Curriculum Vitae

Mahavir Bhupal Chougule, Ph.D., MPharm, BPharm
Chief Scientific Officer

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US citizen

A. Summary of Research, Teaching, and Service Contributions

Education and Professional Experience

- B. Pharmacy with gold medal and M Pharmacy with 5th University rank
- Ph.D. in pharmacy with research experience focused on pulmonary delivery and nanotechnology
- Pharma industrial experience focused on extended release novel drug delivery systems
- 3 years of postdoctoral experience in the area of oncology and nanomedicine
- Faculty experience of 11 years (5 years-Assistant Professor and 6 years-Associate Professor)
- More than 16 years of interdisciplinary research experience in drug and gene based inhaled and parenteral nanotherapy for pulmonary disease including COVID-19 with national scholar awards
- Active NIH R15 grant with funding of $455,100 focused on targeted nanocarriers for asthma
- Attracted extramural funding of 1.22 million and pending interdisciplinary research grant of $ 8.7 million
- 8 patents, 39 peer reviewed research articles, 10 review articles, 16 book chapters, and 2 editorial articles
- Based on research contributions published in 65 research and review article and received more than 2300 citation with h-index of 25
- Taught biopharmaceutics, physical pharmacy, compounding lab, and pharmacology topics
- Excellence in the research, grantsmanship, teaching, leadership, and service activities
- Earned tenure twice at the leading state Universities (University of Mississippi ranked top 25 among school of pharmacy and University of Hawaii-ranked top 5 among new schools)
- Leadership and work flow management skills

Research activities and Scientific Contribution

- Interdisciplinary translational research laboratory's research focused on
  a) Tumor-responsive natural and bio-engineered polymeric delivery systems of drugs, proteins, and/or siRNA for lung cancer, mesothelioma, and neuroblastoma
  b) Targeted pulmonary delivery of drug and siRNA for the treatment of asthma, and
  c) Inhalable extended release antiviral nanomedicine for COVID-19
- More than 15 years of experience in the interdisciplinary research based on drug and gene delivery, molecular biology, pharmacology, and bioengineering
- Active NIH R15 grant with funding of $455,100 focused on nanocarriers based therapy for asthma
- Attracted extramural funding of 1.22 million from NIH, NSF, and foundations
- Pending grants of 8.7 million (R01, U19, Director Innovator, R21, foundation grants)
- Extrovert abilities to do interprofessional and interdisciplinary research and education
- Adopted multidimensional collaborative approaches with researchers from multidisciplinary renowned institutions like: Massachusetts Institute of Technology, University of Utah, University of North Carolina, and Michigan State University
- 8 patents, 39 research, 6 review articles, 15 chapter, and 2 editorial articles
- Delivered 32 invited talks and 87 poster presentations.
- Successful clinical translation of dry powder inhaler and topical magnesium cream formulation
- Industry and patent consultant to provide expert inputs on drug and gene delivery
- Mentored 4 faculty, 8 postdoc fellows, 8 Ph.D. students, 16 PharmD or pharmacy students, 5

master students, 3 undergraduate students, and 3 high school students
- Performed an annual performance evaluation of postdoc, Ph.D. and Master students
- National recognition of research findings via scholar awards, best poster, and *prizes*
- Recipient of the Koichi and Taniyo Taniguchi Award for Excellence and Innovation

Teaching activities and contributions

- Course director, co-course director, and instructor of PharmD, Master, and Ph. D. courses in the area of biopharmaceutics, physical pharmacy, inhalation delivery, pharmacology, and calculations
- Compounding lab instructor and co-developed 10 PharmD courses
- Utilized an approach similar to the flipped classroom model and team-based learning
- 11 years of teaching experiences in pharmaceutics, pharmacokinetic, and pharmacology
- Developed students' critical thinking and problem-solving skills
- Excellent student evaluations with positive comments

Service activities and contributions

- Leadership as a chair or co-chair on departmental, college, and university committees
- Served as a Co-chair and secretary of the Curriculum Committee
- Chaired the by-laws committee and Faculty Search committees
- Member of Curriculum and Curriculum Transformation Committees for past 3 years
- Several new initiatives implanted by the Curriculum and By-laws committees under my leadership
- Designed, developed, and implemented new integrated curriculum for PharmD program
- Utilized pharmacy professional knowledge
- 7 new integrated curriculum courses were developed for PharmD program in collaboration with the faculty members from the other departments (Biomolecular Sciences, Practice and Administration)
- Chaired the tenure track faculty search committees and recruited the faculty or Associate Dean
- Organized and chaired a scientific and technical session in an international conference
- Grant reviewer on the 9 NIH, 7 DOD, 2 Foundations or Institute, and 5 international review panels
- External evaluator for the promotion and tenure application from 7 pharmacy schools
- Served as a guest editor for 4 journal theme issues and Editorial Board Member for 6 journals
- Served on University level Energy Savings and Sustainability Committee and a founding advisor of national American Association of Pharmaceutical Scientists Student Chapter
- Contributed in starting the new Ph. D. program, animal facility, and core equipment's purchases
- Mentored 4 faculty members, 8 postdocs, and 31 students
- Performed annual evaluation of post doc fellows and Ph.D. student
- Lucid and productive relationship with faculty and staff members of diverse background
- Reviewer for 27 journals, 4 book proposals and 8 international Ph. D. theses
- Judge for the University scientific conferences and state level science Olympics

B. ACADEMIC RECORD and PROFESSIONAL PREPARATIONS

Postdoctoral Fellow in Cancer Therapy and Nanotechnology 2007- 2010
College of Pharmacy, Florida A. and M. University, Tallahassee, FL
Research focus: Targeted combination and nanoparticle-based oral, inhalation, parenteral therapies for the treatment of lung and breast cancer.
Research Advisor: Mandip Singh Sachdeva

Doctor of Philosophy in Pharmaceutical Sciences 2004-2007
Pharmacy Department, The Maharaja Sayajirao University of Baroda, Vadodara, India
(Senior Research Fellow, Indian Council of Medical Research, New Delhi)
Dissertation: Liposomal dry powder inhalers for lung disorders
Research focus: Inhalation delivery for the treatment of cystic fibrosis, AIDS-associated *pneumonia carinii* infection, and lung transplant rejection.
Research Advisor: Dr. Ambikanandan Misra

Master of Pharmacy in Pharmaceutical Technology 2002- 2004
Graduated with First Class with Distinction, 5th rank in University, GPA-3.95
Pharmacy Department, The Maharaja Sayajirao University of Baroda, Vadodara, India
Dissertation: Development of Dry Powder Inhalers
Research focus: Enhancing the fine particle fraction of drugs to deep lungs.
Research Advisor: Dr. Ambikanandan Misra
Relevant coursework: Novel Drug Delivery Systems, Advances in Pharmaceutical Technology, Methods in Pharmaceutical Research, Pharmacokinetics, Process Validation and cGMP, and Biotechnology

Bachelor of Pharmacy 1998-2001
Graduated with First Class, Gold Medalist
Pataldhmal Wadhwani College of Pharmacy, Yavatmal, Amravati University, Amravati, India
Relevant coursework: Pharmaceutics, Biopharmaceutics, Physical Pharmacy, Analytical Chemistry, Pharmaceutical Chemistry, Microbiology and Biotechnology, Pharmacology, Biochemistry, and Pharmacognosy

Diploma in Pharmacy 1996-1998
Graduated with First Class
Institute of Pharmacy, Miraj, Bombay Technical Education Board, Mumbai, India
Relevant coursework: Pharmaceutics, Pharmaceutical Chemistry, Pharmacognosy, Biochemistry and Clinical Pathology, Human Anatomy and Physiology, Health Education and Community Pharmacy, Pharmacology and Toxicology, Business Management, and Hospital and Clinical Pharmacy

LICENSES AND CERTIFICATIONS

Registered Pharmacist, Pharmacy Council of India 1999-present

C. PROFESSIONAL EXPERIENCES AND EMPLOYMENT RECORD

Associate Professor of Pharmaceutical Sciences (tenured), College of Pharmacy, Mercer University, Atlanta, GA 30341 July 2021- present

Research Activities and Contributions

- Interdisciplinary research focused on i) natural and bioengineered biostimuli-responsive based drug and siRNA co-loaded nanoparticles for treatment of lung cancer and mesothelioma, ii) Targeted inhalation and parenteral delivery of drugs, siRNA and antimer miRNA for the treatment of asthma, and iii) Inhalable extended release antiviral nanomedicine for COVID-19
- Expertise in the inhalation drug delivery systems and products including characterization using Cascade and next generation impactors and in vivo methods
- Sustained extramurally funded program focused on the delivery of siRNA for the treatment of asthma
- PI of active 3-year NHLBI-funded R15 grant focused on nanocarrier for the treatment of asthma ($455,100, 09/01/2018-08/31/2021).
- Pending a FDA grant (Co-Investigator)
- Development and submission of NIH (R01, R21 and R15) proposals
- Extrovert abilities to do interprofessional biomedical research and education

- Established multidimensional collaborative strategies with researchers from multidisciplinary fields such as medical, pharmacology, and bioengineering
- Advancement of nanocarriers for pharmaceutical applications: R&D, manufacturing, and scale-up
- Served as a patent expert and consultant for pharma industries
- Efficiently worked with staff members from diverse background
- Annual evaluation of postdoc, Ph. D. and Master students

Teaching Activities and Contributions

- Teaching the inhalation drug delivery systems and products to M.S. and Ph.D. students
- Implemented knowledge of biopharmaceutics and nanomedicine to develop students' critical thinking and problem-solving skills
- Teaching research skills to postdoc fellows and Ph.D. students

Service Contributions

- Contribution in the departmental, college, and university level committees
- Organization and chairing of a technical session in a scientific conference
- Theme issue editor for 2 pharmaceutical journals, Molecualr Pharmaceutics and AAPS PharmSciTech.
- Reviewer for 5 international well-reputed journals

Aug 2016- July 2021

Associate Professor of Pharmaceutics and Drug Delivery and Research Associate Professor in the Research of Institute of Pharmaceutical Sciences (tenured, effective from July 2020)
School of Pharmacy, University of Mississippi, University, MS 38677

Research Activities and Contributions

- Multidisciplinary research focused on i) Biostimuli-responsive based drug and siRNA co-loaded nanoparticles for treatment of lung cancer and mesothelioma, ii) Targeted inhalation and parenteral delivery of drugs, siRNA and antimer miRNA for the treatment of asthma, iii) Inhalable extended release antiviral nanomedicine for COVID-19
- Expertise in the dry power and nebulizer product characterization using non-viable and viable Cascade Impactors and in vivo methods
- Established extramurally funded program focused on the delivery of siRNA for the treatment of asthma
- PI of active 3-year NHLBI-funded R15 grant focused on nanocarrier for the treatment of asthma ($455,100, 09/01/2018-08/31/2021).
- Pending 2 R01 (one as a PI and one as a Co-I), a U19 project (MPI), Director Innovation and pharma foundation proposals (total cost $ 8.7 million)
- Development and submission of NIH (R01, R21 and R15) proposals
- Successfully completed NIGMS funded Support of Competitive Research (SCORE) Research Continuance Award and Foundation grants
- Extrovert abilities to do interprofessional biomedical research and education
- Established multidimensional collaborative strategies with researchers from multidisciplinary fields such as medical, pharmacology, and bioengineering
- Utilization of nanotechnology, formulation and molecular biology techniques
- Advancement of tumor responsive nanocarriers for pharmaceutical applications: R&D, manufacturing, and scale-up
- Magnesium cream launched by Center for Magnesium Education and Research, LLC in the market
- Published 7research articles, 3 review article, and 3 book chapters

- Delivered 7 invited talks and presented 18 scientific posters.
- Reviewer for 5 NIH, 3 DOD, 2 foundation and 2 international study panels
- Served as a patent expert and consultant for pharma industries

Teaching Activities and Contributions

- Served as a course director and co-course director of several PharmD, Master, and Ph. D. courses
- Taught drug and gene delivery, inhalation delivery, compounding lab, calculations, clinical lab skills, pharmacokinetics, and calculations
- Experience in the pharmaceutics compounding lab
- Implemented knowledge of biopharmaceutics and nanomedicine to develop students' critical thinking and problem-solving skills
- Effectiveness teaching philosophy and excellent teaching evaluations
- Taught research skills to postdoc fellows, Master students, Ph.D. students, and undergraduates
- Efficiently worked with staff members from diverse background

Service Contributions

- Chair or member on departmental, college and university committees
- Co-chair of the Curriculum Committee
- Served as a secretary of the Curriculum Committee
- In the Curriculum committee, participated in the curriculum designing, development, implementation, and assessment
- Active role in the development, assessment, and approvals of 25 ACPE standards response for the school self-study for ACPE comprehensive review visit (2019-2020)
- My active participation in the Curricular Transformation Subcommittee resulted in the development and implementation of the new integrated LandSharRx curriculum for the PharmD program.
- Served on Professional Conduct Council Review Committee
- Member of the successful faculty search committee for the position of tenure track faculty and Associate Dean of Academic Affairs
- Directed and supervised 3 postdocs, 3 Ph. D., 5 master students, an undergraduate and a high school student for the biomedical research area. Students' research received prizes or other recognition
- Supervising 2 Ph. D. and a master student. Served as a graduate dissertation committee member for 6 Ph. D. students and 5 master students
- Annual evaluation of postdoc, Ph. D. and Master students
- Organization and chairing of a technical session in a scientific conference
- Theme issue editor for 2 journals, Editorial Board Member of 6 journals, and a reviewer for 41 international well-reputed journals

Jul 2015-Aug 2016

Associate Professor of Pharmaceutical Sciences (Tenured)
The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI

Aug 2010-July 2015

Assistant Professor of Pharmaceutical Sciences (Tenure-track)
The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI

Research Activities and Contribution

- Conducted interdisciplinary research focused on
  a) Targeted inhalation delivery of drugs and siRNA using polymeric or lipidic nanoparticles for the treatment of lung cancer and asthma, and
  b) Tumor-responsive natural and bio-engineered polymeric nanocarrier based delivery of drugs, proteins, and/or siRNA for cancer

- Development of targeted inhalable or parenteral bioresponsive nanocarrier platform technology for drug, protein, and siRNA delivery
- Experienced in the interdisciplinary research focused on targeted polymeric and lipidic delivery systems, polymer synthesis, delivery, bioengineering, pharmacokinetics, and pharmacodynamics
- Established extramurally funded program focused on inhalation delivery, combination therapies, nanocarriers, pulmonary disorders, and cancer
- PI of a 4-year NIGMS-funded lung cancer project (funded on first submission) and three 1.5-year Community Foundations funded projects
- Attracted extramural funding of $ 715,747 from NIH, NSF, and foundations
- Development of hydrophobic and hydrophilic dual drug-loaded nanocarriers
- Formulation and pharmacokinetics (two-compartment model) of delivery systems for poorly soluble Di-indolyl methane compound and Celecoxib
- Established multidimensional collaborative approaches with researchers from multidisciplinary fields such as bioengineering and medical school
- Advancement of nanocarriers for pharmaceutical applications: R&D, manufacturing, and scale-up, pharmacokinetic, and pharmacodynamics
- Filed an invention disclosure and a US provisional patent application based on the developed targeted nanocarriers for the treatment of cancer
- Published 13 research articles, 4 review article, 6 book chapters, and 2 editorial articles
- Delivered 17 invited talks and presented 22 posters
- Development and submission of NIH (R01/R21/ R15), DOD, NSF, and nonprofit foundation grant proposals
- Received the highest number of award (15 grant and or travel awards) in the College of Pharmacy and the University campus
- Directed and supervised 4 postdocs, 3 Ph. D., 7 PharmD, and a high school students. Students' research received prizes or other recognition

Teaching Activities and Contributions

- Course director and co-course director of PharmD and Ph. D. courses in the area of drug and gene delivery, preformulation, and inhalation delivery
- Teaching expertise in the area of pharmaceutics, nanotechnology, pharmacokinetic, and pharmacology
- Developed students' critical thinking and problem-solving skills
- The effectiveness of teaching evident from excellent teaching evaluations
- Taught postdoc fellow and Ph.D. students the research skills
- Experience in the biopharmaceutics compounding lab

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- Expertise in the inhalation drug delivery systems and products including characterization using Cascade and next generation impactors and in vivo methods
- Sustained extramurally funded program focused on the delivery of siRNA for the treatment of asthma

- PI of active 3-year NHLBI-funded R15 grant focused on nanocarrier for the treatment of asthma ($455,100, 09/01/2018-08/31/2021).
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- Development and submission of NIH (R01, R21 and R15) proposals
- Extrovert abilities to do interprofessional biomedical research and education
- Established multidimensional collaborative strategies with researchers from multidisciplinary fields such as medical, pharmacology, and bioengineering
- Advancement of nanocarriers for pharmaceutical applications: R&D, manufacturing, and scale-up
- Served as a patent expert and consultant for pharma industries
- Efficiently worked with staff members from diverse background
- Annual evaluation of postdoc, Ph. D. and Master students

Teaching Activities and Contributions

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- Implemented knowledge of biopharmaceutics and nanomedicine to develop students' critical thinking and problem-solving skills
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Service Contributions

- Contribution in the departmental, college, and university level committees
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- Served on Professional Conduct Council Review Committee
- Member of the successful faculty search committee for the position of tenure track faculty and Associate Dean of Academic Affairs
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- Development of targeted inhalable or parenteral bioresponsive nanocarrier platform technology for drug, protein, and siRNA delivery
- Experienced in the interdisciplinary research focused on targeted polymeric and lipidic delivery systems, polymer synthesis, delivery, bioengineering, pharmacokinetics, and pharmacodynamics
- Established extramurally funded program focused on inhalation delivery, combination therapies, nanocarriers, pulmonary disorders, and cancer
- PI of a 4-year NIGMS-funded lung cancer project (funded on first submission) and three 1.5-year Community Foundations funded projects
- Attracted extramural funding of $ 715,747 from NIH, NSF, and foundations
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Teaching Activities and Contributions

- Course director and co-course director of PharmD and Ph. D. courses in the area of drug and gene delivery, preformulation, and inhalation delivery
- Teaching expertise in the area of pharmaceutics, nanotechnology, pharmacokinetic, and pharmacology
- Developed students' critical thinking and problem-solving skills
- The effectiveness of teaching evident from excellent teaching evaluations
- Taught postdoc fellow and Ph.D. students the research skills
- Experience in the biopharmaceutics compounding lab

Service Contributions

- Chair of the By-Laws and Faculty Search Committees, and a founding advisor of AAPS Student Chapter
- In the position as a Chair of By-laws committee, implemented new initiatives received from faculty and staff members
- Implement staggered term of service and the self-nomination process under By-laws committee
- Successfully recruited faculty member while serving on Faculty Search Committee
- Served as a member of University of Hawaii at Hilo Energy Savings and Sustainability Committee, a founding advisor of University of Hawaii at Hilo

American Association of Pharmaceutical Scientists Student Chapter, and a judge in the conference
- Participated as a member on graduate sciences education committee, PhD curriculum committee, graduate student affairs and joint degree programs committee, and student scholarship and awards committee,
- Faculty advisor for p-1, p-2, p-3 and p-4 students
- Mentoring and performance evaluation of postdoc, and Ph.D. students
- Reviewer for 3 NIH, 3 DOD, 6 foundations or Institute, 1 European Research Council, and 1 Terry Fox Research Program review panels
- Organization and chairing of a technical session in scientific conference
- Theme issue editor for 2 journals, and Editorial Board Member of 5 journals
- A reviewer for 27 journals, 3 books and 5 international Ph. D. theses

Associate Faculty Member Jun 2013-Aug 2016
Natural Products and Experimental Therapeutics Program, University of Hawaii Cancer Center, Honolulu, HI. NCI-designated Cancer Center
Research Activities and Contributions
- Developed drug, protein, and siRNA-based combination therapies for the treatment of lung cancer, mesothelioma, and neuroblastoma
- Formulation and co-delivery of synergistic hydrophobic and hydrophilic chemo drugs
- Formulation of natural and synthetic bio-reducible polymeric nanocarriers for the delivery of Cisplatin, Onconase, and mTOR siRNA
- Developed *in vivo* cancer models and imaging techniques
- Established NIH-funded nanotechnology-based cancer research programs

Collaborative Faculty Member Jan 2011-Jun 2013
Cancer Biology Program, University of Hawaii Cancer Center, Honolulu, HI NCI-designated Cancer Center
Research Activities and Contributions
- The design of the targeted delivery system of STAT6 siRNA, Gemcitabine, Celecoxib, and Noscapine
- Development and patents for natural and polymeric nanocarriers for dual drug delivery and cancer therapy
- Established extramurally funded cancer and asthma research programs

Post-doctoral Research Fellow Jun 2007-Aug 2010
Division of Basic and Pharmaceutical Sciences, College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University, Tallahassee, FL
Research Activities and Contributions
- Formulation, pharmacokinetics, and *in vivo* efficacy of inhalation delivery systems for delivery of Celecoxib and oral Di-indolyl methane compounds (*In Vitro–In Vivo* Correlation) for the treatment of lung cancer
- Enhancement of oral bioavailability of poorly soluble Noscapine using developed oral mannose receptor targeted nanoparticles
- Developed Di-indolyl methane compound loaded PEGylated lipid carriers conjugated to CREKA peptide to enhance the delivery to tumor vasculature
- Designed Noscapine and FDA approved chemo drug-based combination therapies for lung and breast cancer
- Published 5 research articles, a review article, and a book chapter
- Presented research in the form of 30 posters at scientific conferences
- Established extramural Florida Department of Health funded lung cancer research program in nanotechnology

- Experienced in development of NIH (R21, R15, SC1, P20), DOD, and James and Esther King Biomedical Research proposals

Teaching Activities and Contributions

- Taught drug delivery system topics to first year PharmD students
- Co-mentored 2 PharmD students, 2 Ph. D. students, and undergraduate student

Research Scientist, Novel Drug Delivery Systems Jul 2006- May 2007
Wockhardt Research Center, Aurangabad, India.

Research Activities and Contributions

- Design and formulation of modified release formulations such as matrix, pellets, and spherules-based tablets or capsules for US generic market
- Filed 2 World patents and 3 Indian patents
- Developed Bupropion and Metoprolol generic products approved by approved by the US FDA
- Experienced in ICH stability studies
- Proficient in tablet compression and coating techniques, fluidized bed processors (Dryers, Glatts), rapid mixing granulators, extruder and spheronizers, and capsule filling machines
- Experienced in the searching, drafting, interpretation of technical patents, and development of non-infringing formulations

Research Fellow, Ph. D. Candidate in Pharmaceutical Sciences Apr 2004- Mar 2007
Pharmacy Department, the Maharaja Sayajirao University of Baroda, Vadodara, India

Research Activities and Contributions

- Experienced in design, optimization, manufacturing, stability, and pharmacokinetic testing of spray or freeze-dried Amiloride loaded liposomal dry powder inhaler formulations for the treatment of cystic fibrosis
- Developed Dapsone loaded nanoliposomal dry powder inhaler for the treatment of AIDS-associated *pneumonia carinii* infection
- Design and formulation of Tacrolimus loaded liposomal dry powder inhaler for the treatment of lung transplant rejection respectively
- Filed patents on liposomal formulations with aerodynamically light particles, which results in improved deep lung delivery
- Expertise in the aerosol product using non-viable and viable Cascade Impactors and in vivo studies
- Filed 2 Indian patents based on developed formulations
- Published 3 research articles, a review article, and presented 9 posters
- Awarded Senior and Junior Research Fellowship from Indian Council of Medical Research and Lady Tata Memorial Trust respectively

Research Scientist, Pharmaceutical Industry project Feb 2004- Jan 2005
Pharmacy Department, the Maharaja Sayajirao University of Baroda, Vadodara, India. Sun Pharma Advanced Research Centre, Vadodara

Research Activities and Contributions

- Project: Effect of ternary mixtures and particle morphology on the fine particle fraction of salbutamol sulfate
- Design, optimization, development, and technology transfer of dry powder inhaler formulations having enhanced fine particle fractions using surface coating technique with different carriers and their optimum combinations

- The developed dry powder inhaler products exhibited enhanced drug delivery to deep lungs
- Industrial and clinical translational of developed dry powder inhaler product

Research Scientist, Pharmaceutical Industry project Mar 2004- Aug 2004
Pharmacy Department, the Maharaja Sayajirao University of Baroda, Vadodara, India. Panacea Biotec Ltd. Lalru, Punjab, India

Research Activities and Contributions

- Project: Dry Powder Inhaler for the Combination Drugs
- Design, development, and technology transfer of combination of drugs based dry powder inhalers with improved fine particle fractions for the treatment of asthma
- The design of stability studies & validation of protocols
- Industrial and clinical translational application of dry powder inhalers

Lecturer Jul 2004-Nov 2004
Pharmacy Department, the Maharaja Sayajirao University of Baroda, Vadodara, India

Teaching Activities and Contributions

- Taught Pharmacology, and Pharmaceutics courses to the first-year Bachelor of Pharmacy students
- Taught Pharmaceutics compounding lab, and pharmacology experimental labs to the first-year Bachelor of Pharmacy students

D. AWARDS AND HONORS

Synopsis: I am the recipient of several national and international awards including the Koichi and Taniyo Taniguchi Award for Excellence and Innovation and American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award.

1. The Koichi and Taniyo Taniguchi Award for Excellence and Innovation, the University of Hawaii at Hilo 2016
2. American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award, AACR Annual Meeting, Philadelphia, PA 2015
3. The University of Hawaii at Hilo's Research Council Faculty Travel Award to present a research poster at the American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, San Diego, CA 2014
4. AACR Minority-Serving Institution Faculty Scholar in Cancer Research Award, 104th AACR Annual Meeting, Washington DC 2013
5. The University of Hawaii at Hilo's Research Council Faculty Travel Award to present a research poster at the AAPS Annual Meeting and Exposition, San Antonio, TX 2013
6. AACR Minority-Serving Institution Faculty Scholar in Cancer Research Award, 103th AACR Annual Meeting, Chicago, IL 2012
7. AAPS Executive Council's Travel Award to present a research poster at, 2010 Annual Meeting and Exposition meeting, New Orleans, LA 2010
8. Post-doctoral Research fellowship award, Florida Department of Health, Bankhead-Coley Biomedical Research Program, Tallahassee, FL 2010
9. Research Travel Grant to present research poster at the Respiratory Drug Delivery X Conference, Boca Raton FL from i) Department of Science and Technology, Government of India, New Delhi, India, ii) Department of Biotechnology, Government of India, New Delhi, India, iii) Council of 2006

Scientific and Industrial Research, Government of India, New Delhi, India, and iv) Sir Dorabji Tata and Allied Trusts, Mumbai, Maharashtra, India

10. Senior Research Fellowship (SRF) by Indian Council of Medical Research (ICMR), New Delhi, India 2005-2006
11. Junior Research Fellowship (JRF) by Lady Tata Memorial Trust, Mumbai, Maharashtra, India 2004-2005
12. Research Fellowship by University Grant Commission, New Delhi, India 2002-2004
13. Graduate Aptitude Test in Pharmaceutical Sciences (GATE) Exam, 99. 19 Percentiles, Indian Institute of Science, Bangalore, Karnataka, India 2002
14. Best Student Award, Pataldhamal Wadhawani College of Pharmacy, Yavatmal, Maharashtra, India 2001
15. Gold Medalist, Bachelor of Pharmacy, Pataldhamal Wadhawani College of Pharmacy, Yavatmal, Maharashtra, India 2001

E. GRANT AND PROPOSAL REVIEWER

Synopsis: I have served as an invited scientific reviewer on the total 31 panels of NIH and Department of Defense, foundation, national and international study sections.

1. 2021, Reviewer, NIGMS Special Emphasis panel – Therapeutics for infectious disease, July 2021
2. 2021, Reviewer, NIH Gene and Drug Delivery (GDD) panel, march 2021
3. 2020, Reviewer, NIH Biomaterials Biointerfaces (BMBI), Sep 2020
4. 2020, Reviewer, NIH Gene and Drug Delivery (GDD) study section, June 2020
5. 2020, Reviewer, Health Research Charities Ireland, Breakthrough Cancer Research, Ireland
6. 2020, Reviewer, peer review panel of the 2020 Peer Reviewed Medical Research Program (PRMRP) for the Congressionally Directed Medical Research Programs (CDMRP)
7. 2019, Reviewer, peer review panel of the 2019 Peer Reviewed Medical Research Program (PRMRP) for the Congressionally Directed Medical Research Programs (CDMRP)
8. 2019 Reviewer, Discovery, Respiratory Diseases (DIS-RD) peer review panel of the 2019 Peer Reviewed Medical Research Program (PRMRP) for the Congressionally Directed Medical Research Programs (CDMRP)
9. 2019 Reviewer, Graduate Student Council Research Grants, University of Mississippi, University, MS
10. 2018 Reviewer, King Abdullah International Medical Research Center (KAIMRC), Saudi Arabia
11. 2018 Reviewer, research program peer review panel of the 2018 King Abdullah International Medical Research Center, Saudi Arabia
12. 2018 Reviewer, Special Emphasis Panel to review applications submitted in response to the RFA-RM-18-016 “Innovative Technologies to Deliver Genome Editing Machinery to Disease-relevant Cells and Tissues.” 2018/08 ZRG1 GGG-D (70) R
13. 2018 Reviewer, for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP) Reviewer, National Institute of General Medical Sciences, Support of Competitive Research (SCORE) program
14. 2017 Reviewer, Therapeutics, Treatment, and Resistance peer review panel of the 2015 Lung Cancer Research Program, IDEA award for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
15. 2017 Reviewer, Concept-Clinical and Experimental Therapeutics (CON-CET) peer review panel of the 2015 Lung Cancer concept award for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
16. 2017 Reviewer, Foundation for Polish Science, TEAM TECH Program, Warsaw, Poland
17. 2016 Reviewer, National Institute of General Medical Sciences, Support of Competitive Research (SCORE) program, ZGM1 RCB-X (SC)
18. 2016 Reviewer, Mitacs Accelerate research proposal, Mitacs, Montréal, Canada.
19. 2016 Reviewer, Kentucky Science, and Engineering Foundation R&D Excellence Award. Lexington, KY

20. 2016 Reviewer, Nanotechnology peer review panel of the Lung Cancer Research Program, IDEA award for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
21. 2016 Reviewer, Therapeutics, Treatment, and Resistance peer review panel of the Lung Cancer Program, Concept award for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
22. 2016 Reviewer, Peer Reviewed Cancer Research Program (PRCRP) Horizon Award, Program for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
23. 2015 Reviewer, National Institute of General Medical Sciences, the Kansas University Medical Center (KUMC) Kansas IDeA Network of Biomedical Research Excellence (K-INBRE) Developmental Research Project Program (DRPP) and/or the Bridging Grant Program, American Institute of Biological Sciences, Reston, VA
24. 2015 Reviewer, National Institute for General Medical Sciences IDeA- funded Wyoming IDeA Networks for Biomedical Research Excellence program. Laramie, WY
25. 2015 American Association of Colleges of Pharmacy Teachers of Pharmaceutics Section's Award Committee, Alexandria, VA
26. 2014 Research Center in Minority Institution (RCMI) Pharmaceutical Research Center Pilot Project Program, The Florida Agriculture and Mechanical University, Tallahassee, FL
27. 2014 Reviewer, NIH Developmental Therapeutic (DT) standing study section, Washington DC Ro1, R21, and R03 research proposals
28. 2014 Reviewer, American Association of Colleges of Pharmacy, Alexandria, VA. New Investigator Award Program proposals
29. 2014 Reviewer, European Research Council Research Grant, European Research Council Executive Agency Brussels, Belgium
30. 2013 Catalent Applied Drug Delivery Institute's Global Academic Competition for Life Science Leaders, University Academic Partnership Competition, JFK Communications, Princeton, NJ
31. 2012 Reviewer, Cancer Research Project, Ohio CRA, Ohio State, Columbus, OH. Cancer research proposals

F. PROFESSIONAL ACTIVITIES

Synopsis: I am actively contributing to the national organization such as American Association of Pharmaceutical Scientists (AAPS) and National Institute for Pharmaceutical Technology & Education (NIPTE). I have organized symposiums and programs for scientific conferences. I will continue to effectively serve these organizations.

Membership in professional organizations

1.	Member, American Association of Pharmaceutical Scientists (AAPS)	2007–Present
2.	Member, National Institute for Pharmaceutical Technology & Education (NIPTE) Education Strategy Committee	2018-Present
3.	Member, NIPTE Nanotechnology Focus Group	2018-Present
4.	Member, NIPTE Biologics and Biosimilars Focus Group	2018-Present
5.	Active Member, American Association of Cancer Research (AACR)	2009–2018
6.	Member, Controlled Release Society (CRS)	2013-14
7.	Member, American Society of Gene and Cell Therapy (ASGCT)	2011-2012
8.	Member, American Association of College of Pharmacy (AACP)	2011-2012

G. PATENT

Synopsis: I have 8 patents, a provisional patent, and an invention disclosure based on the developed formulations and targeted nanocarrier systems. My publication strategy has been to submit manuscripts to the top high impact factor journals in my profession.

Patents and Invention Disclosures

1. **Chougule MB**, Bachmann AS. Development of ligand-mediated nanocarrier system of Difluoromethylornithine alone and/or in combination with chemotherapeutic drug for the treatment of cancer. *U.S. provisional application*, No. 61/558368, 2010
2. **Chougule MB**, Bachmann AS. Development of ligand-mediated nanocarrier system of Difluoromethylornithine alone and/or in combination with chemotherapeutic drug for the treatment of cancer. *Invention disclosure***,** UH TLG 884, 2010
3. Joshi VM, Mandaogade PM, **Chougule MB**, Jain GK. Pharmaceutical compositions of Bupropion. *International patent*, WO/2008/026044, 2008
4. Joshi VM, Mandaogade PM, **Chougule MB**, Jain GK. Stable pharmaceutical compositions of Bupropion. *International patent*, WO/2008/129465, 2008
5. Joshi VM, Mandaogade PM, **Chougule MB**, Jain GK. Pharmaceutical composition comprising Bupropion or salt thereof and stabilizer. *Indian patent*, 771/MUM/2007 A, 2007
6. Mandaogade PM, Joshi VM, **Chougule MB**, Srivastav S, Jain GK. Stabilized pharmaceutical composition of Bupropion or salt thereof. *Indian patent*, 1389/MUM/2006 A, 2006
7. Joshi VM, **Chougule MB**, Mandaogade PM, Jain GK. Melt-granulated Bupropion sustained release formulation. *Indian patent*, 1375/MUM/2006 A, 2006
8. Misra A, **Chougule MB**, Ganesh S, Padhi B. Aerodynamically light porous dry powder inhaler formulations for targeted pulmonary deposition. *Indian patent*, 953/MUM/2006, 2006
9. Misra A, Chougule MB, Padhi B, Ganesh S. Enhancement of pulmonary therapeutic index of drugs from dry powder inhaler formulations. *Indian patent*, 729/ MUM /2005, 2005
10. Misra A, Chougule MB, Padhi B. Engineered monodisperse inhalation powders for effective treatment of lung diseases. *Indian patent*, 228/MUM/2005, 2005

Press Releases

1. The breakthrough research based on development of hybrid albumin-chitosan nanocarrier for cancer therapy was *highlighted in the World Biomedical Frontiers*. World Biomedical Frontiers was founded in 2012 and headquartered in New York, USA. World. Biomedical Frontiers is an organization that focuses on cutting-edge biomedical research from around the globe.
2. The research focused on formulation development of innovative nanocarriers for targeted delivery to disease site has been *highlighted in the Tribune Herald newspaper and Kāwili Lā'au magazine.*

H. PRINTED PUBLICATIONS

Synopsis: My publication strategy has been to submit manuscripts to the top high impact factor journals in my profession. I have published peer reviewed 39 research articles, 10 review articles, 15 chapters, and 2 editorial articles. Based on my research accomplishment, I received the three AACR minority-serving institution faculty scholars in cancer research awards, and Taniyo Taniguchi Award for Excellence. My publication was recognized as a featured article in the news or College magazines. Furthermore, my research contribution is evident from the email send by patient's family member seeking advice on the cancer treatment. My publications have received more than 2300 citations with an h–index of 25 and i10-index of 43 as per Google scholar listing.

The ISI impact factors of peer-reviewed journals, where I have published my research findings are presented in the following table 1.

Table. 1 Recent ISI impact factors of peer-reviewed journals

Journal Title	ISI Impact factor	No of papers
Clinical Cancer Research	10.19	1
Journal of Controlled Release	7.87	2
Nanomedicine	6.50	2
Molecular Cancer Therapeutics	5.36	1
Journal of Biomedical Nanotechnology	5.06	1

Expert Opinion on Drug Delivery	4.84	1
International Journal of Pharmaceutics	4.82	2
Molecular Pharmaceutics	4.55	2
Lung Cancer	3.95	1
International Journal of Nanomedicine	4.38	1
European Journal of Pharmaceutical Sciences	3.77	1
Pharmaceutical Research	3.42	3
Journal of Drug Targeting	3.40	1
ChemoNanoMat	3.38	1
Current Pharmaceutical Design	3.05	1
PLoS One	2.76	3
Cancer Chemotherapy and Pharmacology	2.73	1
Journal of Drug Delivery Science and Technology	2.73	1
BioMed Research International	2.58	2
ACS Applied Bio Materials	2.57	1
AAPS PharmSciTech	2.45	3
Methods in Enzymology	1.98	1
Current Drug Delivery	1.97	2
Pharmaceutical Development Technology	1.94	2
Indian Journal of Experimental Biology	1.47	1
Journal of Nanoscience and Nanotechnology	1.35	1
International Journal of Pharmaceutical Sciences Review and Research	0.65	1
KONA Powder and Particle Journal	1.63	2

Peer Reviewed Research, Review, and Chapter Articles (Total 65)

Research articles *(Total 39)*

1. Vinjamuri BP, Papachrisanthou K, Haware RV, **Chougule MB***, Gelatin solution pH and incubation time influences the size of the nanoparticles engineered by desolvation. *Journal of Drug Delivery Science and Technology* 2021, 63, 02423
2. Shadambikar, Marathe S, Ji Nan , Bandari S, **Chougule MB**, Repka M. Formulation Development of Itraconazole Loaded PEGylated Nano-Lipid Carriers for Pulmonary Aspergillosis Using Hot Melt Extrusion Technology, *International Journal of Pharmaceutics*, March 2021, In Press
3. Shahin HI, Vinjamuri BP, Mahmoud AA, Mansour SM, **Chougule MB**, Chablani L*. Formulation and optimization of sildenafil citrate-loaded PLGA large porous microparticles using spray freeze-drying technique: A factorial design and in-vivo pharmacokinetic study. *International Journal of Pharmaceutics* 2021 Feb 1;597:120320. Online ahead of print.
4. Chandrasiri I, Abebe DG, Yaddehige ML, Dal Williams JS, Zia MF, Dorris A, Barker A, Vinjamuri, BP, Le N, Gayton JN**, Chougule MB**, Hammer NI, Flynt A, Delcamp JH, Watkins D Self-Assembling PCL-PAMAM Linear Dendritic Block Copolymers (LDBCs) for Bioimaging and Phototherapeutic Applications. *ACS Applied Bio Materials*, 2021, 3(9), 5664-5677
5. Yaddehige ML, Indika C, Abigail B, Kotha AK, Williams Jon SD, Simms B, Kucheryavy P, Abebe DG, Chougule MB, Watkins DL*. Structural and Surface Properties of Polyamidoamine (PAMAM) - Fatty Acid-based Nanoaggregates Derived from Self-assembling Janus Dendrimers. *ChemoNanoMat*, Online published 15 October 2020
6. Bhatt P, Narvekar P, Lalani R, **Chougule MB**, Pathak Y, Sutariya V. An in vitro Assessment of Thermo-Reversible Gel Formulation Containing Sunitinib Nanoparticles for Neovascular Age-

Related Macular Degeneration. *AAPS PharmSciTech*. 2019 Aug 9; 20(7):281. doi: 10.1208/s12249-019-1474-0.

7. Mahaparale PR, Vinjamuri BP, Chavan MS, **Chougule MB**, Haware RV. Computational predictability of microsponge properties using different multivariate models. *AAPS PharmSciTech*. 2019 Apr 23; 20(5):172
8. Shahin HI, Vinjamuri BP, Mahmoud AA, Shamma RN, Mansour SM, Ammar HO, Ghorab MM, **Chougule MB***, Chablani L. Design and evaluation of novel inhalable sildenafil citrate spray-dried microparticles for pulmonary arterial hypertension. *J Control Release*. 2019 Mar 30. pii: S0168-3659(19)30189-0
9. Haware RV, Vinjamuri BP, Gavireddi M, Dave VS, Gupta D, **Chougule MB**, Stagner WC., Physical properties and solubility studies of nifedipine-peg 1450/hpmcas-hf solid dispersions. *Pharm Dev Technol*. 2018 Sep 3:1-23
10. Gandhi NS, Godeshala S, Koomoa-Lange DT, Miryala B, Rege K, **Chougule MB***. Bioreducible poly (amino ethers) based mTOR siRNA delivery for lung cancer. *Pharm Res*. 2018 Aug 13;35(10):188
11. Youngren-Ortiz SR, Hill DB, Hoffmann PR, Morris KR, Barrett EG, Forest MG, **Chougule MB***. Development of Optimized, Inhalable, Gemcitabine-loaded gelatin nanocarriers for lung cancer*, J Aerosol Med Pulm Drug Deliv*. 2017 Mar 9. doi: 10.1089/jamp.2015.1286
12. Yang R, Nam K, Kim SW, Turkson J, Zou Y, Zuo YY, Haware RV, **Chougule MB***, Factorial design based multivariate modeling and optimization of tunable bioresponsive arginine grafted poly(cystaminebis(acrylamide)-diaminohexane) polymeric matrix based nanocarriers. *Mol Pharm.* 2017 Jan 3;14(1):252-263
13. España-Serrano L and **Chougule MB***. Enhanced anticancer activity of PF-04691502, a dual PI3K/mTOR inhibitor, in combination with VEGF siRNA against non-small cell lung cancer. *Molecular Therapy - Nucleic Acids (**Nature publishing group**),* 2016 Nov 15;5(11):e384
14. Andey T, Patel A, Marepally S, Chougule M, Spencer S, Rishi AK, Singh M, Formulation, Pharmacokinetic, and efficacy studies of mannosylated self-emulsifying solid dispersions of noscapine. *PLoS One.* 2016 Jan 12;11(1):e0146804
15. Tekade RK, Youngren SR, Yang H, Haware R, **Chougule MB***. Designing hybrid Onconase nanocarriers for mesothelioma therapy: a Taguchi orthogonal array and multivariate component driven analysis. *Molecular Pharmaceutics*. 2014; 11(10):3671-83
16. **Chougule MB***, Patel AR, Patlolla R, Jackson T, Singh M. Epithelial transport of Noscapine across cell monolayer and influence of absorption enhancers on *in vitro* permeation and bioavailability: implications for intestinal absorption. *Journal of Drug Targeting*. 2014; 22(6):498-508
17. Patel AR, **Chougule MB**, Lim E, Francis KP, Safe S, Sachdeva M. Theranostic tumor homing nanocarriers for the treatment of lung cancer. *Nanomedicine.* 2014; 10(5):1053-63
18. Patel AR, **Chougule MB**, Singh M. EphA2 targeting pegylated nanocarrier drug delivery system for the treatment of lung cancer. *Pharmaceutical Research*. 2014; 31(10):2796-809
19. Youngren SR, Tekade RK, **Chougule MB***. STAT6 siRNA matrix-loaded gelatin nanocarriers: formulation, characterization, and ex vivo proof of concept using adenocarcinoma cells. *BioMed Research International*. 2013; 2013:858946
20. Youngren SR, Mulik R, Jun B, Hoffmann PR, Morris KR, **Chougule MB***. Freeze-dried targeted mannosylated Selenium-loaded nanoliposomes: development and evaluation. *AAPS PharmSciTech.* 2013; 14(3):1012-24
21. Tekade RK, **Chougule MB***. Formulation development and evaluation of hybrid nanocarrier for cancer therapy: Taguchi orthogonal array based design. *BioMed Research International*. 2013; 2013:712678
22. Laird AC, Laird A, **Chougule MB***, Hamad M, Morris KR. Thermodynamics associated with monitoring pre-nucleation aggregation at high supersaturation. *International Journal of Pharmaceutical Sciences Review and Research*. 2013; 18(1): 6-12

23. Patel AR, **Chougule MB***, Ian T, Patlolla RR, Guangdi W, Singh M. Efficacy of aerosolized Celecoxib encapsulated nanostructured lipid carrier in non-small cell lung cancer in combination with Docetaxel*. Pharmaceutical Research*. 2013; 30(5):1435-46
24. Patel AR, Spencer SD, **Chougule MB**, Safe S, Singh M. Pharmacokinetic evaluation and in vitro-in vivo Correlation (IVIVC) of novel methylene-substituted 3, 3' diindolylmethane (DIM). *European Journal of Pharmaceutical Sciences*. 2012; 46(1-2):8-16
25. **Chougule MB**, Patel AR, Sachdeva P, Jackson T, Singh M. Enhanced anticancer activity of Gemcitabine in combination with Noscapine via antiangiogenic and apoptotic pathway against non-small cell lung cancer. *PLoS One.* 2011; 6(11):e27394
26. **Chougule MB**, Patel AR, Jackson T, Singh M. Antitumor activity of Noscapine in combination with Doxorubicin in triple negative breast cancer. *PLoS One*. 2011; 6(3):e17733
27. **Chougule MB**, Patel AR, Sachdeva P, Jackson T, Singh M. Anticancer activity of Noscapine, an opioid alkaloid in combination with Cisplatin in human non-small cell lung cancer. *Lung Cancer.* 2011; 71(3):271-82
28. Ichite N[#], **Chougule MB[#]**, Jackson T, Safe S, Singh M. Inhalation delivery of a novel Diindolylmethane derivative for the treatment of lung cancer. *Molecular Cancer Therapeutics.* 2010; 9(11):3003-14 # *indicate author with equal contribution*
29. Patlolla RR, **Chougule MB,** Patel AR, Jackson T, Tata PN, Singh M. Formulation, characterization, and pulmonary deposition of nebulized Celecoxib encapsulated nanostructured lipid carriers. *Journal of Controlled Release*. 2010; 144(2):233-241.
30. Ichite N, **Chougule MB**, Jackson T, Fulzele S, Safe S, Singh M. Enhancement of Docetaxel anticancer activity by a novel diindolylmethane compound in human non-small cell lung cancer. *Clinical Cancer Research*. 2009; 15:543-552
31. Jackson T, **Chougule MB**, Ichite N, Patlolla R, Singh M. Antitumor activity of Noscapine in human non-small cell lung cancer xenograft model. *Cancer Chemotherapy and Pharmacology*. 2008; 63(1): 117-26
32. Padhi B, **Chougule MB**, Misra A. Aerosol performance of large respirable particles of Amikacin sulfate produced by spray and freeze-drying techniques. *Current Drug Delivery*. 2009; 6(1): 8-16
33. **Chougule MB**, Padhi B, Misra A. Development of spray dried liposomal dry powder inhaler of Dapsone. *AAPS PharmSciTech*. 2008; 9(1): 47-53
34. **Chougule MB**, Padhi B, Misra A. Nano-liposomal dry powder inhaler of Tacrolimus: preparation, characterization, and pulmonary pharmacokinetics. *International Journal of Nanomedicine*. 2007; 2(4): 675-88
35. Padhi B, **Chougule MB,** Misra A. Optimization of formulation components and characterization of large respirable powders containing high therapeutic payload. *Pharmaceutical Development and Technology*. 2006; 11(4): 465-75
36. **Chougule MB**, Padhi B, Misra A. Nano-liposomal dry powder inhaler of Amiloride Hydrochloride. *Journal of Nanoscience and Nanotechnology.* 2006; 6(9-10): 3001-9
37. Naik S, **Chougule MB**, Padhi B, Misra A. Development of novel lyophilized mixed micelle Amphotericin B formulation for the treatment of systemic fungal infection. *Current Drug Delivery*. 2005; 2:177-184
38. Kalariya M, Padhi B, **Chougule MB**, Misra A. Clobetasol propionate solid lipid nanoparticles cream for effective treatment of eczema: formulation and clinical implications. *Indian Journal of Experimental Biology*. 2005; 43: 233-240
39. Kalariya M, Padhi B**, Chougule MB**, Misra A. Methotrexate-loaded solid lipid nanoparticles for topical treatment of psoriasis: formulation and clinical implications. *Drug Delivery and Technology*. 2004; 4(8): 65- 71

Review articles *(total 10)*

1. Agrawal M, Saraf S, Saraf S, Antimisiaris SG, **Chougule MB**, Shoyele SA, Alexander A. Nose-to-brain drug delivery: An update on clinical challenges and progress towards approval of anti-Alzheimer drugs. *J Control Release*. 2018 Jul 10;281:139-177

2. Agrawal M, Saraf S, Saraf S, Antimisiaris SG, Hamano N, Li SD, **Chougule MB**, Shoyele SA, Gupta U, Ajazuddin, Alexander A. Recent advancements in the field of nanotechnology for the delivery of anti-Alzheimer drug in the brain region. *Expert Opin Drug Deliv*. 2018 Jun;15(6):589-617
3. Youngren-Ortiz SR, Gandhi NS, España-Serrano L, **Chougule MB***. Aerosol delivery of siRNA to the lungs. Part 2: Nanocarrier-based delivery systems. *KONA Powder and Particle Journal*, 2017;34:44-69. *Selected as one of the "**Featured Articles 2018**"*
4. Dave VS, Shahin HI, Youngren-Ortiz SR, **Chougule MB**, Haware RV., Emerging technologies for the non-invasive characterization of physical-mechanical properties of tablets., *Int J Pharm.* 2017 Oct 30;532(1):299-312
5. Youngren-Ortiz SR, Gandhi NS, España-Serrano L, **Chougule MB***. Aerosol delivery of siRNA to the lungs. part 1: rationale for gene delivery systems, *KONA Powder and Particle Journal*, 2016 Feb 28;33:63-85
6. Aldawsari M, **Chougule MB***, Babu JR*. Progress in topical siRNA delivery approaches for skin disorders, *Current Pharmaceutical Design.* 2015;21(31):4594-605
7. Glasgow M, **Chougule MB***. Recent developments in active tumor targeted multifunctional nanoparticles for combination chemotherapy in cancer treatment and imaging, *Journal of Biomedical Nanotechnology*. 2015;11(11):1859-98
8. Gandhi NS, Tekade RK, **Chougule MB***. Nanocarrier mediated delivery of siRNA/miRNA in combination with chemotherapeutic agents for cancer therapy: current progress and advances. *Journal of Controlled Release*. 2014; 194C:238-256
9. Misra A, Jinturkar K, Patel D, Lalani J, **Chougule MB**. Recent advances in liposomal dry powder formulations: preparation and evaluation. *Expert Opinion on Drug Delivery*. 2009; 6(1):71-89
10. **Chougule MB**, Padhi B, Jinturkar K, Misra A. Development of dry powder inhalers, *Recent Patents on Drug Delivery and Formulation*. 2007; 1(1): 11-21

Invited Book Chapters (Total 16)

1. BP Vinjamuri, AK Kotha, A Kolte, RV Haware, **MB Chougule***. Chapter-Polymer Applications in Pulmonary Drug Delivery, Applications of Polymers in Drug Delivery edited by Misra A and Shahiwala A. 2020, 333
2. Kotha A K, Ghosh S, Komanduri N, Wang R, Bhowmick S, **Chougule MB***, Chapter-Approaches in Barriers, Modifications, Route of Administrations, and Formulations of Therapeutic Agents for Brain Delivery, Novel Drug Delivery Technologies edited by Misra A., Shahiwala A. (eds), 2019, pages 383-401
3. Raval N, Maheshwari R, Kalyane1 D, **Chougule MB,** Tekade RK, Chapter 10 - Importance of physicochemical characterization of nanoparticles in pharmaceutical product development, Advances in Pharmaceutical Product Development and Research edited by R.K. Tekade, Elsevier Inc., 2019, Pages 369-400
4. Mehtani D, Seth A, Sharma P, Maheshwari R, Abed s N, Deb P, **Chougule MB,** and Tekade RK, Chapter 9 - Dissolution profile consideration in pharmaceutical product development, Advances in pharmaceutical product development and research edited by R.K. Tekade, Elsevier Inc., 2018, Pages 287-336
5. Ponkshe P, Thakkar R, Mulay T, Joshi R, Javia, Amrutiya J, **Chougule MB***, Chapter 4: Nasal and pulmonary drug delivery systems edited by A. Misra and A. Shahiwala, CRC Press, a Taylor & Francis group, 2018, In Press
6. Tekade RK*, Maheshwari R, Tekade M, **Chougule, MB*,** Chapter 8. Solid lipid nanoparticles for targeting and delivery of drugs and genes, nanotechnology-based approaches for targeting and delivery of drugs and genes, edited by V**.** Mishra, P. Kesharwani, M. Amin, and A. Iyer, Elsevier publisher, 2017, Pages 256-286
7. Shegokar R*, Athawale R, Kurup N, Yang R, **Chougule, MB*,** Chapter 9. Lipid based nanoparticles for targeted drug delivery of anticancer drug, Nanotechnology-Based Approaches for Targeting and Delivery of Drugs and Genes, edited by V**.** Mishra, P. Kesharwani, M. Amin, and A. Iyer, Elsevier publisher, 2017, Pages 287-321

8. Tekade RK*, Maheshwari R, Soni M, Tekade M, **Chougule, MB,** Chapter 1. Nanotechnology for Development of Nanomedicine, Nanotechnology-Based Approaches for Targeting and Delivery of Drugs and Genes, edited by V**.** Mishra, P. Kesharwani, M. Amin, and A. Iyer, Elsevier publisher, 2017, Pages 3-61
9. Hazare S., Yang R., Chavan S., Menon MD, **Chougule MB***. Aging Disorders of the Eye: Challenges and Approaches for Their Treatment. Nano-Biomaterials for Ophthalmic Drug Delivery. Springer International Publishing, 2016; 277-320
10. Gandhi NS, Glasgow M, **Chougule MB***. Nanocarrier based pulmonary gene delivery for lung cancer: therapeutic and imaging approaches. Cancer Therapeutics and Imaging: Molecular and Cellular Engineering and Nanobiomedicine edited by K. Rege and S. Goklany. World Scientific Publishing, 2016
11. Lohade AA, Gandhi NS, Shrivastava AR, Singh DJ, Parmar JJ, Mehta MR, Jain RR, Menon MD, **Chougule MB***. Chapter 15. Aerosolized nanoparticle-based approaches for the treatment of lung cancer. Nanostructured Drug Delivery of the Series "Nanobiomedicine" edited by B. S. Bhoop, Vol. 4. Studium Press LLC, 2014; 451-490
12. **Chougule MB*,** Tekade RK, Hoffmann PR, Bhatia D, Pathak Y. Chapter 11. Nanomaterial based gene and drug delivery: pulmonary toxicity considerations. Bio-interactions of Nanomaterials edited by VB Sutariya and Y. Pathak. CRC Press, 2014; 225–248
13. Shi Q, **Chougule MB**, Sutariya VB, Bhatia D. Chapter 10. Toxicogenomic approach to understand toxicity of nanoparticles in the bio-interactions of Nano materials. *Bio-interactions of Nanomaterials* edited by VB Sutariya and Y. Pathak. CRC Press 2014; 209–224
14. Sutariya VB, Pathak V, Groshev A, **Chougule MB**, Naik S, Patel D, Pathak Y. Chapter 1. Introduction—Biointeractions of Nanomaterials: Challenges and Solutions. *Bio-interactions of Nanomaterials* edited by VB Sutariya and Y. Pathak. CRC Press, 2014; 1–48
15. Kolte A, **Chougule MB***. Chapter 12. Application of polymers in lung drug delivery. *Handbook-Applications of Polymers in Drug Delivery* edited by A Misra and A Shahiwala. Smithers Rapra Publishing, 2012; 413-45
16. Patel G, **Chougule MB**, Singh M, Misra A. Nanoliposomal dry powder formulations. *Methods in Enzymology*. Elsevier Inc., 2009; 464:167-91

Editorial Articles (total 2)

1. **Chougule MB***, Tan C. Translational application of nano delivery systems: Emerging cancer therapy. *AAPS PharmSciTech*. 2015 Feb;16(1):3-4.
2. **Chougule MB***, Tekade R. Current scene and prospective potentials of siRNA in cancer therapy. *Journal of Pharmacogenomics and Pharmacoproteomics*. 2012; 3(6): e125.

I. CITATION INDICES AND CITATION OF ARTICLES

The above publications have led to the following citations of my work as listed at the Google scholar. My publications have received more than 2500 citations with an h–index of 27 and i10-index of 44. The citation indices and citations per year of peer-reviewed published articles are given in the following table and the figure.

Table. Citation indices of my peer-reviewed publications.

Citations	2588
h-index	27
i10-index	44

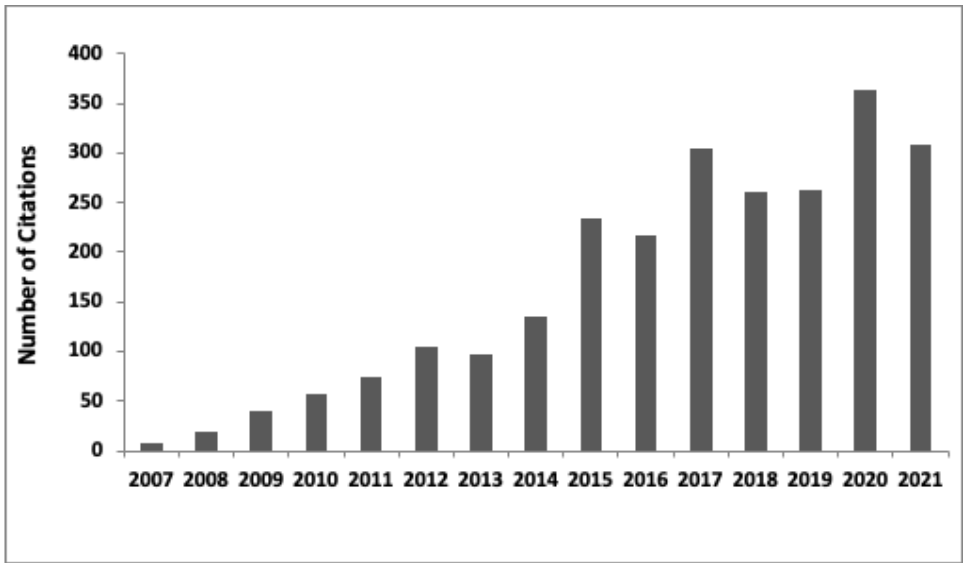

Figure. Citation per year of peer-reviewed published articles.

Source: http://scholar.google.com/citations?user=jYxYewIAAAAJandhl=en

J. GRANTS AND RESEARCH COLLABORATION

Synopsis: I have established the combination therapies and nanotechnology-based program funded by NIH, NSF, and nonprofit foundations. Since 2010, I have attracted extramural funding of $ 1.22 million and intramural funding of $ 33,600. Currently, I am the PI of 3-year NHLBI-funded R15 grant focused on design and evaluation of targeted nanocarriers for the treatment of asthma ($455,100, 09/01/2018-08/31/2021). Additionally, 2 NIH R01 (one as a PI and one as a Co-investigator), a R21, a U19 project, and pharma foundation proposals (total direct plus indirect cost, $ 8.7 million). My U01, and R21 grant proposals focused on the development of targeted nanocarriers were discussed in the study section and received good scores. As the PI, I have successfully completed extramurally funded i) 4-year NIGMS Support of Competitive Research Continuance award of $358,100, ii) three 1.5-year Hawaii Community Foundation LEAHI awards ($50,000 each), iii) a 1.5-year Hawaii Community Foundation research awards ($50,000), iv) three 1-year projects from NSF Engineering Research Council awards (Co-PI), and v) a 1-year research grant from Magnesium research council. Also, I have received a public donation of $ 5000 from Dr. Robert S. Shirparo, MD, Dermatologist, Hilo, HI to support ongoing program. I am preparing two R01 and U01 proposals for submission. I have established multidimensional collaborations with researchers from multidisciplinary well renowned institutions like: Medical School, University of Hawaii at Manoa; University of Hawaii Cancer Center; Department of Bioengineering, Department of Pharmaceutics & Pharmaceutical Chemistry, College of Pharmacy, University of Utah; School of Chemical Engineering, Arizona State University; Departments of Mathematics & Biomedical Engineering, University of North Carolina at Chapel Hill.
The details of my active, pending, under preparation, completed and selected submitted grants are given below.

J1. Active Ongoing Research Support

1R15HL138718-01A1, Academic Research Enhancement Award (PI Chougule)
NIH/NHLBI 09/01/2018 – 08/31/2021
** Planning to submit no cost extension for a year due to the slow progress due to COVID-19*
Proposal Title: Receptor-Guided Targeted Therapy for Asthma
The goal of this proposal is to design, develop, and evaluate targeted bio-inspired siRNA loaded nanocarriers for asthma.
Total award: $455,100

J2. Grant proposals pending

1. **NIH R01 Research Project Grant** (PI: Singh, Co-Investigator: Chougule)
   07/01/2021-06/31/2026
   Proposal Title: Mechanism of Dendritic cell-mediated severe asthma in aging
   The goal of this proposal is to investigate the role of dendritic cells in asthma and develop targeted inhalable lipidic nanocarriers for delivery of antibacterial protein
   Total cost: $ 58,963

J3. Grant proposals under preparation

New Grant Applications under Preparation

1. NIH Research Project Grant Program (R01) (PI-Chougule)
NCI/NIGMS, anticipated submission date- Feb, 2021
Proposal Title: Tumor-targeted combination therapy for the treatment of lung cancer.
The goal of this proposal is to develop new target-based combination therapy and to enhance the co-delivery of drugs to tumor tissues for the effective treatment of lung cancer. This project utilizes the engineered polymeric, molecular biology, in vivo models, and imaging techniques.
Total cost: $2,700,000

2. NIH R01 Research Project Grant Program (PI-Chougule)
NIAID, anticipated submission date- Oct, 2021
Total cost: $2,400,000
Proposal Title: Immunomodulatory Effect of Targeted Nanocarriers for Asthma therapy
The goal of this proposed research is to formulate stable nanocarriers of anti-asthmatic agent for the targeted inhalation and parenteral delivery in the treatment of asthma. The developed nanocarriers will be characterized and evaluated under *in vitro* and *in vivo* asthma models.

2. R01 Research Project Grant (PI: Chougule)
   NIAID, anticipated submission date- Oct, 2021
   Proposal Title: Antiviral effect of inhaled antiviral agent
   The goal of this proposal is to design, develop, and investigate the targeted bio-inspired inhalable lipidic nanocarriers for the treatment of COVID-19
   Total cost: $ 3,081,033

3. NIH Exploratory Developmental Research Grant Program (R21) (PI-Chougule)
NIGMS/NCI, Anticipated submission date- Feb, 2022
Proposal Title: Targeted Epitope-Guided Nanocarriers for Neuroblastoma Therapy
Multiple PI Grant: Andre Bachmann, College of Human Medicine, Michigan State University.
The goal is to formulate and evaluate targeted nanocarriers of chemo drugs for the treatment of neuroblastoma and to assess anti-cancer effects in a xenograft and orthotopic mouse models.
Total cost: $ 158,969

4. Exploratory Developmental Research Grant Program (R21) (PI-Chougule)
NIH/NIAID, Anticipated submission date- June, 2022
Proposal Title: Gene based therapy for Asthma
The goal of this proposal is to design, develop, and evaluate targeted bio-inspired inhalable lipidic nanocarriers for asthma.

J4. Grants approved and completed research support

1. 1SC3GM109873-01, Support of Competitive Research (SCORE) Research Continuance Award (PI-Chougule)

NIH/NIGMS 05/01/2014 to 04/31/2017
Funded on the first submission
Proposal Title: Targeted Combination Therapy for Lung Cancer
The goal of this proposal is to develop, characterize, and evaluate the nanocarrier systems of siRNA in combination with chemo drug for the treatment of lung cancer.
Total award: $ 357,837

2. 15ADVC-74296 Hawaii Community Foundation's LEAHI FUND for Pulmonary Research Award (PI-Chougule)
Leahi Fund to Treat and Prevent Pulmonary Diseases of the Hawaii Community Foundation
07/10/2015 to 01/09/2017
Proposal Title: STAT3 Inhibitor Loaded Bioresponsive Polymeric Nanotherapy for Lung Cancer
The goal is to develop, characterize, and evaluate the efficacy of STAT3 inhibitor loaded bioresponsive polymeric nanocarriers for the treatment of lung cancer.
Total award: $ 47,228

3. 13ADVC-60311, Hawaii Community Foundation's Medical Research Award (PI-Chougule)
George F. Straub Trust and Robert C. Perry Fund of the Hawaii Community Foundation
3/14/2013 to 9/28/2014
(no-cost extension to 12/28/15)
Funded on revised submission
Proposal Title: Targeted Nanocarriers of mTOR siRNA for the Treatment of Lung Cancer
The goal is to develop, characterize, and evaluate (*in vitro* and *in vivo*) the efficacy of siRNA based delivery system against non-small cell lung cancer.
Total award: $ 50,000

4. 13ADVC-60226, Hawaii Community Foundation's LEAHI FUND for Pulmonary Research Award (PI-Chougule)
Leahi Fund to Treat and Prevent Pulmonary Diseases of the Hawaii Community Foundation
03/14/2013 to 09/13/2014
(no-cost extension to 7/13/15)
Funded on the first submission
Proposal Title: Receptor Directed Nanotherapeutics for the Treatment of Mesothelioma
The goal is to develop, characterize, and evaluate the efficacy of Onconase based delivery system against malignant mesothelioma.
Total award: $ 50,000

5. 11ADVC-49699, Hawaii Community Foundation's LEAHI FUND for Pulmonary Research Award (PI-Chougule)
Leahi Fund to Treat and Prevent Pulmonary Diseases of the Hawaii Community Foundation
09/01/2011 to 02/29/2013
Funded on the first submission
Proposal Title: Targeted Nanocarriers of siRNA for the Treatment of Asthma
The goal is to develop, characterize, and evaluate the efficacy of the siRNA-based delivery system.
Total award: $ 35,000

6. University of Hawaii at Hilo Research Council Seed Grant Award (PI-Chougule)
Office of Research, University of Hawaii at Hilo Research Council 06/01/2012 to 12/31/2013

Funded on the first submission

Proposal Title: Development of Targeted Nanocarrier System for the Treatment of Lung Cancer

The goal is to formulate the VEGF siRNA loaded nanocarriers and evaluate their efficacy against lung cancer cells.

Total award: $ 8,600

7. 433999, Center for Magnesium Research Grant (PI-Chougule)
   Center for Magnesium Education and Research, LLC 10/25/11 to 10/24/12

   Funded on the first submission

   Proposal Title: Transdermal magnesium cream testing using human skin

   The goal of this research project is to study the permeation of topical Magnesium cream formulation across human skin in order to explore the topical use of Magnesium for the treatment of hypomagnesemia.

   Total award: $ 16,347

8. 004085-00001, Rutgers, State University Of New Jersey, NSF (PI-Morris)
   NSF 06/01/2012 to 05/30/2013

   Funded on the first submission

   Role: Co-PI

   Proposal Title: Modeling and Validation of Material Properties of Crystalline Particles: Formation and Stability Under Stress

   The goal is to characterize the material properties of crystalline particles during formation and stability under stress.

   Total award: $ 50,000

9. Engineering Research Center on Structured Organic Particulate Systems Outreach Program (PI-Morris)
   NSF 7/01/2011 to 06/30/2012

   Funded on first submission

   Role: Co-PI

   Proposal Title: “Outreach Partner” for National Science Foundation Engineering

   Research Center on Structured Organic Particulate Systems

   The goal is to educate the K-12 teachers and students in the area of science and technology.

   Total award: $ 50,000

10. American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award (PI-Chougule) 2015

    The AACR is the largest scientific organization in the world focused on every aspect of high-quality, innovative cancer research. The award applications were judged by the Award Selection Committee and recommended for award to the highly deserving candidate. This award was based on the development and evaluation of Onconase loaded nanocarriers for the treatment of mesothelioma.

    Total award: $ 1,800

11. American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award (PI-Chougule) 2013

    The AACR is the largest scientific organization in the world focused on every aspect of high-quality, innovative cancer research. The award applications were judged by the Award Selection Committee and recommended for award to the highly deserving candidate. This award was based on STAT-6 siRNA loaded gelatin nanocarriers evaluated in lung epithelial cells.

    Total award: $ 1,800

12. American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award (PI-Chougule)
    AACR 2013
    The AACR is the largest scientific organization in the world focused on every aspect of high-quality, innovative cancer research. The award applications were judged by the Award Selection Committee and recommended for award to the highly deserving candidate. This award was based on STAT-6 siRNA loaded gelatin nanocarriers evaluated in lung epithelial cells.
    Total award: $ 1,800

13. Research Council Faculty Travel Award
    University of Hawaii at Hilo Research Council 2013
    The Research Council Faculty travel award applications have been judged by the Award Selection Committee and awarded to highly deserving faculty to present the research work at the international scientific conference.
    Total award: $ 2,200

14. American Association of Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award (Chougule) 2012
    The AACR is the largest scientific organization in the world focused on every aspect of high-quality, innovative cancer research. The award applications were judged by the Award Selection Committee and recommended for award to the highly deserving candidate. This award was based on siRNA loaded nanocarriers for the treatment of lung cancer.
    Total award: $ 1,800

J5. Grants submitted and not successful ***(Selected)***

3. R01, Research Project Grant (Co-Investigator, Chougule)
   NIH/NIAID, Impact score 40 07/1/2021-06/30/2026
   Proposal Title: Targeting Heparan Sulfate in SARS-CoV-2 infection
   The goal of this proposal is to investigate the antiviral effect of bio adhesive formulation of Heparin for COVID-19
   Total award: $ 350000
4. FDA U01, RFA-FD-18-023, Enhancing Regulatory Science for the Risk Based Quality Assessment of Complex Products (PI-Chougule) 10/1/2020-09/30/2025
   Proposal Title: Raw Material Attributes and Risk Based Quality Assessment of Extended Release Liposomes using Multivariate Analysis
   The goal of this proposal is to perform the quality control of raw material and risk-based assessment of nanoliposomes.
   Total award: $ 1,006,402
5. FDA BAA-20-00123-A2, Broad Agency Announcement (PI-Chougule)
   09/1/2020-08/31/2023
   Proposal Title: Safety Evaluation and Risk Assessment of Acute and Chronic Exposure of Cannabis Vaping Products
   The goal of this proposal is to study the effect of cannabis vaping on the safety and toxicological profile in cell based and preclinical models.
   Total award: $ 1,345,447
6. FDA BAA-20-00123-A2, Broad Agency Announcement (Co-PI-Chougule)
   FDA, received positive comments 09/1/2020-08/31/2023
   Proposal Title: Developing cell based tricomponent and in-vivo preclinical models to evaluate toxicity of nicotine E-cigarettes
   The goal of this proposal is to investigate the use of tricomponent in vitro systems and in vivo effect of Nicotine e-cigarettes
   Total award: $ 797,857

7. FDA BAA-20-00123-A2, Broad Agency Announcement (PI-Chougule)
   10/1/2020-09/30/2024
   Proposal Title: Inhalation of Amikacin Extended Release Nanoliposomes: Multivariate Modeling Based Quality Control Strategies and Risk Based Assessment
   The goal of this proposal is to study the development of Inhalation of Amikacin Extended Release Nanoliposomes using statistical modeling.
   Total award: $2,568,848
8. R21 NIH Exploratory Developmental Research Grant Program (PI-Chougule)
   NIAID/NIBIB 10/18/2017 to 09/30/2019
   Proposal Title: Targeted Immunotherapy for Asthma
   The goal of this proposal is to develop targeted gene based nanocarriers for asthma using in vitro and in vivo techniques.
   Total award: $451,606.00
9. Early Excellence Award (PI-Chougule) 07/01/2014 to 06/30/2017
   American Asthma Foundation
   Proposal Title: Gene Delivery for the Treatment of Asthma
   The goal was to formulate gene-based formulation and to investigate the efficacy of aerosolized nanocarriers for asthma therapy.
   Total award: $264,000
10. 1 R15 CA176651-01A1 (PI-Bachmann) 12/01/2013 to 11/30/2015
    NIH/NCI
    Impact Score- 30
    Proposal Title: Targeted Epitope-Guided Nanocarriers for Neuroblastoma Therapy
    Role: Co-investigator
    The goal is to formulate and evaluate targeted nanocarriers of Etoposide and DFMO to the Neuroblastoma and to assess their anti-cancer effects in a xenograft and orthotopic mouse model.
    Total award: $ 158,969
11. DOD Lung Cancer Research Program Concept Award (PI-Chougule)
    DOD Congressionally Directed Medical Research Programs 10/01/2013 to 09/30/2014
    Proposal Title: Targeted Delivery of Suicidal Gene and Prodrug for Lung Cancer Therapy
    The goal of this proposal is to develop targeted gelatin nanocarrier based delivery system of suicidal gene and Ganciclovir for lung cancer therapy.
    Total award: $ 92,500
12. Legacy Program for Advances in Lung Cancer Research (PI-Chougule)
    Uniting Against Lung Cancer 03/01/2013 to 02/28/2015
    Proposal Title: Targeted Nanocarrier Based Gene Therapy for Lung Cancer
    The goal of this proposal is to develop targeted gelatin based nanocarriers of mTOR siRNA for the treatment of lung cancer.
    Total award: $ 100,000
13. 1 R01 AR063959-01, NIH Research Project Grant Program, (PI-Penner)
    NIH/NIGMS 11/01/2012 to 11/30/2017
    Role: Co-investigator
    Proposal Title: Repurposing Clofazimine as an Immunosuppressant
    The goal of this proposal is to deliver Clofazimine loaded nanoemulsion for the treatment of skin diseases.
    Total award: $ 406,883
14. 1R03AI101994-01, NIH Small Grant Program (R03) (PI-Chougule)
    NIH/NIAID 07/01/2012 to 07/01/2014
    Proposal Title: Immunomodulatory Effect of Targeted Selenonanocarriers for Asthma therapy

The goal of this proposed research is to formulate stable Selenonanocarriers for the targeted delivery of Selenium for the immunomodulatory effect and evaluate *in vivo* pharmacokinetic parameters and anti-asthmatic activity.

Total award: $ 112,094

15. R21NS080163-01, NIH Exploratory Developmental Research Grant Program
    (PI-Chougule)
    NIH/NCI 07/01/2012 to 07/01/2014
    Proposal Title: Epitope-Guided Nanocarriers for Targeted Drug Delivery in Neuroblastoma
    The goal of this proposal is to develop targeted nanocarriers of synergistically acting chemo drugs for the treatment of neuroblastoma.
    Multiple PI Grant: Andre Bachmann, University of Hawaii College of Pharmacy
    Total award: $ 170,875

J6. Ongoing Research Collaborations

The details of established collaborations are given below.

Project 1. Targeted therapies for the treatment of lung cancer 2011- present
Collaborators:

- Dr. Sung Wan Kim, Distinguished Professor, Department of Bioengineering, Department of Pharmaceutics and Bioengineering, College of Pharmacy, University of Utah, Salt Lake, UT
- Dr. Kaushal Rege, School of Chemical Engineering, Arizona State University, Tempe, AZ
- Dr. James Turkson, Professor, Cedars-Sinai Medical Center, Los Angeles

Project 2. Formulation of nanocarriers and development of targeted therapies for the treatment of asthma and SARS-CoV-19 infection 2011- present
Collaborators:

- Dr. Edward Barrett, Senior Scientist, and Respiratory Immunology, and Asthma Program, Lovelace Biomedical and Environmental Research Institute (LBERI), Lovelace Respiratory Research Institute (LRRI), Albuquerque, NM
- Dr. Peter Hoffmann, Associate Professor, John A. Burns School of Medicine University of Hawaii at Manoa, Honolulu, HI
- Dr. M. Gregory Forest, Grant Dahlstrom Distinguished Professor, Departments of Mathematics & Biomedical Engineering, Director, Carolina Center for Interdisciplinary Applied Mathematics, the University of North Carolina at Chapel Hill

Project 3. Development of nanocarriers for the treatment of neuroblastoma
Collaborator:

- Dr. Andre S. Bachmann, Professor and Associate Chair of Research, Department of Pediatrics, College of Human Medicine, Michigan State University, East Lansing, MI 2011- present

Project 4. Targeted nanocarriers for the treatment of mesothelioma 2010 –present
Collaborator:
Dr. Haining Yang, Associate Professor, University of Hawaii Cancer Research Center, Honolulu, HI

K. PAPERS OR RESEARCH SEMINAR PRESENTATION

Synopsis: I have delivered 32 invited talks based on developed technologies, combination therapies, and drug and gene delivery systems at the reputed institutes or conferences or pharmaceuticals.

Invited Research Seminars (Total 32)

1. An invited web seminar titled "Aerosolized Nanomedicine mediated lung cancer therapy" at the *Patadhmal Wadhwani College of Pharmacy*, Yavatmal, Maharashtra state, India, July 16, 2020
2. An invited seminar titled "Functionalization of targeted nanomedicine for the treatment of lung cancer" has been presented at the Department of Biotechnology, *Latthe Education Society's Smt. Kasturbai Walchand College, Shivaji University*, Sangli, Maharashtra, India, July 1, 2019
3. An invited seminar titled "Functionalization of targeted nanomedicine for the treatment of lung cancer" has been presented at the Department of Biotechnology, *Latthe Education Society's Smt. Kasturbai Walchand College, Shivaji University*, Sangli, Maharashtra, India, July 1, 2019
4. An invited conference speaker, a seminar titled "Lipidic Nanocarrier based Targeted Therapy for Lung Cancer" has been presented at the *END2Cancer: Emerging Nanotechnology and Drug Delivery Applications for Cancer Conference*. Oklahoma City, Oklahoma, December 5-7, 2018
5. A seminar titled "Nanocarrier mediated targeted delivery for lung cancer therapy" has been presented at the *Arnold and Marie Schwartz College of Pharmacy and Health Sciences, Long Island University,* Brooklyn, New York, Oct 8, 2018
6. A seminar titled "Nanomedicine for lung cancer" has been presented at the *Bombay College of Pharmacy*, *University of Mumbai*, Kalina, Santacruz (E), Mumbai, Maharashtra, India, Dec 20, 2016
7. A seminar titled "Targeted delivery systems for the treatment of pulmonary disorders" has been presented at *KLE Society's College of Pharmacy,* Nipani, Karnataka, India, Dec 13, 2016.
8. A seminar titled "Development and evaluation of targeted nanomedicine" has been presented at the *Ajit Laboratory Pvt. Ltd.,* Miraj, Maharashtra, India**,** Dec 8, 2016
9. A seminar titled "Targeted nanoparticles for the treatment of lung cancer" has been presented at the *Appasaheb Birnale College of Pharmacy*, Sangli, Maharashtra, India, Dec 7, 2016
10. A seminar titled "Multitarget based nanoparticles for the treatment of lung cancer" has been presented at the *Maharashtra Institute of Pharmacy*, S.No. 124, MIT Campus Paud Road, Kothrud, Pune, Maharashtra, India, Nov 30, 2016
11. A seminar titled **"**Targeted inhalation delivery for lung cancer" has been presented at the *Poona College of Pharmacy*, *Pune University,* Erandwane, Pune, Maharashtra, India, Nov 29, 2016
12. A Seminar titled "Tumor targeted nanocarriers for the treatment of lung cancer" has been presented at the international conference *2015 IEEE-NANOMED*, Honolulu, HI, November 15 - 18, 2015
13. A seminar titled "Targeted biodegradable nanocarriers for the treatment of lung cancer" has been presented at the Ernest Mario School of Pharmacy, *Rutgers, The State University of New Jersey,* Piscataway, NJ, April 15, 2015
14. A seminar titled "Nanocarrier mediated targeted delivery of drugs and proteins for the treatment of cancer" has been presented at the Otto York Department of Chemical Engineering, *New Jersey Institute of Technology*, Newark, NJ, April 17, 2015
15. A seminar titled "Seminar titled Biomaterial based targeted delivery for lung cancer therapy" has been presented at the School of Pharmacy, *Temple University*, Philadelphia, PA, April 23, 2015.
16. A seminar titled "Targeted nanoparticle-based delivery approaches for the treatment of lung cancer" has been presented at the Skaggs School of Pharmacy and Pharmaceutical Sciences, *University of California at San Diego*, La Jolla, CA, Nov 7, 2014
17. A seminar titled "Targeted nanocarriers for the treatment of cancer" has been presented at the Eshelman School of Pharmacy, *University of North Carolina at Chapel Hill*, Chapel Hill, NC, Oct 9, 2014
18. A seminar titled "Albumin-Chitosan based nanocarrier of Onconase for the treatment of mesothelioma" has been presented at the *12th US-Japan Symposium on Drug Delivery Systems*, Westin Maui Resort, and Spa, Lahaina, Maui, HI, Dec 16-20, 2013
19. A seminar titled "Targeted delivery to chemo drugs for the treatment of lung cancer" has been presented in the Pharmaceutics Division's Seminar Series at the College of Pharmacy, *The University of Texas at Austin*, Austin, TX, Nov 15, 2013

20. Seminar titled "Targeted chemo and gene therapy for the treatment of cancer" has been presented in seminar series at the School of Chemical Engineering, *Arizona State University*, Tempe, AZ, Nov 8, 2013
21. A seminar titled "Albumin-Chitosan polymer based hybrid nanocarriers for cancer" has been delivered in seminar series at the *University of Hawaii Cancer Center*, Honolulu, HI, Oct 14, 2013
22. Seminar titled "Targeted nanotech-based delivery systems: an emerging cancer therapy" has been delivered at the *College of Pharmacy – University of Hawaii Cancer Center Symposium*, Hilo, HI, Mar 13-14, 2013
23. A seminar titled "Multiple pathways based targeted therapies for non-small cell lung cancer" has been delivered at the Innovative Drug Delivery Research, Pharmaceutical R and D, *Abbott Healthcare Pvt. Ltd.* Goregaon (E), Mumbai, Maharashtra, India, Jun 17, 2013
24. A seminar titled "Novel nanocarrier therapies for lung cancer" has been delivered at the Bombay College of Pharmacy, *University of Mumbai*, Kalina, Mumbai, Maharashtra, India, Jun 18, 2013.
25. A seminar titled "Inhalation delivery of anticancer agents for lung cancer therapy" has been delivered at the *Cipla Ltd.*, Vikhroli West, Mumbai, India, Jun 19, 2013
26. A seminar titled "Nanocarrier based delivery of chemotherapeutic agents for lung cancer treatment" has been delivered at the Pharmacy Department, Faculty of Technology and Engineering, *The Maharaja Sayajirao University of Baroda*, Vadodara, Gujarat, India, Jun 28, 2011
27. A seminar titled "Inhalation drug delivery as a novel approach for the treatment of lung cancer" has been delivered at the *Sun Pharma Advanced Research Company (SPARC) Ltd.*, Baroda, Gujarat, India, Jun 29, 2011
28. A seminar titled "Targeted nanoparticles for the treatment of lung cancer" has been presented in the Basic Science and Translational lecture series at the *Cancer Research Center of Hawaii*, University of Hawaii, Honolulu, HI, May 16, 2011
29. A seminar titled "Polymeric Nanoparticle for the Treatment of Cancer" has been delivered at the College of Pharmacy Faculty seminar series, *the Daniel K. Inouye College of Pharmacy*, *University of Hawaii at Hilo*, HI, Jan 20, 2016
30. A seminar titled "Multifunctional targeted nanocarriers for cancer therapy" has been presented in the Natural Products and Experimental Therapeutics program summer retreat at the *University of Hawaii Cancer Center*, Honolulu, HI, Jul 17, 2014
31. A seminar titled "Preparation and characterization of a Selenium-loaded nanoliposomal formulation" had been delivered at the College of Pharmacy Faculty seminar series, *the Daniel K. Inouye College of Pharmacy,* the University of Hawaii at Hilo, HI, Aug 22, 2012
32. A seminar titled "Targeted chemotherapy approaches for the treatment of breast cancer" has been delivered at the College of Pharmacy Faculty seminar series, *the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo*, HI, Sep 29, 2011

L. POSTER AND PODIUM PRESENTATIONS

Synopsis: My research work was presented in the form of 87 research posters or podium at the national and international scientific conferences.

Note: *all are refereed presentations and were presented by myself unless otherwise noted.*

Poster and podium presentations (total 87)

1. Kotha A, Avula B, Kashikar R, Khan IA, **Chougule MB**. Amikacin extended release nanoliposomes using the ethanol injection method: development and characterization, 2020 AAPS PharmSci 360 meeting, October 26-November 5, 2020. Presented by Kashikar R.
2. Kotha A, Vinjamuri PB, **Chougule MB**. Formulation and evaluation of Doxorubicin HCl Nanoliposomes by ethanol injection method. 2020 AAPS PharmSci 360 meeting, October 26-November 5, 2020. Presented by Kotha A.
3. Kotha AK, Marathe S, Joshi R, Bachmann AS, Chougule MB, Development and Evaluation of Chemodrug-Loaded Albumin Polymeric Nanocarriers for the Treatment of Neuroblastoma, **2019** Mississippi IDeA Conference, August 2, 2019, Jackson. Presented by Kotha AK.

4. Mulay T, Joshi R, Yang R, **Chougule MB**, Development and characterization of liposomes for the treatment of asthma, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Presented by Chougule M B
5. Ponkshe P, Youngren-Ortiz S, Joshi RR, Yang R, Hoffmann PR, **Chougule MB**, Development and characterization of inhalable siRNA loaded nanoliposomes, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Presented by Chougule M B
6. Thakkar R, Joshi RR, **Chougule MB**, Inhalation delivery of bio-inspired tofacitinib loaded liposomes: formulation and evaluation, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Presented by Thakkar R
7. Marathe S, Yang R, Bachmann A, **Chougule MB**, Development and evaluation of chemo drug-loaded albumin polymeric nanocarriers for the treatment of neuroblastoma, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Presented by Marathe S
8. Shahin HI, Vinjamuri PB, **ChouguleMB**, Chablani L, Formulation and in-vitro evaluation of spray-dried hydrogel sildenafil citrate for pulmonary drug delivery, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Will be presented by Shahin HI
9. Shahin HI, Vinjamuri PB, **ChouguleMB**, Chablani L, Formulation and in-vitro evaluation of spray-dried hydrogel sildenafil citrate for pulmonary drug delivery, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Presented by Shahin HI
10. Almotairy AM, Almutairy BK, Almutairi MS, Sarabu S, Vinjamuri BP, Herman C, Bandari S, **Chougule MB**, Smyth HDC, Repka MA, Characterization of drug-loaded milled extrudate particles produced by hot melt extrusion technology for dry powder inhalers, accepted for poster presentation at 2018 AAPS Annual Meeting & Exposition, November 4-7, 2017, Washington DC. Will be presented by Almotairy AM
11. Vinjamuri BP, Komanduri N, Wang R, **Chougule MB**, Multifunctional nanocarriers for lung cancer and asthma, poster presentation, 2018 School of Pharmacy, University of Mississippi Annual Research Day, October 6, 2018. Presented by Vinjamuri BP and Chougule MB
12. Mulay T, Vinjamuri B.P., Yang R, Chougule MB, bioengineered inhalable anti-microRNA loaded liposomes for asthma therapy, Poster Presentation, 2017 AAPS Annual Meeting & Exposition, , November 12 - 15, 2017, San Diego, CA. Presented by Mulay T
13. Marathe S, Yang R, Bachmann A, **Chougule MB**, Development and evaluation of chemodrug-loaded albumin polymeric nanocarriers for the treatment of neuroblastoma. Presented at the AAPS 2017 Annual Meeting and Conference, November 12-15, 2017, San Diego, California. Presented by Marathe S
14. Thakkar R, Yang R, **Chougule MB**, Development and characterization of Tofacitinib Loaded Liposomes presented at the AAPS 2017 Annual Meeting and Conference, November 12-15, 2017, San Diego, California, Presented by Thakkar R
15. Thakkar R, Youngren-Ortiz S, Hill D, Hoffmann P, Morris K, Barrett E, Forest G, Chougule MB, Formulation and characterization of gemcitabine -loaded gelatin nanocarriers for lung cancer via inhalation, Poster Presentation, 2017 AAPS Annual Meeting & Exposition, November 12 - 15, 2017, San Diego, CA. Presented by Thakkar R
16. Ponkshe P, Youngren-Ortiz S, Joshi RR, Yang R, Hoffmann PR, **Chougule MB**, Inhalation Delivery of siRNA-Loaded Nano Liposomes for pulmonary disorder, Poster Presentation, 2017 AAPS Annual Meeting & Exposition, November 12 - 15, 2017, San Diego, CA. Presented by Ponkshe P
17. Almotairy AM, Almutairy BK, Almutairi MS, Bandari S, **Chougule MB**, Repka MA, Development and characterization of microporous particles of theophylline via hot melt extrusion technology, poster presentation, 2017 AAPS Annual Meeting & Exposition, November 12-15, 2017, San Diego, CA. Presented by Almotairy AM

18. Thakkar R, Yang R, Chougule M, Development and characterization of Tofacitinib Loaded Liposomes, poster presentation, School of Pharmacy Poster Sessions, the University of Mississippi, October 6, 2017, University, MS. Presented by Thakkar R
19. Marathe S, Yang R, Bachmann A, Chougule M, Development and evaluation of chemo drug-loaded albumin polymeric nanocarriers for the treatment of neuroblastoma, poster presentation, School of Pharmacy Poster Sessions, the University of Mississippi, October 6, 2017, University, MS. Presented by Thakkar R
20. Yang R and **Chougule MB**, Targeted nanotherapy for lung cancer and asthma, 2017 Annual UM/UMMC Research Day, April 13th, 2017, University, MS
21. Yang R, Nam K, Kim SW, Yue P, Turkson J, **Chougule MB**, Targeted bioresponsive polymeric nanotherapy for lung cancer, the University of Mississippi School of Pharmacy 20th Annual Poster Session, October 7, 2016, University, MS, Presented by Yang R.
22. Youngren SR, Hoffmann PR, **Chougule MB,** Design and evaluation of a siRNA loaded gelatin nanocarriers for asthma therapy, poster presentation, 2016 National Biotechnology Conference, AAPS, May 18, 2016, Boston, MA
23. Yang R, Nam K, Kim SW, Yue P, Turkson J, **Chougule MB**, STAT3 Inhibitor loaded bioresponsive polymeric nanotherapy for lung cancer, podium presentation, 2015 IEEE-NANOMED, November 15 - 18, 2015, Honolulu, HI. Presented by Yang R
24. Tekade RK, Youngren SR, Yang H, Haware R, **Chougule MB** Albumin-chitosan hybrid Onconase nanocarriers for mesothelioma therapy, abstract 3680, AACR Annual Meeting, AACR Annual Meeting Philadelphia, Apr 18-22, 2015. *2015 AACR Minority-Serving Institution Faculty Scholar in Cancer Research Award to Chougule MB*
25. Youngren SR, Tekade RK, Gustilo B, Hoffmann PR, **Chougule MB**. Formulation and characterization of STAT6 siRNA matrix-loaded gelatin nanocarriers, 2014 AAPS Annual Meeting and Exposition, poster M1039, San Diego Convention Center, San Diego, CA, Nov 2-6, 2014. *AAPS FDD Travel Award and University of Hawaii at Hilo ALEX Travel Award to Youngren SR.*
26. Tekade RK, Youngren SR, Yang H, Haware R, **Chougule MB**. Onconase loaded albumin-chitosan hybrid nanocarriers for mesothelioma therapy, 2014 AAPS Annual Meeting, and Exposition, poster M1210, San Diego Convention Center, San Diego, CA. Nov 2-6, 2014. The *University of Hawaii at Hilo Research Council Faculty Travel Award to Chougule MB*
27. Glasgow M, Clark M, Tomassone S, Hamad M, **Chougule MB**, Morris KR. Modeling and validation of material properties of crystalline particles: formation and stability under stress, 2014 AAPS Annual Meeting, and Exposition, poster W4332, San Diego Convention Center, San Diego, CA. Nov 2-6, 2014. Presented by Glasgow M. *University of Hawaii at Hilo ALEX Travel Award to Glasgow M*
28. **Chougule MB**, Tekade RT, Youngren-Ortiz SR, Yang H, Haware R. Design and analysis of hybrid Onconase nanocarriers for mesothelioma therapy, poster 10, 12th International Nanomedicine and Drug Delivery Symposium, Chapel Hill, NC, Oct 6-8, 2014
29. Yang R, **Chougule MB**. Optimization of arginine grafted bioreducible polymer-based nanoparticles by Taguchi factorial design, podium presentation, Department of Pharmaceutical Sciences Research Day, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI, Aug 13, 2014. Presented by Yang R
30. Gandhi N, **Chougule MB**. Design, development, and evaluation of hybrid nanocarrier for the treatment of mesothelioma, podium presentation, Department of Pharmaceutical Sciences Research Day, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI, Aug 13, 2014. Presented by Gandhi N
31. Youngren-Ortiz SR, **Chougule MB**. STAT6 siRNA loaded gelatin nanocarriers, Department of Pharmaceutical Sciences Research Day, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI, Aug 13, 2014. Presented by Youngren-Ortiz SR. *Research Day Best Poster Presentation Award*
32. Tekade RK, Youngren SR, Yang H, **Chougule MB**. Albumin-Chitosan based nanocarrier of Onconase for the treatment of mesothelioma, poster 0327-002066, 12th US-Japan Symposium on Drug Delivery Systems, Westin Maui Resort, and Spa, Lahaina, Maui, HI, Dec 16-20, 2013.

33. Tekade RK, Yan H, **Chougule MB**. Hybrid nanocarrier mediated delivery of Onconase for the treatment of mesothelioma, poster M1062, 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, Nov 10-14, 2013. *The University of Hawaii* at *Hilo Research Council Faculty Travel Award to Chougule MB*
34. Youngren SR, Tekade RK, Hoffmann PR, **Chougule MB**. Nanocarrier mediated targeted delivery of STAT-6 siRNA to cancer cells, poster M1063, 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, Nov 10-14, 2013. The *University of Hawaii at Hilo Research Council Faculty Travel Award to Chougule MB*
35. Youngren SR, Tekade RK, Hoffmann PR, **Chougule MB**. Development of gelatin nanocarriers for the targeted delivery of STAT-6 siRNA, poster 714, 40th Annual Meeting and Exposition of the Controlled Release Society, Honolulu, HI, Jul 21-24, 2013. Presented by Youngren SR
36. Tekade RK, Yan H, **Chougule MB**. Formulation and evaluation of hybrid Onconase nanoparticles for the treatment of mesothelioma, poster 100874, 40th Annual Meeting and Exposition of the Controlled Release Society, Honolulu, HI, Jul 21-24, 2013
37. Glasgow M, Clark M, Hamad M, **Chougule MB**, Morris KR. Project A-7: Modeling and validation of material properties of crystalline particles: formation and stability under stress, Purdue University, West Lafayette, IN, May 14-17, 2013. Presented by Glasgow M
38. Youngren SR, Tekade RK, Hoffmann PR, **Chougule MB**. STAT6 siRNA encapsulated gelatin nanocarriers: formulation, characterization, and *in vitro* proof of concept using adenocarcinomic human alveolar basal epithelial cell line, poster M1024, 2013 AAPS National Biotec Conference, San Diego, CA, May 20–22, 2013. Presented by Youngren SR. *AAPS BIOTEC Travel Award and the University of Hawaii at Hilo ALEX Travel Award to Youngren SR*
39. Glasgow M, Clark M, Hamad M, **Chougule MB**, Morris KR. Modeling and validation of material properties of crystalline particles: formation and stability under stress, Rutgers University, Newark, NJ, Apr 1-6, 2013. Presented by Glasgow M
40. Youngren SR, Tekade RK, Hoffmann PR, **Chougule MB**. Biocompatible nanocarrier mediated delivery of STAT-6 siRNA to cancer cells, abstract 3142, 104th AACR Annual Meeting, Washington DC, Apr 6-10, 2013. *2013 AACR Minority-Serving Institution Faculty Scholar in Cancer Research Award to Chougule MB*
41. Godugu C, Patel AR, Marepally S, Doddapaneni R, Singh M, **Chougule MB**. Effect of Telmisartan on triple negative breast cancer (TNBC) and lung cancer tumor progression and intratumoral distribution of nanoparticles, abstract 2139, 104th AACR Annual Meeting, Washington DC, Apr 6-10, 2013. Presented by Godugu C
42. Mayuramas S, Byoung J, Mazen H, Chee LC, Rosanoff A, **Chougule MB**. Preliminary study of transdermal permeation of magnesium cream formulations across skin, XIII International Magnesium Symposium, Mérida, Yucatan, México. Oct 16-19, 2012. Presented by Mayuramas S
43. Mulik R, Jun B, Connelly L, **Chougule MB**. Targeted nanocarriers of siRNA for the treatment of cancer, abstract 5644, 103th AACR Annual Meeting, Chicago, IL, Mar 31-Apr 4, 2012. *2012 AACR Minority-Serving Institution Faculty Scholar in Cancer Research Award to Chougule MB*
44. **Chougule MB**, Patel A, Patlolla R, Jackson T, Singh M. Anticancer efficacy of Celecoxib encapsulated nanostructured lipid carrier in treatment of non-small cell lung cancer, poster T3211, FIP Pharmaceutical Sciences 2010 World Congress in Association with the AAPS Annual Meeting and Exposition meeting, New Orleans, LA, Nov 14-18, 2010. *AAPS Council's Award to Chougule MB*
45. **Chougule MB**, Patel A, Patlolla R, Singh M. Multifunctional nanocarriers of synergistically acting Noscapine and doxorubicin conjugated with CREKA peptide for the treatment of breast cancers, poster M1294, FIP Pharmaceutical Sciences 2010 World Congress in Association with the AAPS Annual Meeting and Exposition meeting, New Orleans, LA, Nov 14-18, 2010. *AAPS Council's Award to Chougule MB*
46. Patel AR, Spencer SD, **Chougule MB**, Sachdeva M. Pharmacokinetic modeling and *in vitro-in vivo* correlation (IVIVC) of methylene-substituted 3, poster R6436, FIP Pharmaceutical Sciences 2010 World Congress in Association with the AAPS Annual Meeting and Exposition meeting, New Orleans, LA, Nov 14-18, 2010. Presented by Patel AR. *Travel Award to Patel AR*

47. **Chougule MB**, Patel A, Patlolla RR, Singh M. Multifunctional CREKA peptide conjugated lipid nanocarriers of synergistically acting Noscapine and Doxorubicin for breast cancer therapy, 101th AACR Annual Meeting, Washington DC, Apr 17-21, 2010
48. Desai U, **Chougule MB**, Singh M. AlgiMatrix™ 3-D cell culture system as an *in vitro* tumor model for H460 non-small cell lung cancer cell line, abstract 3234, 101th AACR Annual Meeting, Washington DC, Apr 17-21, 2010
49. **Chougule MB**, Patlolla RR, Patel A, Singh M. Transepithelial transport of Noscapine and influence of permeation enhancers on permeability across cell monolayer, poster W4279, 2**009** AAPS Annual Meeting and Exposition, Los Angeles, CA, Nov 8 – 12, 2009
50. **Chougule MB**, Patel A, Patlolla R, Singh M. Antitumor activity of Noscapine an oral chemotherapeutic agent in human breast cancer xenograft model, poster T3075, 2009 AAPS Annual Meeting and Exposition, Los Angeles, CA, Nov 8 – 12, 2009
51. Patel A**, Chougule MB**, Patlolla R, Jackson T, Safe S, Singh M. Novel C-substituted Diindolylmethane derivative: Transepithelial permeability across Caco-2 monolayer and pharmacokinetic evaluation, 2009 AAPS Annual Meeting and Exposition, Los Angeles, CA, Nov 8 – 12, 2009. Presented by Patel A. *Travel Award Winner -Patel A*
52. Patlolla R, Patel A, **Chougule MB**, Singh M. *In vitro* dissolution vs. *in vitro* cytotoxicity of Celecoxib encapsulated nanostructured lipid carrier nanoparticles in NSCLC cell lines, 2009 AAPS Annual Meeting and Exposition, Los Angeles, CA, Nov 8 – 12, 2009. Presented by Patlolla R
53. Patlolla R, Vashi P, Samaan J, **Chougule MB**, Singh M. Translocation of cell penetrating peptide engrafted nanoparticles across the skin layers, 2009 AAPS Annual Meeting and Exposition, Los Angeles, CA, Nov 8 – 12, 2009. Presented by Patlolla R
54. Patlolla R, Desai U, Vashi P, **Chougule MB**, Singh M. Encapsulation of plasmid DNA in liposome's using modified ethanol destabilization method and enhancing the transfection with cell penetrating peptide, 2009 AAPS Annual Meeting, and Exposition, Los Angeles, CA, Nov 8 – 12, 2009. Presented by Patlolla R
55. Terrick A, **Chougule MB**, Safe S, Singh M. Induction of apoptosis by Nur-active 1, 1-Bis (3'-indolyl)-1-(p-substituted phenyl) methanes in non-small cell lung cancer cells, Florida A. and M. University MBRS Symposium, Tallahassee, FL, Oct 2, 2009. Presented by Terrick A. *First Prize Winner - Terrick A*
56. Patel A**, Chougule MB**, Patlolla R, Jackson T, Safe S, Singh M. Pharmacokinetic evaluation of 3, 3' diindolylmethane derivative: A novel anticarcinogenic compound, Florida A. and M. University MBRS Symposium, Tallahassee, FL, Oct 2, 2009. Presented by Patel A
57. Patlolla R, Vashi P, Samaan J, Patel A, **Chougule MB**, Singh M. Translocation and *in vitro* permeation of cell penetrating peptide engrafted nano structured lipid carrier nanoparticles across the skin layers, Florida A. and M. University MBRS Symposium, Tallahassee, FL, Oct 2, 2009. Presented by Patlolla R. *Second Prize Winner-Patlolla R*
58. Desai U, Patlolla R, **Chougule MB**, Singh M. Evaluation of Epiderm Full Thickness (EFT) as an *in vitro* model for wound healing, Florida A. and M. University MBRS Symposium, Tallahassee, FL, Oct 2, 2009. Presented by Desai U. *Second Prize Winner-Desai U*
59. Patel A**, Chougule MB**, Patlolla R, Jackson T, Safe S, Singh M. Physiological and pharmacokinetic evaluation of novel 3, 3' diindolylmethane derivative (DIM-C-pPhC6H5), Graduate Research Association of Students in Pharmacy (GRASP) meeting, Mercer University, Atlanta, GA, Jun 5-7, 2009. Presented by Patel A
60. Terrick A, **Chougule MB**, Safe S, Singh M. Anticancer activity of 1, 1-bis (3'-indolyl)-1-(p-substituted phenyl) methanes in non-small cell lung cancer cells, Graduate Research Association of Students in Pharmacy (GRASP) meeting, Mercer University, Atlanta, GA, Jun 5-7, 2009. Presented by Terrick A
61. Vashi P, Patlolla R, Samaan J, **Chougule MB**, Singh M. Topical delivery and characterization of Celecoxib encapsulated cell penetrating peptide engrafted nanolipid crystal nanoparticles, Graduate Research Association of Students in Pharmacy (GRASP) meeting, Mercer University, Atlanta, GA, Jun 5-7, 2009. Presented by Vashi P

62. Singh M, Jackson T, **Chougule MB**, Ichite N, Patlolla R. Evaluation of antitumor activity of Noscapine against human non-small cell lung cancer xenograft model, 11th RCMI International Symposium on Health Disparities, Honolulu, HI, Dec 1 - 4, 2008. Presented by Singh M
63. **Chougule MB**, Patlolla R, Kandimalla K, Singh M. pH-dependent bidirectional transport of Noscapine across Caco-2 and MDCK monolayers: Implications for intestinal absorption, poster T2022, 2008 AAPS Annual Meeting and Exposition, Atlanta, GA, Nov 16-20, 2008
64. Patlolla R, **Chougule MB**, Kandimalla K, Singh M. Pulmonary deposition and pharmacokinetics of nebulized Celecoxib loaded nanostructured lipid carriers, 2008 AAPS Annual Meeting and Exposition, Atlanta, GA, Nov 16-20, 2008. Presented by Patlolla R
65. Patlolla R, **Chougule MB**, Vashi P, Somman J, Babu J, Singh M. Encapsulation and *in vitro* skin permeation of Spantide II encapsulated Nanolipid crystal (NLC) nanoparticles, 2008 AAPS Annual Meeting and Exposition, Atlanta, GA, Nov 16-20, 2008. Presented by Patlolla R
66. Ichite N, **Chougule MB**, Jackson T, Safe S, Singh M. Inhalation drug delivery of a novel diindolyl methane derivative for the treatment of lung cancer, 2008 AAPS Annual Meeting, and Exposition, Atlanta, GA, Nov 16-20, 2008. Presented by Ichite N
67. Marijani R, **Chougule MB**, Singh M. Evaluation of aggregation and spray characteristics of nasal formulations of human growth hormone, 2008 AAPS Annual Meeting, and Exposition, Atlanta, GA, Nov 16-20, 2008. Presented by Marijani R
68. Vashi P, Mallampati R, Patlolla R, **Chougule MB**, Babu J, Singh M. *In vitro* permeation of Alpha MSH formulations in Human and Rat skin, Graduate Research Association of Students in Pharmacy (GRASP) Annual Meeting, Tallahassee, FL, Jun 6-8, 2008. Presented by Vashi P
69. Marijani R, **Chougule MB**, Patlolla R, Singh M. Development of inhalation and nasal drug delivery system for delivery of peptides and proteins, Florida A. and M. University Graduate Feeder Conference and Student Research Forum, Tallahassee, FL, Jun 6-8, 2008. Presented by Marijani R
70. Gayed R, **Chougule MB**, Ichite N, Patlolla R, Singh M. *In vitro* anti-tumor effect of Noscapine in combination with Docetaxel in lung cancer cell lines, Florida A. and M. University Graduate Feeder Conference and Student Research Forum, Tallahassee, FL, Jun 6-8, 2008. Presented by Gayed R
71. Ichite N, **Chougule MB**, Jackson T, Safe S, Singh M. Diindolylmethane (DIM) compound potentiate the apoptotic effect of Docetaxel in A549 orthotopic non-small cell lung cancer xenograft Model, Florida A. and M. University Graduate Feeder Conference, and Student Research Forum, Tallahassee, FL, Jun 6-8, 2008. Presented by Ichite N
72. Samaan J, Patlolla R., Mallampati R, **Chougule MB**, Singh M. Formulation of nano liquid crystals (NLC) for the topical delivery of Nimesulide, Florida A. and M. University Graduate Feeder Conference and Student Research Forum, Tallahassee, FL, Jun 6-8, 2008. Presented by Samaan J. *Second Prize Winner-Samaan J*
73. **Chougule MB**, Patlolla R, Patel A, Singh M. Nebulization of Celecoxib loaded nanostructured lipid carriers: preparation, characterization, pharmacokinetics and lung deposition, 2008 Respiratory Drug Delivery conference, Scottsdale, AZ, May 11-15, 2008
74. Ichite N, **Chougule MB**, Jackson T, Safe S, Singh M. Characterization of aerosolized Diindolylmethane (DIM) derivative as a potential inhalation delivery agent against lung cancer, 99th AACR Annual Meeting, San Diego, CA, Apr 12-16, 2008. Presented by Ichite N
75. Patel A**, Chougule MB**, Patlolla R, Jackson T, Ichite N, Singh M. Anti-tumor effect of Noscapine in combination with antitumor agents against non-small cell lung cancer, Graduate Research Association of Students in Pharmacy (GRASP) Annual Meeting, Tallahassee, FL, Jun 6-8, 2008. Presented by Patel A
76. Patel A**, Chougule MB**, Patlolla R, Jackson T, Kandimalla K, Singh M. Aerosol characterization and lung deposition of Celecoxib encapsulated lipid Nanoparticles. NanoFlorida Symposium, University of Central Florida, Orlando, FL, Sep 26-28, 2008. Presented by Patel A
77. Vashi P, Patlolla R, Samaan J, **Chougule MB**, Singh M. *In vitro* skin permeation of anti-inflammatory peptide encapsulated Nanolipid Crystal (NLC) nanoparticles, NanoFlorida Symposium, University of Central Florida, Orlando, FL, Sep 26-28, 2008. Presented by Vashi P.

78. **Chougule MB**, Padhi B, Misra A. Aerosolized nano- liposomal dry powder inhaler of Dapsone: preparation and characterization, 2007 AAPS Annual Meeting and Exposition, San Francisco, CA, Nov 10-15, 2007
79. **Chougule MB**, Padhi B, Misra A. Formulation of a nano-liposomal dry powder inhaler containing Amiloride hydrochloride: preparation and characterization, the Respiratory Drug Delivery X conference, Boca Raton, FL, Apr 23-27, 2006
80. **Chougule MB**, Padhi B, Misra A. Nano-liposomal dry powder inhaler formulation of Amiloride hydrochloride, Conference on Nanotechnology in Drug Delivery, Mohali, Punjab, India, Feb 18-19, 2006.
81. **Chougule MB**, Padhi B, Misra A. Influence of disaccharides on *in vitro* lung deposition of spray-dried liposomal dry powder inhaler formulation, 1st Indo-Japanese International Conference on Advances in Pharmaceutical Research and Technology, Mumbai, Maharashtra, India, Nov 25-29, 2005
82. **Chougule MB**, Padhi B, Misra A. Spray dried nano-liposomal dry powder formulation for pulmonary drug delivery, National Symposium on Exploring Nanotechnology in Drug Delivery, Vadodara, Gujarat, India, Jul 29-30, 2005
83. **Chougule MB**, Kalariya M, Padhi B, Misra A. Formulation and clinical evaluation of nanosized Clobetasol propionate for topical treatment of eczema, National Symposium on Science, Technology, and Application of Nanomaterials, Vadodara, Gujarat, India, Mar 21-22, 2005
84. **Chougule MB**, Kalariya M, Padhi B, Misra A. Formulation and clinical implications: methotrexate loaded solid lipid nanoparticulate gel for topical treatment of psoriasis, National Symposium on Polymers, Surfactants and Gels, Vadodara, Gujarat, India, Feb 11-13, 2005
85. **Chougule MB**, Naik S, and Misra A. Development of novel lyophilized mixed micellar formulation of Amphotericin B, 6th International Controlled Release Society Symposium, Indian Chapter, Mumbai, Maharashtra, India, Feb 18-19, 2005
86. **Chougule MB,** Padhi B, Misra A. Influence of cryoprotectant on *in vitro* lung deposition of lyophilized liposomal dry powder inhaler formulation, 57th Indian Pharmaceutical Congress, Hyderabad, Andhra Pradesh, India, Dec 2-4, 2005
87. **Chougule MB**, Misra A. Influence of composition of carrier lactose on the site of drug delivery in the lung from Budesonide dry powder inhaler formulations *in vitro*, 55th Indian Pharmaceutical Congress, Chennai, Tamilnadu, India, Dec 19-20, 2003

M. TEACHING AND CURRICULUM DEVELOPMENT ACTIVITIES

Synopsis: At the University of Mississippi School of Pharmacy, I am a course director and co-course director of several PharmD, Master, and Ph. D. courses in the field of pharmaceutics, compounding lab, calculation, and drug delivery. I am also teaching Compounding Skills Lab, and Clinical Laboratory Data Analysis courses. I taught Aerosol Physics in Medicines and cancer nanotechnology elective course. In the teaching courses, I have utilized an approach similar to a flipped classroom model with recorded lectures to augment students advanced learning. At University of Mississippi School of Pharmacy, I am serving on Curriculum Transformation Committee (member) and Curriculum Committee (Co-Chair) and playing an active role in the design and development of new integrated PharmD curriculum. I have served as a leader or member in the course design and development committee of the new integrated LandSharRx curriculum for the PharmD program. I have developed/co-developed 9 new graduate courses, including currently developed Pharmaceutical Calculation and Clinical Laboratory Data Analysis courses. At the University of Hawaii at Hilo College of Pharmacy, I have also developed courses in the area of Pharmaceutics, drug delivery, and inhalation delivery for PharmD and Ph.D. program. In addition, a research elective course entitled as "Design of Nanocarrier for Cancer Therapy" and an elective course, PHPS-598 Aerosol Physics in Medicine: Inhaled Drug Therapy were developed. The details of my teaching activities are given below.

PharmD 1st year (P-1), PharmD 2nd year (P-2), PharmD 3rd year (P-3), and PharmD 4th year (P-4)

M1. Teaching activities

Teaching as Instructor of record at the Mercer University College of Pharmacy

July, 2021–present

Fall 2021

1. Instructor, PHA 742 Foundations in Pharmaceutical Sciences, 5 credits, PharmD P-1 students
2. Coordinator and Instructor, PHA 548 Project Development, 2 credits, PharmD P-2 and P-3 students
3. Coordinator and Instructor, PHA 549 Introduction to Pharmaceutical Research, 2 credits, PharmD P-2 and P-3 students
4. Dissertation advisor, Rama Kashikar, 2nd year PhD student

Teaching as Instructor of record at the University of Mississippi School of Pharmacy
Aug, 2016– July, 2021

Spring 2021

1. Academic Coordinator and Instructor, PHAR 422 Pharmaceutics and Calculations II, 3 credits, PharmD P-1 students
2. Instructor, PHCY 508 Integrated Systems – GI/Nutrition, 3 credits, PharmD P-1 student
3. Dissertation Advisor, Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student
4. Dissertation Advisor, Bhavana Chivukula, Master in Pharmaceutics and Drug Delivery student

Fall 2020

5. Coordinator and Instructor, PHAR 421 Pharmaceutics and Calculations I, 3 credits, PharmD P-1 students
6. Coordinator and Instructor, PHAR 741 Advanced Pharmaceutics, 4 credits, Ph.D. graduate students
7. PHCY 503 Integrated Systems: Respiratory, 3 credits, PharmD P-2 students
8. Academic coordinator, PHCY 451 Pharmacogenomics, 3 credits, PharmD P-1 students
9. Instructor, PHAR 650 Formulation Development, 3 credits, Master in Pharmaceutics and Drug Delivery students
10. Team Teaching Contributor, PHCY 400 Becoming Pharmacist, 1 credit -P1 students
11. Instructor, Tablet Course, Industry and academic scientists
12. Dissertation Advisor of Prasad Vinjamuri, Ph. D. Student, Research Dissertation- the Department of Pharmaceutics and Drug Delivery
13. Dissertation Advisor of Rama Kashikar Ph. D. Student, Research Dissertation- the Department of Pharmaceutics and Drug Delivery
14. Dissertation Advisor of Bhavana Chivukula, Master in Pharmaceutics and Drug Delivery student

Spring 2020

1. Academic Coordinator and Instructor, PHAR 422 Pharmaceutics and Calculations II, 3 credits, PharmD P-1 students
2. Instructor, PHCY 508 Integrated Systems – GI/Nutrition, 3 credits, PharmD P-1 student
3. Dissertation Advisor, Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student
4. Dissertation Advisor, Bhavana Chivukula, Master in Pharmaceutics and Drug Delivery student

Fall 2019

15. Instructor, PHAR 421 Pharmaceutics and Calculations I, 3 credits, PharmD P-1 students
16. Coordinator and Instructor, PHAR 741 Advanced Pharmaceutics, 4 credits, Ph.D. graduate students
17. PHCY 503 Integrated Systems: Respiratory, 3 credits, PharmD P-2 students
18. Academic coordinator, PHCY 451 Pharmacogenomics, 3 credits, PharmD P-1 students
19. Instructor, PHAR 650 Formulation Development, 3 credits, Master in Pharmaceutics and Drug Delivery students
20. Team Teaching Contributor, PHCY 400 Becoming Pharmacist, 1 credit -P1 students
21. Instructor, Tablet Course, Industry and academic scientists

Spring 2019

1. Instructor, PHAR 422 Pharmaceutics and Calculations II, PharmD P-1 students
2. Instructor, PHAR 749 Product Development, Master in Pharmaceutics and Drug Delivery students
3. Instructor, Tablet Course, Industry and academic scientists
4. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student
5. Dissertation co-advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Neeraja Komanduri, Ph. D. Student
6. Dissertation co-advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Rui Wang, Master Student

Fall 2018

1. Team Teaching Contributor and Compounding Skills Lab Coordinator, PHCY 421 Pharmaceutics and Calculations I, 3 credits - P1 students
2. Academic Coordinator, PHCY 451 Pharmacogenomics, 2 credits -P1 students
3. Team Teaching Contributor, PHCY 400 Becoming Pharmacist, 1 credit -P1 students
4. Team Teaching Contributor, PHCY 431 Social and Administrative Pharmacy I, 3 credits - P1 students
5. Coordinator and Instructor, PHAR 741 Advanced Pharmaceutics, 4 credits, Ph.D. graduate students
6. Instructor, PHAR 650 Formulation Development, Master and Ph. D. in Pharmaceutics and Drug Delivery students
7. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Neeraja Komanduri, Ph. D. Student
8. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Rui Wang, Master Student

Spring 2018

1. Course Director and Instructor, PHAR 335 Clinical Laboratory Data Analysis, 1 credit – PharmD P2 students.
2. Instructor, PHAR 749 Product Development, Master in Pharmaceutics and Drug Delivery students
3. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Neeraja Komanduri, Ph. D. Student
4. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student
5. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Pranav Ponkshe, Master Student
6. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Ruchi Thakkar, Master Student
7. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Tarul Mulay, Master Student
8. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Sushrut Marathe, Master Student

Fall 2017

1. Course Director and Instructor, PHAR 330 Pharmaceutical Calculations, 1 credit - P1 students.
2. Course Director and Instructor, PRCT 353 Practice Skills Laboratory I, 2 credit -P1 students
3. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Prasad Vinjamuri, Ph. D. Student
4. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Pranav Ponkshe, Master Student
5. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Ruchi Thakkar, Master Student

6. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Tarul Mulay, Master Student
7. Dissertation Advisor- Research Dissertation- the Department of Pharmaceutics and Drug Delivery, Sushrut Marathe, Master Student

Spring 2017

1. Course Director and Instructor, PHAR 335 Clinical Laboratory Data Analysis, 1 credit – PharmD P2 students.
2. Instructor, Ch E 515 Research Seminar graduate course, Multifunctional bio-inspired nanocarrier based targeted therapy for lung cancer April 27, 2017

Fall 2016

Instructor, PHAR 749 Product Development, Master in Pharmaceutics and Drug Delivery students

Teaching as Instructor of Record from at the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI

08/2010–07/2016

[500 courses are offered in the PharmD program, 600 courses are offered in the M.S. program and 700 and higher number of courses is offered in the Ph. D. program]

Spring 2016

1. Course Coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students.
2. Co-director and Lecturer, PHPS -601 Pharmaceutical Course, 7 credits – M.S. Clinical Psychopharmacology students. Online distance learning course
3. Dissertation Advisor- PHPS -800 Research Dissertation-Pharmaceutical Sciences, 6 credits, Susanne Youngren-Ortiz, Ph. D. Student
4. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 6 credits, Micah D.K. Glasgow, Ph. D. Student
5. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Nishant Gandhi, Ph. D. Student

Fall 2015

1. Course Coordinator and Lecturer in PHPS -505 Pharmaceutics I, 3 credits – PharmD first year (P1) students.
2. Lecturer in PHPS - 540 Drug Actions I, 2 credits – P1 students.
3. Lecturer in PHPP -550 History of Pharmacy, 2 credits –PharmD second year (P2) students
4. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 6 credits, Susanne Youngren-Ortiz, Ph. D. Student
5. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 6 credits, Micah D.K. Glasgow, Ph. D. Student
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Nishant Gandhi, Ph. D. Student

Spring 2015

1. Course Coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students
2. Course Co-coordinator and Lecturer, PHPS -598 Aerosol Physics in Medicines, 1 credit – – PharmD second year (P2) students. New Course
3. Course Co-coordinator and Lecturer, PHPS -798 Advanced Inhaled Drug Therapy, 1 credit – Ph. D. students, New Course
4. Co-director and Lecturer, PHPS -601 Pharmaceutical Course, 7 credits – M.S. Clinical Psychopharmacology students. Online distance learning course
5. Dissertation Advisor- PHPS -800 Research Dissertation-Pharmaceutical Sciences, 12 credits, Susanne Youngren-Ortiz, Ph. D. Student
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 14 credits, Micah D.K. Glasgow, Ph. D. Student

7. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 10 credits, Nishant Gandhi, Ph. D. Student

Fall 2014

1. Course Coordinator and Lecturer in PHPS -505 Pharmaceutics I, 3 credits – P1 students
2. Lecturer in PHPS -512 Introduction to the Pharmaceutical Sciences, 3 credits – P1 students
3. Lecturer in PHPP -550 History of Pharmacy, 2 credits –P2 students
4. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Susanne Youngren-Ortiz, Ph. D. Student
5. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 14 credits, Micah D.K. Glasgow, Ph. D. Student
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Nishant Gandhi, Ph. D. Student

Spring 2014

1. Course Coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students
2. Course Coordinator and Lecturer in PHPS -756 Advance Pharmaceutics II, 3 credits – First year Ph. D. students
3. Co-director and Lecturer, PHPS -601 Pharmaceutical Course, 7 credits – M.S. Clinical Psychopharmacology students. Online distance learning course
4. Dissertation Advisor- PHPS -800 Research Dissertation-Pharmaceutical Sciences, 12 credits, Susanne Youngren-Ortiz, Ph. D. Student
5. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 14 credits, Micah D.K. Glasgow, Ph. D. Student
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 10 credits, Nishant Gandhi, Ph. D. Student

Fall 2013

1. Lecturer in PHPS -505 Pharmaceutics I, 3 credits – P1 students
2. Lecturer in PHPS -512 Introduction to the Pharmaceutical Sciences, 3 credits – P1 students.
3. Lecturer in PHPP -550 History of Pharmacy, 2 credits – P2 students
4. Lecturer in PHPS -750 Overview of the Pharmaceutical Sciences, 3 credits – First year Ph. D. students
5. Course Coordinator and Lecturer in PHPS -755 Advance Pharmaceutics I, 3 credits – First year Ph. D. students
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Susanne Youngren-Ortiz, Ph. D. Student
7. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Micah D.K. Glasgow, Ph. D. Student
8. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 8 credits, Nishant Gandhi, Ph. D. Student

Spring 2013

1. Course Coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students
2. Lecturer in PHPS -756 Advance Pharmaceutics II, 3 credits – First year Ph. D. students
3. Course Coordinator and Lecturer PHPS-599V Design of Nanocarrier for Cancer Therapy, Directed Studies in Pharmaceutical Sciences, Research Elective course, 2 credits, P2 students
4. Co-director and Lecturer, PHPS -601 Pharmaceutical Course, 7 credits – M.S. Clinical Psychopharmacology students. Online distance learning course
5. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 11 credits, Susanne Youngren-Ortiz, Ph. D. Student
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 12 credits, Micah D.K. Glasgow, Ph. D. Student
7. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 6 credits, Nishant Gandhi, Ph. D. Student

Fall 2012

1. Lecturer in PHPS -505 Pharmaceutics I, 3 credits – P1 students
2. Lecturer in PHPS -512 Introduction to the Pharmaceutical Sciences, 3 credits – P1 students.
3. Lecturer in PHPP -550 History of Pharmacy, 2 credits – P2 students
4. Course Coordinator and Lecturer in PHPS 755 -Advance Pharmaceutics I, 3 credits – First year Ph. D. students
5. Lecturer in PHPS 750 – Overview of the Pharmaceutical Sciences, 3 credits – First year Ph. D. students
6. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 10 credits, Susanne Youngren-Ortiz, Ph. D. Student
7. Dissertation Advisor- PHPS -800 Research Dissertation- Pharmaceutical Sciences, 9 credits, Micah D.K. Glasgow, Ph. D. Student

Spring 2012

1. Course Co-coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students
2. Co-director and Lecturer, PHPS -601 Pharmaceutical Course, 7 credits – M.S. Clinical Psychopharmacology students. New course. Online distance learning course
3. Course Co-coordinator and Lecturer in PHPS -756 Advance Pharmaceutics II, 3 credits - First year Ph. D. students, New course

Fall 2011

1. Course Co-coordinator and Lecturer in PHPS -505 Pharmaceutics I, 3 credits – P1 students
2. Lecturer in PHPS -512 Introduction to the Pharmaceutical Sciences, 3 credits – P1 students
3. Lecturer in PHPP -550 History of Pharmacy, 2 credits – P2 students
4. Course Co-coordinator and Lecturer in PHPS -755 Advance Pharmaceutics I, 3 credits– First year Ph. D. students, New course
5. Lecturer in PHPS -750 Overview of the Pharmaceutical Sciences, 3 credits– First year Ph. D. students, New course

Spring 2011

Course Co-coordinator and Lecturer in PHPS -506 Pharmaceutics II, 3 credits – P1 students

Fall 2010

1. Lecturer in PHPS -505 Pharmaceutics I, 3 credits – P1 students
2. Lecturer in PHPS -512 Introduction to the Pharmaceutical Sciences, 3 credits – P1 students

Teaching as Instructor at the College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University, Tallahassee, FL

Spring 2010

Guest Lecturer in PHA 3111 Pharmaceutics II, P1 students

Teaching as Instructor at the Pharmacy Department, the Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India

Spring 2005

1. Lecturer in the Pharmaceutics lab, Bachelor of Pharmacy first-year students
2. Lecturer in the Pharmacology didactic and lab, Bachelor of Pharmacy first-year students

Fall 2004

1. Lecturer in the Pharmaceutics lab, Bachelor of Pharmacy first-year students
2. Lecturer in the Pharmacology didactic and lab, Bachelor of Pharmacy first-year students

M2. Development of New Curriculum Courses

The details of the developed courses are given below.

School of Pharmacy, University of Mississippi, University, MS

New integrated LandSharRx curriculum

New integrated LandSharRx curriculum courses development for PharmD and B.S. in Pharmaceutical Sciences program in collaboration with the faculty members from the Department of Pharmaceutics and Drug Delivery, Department of Biomolecular Sciences, Department of Pharmacy Practice and Department of Pharmacy Administration.

1. PHCY 421 Pharmaceutics and Calculations I, 3 credits, PharmD and B.S. first-year program, 2017-18. I was involved in the design and development of Pharmaceutics and Calculations I course for the new integrated curriculum. This course is designed to teach the basic principles of biopharmaceutical and pharmacokinetic properties that are necessary to understand pharmaceutical active ingredients, dosage forms, and their design. This course also focused on the pharmaceutical calculations involved in the prescription and formulation development. This course was developed in collaboration with the faculty members from the Department of Pharmaceutics and Drug Delivery, Department of Biomolecular Sciences, Department of Pharmacy Practice, and Department of Pharmacy Administration.
2. PHCY 422 Pharmaceutics and Calculations II, 3 credits, PharmD and B.S. first-year program, 2018-19. I was actively involved in the design and development of Pharmaceutics and Calculations II course for the new integrated curriculum. This course is designed to teach various pharmaceutical dosage forms and calculations. This course also focused on the pharmaceutical calculations involved in the prescription and formulation development.
3. PHCY Integrated Systems – GI/Nutrition, I chaired the committee and served as the department representative in the design and development of this course. In addition, I have actively participated in the development of this course for the new integrated curriculum. This block provides patient-centered care of GI/Nutrition systems while serving as a collaborative interprofessional team-member. It introduces basic concepts of pharmacology and medicinal chemistry, particularly as applied to gastrointestinal, nutrition systems learning involves teamwork. This course focuses on providing patient-centered care to patients who have a gastrointestinal or nutrition.
4. PHCY 431 Social and Administrative Pharmacy I, 3 credits, PharmD and B.S. first-year program, 2017-18. I have actively participated served as the department representative in the design and development of Social and Administrative Pharmacy I course for the new integrated curriculum. The purpose of this course is to introduce you, in an organized way, to the complexity of human and social issues that exert a powerful influence on the pharmacy profession, and the modern health care system, of which pharmacy is an important part.
5. PHCY 431 Social and Administrative Pharmacy I, 3 credits, PharmD and B.S. first-year program, 2017-18. I have actively participated served as the department representative in the design and development of Social and Administrative Pharmacy I course for the new integrated curriculum. The purpose of this course is to introduce you, in an organized way, to the complexity of human and social issues that exert a powerful influence on the pharmacy profession, and the modern health care system, of which pharmacy is an important part.
6. PHCY 432 Social and Administrative Pharmacy II, 3 credits, PharmD and B.S. first-year program, 2017-18. I was actively involved in the design and development of Social and Administrative Pharmacy II course for the new integrated curriculum. This course is designed to provide students with a comprehensive review of the evaluation of pharmaceutical outcomes. In this course, the issues of drug effects in patient populations are proposed to be examined. These courses also explore the mechanisms and approaches for improving medication safety in pharmacy practice.
7. PHCY 441 Pharmacists' Patient Care Process I and PCHY 442 Pharmacists' Patient Care Process II, 2 credits, PharmD and B.S. first-year program, 2017-18. I was involved in the design and development of Pharmacists' Patient Care Process I and II courses for the new integrated curriculum. This course introduces the foundational steps of patient care that is used by all pharmacists regardless of practice setting. This course emphasizes active learning for integration and application of content and development of professional and general abilities. This course utilizes standard disease states to walk through the Pharmacists' Patient Care Process.

8. PHCY 441 Respiratory System, 4 credits, PharmD and B.S. first-year program, 2017-18. I was involved in the design and development of Respiratory System course for the new integrated curriculum. This module is designed to *provide patient-centered care* of the respiratory System. It introduces basic concepts of pharmacology and medicinal chemistry, particularly as applied to the respiratory system. This course focuses on providing patient-centered care to patients who have a respiratory-based disease state or issue. Learners will develop, integrate, and apply knowledge from the foundational disciplines (i.e., pharmaceutical and clinical sciences) and apply the Pharmacists' Patient Care Process in solving case-based scenarios of patients with cardiovascular issues.

Traditional curriculum courses development for PharmD and B.S. in Pharmaceutical Sciences program

The following courses were developed/co-developed for PharmD and B.S. in Pharmaceutical Sciences students in the traditional curriculum.

9. PHAR 330 Pharmaceutical Calculations I, 1 credit, PharmD first-year program. I was responsible for the design, development of this course. This course is focused on arithmetic skills and fundamentals of pharmaceutical measurement. It also introduces basic pharmaceutical calculations encountered in the contemporary practice of pharmacy.
10. PHAR 335 Clinical Laboratory Data Analysis, 1 credit – P1, and P2 students. I was responsible for the design, development of this course. This course is focused on the enhancement of student's skills in clinical lab test interpretation. It will also provide information on common laboratory tests used to screen for or diagnose disease, monitor the effectiveness and safety of the treatment, or assess disease severity.

Curriculum development for Ph. D. and Master program courses

Phar 741 Advanced Pharmaceutics, Master and Ph. D. students

I have designed and developed Advanced Pharmaceutics course. The course is focused on principles of ionic equilibrium and mass transport as applied to pharmaceutical systems. In addition, the principles and application of pharmaceutical analytical methods used for the analysis of pharmaceutical active ingredients

The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI

The following courses were developed for PharmD students.

1. PHPS-599 Design of Nanocarrier for Cancer Therapy, Directed Studies in Pharmaceutical Sciences, Research Elective course, 2 credits (New course, Fall 2012, PharmD students), Role: Course Coordinator and Lecturer
2. Lecturer in PHPS - 540 Drug Actions I, 2 credits (New course, Fall 2015, PharmD first-year students), Role: Lecturer

The following courses were co-developed for Ph. D. students in collaboration with Dr. Kenneth Morris, Chairman, and Professor, Department of Pharmaceutical Sciences, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo

1. PHPS -755 Advance Pharmaceutics I, 3 credits (New course, Fall 2011 - Ph. D. students), Role: Course Co-coordinator and Lecturer
2. PHPS -756 Advance Pharmaceutics II, 3 credits (New course, Spring 2012 - Ph. D. students), Role: Course Co-coordinator and Lecturer

The following course was co-developed for Ph. D. students in collaboration with Dr. Anthony Wright, Associate Professor, Department of Pharmaceutical Sciences, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo.

PHPS -750 Overview of the Pharmaceutical Sciences, 3 credits (New course, Fall 2011 - Ph. D. students), Role: Lecturer

The following courses were co-developed for PharmD and Ph. D. students in collaboration with Dr. Jolyon Mitchell, Director, Jolyon Mitchell Inhaler Consulting Service Inc., London, Canada.

1. PHPS -598 Aerosol Physics in Medicine: Inhaled Drug Therapy, 1 credit (New Course, P2 and PharmD third-year (P3) students), Role: Course Co-coordinator and Lecturer. Spring 2015
2. PHPS -798 – Advanced Inhaled Drug Therapy, 1 credit (New Course, Ph. D. students), Role: Course Co-coordinator, and Lecturer. Spring 2015

N. ATTENDANCE AT UNIVERSITY/COLLEGE TEACHING WORKSHOPS

Synopsis: I have attended the following teaching and leadership workshops to learn and enhance my academic, administrative, and scientific skills.

1. Faculty Development session by Dr. Melissa Medina, Professor, Associate Dean of Assessment & Evaluation, and Director of Preparing Future Faculty, the University of Oklahoma College of Pharmacy, University of Mississippi, University, MS, June 15, 2018
2. Establishing Positive Learning Environments: Keeping the Customers Happy session Facilitated by Dr. Tom Zlatic, University of Mississippi, University, MS, June 16, 2017
3. Strategies for Fruitful Course Development session by Dr. Tom Zlatic, University of Mississippi, University, MS, June 16, 2017
4. Conflict Management Leadership Workshop, the University of Hawaii at Hilo, HI, Feb 28, 2015
5. Teaching Effectiveness Workshop, the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, HI, Aug 22, 2014
6. Professional Development for Junior Academics/Professionals and Succeeding in your Academic or Professional Career Workshop offered by Prof. Rajesh Dave, Distinguished Professor of Chemical, Biological, and Pharmaceutical Engineering, New Jersey Institute of Technology, Newark, NJ, the Daniel K. Inouye College of Pharmacy, University of Hawaii at Hilo, HI, Mar 29, 2012

O. SUPERVISION AND MENTORING EXPERIENCES

Synopsis: The most significant impact a teacher has on a student's life is during the mentoring stage. I am proud to have met and mentored 42 students. I have mentored 8 postdoctoral/visiting fellows, 8 Ph. D. students, 6 master students, 17 PharmD or pharmacy students, 3 undergraduate student, and 3 high school students. Currently, I am serving as an advisor for a Ph. D. students and co-advisor for another Ph.D. student. In addition, I am mentoring an undergraduate student. Rewardingly, many of these students are pursuing a career in academia, Pharma industry, higher education, or the pharmacy profession. A Ph.D. student mentored by me was successful in joining the Assistant Professor position and promoted to Associate Professor. The detailed listings of mentored students are given below.

Postdoctoral fellows/Research Associate/Visiting Scholars

Research Advisor and Mentor

College of Pharmacy, Mercer University, Atlanta, GA

Arun Kotha, Ph. D., Research Associate, Mercer University — Fall 2021- present

School of Pharmacy, University of Mississippi, University, MS

1. Arun Kotha, Ph. D., Research Associate, University of Mississippi — Spring 2019- Spring 2021
2. Krishna Chaturvedi, Visiting Research Associate, University of Mississippi — Spring 2017- Spring 2018
3. Rohit Joshi, Ph. D., Research Associate, University of Mississippi, current position-Postdoctoral Research Associate at Western University of Health Sciences, Pomona, CA — Spring 2017-Spring 2018
4. Rongbing Yang, Ph. D., Research Associate, University of Mississippi current position- Researcher at Chineese University, China — Fall 2016-Spring 2018

5. Nishant Gandhi, Ph. D., Research Associate, University of Mississippi, current position- Scientist at L.E.A.F. Pharmaceuticals, Boston, MA — Fall 2017-Spring 2018
6. Smitha Varricatt. M. Sc. Microbiology, M. Phil. Current position- Master student — Spring 2015-Spring 16
7. Priya Patil. B.Sc and M. Sc. Current position- student — Spring 16

The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo

1. Laura España-Serrano, Ph. D., Research Associate, University of Hawaii, current position, Postdoctoral Researcher at University of Southampton, Southampton, United Kingdom — Fall 2014- Spring 2016
2. Rongbing Yang, Ph. D., Research Associate, University of Hawaii, current position- Researcher at Chineese University, China — Fall 2013-Fall 2017
3. Rakesh Tekade, Ph. D., Postdoctoral fellow, current position-, Assistant Professor of the Department of Pharmaceutics, National Institute of Pharmaceutical Education and Research (NIPER) – Ahmedabad, Gujarat, India — Spring 2012-Fall 2013
4. Rahul Haware, postdoctoral fellow (co-mentor), current position- Associate Professor, Long Island University – Brooklyn Campus Arnold & Marie Schwartz College of Pharmacy and Health Sciences, Brooklyn, New York — Spring 2011-Spring 2012
5. Rohit Mulik, Ph. D., Postdoctoral fellow, current position- Formulation Scientist III and Project Leader at Hikma Pharmaceuticals, Cleveland, Ohio — Spring 2011-Fall 2011

Ph. D. and Master students
Research Advisor and Mentor
College of Pharmacy, Mercer University, Atlanta, GA

Rama Kashikar, Ph. D. student — Fall 2021-Present
Thesis title: Development of lipid and polymeric nanocarriers

School of Pharmacy, University of Mississippi, University, MS

1. Rama Kashikar, Ph. D. student — Fall 2020-Spring 2021
   Thesis title: Development of lipid and polymeric nanocarriers
2. Bhavana Chivukula, Master student — Fall 2020-Spring 2021
   Thesis title: Synthesis and evaluation of inhalable lipidic nanocarriers
3. Neeraja Komanduri, Ph. D. student — Spring 2018-Spring 2021
   Thesis title: The design and evaluation of sustained release drug delivery systems
4. Prasad Vinjamuri, current Ph. D. student — Fall 2017-Present
   Thesis title: The quality by design approach for the development and evaluation of targeted nanocarriers for the treatment of lung cancer, current position- Ph.D. student
5. Rui Wang, Master student, Graduated 2019 — Spring 2018-Spring 2019
   Thesis title: Targeted nanocarriers for the delivery of the anti-asthmatic drug., current position-Ph.D. student at University of Tennessee Health Sciences, School of Pharmacy, Memphis, Tennessee
6. Pranav Ponkshe, Master student, Graduated 2018 — Spring 2017-Summer 2018

Thesis title: Inhalation delivery of nano liposomes for pulmonary disorder, current position-PhD student

7. Ruchi Thakkar, Master student, Graduated 2018 — Spring 2017-Summer 2018
   Thesis title: Formulation and evaluation of liposomes for asthma therapy, current position-PhD student
8. Tarul Mulay, Master student, Graduated 2018 — Spring 2017-Summer 2018
   Thesis title: Bioengineered liposomes for asthma therapy, current position- Formulation Research Associate, Precision BioSciences, Inc. Durham, North Carolina
9. Sushrut Marathe, Master student, Graduated 2018 — Spring 2017-Summer 2018
   Thesis title: Development of polymeric nanocarriers for the treatment of neuroblastoma, current position-PhD student

The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo

10. Susanne R. Youngren-Ortiz, Graduated 2016 — Spring 2012-Spring 2016
    Thesis title: The design and characterization of nano-carriers for the treatment of asthma, current position- Formulation Scientist I at Akorn Pharmaceuticals in Vernon Hills, IL
11. Micah Glasgow. Graduated 2017 — Spring 2013-Fall 2017
    Thesis title: Development of hybrid Etoposide/Difluoromethylornithine nanoparticles for the treatment of neuroblastoma, current position- Manager, Hilo Medical Center, Hilo, HI
12. Nishant Gandhi. Graduated 2017 — Spring 2012-Spring 2017
    Thesis title: Development and evaluation of targeted therapies for the treatment of lung cancer, current position- Scientist at L.E.A.F. Pharmaceuticals, Boston, MA

College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University, Tallahassee, FL

Research supervisor under the guidance of a primary advisor

13. Terrick Andy, Ph. D. in Pharmaceutical Sciences, Graduated, 2014. — Fall 2009-Spring 2010
    Thesis title: Delivery of Nur agonists for lung cancer treatment.
    Current position- Associate Professor of Pharmaceutical Sciences - Massachusetts College of Pharmacy and Health Sciences University, Boston, MA.
14. Apurva Patel, M.S. in Pharmaceutical Sci and Ph. D. in Pharmaceutical Sciences, Graduated, 2013. — Fall 2008-Spring 2010
    Master thesis title: Delivery of PPAR-gamma agonists for the treatment of lung cancer.
    Ph.D. thesis title: Investigation of Anti-Cancer Agents: DIM- p-PhC_6H_5 and Noscapine
    Current position- Formulation Scientist - R&D, Nesher Pharmaceutical USA (LLC) - A Zydus Company, Bridgeton, MO

PharmD students at the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, Research Advisor, Co-advisor and Mentor

Jessie Frits, Current position- Third year PharmD student — Fall 2018-Fall 2020

PharmD students at the Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo, Research Advisor, Co-advisor and Mentor

Jessica Lee, Current position- Retail Pharmacist at national chain pharmacy stores	Spring 2015-present
Katie Post, Current position- Retail Pharmacist at national chain pharmacy stores	Spring 2015-present
Anissa Marzuki, Current position- Retail Pharmacist at national chain pharmacy stores	Fall 2013-Fall 2014
Amber Goodloe, Current position- Retail Pharmacist at national chain pharmacy stores	Fall 2012-Spring 2013
Jenny Ramos. Current position- Retail Pharmacist at national chain pharmacy stores	Fall 2012-Spring 2013
Brianne Gustilo, Current position- Retail Pharmacist at national chain pharmacy stores	Fall 2012-Spring 2013
Ashfaq Mohammad. Current position- Retail Pharmacist at national chain pharmacy stores	Spring 2013
Byoung Jun, Current position- Retail Pharmacist at national chain pharmacy stores	Fall 2011-Spring 2012
Amanda Wendel, Samantha Hanabaga, Chang Sami, Francis Sakai-Kawada, Eric Tsuji and Sean Pfundstein, Current positions- Retail Pharmacist at national chain pharmacy stores	Fall 2013-Spring 2014

International Pharmacy or PharmD students under exchange research visiting program, Research Advisor and Mentor Fall 2015-Present

Michael Scheuerleinm, Studies of Pharmacy, University of Leipzig, Germany, Current position- Pharmacist	Summer 2015
Thais Grigoleto Pimentel, Federal University of Sao Paulo – Brazil, Brazil Scientific Mobility Program of the Brazilian Government, Current position- student	

PharmD students at the College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University, Research Advisor

Chino Okara. Current position- Retail Pharmacist	Fall 2009-Spring 2010
Gita Gyed. Current position- Retail Pharmacist	Fall 2008-Spring 2009

Undergraduate student
Research Advisor
School of Pharmacy, University of Mississippi

Hannah McCowan, Current position-Honors Student, Sally McDonnell Barksdale Honors College, University of Mississippi	Fall 2018-Present
Kyle Kantor, Current position-Honors Student, Sally McDonnell Barksdale Honors College, University of Mississippi	Spring 2018

The College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University

Stephen Pringle, Department of Chemistry, Florida A. and M. University, Tallahassee, FL.	Fall 2009-Spring 2010

High School students, Research Advisor, and Mentor

School of Pharmacy, University of Mississippi

Akshaya Vijay, Oxford High School, Oxford — Fall 2017-Spring 2018

The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo — Spring 2012-Fall 2013

Natalie Hagemann, Kea'au High School, Hilo.

The College of Pharmacy and Pharmaceutical Sciences, Florida A. and M. University, Tallahassee, FL

Pratik Sachdeva, High school, Tallahassee, FL. — Summer 2009

Current position- Research Assistant at Washington University in St. Louis.

Chair/Co-Chair in the Graduate Students Thesis Advisory Committee

School of Pharmacy, University of Mississippi, University, MS

Fall 2017-present

1. Prasad Bhavani Vinjamuri, Ph. D. candidate, Advisor
2. Neeraja Komanduri, Ph. D. candidate, Co-advisor
3. Rui Wang, Master student, Co-advisor

Spring 2017–Summer 2018

1. Pranav Ponkshe, Master student
2. Ruchi Thakkar, Master student
3. Tarul Mulay, Master student
4. Sushrut Marathe, Master student

Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo

Fall 2010-Spring 2016

1. Susanne Youngren, Ph. D. candidate
2. Micah Glasgow, Ph. D. candidate
3. Nishant Gandhi, Ph. D. student

Member in Graduate Students Thesis Advisory Committee

School of Pharmacy, University of Mississippi, University, MS

Fall 2017 –present

1. Ajinkya M. Bhagurkar, Ph. D. student
2. Priyanka Thipsay, Ph. D. student
3. Prit M. Lakhani, Ph. D. student
4. Akash Patil, Ph. D. student
5. Anh Vo, Ph. D. student
6. Jiaxiang Zhang, Ph. D. student
7. Mittal Darji, Master student
8. Anggrida Saragih, Master student
9. Adwait Pradhan, Master student
10. Ahmed Almutari, Master student
11. Maha Alkurdi, Master student

Department of Chemistry and Biochemistry, College of Liberal Arts, University of Mississippi

Dhanashree Selvan, Ph. D. student, Department of Chemistry and Biochemistry, College of Liberal Arts, University of Mississippi

Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo

Fall 2010- Spring 2016
Mayuramas Sang-ngern, Ph. D. candidate

P. STUDENT AWARDS, HONORS, AND RECOGNITION

Synopsis: On several occasions, the work of my students has been selected for prizes or other recognition. The following awards were received by Ph. D. students under my mentorship.

1. 2020 AAPS FDD section poster award to Rama Kashikar for the research focused on inhalation delivery of nanoliposomes, 2020 AAPS PharmSci 360 meeting, October 26-November 5, 2020.
2. 2014 University of Hawaii at Hilo ALEX travel award of $ 1,800 to Micah Glasgow to present a research poster entitled “Modeling and validation of material properties of crystalline particles: formation and stability under stress” at the 2014 AAPS Annual Meeting and Exposition, San Diego Convention Center, San Diego, CA, Nov 2-6, 2014
3. 2014 Walter Francis and Mary Dillingham Frear Scholarship of $2,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
4. 2014 AAPS FDD section travel award of $750 to Youngren SR to present a poster entitled “Formulation and characterization of STAT6 siRNA matrix-loaded gelatin nanocarriers” at the 2014 AAPS Annual Meeting and Exposition, San Diego Convention Center, San Diego, CA, Nov 2-6, 2014
5. 2014 Liko A’e Native Hawaiian Leadership Scholarship of $5,500 to Micah Glasgow in support of Ph. D. education and dissertation research project
6. 2014 Dr. Hans and Clara Zimmerman Foundation Health Scholarship of $2,700 to Micah Glasgow in support of Ph. D. education and dissertation research project.
7. 2014 George and Lucille Cushnie Scholarship Fund of $2,500 to Micah Glasgow in support of Ph. D. education and dissertation research project
8. 2014 Na Ho’okahua Department of Education Award of $10,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
9. 2013 University of Hawaii at Hilo ALEX travel award of 1,800 to Youngren SR to present a research poster entitled “Development of gelatin nanocarriers for the targeted delivery of STAT-6 siRNA” at the 40th Annual Meeting and Exposition of the Controlled Release Society, Honolulu, HI, Jul 21-24, 2013
10. 2013 AAPS BIOTEC section travel award of $ 500 and 2013 University of Hawaii at Hilo ALEX travel award of $1,800 to Youngren SR to present poster entitled “STAT6 siRNA encapsulated gelatin nanocarriers: Formulation, characterization, and in vitro proof of concept using adenocarcinomic human alveolar basal epithelial cell line” at the 2013 AAPS National Biotec Conference, San Diego, CA, May 20–22, 2013
11. 2013 the Daniel K. Inouye College of Pharmacy, University of Hawaii at Hilo leadership fund award of $ 10,000 to Ph. D. students in the University of Hawaii at Hilo AAPS Student Chapter to attend and present research posters at the 40th Annual Meeting and Exposition of the Controlled Release Society, Honolulu, HI, Jul 21-24, 2013
12. 2013 Na Ho’okama a Pauahi Scholarship of $8,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
13. 2013 University of Hawaii at Hilo Alumni Scholarship Award of $2,500 to Micah Glasgow in support of Ph. D. education and dissertation research project
14. 2013 the University of Hawaii at Hilo ALEX travel award of $1,800 to Micah Glasgow to attend the 40th Annual Meeting of the Controlled Release Society, Honolulu, HI, Jul 21-24, 2013
15. 2013 Ke Ola Mau Scholarship of $3,400 to Micah Glasgow in support of Ph. D. dissertation
16. 2013 Shelley M. Williams, RPh Scholarship Fund of $1,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
17. 2013 University of Hawaii at Hilo Opportunity Grant of $1,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
18. 2013 Dr. Hans and Clara Zimmerman Foundation Health Scholarship of $2,400 to Micah Glasgow in support of Ph. D. education and dissertation research project

19. 2013 Walter Francis and Mary Dillingham Frear Scholarship of $2,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
20. 2012 Ke Ola Mau Scholarship of $3,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
21. 2012 University of Hawaii at Hilo Opportunity Grant of $1,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
22. 2012 Rosemary and Nellie Ebrie Fund Scholarship of $1,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
23. 2012 Na Ho'okama a Pauahi Scholarship of $8,000 to Micah Glasgow in support of Ph. D. education and dissertation research project
24. 2012 Dr. Hans and Clara Zimmerman Foundation Health Scholarship of $2,400 to Micah Glasgow in support of Ph. D. education and dissertation research project

Q. SERVICE ACTIVITES AND CONTRIBUTION

Synopsis: During my bachelor degree studies, I served as a President of Pharmacy Student Council and class representative. While working as a faculty from Aug. 2010 to present, I have served as a chair/co-chair, secretary and member on several Departmental, College, and University committees and successfully achieved the service goals. Since Aug 2017, my leadership role as a Co-chair of curriculum committee resulted in the design, development, evaluation and assessment of new integrated PharmD curriculum. The new integrated curriculum was successfully implemented since Fall 2018. In addition, I served as a secretary of curriculum committee and member of a Professional Conduct Council Review Committee. While serving on the By-Laws committee as a Chair for three years, I have considered suggestions of faculty and staff members to the Committee members for further discussion. As a committee, we approve the revised By-laws to implement staggered term of service and the self-nomination process in committee member selection faculty members. I also chaired the Faculty Search Committee and served as a Faculty Search Committee. At the international level, I have organized and chaired 3 conference sessions. In addition, I was a member of the Technical Program Committee of 2 scientific conferences. I have served as a referee for 41 international peer-reviewed journals. While interacting with the pharmaceutical industry, I have established an industrial consultancy agreement with Sun Pharmaceutical Advanced Research Company Ltd., leading pharmaceutical industry to conduct the contract research project. In addition, the agreement with Tamir Biotechnology, Inc. is under discussion. My international level service includes serving as theme issue editor for three well-known international journals and serving as an Editorial Board Member of 6 journals. The several manuscripts were reviewed those were submitted well-reputed pharmaceutical and biomedical journals. I have organized and chaired 3 conference sessions. In addition, I was a member of Technical Program Committee of 2 scientific conferences. I have served as a referee for 41 international peer-reviewed journals. In addition, I have reviewed 6 book proposals, several scientific conference abstracts, and 5 Ph.D. theses. I was also a founding advisor of AAPS Student Chapter. I was also involved in serving as a committee member for 9 master and 11 Ph. D. student's dissertation research work and the community services. The national expert guest speakers are invited and delivered their presentations which are organized by UHH AAPS Student Chapter. These seminars helped students, faculty and community members to acquire current and up to date information in the biomedical research arena.

Q1. Service to the Department, School, and the University

Department and School Committees

Fall 2020- Spring 2021

1. Member, Curriculum Committee
2. Member, Standing Committees Task Force
3. Member, Search Committee for Research Associate
4. Member, Curricular Transformation Subcommittee

Fall 2019-Spring 2020

1. Co-chair and Member, Curriculum Committee
2. Member, Curricular Transformation Subcommittee
3. Member, Standing Committees Task Force

4. Member, Respiratory Systems course development subcommittees
5. Member, Complex Patient Care I and II course development subcommittees
6. Member, Multisystem Complex Patient Care course development subcommittees
7. Member, Search Committee for Research Scientist

Fall 2018- Spring 2019

1. Member, Curriculum Committee
2. Member, Curricular Transformation Subcommittee
3. Member, Standing Committees Task Force
4. Professional Conduct Council Review Committee
5. Leader and Member, GI/Nutrition course development subcommittees
6. Member, Multisystem Complex Patient Care course development subcommittees
7. Member, Complex Patient Care I and II course development subcommittees
8. Member, Respiratory Systems course development subcommittees

Fall 2017-Spring 2018

1. Member, Faculty search committee for Associate Dean of Academic Affairs
2. Member, Curriculum Committee
3. Member, Curricular Transformation Subcommittee
4. Leader and Member, GI/Nutrition course development subcommittees
5. Member, Multisystem Complex Patient Care course development subcommittees
6. Member, Complex Patient Care I and II course development subcommittees
7. Member, Respiratory Systems course development subcommittees

Fall 2016-Spring 2017

1. Secretary and Member, Curriculum Committee
2. Member, Curricular Transformation Subcommittee
3. Member, Course development for new curriculum subcommittees for Curricular Transformation Subcommittee
4. Member, Course development for new curriculum subcommittees for Curricular Transformation Subcommittee

Fall 2015-Spring 2016

1. Member, By-Laws Committee
2. Member, Student Scholarship and Awards Committee
3. Member, Distance Learning & Education Technology Committee
4. Member, Ph. D. Curriculum Committee
5. Faculty advisor for Class of 2019 students, total 8 students, Sean Janeway, Sydney Barney, Ashley Trieu, Jessica Regpala, Preston Ho, Nicholas Tsoi, Jessie Lam, Mandy Lui, and Desiree Shouse

Fall 2014 - Spring 2015

1. Chair, Faculty Search Committee, Instructor Pharmacology
2. Chair, By-Laws Committee
3. Member, Student Scholarship and Awards Committee
4. Member, Faculty Search Committee, Director of Community and International Partnerships.
5. Member, Ph. D. Curriculum Committee
6. Faculty advisor for Class of 2015 students, total 8 students, Gabriel Jozelle, Wigmosta, Eric Lo, Kristina Nguyen, Thai Takahashi, Kacie Jung, Eun Hae, Fukumitsu Ryan, and Ibrahim Mina

Fall 2013 - Spring 2014

1. Chair, By-Laws Committee.
2. Member, Student Scholarship and Awards Committee
3. Faculty advisor for Class of 2015 students, total 8 students, Gabriel Jozelle, Wigmosta, Eric Lo, Kristina Nguyen, Thai Takahashi, Kacie Jung, Eun Hae, Fukumitsu Ryan, and Ibrahim Mina
4. Faculty co-advisor for Class of 2013 students, total 7 students, Reiss Brandon K, Huynh Louis D, Ayson Truong, Anh Sasaki, Matthew A Tsuji, Michael Setsuo and Lee Trisha.

Fall 2012 - Spring 2013

1. Chair, By-Laws Committee
2. Member, Student Scholarship and Awards Committee
3. Member, Promotion and Tenure Guideline Committee
4. Member, Faculty Search Committee, Assistant Professor of Pharmaceutical Sciences (Medicinal Chemistry)
5. Member, Faculty Search Committee, Assistant Professor of Pharmaceutical Sciences (Pharmacology)
6. Faculty advisor for Class of 2015 students, total 8 students, Gabriel Jozelle, Wigmosta, Eric Lo, Kristina Nguyen, Thai Takahashi, Kacie Jung, Eun Hae, Fukumitsu Ryan, and Ibrahim Mina
7. Faculty co-advisor for Class of 2013 students, total 7 students, Reiss Brandon K, Huynh Louis D, Ayson Truong, Anh Sasaki, Matthew A Tsuji, Michael Setsuo and Lee Trisha

Fall 2011 - Spring 2012

1. Member, By-Laws Committee
2. Member, Graduate Sciences Education, Graduate Student Affairs and Joint Degree Programs Committee
3. Faculty advisor for Class of 2015 students, total 8 students, Gabriel Jozelle, Wigmosta, Eric Lo, Kristina Nguyen, Thai Takahashi, Kacie Jung, Eun Hae, Fukumitsu Ryan, and Ibrahim Mina
4. Faculty co-advisor for Class of 2013 students, total 7 students, Reiss Brandon K, Huynh Louis D, Ayson Truong, Anh Sasaki, Matthew A Tsuji, Michael Setsuo and Lee Trisha

Fall 2010 - Spring 2011

1. Member, By-Laws Committee
2. Member, Promotion and Tenure Guideline Committee

College Committees or Service at the Wadhawani College of Pharmacy, Yavatmal, Maharashtra, India.

Fall 2000-Spring 2001

President of Pharmacy Student Council.

Fall 1999-Spring 2000

Class Representative, a third-year Bachelor of Pharmacy class.

Judging scientific posters at the University of Mississippi

1. Research Symposium Judge: Graduate Student Council's 9th Annual Research Symposium, Graduate Student Council and UM graduate students, University, MS, March 2019
2. Research Symposium Judge: Graduate Student Council's 7th Annual Research Symposium, Graduate Student Council and UM graduate students, University, MS, March 2, 2017

Service to State of Mississippi

Served as the judge at the Science Fair: Mississippi Region VII Science Fair, University, MS, March 23, 2017

Q2. Additional service to the University

University of Mississippi School of Pharmacy

Interviewing/Reviewing

1. Reviewer, 2019 Graduate Council research proposals, Jan-Feb 2019
2. *Interviewer*, Pharmacy Applicant Interview Days, January 2017
3. *Interviewer*, Pharmacy Applicant Interview Days, January 2018
4. *Interviewer*, Pharmacy Applicant Interview Days, January 2019

The University of Hawaii at Hilo College of Pharmacy

Fall 2014

1. Advisor for University of Hawaii at Hilo AAPS Student Chapter's event in the Annual Healthy Keiki Fun Run, Health Services Academy of Waiakea High School, Hilo, HI, Dec 14, 2013

Spring 2013

2. Organization and participation in the University of Hawaii at Hilo AAPS Student Chapter's booth at The Daniel K. Inouye College of Pharmacy, the University of Hawaii at Hilo annual health fair, Hilo, HI, Oct 13, 2013

Participation in Student Functions at the University of Mississippi

1. *Participant*, AAPS Student Chapter activities,
2. *Participant*, AAPS Student Chapter activity, meeting with faculty

External Speaker Hosting - the University of Mississippi School of Pharmacy

1. Professor Juan L. Vivero-Escoto, University of North Carolina Charlotte, April 20, 2017
2. Professor Tao L. Lowe The University of Tennessee Health Science Center, Planned in fall 2019
3. Professor Ajay Singh, USA health center, April 20, 2017, Planned in fall 2019

External Speaker Hosting - the University of Hawaii at Hilo College of Pharmacy

1. Mr. Bruce Stouffer, Director in Analytical and Bioanalytical Development at Bristol Myers-Squibb, "The Role of Selective Integration in BioPharma Transformation", Overview of the Pharmaceutical Industry, career opportunities, and scientific challenges within the bioanalytical field, February 1, 2014
2. Dr. Giovanna Bermano, Senior Lecturer, Theme Leader for Cardiovascular and Metabolic Diseases (CVMD), Institute for Health and Welfair Research (IHWR), "Obesity, inflammation and antioxidant status: do they play a role in cancer development/progression?", July 31, 2013
3. Dr. Yashwant Pathak, Professor and Associate Dean for Faculty Affairs, College of Pharmacy, University of South Florida Health, "Nano is Too Big: Nano particulate drug delivery systems applications and challenges", July 26, 2013
4. Dr. Kevin Rice, Professor of Medicinal & Natural Chemistry and Professor of Pharmaceutics, University of Iowa, "Development of Non-Viral Gene Delivery Vectors for the Liver", July 19, 2013
5. Dr. Jolyon Mitchell, Scientific Director, Trudell Medical International, "Present Regulatory Guidance, Standards and Pharmacopeial Landscape for Orally Inhaled Products", February 26, 2013
6. Dr. Jolyon Mitchell, Scientific Director, Trudell Medical International, "Clinically Appropriate Methods for the Laboratory Evaluation of Orally Inhaled Products (OIPs)", March 14, 2012

Q3. Service the facilities and the expertise of the University available to the larger society

Industrial consultancy and contracts

1. **Sun Pharmaceutical Advanced Research Company Ltd**, Baroda, Gujarat, India: The consultancy agreement with Sun Pharmaceutical Advanced Research Company Ltd., Baroda, Gujarat, India has been established. The contract research projects will be conducted focused on formulation design, drug delivery systems, nanoparticles, aerosols, drug powder inhalers, and development of small molecular inhibitors in collaboration with Sun Pharmaceutical Advanced Research Company Ltd. In addition, I will provide expertise for the evaluation of newer therapeutic agents and the development of targeted delivery systems.
2. **Tamir Biotechnology, Inc.**, San Diego, CA: The agreement with Tamir Biotechnology, Inc. San Diego, CA, is in the final processing step. The contract research projects will be conducted focused on drug delivery systems, formulation design, and delivery of biotechnology-based therapies in collaboration with Tamir Biotechnology, Inc., San Diego, CA. I will also serve as a consultant to provide expert inputs on the delivery of siRNA or peptide drug systems and the development of targeted delivery systems.
3. **Medicxi Ventures,** W1F 9LT London, United Kingdom, a European venture capital group

associated with GSK, J&J, Google and Novartis. I served as a consultant to provide expert inputs on intranasal delivery siRNA for human diseases.

Q4. Editorial Positions

Synopsis: I have served as a guest editor for 4 theme issues. I hold the editorial board member of 6 international journals.

Guest Editor

1. AAPS PharmSciTech, Theme issue - Translational multi-disciplinary approach for the drug and gene delivery systems — 2017-Present
2. Drug Development and Industrial Pharmacy, Theme issue - Targeted nano-medicine: translational and industrial application — 2018-Present
3. AAPS PharmSciTech, Theme issue -Translational application of nano delivery systems: emerging cancer therapy — 2014-2015
4. Journal of Biomolecular Research and Therapeutics, Theme issue - Nanotechnology based targeted delivery system — 2013-2014

Editorial Board Memberships

1. Frontiers in Respiratory Pharmacology, part of the journal(s) Frontiers in Pharmacology — 2018-present
2. Drug Development and Industrial Pharmacy — 2014-present
3. Journal of Nanopharmaceutics and Drug Delivery — 2013-present
4. Advanced Science, Engineering, and Medicine — 2013-present
5. AAPS PharmSciTech, An official journal of AAPS — 2012-present

Q5. Service-Symposium Organization, Journal, Book, and International Thesis Reviewer

Conference Session Organization

1. Organizing and Chairing of a technical session on " Targeted Cancer-Biology/Biotechnology, Microenvironment" to be presented at 35th Annual Southern Biomedical Engineering Conference, Hattiesburg, MS, Feb 22-24, 2019 — 2018
2. Organisation and Chairing of a themed technical session on "TS-17: Novel Approaches to Target Tumor Microenvironment" a**t** 2015 IEEE-NANOMED, November 15 - 18, 2015, Honolulu, HI — 2015
3. Organisation and Chairing of Session entitled 'Penetrating the Fortress of Microenvironment in Solid Tumors by Smart Nanocarrier,' 2016 National Biotechnology Conference, AAPS, May 18, 2016, Boston, MA — 2016

Scientific Conference Program Committee - member

1. 35th Annual Southern Biomedical Engineering Conference, Hattiesburg MS — 2018
2. IEEE- NANOMED conference, November 15 - 18, 2015, Honolulu, HI. — 2015

2008-present

Ad –Hoc Reviewer for International Peer-Reviewed Journals (total 41)

1. Scientific Reports, Nature publishing group journal (Total 7 articles)
2. ACS Nano (Total 4 articles)
3. Nature Communications (Total 1 articles)
4. Mole Ther Nucleic acid Nature publishing group journal (Total 1 articles)
5. Journal of Controlled Release (Total 10 articles)
6. Bioengineering & Translational Medicine (Total 1 articles)
7. Journal of Biomedical Nanotechnology (Total 6 articles)

8. Colloids and Surfaces B: Biointerfaces (Total 3 articles)
9. Nanomedicine (Total 4 articles)
10. AAPS Journal (Total 1 articles)
11. Vaccine and immunotherapy (Total 1 articles)
12. Molecular Pharmaceutics (Total 4 articles)
13. Int J of nanomedicine (Total 2 articles)
14. Cancer letters (Total 2 articles)
15. Biomacromolecules (Total 2 articles)
16. Journal of Drug Targeting (Total 12 articles)
17. Cancer gene therapy (Total 1 articles)
18. Cancer (Total 5 articles)
19. British Journal of Pharmacology (Total 2 articles)
20. AAPS PharmSciTech (Total 20 articles)
21. Journal of Nanopharmaceutics and Drug Delivery (Total 2 articles)
22. Journal of Pharmaceutical Sciences (Total 14 articles)
23. International Journal of Pharmaceutics (Total 7 articles)
24. PLoS one (Total 6 articles)
25. Pharmaceutical Research (Total 10 articles)
26. Journal of Biomolecular Research and Therapeutics (Total 3 articles)
27. Drug Development and Industrial Pharmacy (Total 2 articles)
28. Pharmaceutical Development Technology (Total 12 articles)
29. Journal of Drug Delivery Science and Technology (Total 4 articles)
30. Journal of Microencapsulation (Total 5 articles)
31. Bioconjugate Chemistry (Total 1 articles)
32. Journal of Drug Delivery (Total 4 articles)
33. Pharmaceutical Patent Analyst (Total 1 articles)
34. Recent Patent on Nanomedicine (Total 1 articles)
35. Current Nanoscience (Total 1 articles)
36. Critical Reviews™ in Therapeutic Drug Carrier Systems (Total 1 articles)
37. Drug Discover today (Total 1 articles)
38. Journal of Chromatographic Science (Total 1 articles)
39. Oncotarget (Total 1 articles)
40. Current Drug Delivery (Total 2 articles)
41. Journal of Pharmacology and Experimental Therapeutics (Total 1 articles)

Reviewer for Book Proposal

1. A book titled “Nucleic Acids as Gene Anticancer Drug Delivery Therapy,” Elsevier Science and Technology Books, New York City, NY — Spring 2019
2. A book titled “Nanotechnology-based Targeted Drug Delivery Systems for Lung Cancer,” Elsevier Science and Technology Books, New York City, NY — Fall 2017
3. A book titled “Plants as Promising Future for Health” CRC Press, Taylor & Francis books — Spring 2017
4. A book titled “Antioxidant Nutraceuticals: Preventive and Healthcare Applications,” CRC Press, Taylor and Francis, Boca Raton, FL
5. A book titled “Nanotechnology in Nutraceuticals and Functional Foods: Production to Consumption,” CRC Press, Taylor and Francis Group, Boca Raton, FL — Fall 2014
6. A book titled “Inhalation Drug Delivery: Techniques and Products,” John Wiley and Sons Limited, UK — Fall 2011

Reviewer for Ph. D. Theses

1. Thesis titled "Development and Validation of Stability Indicating Assay Methods for Estimation of Anti-diabetic drugs," Gujarat technology University, Chandkheda, Ahmedabad- 382424, India — Spring 2019
2. Thesis titled "Nutritional Characterization and Pharmacological Properties of Fagopyrm Esculentum Moench Seed Flour," Bharathiar University, Coimbatore, 641 046, Tamil Nadu, India — Fall 2018
3. Thesis titled "Novel Approaches for Development of Oral Controlled Release Drug Delivery System for Selective Central Nervous System Acting Drugs," Birla Institute of Technology, Mesra-835215, Ranchi, Jharkhand, India — Fall 2016
4. Thesis titled "Mucoadhesive Microemulsion Drug Delivery System: Design & Development for the Brain Delivery of NSAIDs for the treatment of Parkinson's Disease," Siksha 'O' Anusandhan University Bhubaneswar-751030, Odisha, India — Fall 2016
5. Thesis titled "Design and development of functionalized nanoparticles for combination therapy in Breast cancer," National Institute Of Pharmaceutical Education And Research, Sector 67, S.A.S Nagar - 160062, Punjab, India — Fall 2015
6. Thesis titled "Organoleptic, physiochemical and Toxicological standardization of marketed herbal formulations," PRIST University, Vallam, Thanjavur-613403, Tamil Nadu, India — Summer 2015
7. Thesis titled "Development of a Sustainable Model for access to Medicines in the Caribbean: The Chronic Disease Assistance Programme as a Case Study," Office of Graduate Studies and Research, The University of the West Indies St. Augustine, Trinidad, W.I. — Spring 2014

Scientific Abstract Reviewer or Associate Chair for International Scientific Conference

1. 2015 Controlled Release Society Meeting abstract screening section
2. *Associate-Chair*, 2013 AAPS Annual Meeting abstract screening section
3. *Associate-Chair*, 2012 AAPS Annual Meeting abstract screening section
4. 2010 AAPS Annual Meeting and Exposition abstract screening section
5. 2009 AAPS National Biotechnology Conference abstract screening section
6. 2009 AAPS Annual Meeting and Exposition abstract screening section
7. 2008 AAPS Annual Meeting and Exposition abstract screening section

R. ADDITIONAL INFORMATION

Google Scholar Profile - https://scholar.google.com/citations?user=jYxYewIAAAAJ&hl=en&oi=ao

I certify that the above provided information is true and accurate.

Mahavir Bhupal Chougule

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