc.	Academic year
Kevin Northup	B.Sc.	Academic year
Matthew Ehtesham	B.Sc.	Academic year
Jimmy Clark	B.Sc.	Academic year
Young Kim	B.Sc.	Academic year
Taryn Miyake	B.SC.	Academic year
Stephani Buchholz	B.SC.	Academic year
Christopher Liu	B.Sc.	Academic year
Kathy Tavakoli	B.Sc.	Academic Year
Vladimir Kozhemyakin	Pharm.D.	Academic Year
Tara Gaffari	B.Sc.	Academic Year
Amir Memarian	B.Sc.	Academic Year

Darius Baradaran	B.Sc.	Academic Year
Elnaz Kohanbaksh	Pharm.D.	Academic Year
Gerald Gamboa	Pharm.D.	Academic Year
Sean Azizi	Pharm.D.	Academic Year
Kellye Loethen	Pharm.D.	Summer Student
Michael Hanley	Pharm.D.	Summer Student and Academic year
Millie White	Pharm.D.	Summer Student
Hilary Williams	Pharm.D.	Summer Student
Jessica Lehmann	Pharm.D.	Summer Student and Academic year
Kate Waggoner	Pharm.D.	Summer Student
Benjamin Carrol	Pharm.D.	Academic year
Nicol Patel	Pharm.D.	Academic year
Derek Joseph	Pharm.D.	Academic year
Neal Russell	Pharm.D.	Academic year
Vasudha Gupta	Pharm.D.	Academic year
Nicole St. Jean	Pharm.D.	Academic year
Duoja Li	Pharm.D.	Academic year
Victor Carlu	Pharm.D.	Academic year
Yuseon Jung	Pharm.D.	Academic year
Jannat Saini	Pharm.D.	Academic year
Na Young Kim	Pharm.D.	Academic year
Amanda Highet	Pharm.D.	Academic year
Danhe Cui	Freshman	Academic year
Na Young Kim	Freshman	Academic year
Kathy Tavakoli	Senior	Academic year
Mathew Ehtesham	Senior	Academic year
Tarra Ghaffari	B.Sc.	Academic Year
Humam Alkhaled	B.Sc.	Academic year
Mary Elkomos	Prepharmacy	Summer student
Veronika Kim	B.Sc.	Academic year
Sitaran Bhavaraju	Ph.D.	Summer Student
Alex Osterloh	B.S.	Academic year
Joseph Olshausen	B.S.	Academic year
Nguyen Hai Nam	Ph.D.	Postdoctoral Fellow
Soroush Sardari	Ph.D.	Postdoctoral Fellow
Anil Kumar	Ph.D.	Postdoctoral Fellow

Yousef Ahmadibeni	Ph.D.	Postdoctoral Fellow
Xianfeng Gu	Ph.D.	Postdoctoral Fellow
Rakesh Kumar Tiwari	Ph.D.	Postdoctoral Fellow
Sitaran Bhavaraju	Ph.D.	Postdoctoral Fellow
Deendayal Mandal	Ph.D.	Postdoctoral Fellow
Ajay Dixit	Ph.D.	Postdoctoral Fellow
Bhupender Singh	Ph.D.	Postdoctoral Fellow
Sandeep Lohan	Ph.D.	Research Associate
Shabban Asd	Ph.D.	Visitor Scientist Postdoctoral fellow
Sunil Kumar	Ph.D.	Postdoctoral Fellow
Ramendra Singh	Ph.D.	Visiting Fulbright Scholar
Mallikarjuna Reddy	Ph.D.	Postdoctoral Fellow
Amir Shirazi	Ph.D.	Postdoctoral Fellow Research Associate
Neda Sadeghiani	Ph.D.	Postdoctoral Fellow Research Associate
Bharti Kungar	Ph.D.	Visiting Professor
Amita Verma	Ph.D.	Visiting Professor
Sumit Kumar	Ph.D.	Postdoctoral Fellow
Dindyal Mandal	Ph.D.	Research Associate
Naglaa Ibrahim	Ph.D.	Postdoctoral Fellow
Shaima Elmowafi	Ph.D.	Postdoctoral Fellow
Bishoy El-Aarag	Ph.D.	Visiting Professor
Naeira Mohamed Helmy	Ph.D.	Postdoctoral Fellow
Rebecca Pitts	M.S.	Thesis
Guofeng Ye	M.S., Ph.D.	Thesis
Asal Fallah	Ph.D.	Thesis
Hitesh Agarwal	Ph.D.	Thesis
Donghoon Oh	Ph.D.	Thesis
Anju Gupta	Ph.D.	Thesis
Shaban Asd	Ph.D.	Thesis
Bhanu Priya	M.S.	Thesis
Amir Nasrolahi Shirazi	Ph.D.	Thesis
Nasser Sayeh	Ph.D.	Thesis

Naglaa Aboud	Ph.D.	Thesis
Neda Riahifard	M.S.	Thesis
Hung Do	M.S.	Thesis
Saghar Mozaffari	M.S.	Thesis
Saghar Mozaffari	Ph.D.	Thesis
Sammy Nasser	M.S.	Thesis
Khaled Zoghebi	M.S., Ph.D.	Thesis
Samara Hanna	M.S.	Thesis
David Salehi	M.S.	Thesis
Ryley Hall	M.S.	Thesis
Abdulaziz Alasmari	M.S.	Thesis
Eman Abdel Mansour Mohamed	Ph.D.	Thesis
Periha Chandio	M.S.	Thesis
Kiran (Aaminat) Qureshi	Ph.D.	Thesis
Jonathan Moreno	Ph.D.	Thesis
Sorour Khayyatnejad Shoushtari	M.S.	Thesis
Lois Kim	M.S.	Thesis
Khushbu Bakhta	M.S.	Thesis
Abdulelah Alhazza	M.S.	Thesis
Mrigank Rai	M.S.	Thesis

SELECTED ALUMNI MENTORED IN MY LABORATORY

1. **Dr. Hitesh Agarwal**, Assistant Professor, South University, College of Pharmacy, Columbia, South Carolina
2. **Dr. Yousef Ahmadibeni**, Associate Professor, Department of Chemistry, Tennessee State University, USA.
3. **Dr. Rakesh Tiwari**, Assistant Professor, Chapman University School of Pharmacy, Irvine, CA, USA.
4. **Dr. Deendayal Mandal**, Associate Professor, School of Biotechnology, KIIT University, Bhubaneswar, Orissa, India.
5. **Dr. Nguyen Hai Nam**, Professor, Hanoi University of Pharmacy, Vietnam.
6. **Dr. Anil Kumar**, Associate Professor, Department Chair, Birla Institute of Technology and Science, India.
7. **Dr. Xianfeng Gu**, Assistant Professor, Fudan University, China.
8. **Dr. Ajay Kumar Dixit**, R&D Associate Scientist, ITC R&D Centre, Peenya Industrial Are, Bangalore, India.
9. **Guofeng Ye**, Scientist II, Agilux Laboratories, Previously in Novartis Institutes for Biomedical Research, NIBR, Cambridge, MA
10. **Hitesh K. Agarwal**, Senior Postdoctoral Researcher, Mount Sinai Medical Center.
11. **Aimee Gagnon**, Research Associate, Ipsen
12. **Rebecca Pitts**, Scientist II, Novartis Institutes for Biomedical Research
13. **Sitaran Bhavaraju**, US Pharmacopeia.
14. **Carrie Funk**, Pfizer.
15. **Jessica Lehmann**, Resident, Baylor College of Medicine, Dallas
16. **Michael Hanley**, Ph.D., Clinical Pharmacology Contractor, Millennium Pharmaceuticals Inc.
17. **Benjamin Carroll**, Pharm.D., M.S., Postdoctoral Fellow at Johnson and Johnson.

18. **Kellye Loethen**, Pharm. D., Pharmacy Resident, Naval Medical Center San Diego.

19. **Victoria Lomas**, B.S., AmeriCorps NCCC FEMA Corps.

20. **Hung Do**, M.S., Regulatory Affairs Manager, CH Labs, California, Currently FDA

21. **Saghar Mozaffari**, Ph.D., B. Braun Laboratories, California

22. **Ryley Hall**, M.S., Bristol Myer Squibb, Washington

23. **Bhanu Priya Pemmaraju**, M.S., Eli Lilly, Indianapolis

24. **Sorour Khayatnejad**, M.S., Allergen, California