Pharmaceutical Industry Fellowship 2021-2022
About Our Fellowship Program

The USC-AbbVie Pharmaceutical Industry Fellowship Program is designed to prepare postdoctoral scholars for rewarding careers in the pharmaceutical industry. Fellows work with mentors to participate in activities that enhance the skills required to excel in their field. Graduate-level coursework and seminars may be included in the program, in addition to hands-on project activities in AbbVie teams.

Upon completion of the program, fellows will be prepared for the challenges of a career in the pharmaceutical industry. Past fellows have been placed into rewarding positions in industry, pharmacy practice, and research. USC Pharmacy's fellowship programs adhere to the guidelines of the American Association of Colleges of Pharmacy and the American College of Clinical Pharmacy. All fellowships begin July 1 and end on June 30.

Key Highlights

- Access to USC Regulatory Science courses and tuition remission, up to 4 units per semester towards a graduate certificate
- Networking with USC students and alumni
- Participating in professional leadership workshops
- Financial relocation assistance for out-of-state fellows
- Financial support to attend professional conferences and events
- Delivering lectures to pharmacy students
- Recruiting prospective graduate and professional students to the Fellowship Program
About Our Company

AbbVie’s Mission

Create an innovation-driven, patient-focused specialty biopharmaceutical company capable of achieving sustainable top-tier performance through outstanding execution and a consistent stream of innovative new medicines which have a remarkable impact on people’s lives.

We are a global, research-based biopharmaceutical company committed to discovering, developing and delivering innovative new medicines with distinct and compelling benefits for people. Today, our medicines help 52 million people living in more than 175 countries, and we are making significant advancements with a robust pipeline of potential new medicines.

We are a passionate, diverse and inclusive organization with a culture that supports the best ideas, wherever they originate. We bring people together because we know that collaboration is the key to breaking barriers and exploring new frontiers in science. We take smart risks that lead to transformative breakthroughs and can change lives for people all over the globe.

Our commitment to making a remarkable impact doesn’t end at developing medicines; it begins there. We provide broader support to our patients and help address the health needs of underserved communities. We strive to protect our environment and to make a positive impact in the areas where we live and work.
Fellowship Mentors

Anna Papinska, PhD
Sr. Clinical Pharmacology Scientist, Fellowship Advisor

Elsa Lloyd, BS
Director, CMC Technical Writing

Lynn James, MPH
Executive Director, Neuroscience Development

Keith Goldman, MBA
Executive Director, Global Medical Communications

Jimmie Overton, PharmD
Vice President, Global Medical Information

Miles McLennan, MBA
Associate Vice President, Evidence Solutions

Elisabeth Lee, MPH, MBA
Associate Vice President, Clinical Development

Adnan Salameh, PhD
Executive Director, Pharmaceutical Sciences

James Cunningham, PhD
Executive Director, Drug Delivery

Ashutosh (Ash) Kulkarni, PhD
Executive Director, Clinical Pharmacology

Lori-Ann Christie, PhD
Director, Research Pharmacology

Francisco J. López, MD, PhD
Executive Medical Director, Clinical Development

Neil Poloso, PhD
Executive Director, Biological Research

Chiem Pham, PhD
Director, Research Pharmacology
Medical Affairs

Overview

The one-year Medical Affairs Fellowship focuses on providing exposure to three pillars of functionality: Global Phase IV Trials, Global Medical Information, or Global Medical Communications. The fellow will then be able to develop first-hand experiences in management of post-marketing clinical research, medical information database operations, medical promotional review, or global strategic publication planning. This program will provide the fellows the necessary tools to become successful professionals within the pharmaceutical industry, as well as the opportunity to network with a lasting legacy of Allergan alumni fellows.

Objectives

- Establish and maintain collaborative relationships with Medical Directors, Medical Science Liaisons, Key Opinion Leaders (KOLs), Health Economics and Outcomes Research, Marketing, and Principle Investigators
- **Global Medical Communications**: Partner with internal and external global stakeholders to develop a research-based strategic publication plan to maximize the reach and impact of AbbVie’s science through publications. Manage a cross-functional team and a vendor to execute the scientific communication plan for a therapeutic area. Lead research projects that help AbbVie better understand the impact of scientific communications.
- **Evidence Solutions**: Interact with Eye Care, CNS, Aesthetic and other AbbVie therapeutic areas worldwide to support new and ongoing clinical research, provide trial status updates to key stakeholders, and oversee financial management of global research budget for phase IV trials.
- **Global Medical Information**: Develop scientifically-balanced global response letters to address unsolicited medical inquiries, provide medical review of promotional materials, and provide scientific support to Medical and Commercial initiatives through insights identified from medical inquiries.

Application Requirements

- PharmD, MD or PhD from an accredited university or equivalent
- Attendance and interviewing at the 2020 ASHP Midyear meeting is highly recommended
- Excellent oral and written communication skills, ethics, professionalism, leadership, and an interest in the biopharmaceutical industry are required for all fellowship positions
Overview

The one-year Global Regulatory Affairs-Chemistry, Manufacturing, and Controls (GRA-CMC) Fellowship provides fellows with an overview of RA-CMC responsibilities including exposure to regulatory CMC strategy required to achieve health authority approvals. The fellow will have hands-on experience constructing global regulatory submission documents from the initial stages of document preparation to final submission. The fellow becomes a key component of the Core Team and shares the responsibility for facilitating timely submission and publishing of these documents to regulatory agencies across the globe. In addition, the fellow has the unique networking opportunity to manage several projects inside and outside of GRA as part of a comprehensive training program.

Objectives

- Assemble and manage regulatory documents in electronic Common Technical Document (eCTD) format that meet regulatory standards
- Review and discuss analytical method development, validation, and implementation with CMC team leaders and analytical scientists

Application Requirements

- PharmD, PhD, or DRSc from an accredited university or equivalent
- Completion of MS in Regulatory Science, pharmacy industry-track courses and/or industry internship desirable
- Excellent oral and written communication skills, ethics, professionalism, leadership, and an interest in the biopharmaceutical industry are required for all fellowship positions
Clinical Development

Overview

This one-year Clinical Development Fellowship provides an immersive introduction to clinical research in global drug development. As an active member of multiple clinical teams, the fellow will develop an understanding of the principles and challenges in developing novel therapeutics, while operating within GCP, ICH, and other agency guidelines. Under mentored guidance, the fellow will gain broad exposure to many interdisciplinary functional areas, while individualized objectives will tailor their involvement to projects of particular interest.

Objectives

- Develop expertise in novel therapeutics and their clinical applications
- Support the execution of the clinical development plan, regulatory submissions and development of associated clinical trial documents (e.g. protocols, investigator brochures, procedure manuals, informed consent forms, and clinical study reports)
- Learn operational aspects of clinical trial design from startup, through execution, and closeout
- Participate in processes of ongoing data review, analysis, and reporting
- Prepare and present clinical data at internal team meetings as needed
- Contribute to the timely performance of clinical trials by collaborating in a cross-functional team setting

Application Requirements

- PharmD, PhD, or MD degree from an accredited university or equivalent
- Completion of pharmaceutical industry rotation, internship, or previous exposure to clinical research is desirable
- Excellent oral and written communication skills, ethics, professionalism, leadership, and an interest in the biopharmaceutical industry
Clinical Pharmacology

Overview

This non-laboratory based one-year Clinical Pharmacology Fellowship focuses on developing skills of a modern clinical pharmacology scientist. The fellow will be provided opportunities to gain expertise in nonclinical and clinical development through honing skills in areas such as nonclinical pharmacokinetics/toxicokinetics, clinical pharmacology, translational strategies, modeling and simulation/pharmacometrics. As part of the training, the fellow will be provided with opportunities to engage in a number of activities such as: design and execution of nonclinical pharmacokinetic/toxicokinetic studies, design and execution of clinical pharmacology studies, development of translational strategies in support of target engagement and biomarker/dose/regimen selection, preparation of regulatory documents, and PK/PD and pop-PK modeling. The candidate will also participate in cross-functional team interactions spanning all of AbbVie’s therapeutic areas. This advanced hands-on training program can be tailored towards the specific needs and background of the candidate.

Objectives

- Collaboratively design and oversee execution of nonclinical pharmacokinetic/toxicokinetic studies and/or clinical pharmacology studies
- Analyze, interpret, and present data derived from nonclinical and clinical studies
- Serve (alongside a senior mentor) as a representative on nonclinical and clinical project teams to guide clinical pharmacology and translational efforts
- Contribute towards drafting regulatory documents
- Execute, interpret, and present results from PK/PD and/or pop-PK analyses at internal meetings
- If applicable, present work at professional meetings and/or author a scientific publication

Application Requirements

- PharmD or PhD from an accredited university or equivalent
- Experience and coursework in pharmacology, pharmacokinetics, toxicology, or similar
- Excellent oral and written communication skills, ethics, professionalism, leadership and an interest in the biopharmaceutical industry
Research Pharmacology

Overview

This one-year Research Pharmacology Fellowship focuses on developing the pre-clinical translational skills required of a pharmacology scientist. As part of the training program, the fellow will participate in pre-clinical study activities including study conceptualization through study design, protocol development, study execution, and cross functional team interactions across multiple therapeutic areas within AbbVie. Additionally, interested fellows can gain expertise in pharmacology sections of regulatory submissions, and interact with scientists from other functions such as formulation development, clinical pharmacology and clinical development. The fellowship is intended to enhance the postdoctoral research training of the applicant with hands-on application of core biological principles and techniques to move programs from preclinical stages to clinical development for key AbbVie programs.

Objectives

- Independently design and conduct pharmacology studies to support program projects
- Research, design and validate novel platforms or targets
- Be able to execute, interpret, and deliver data analyses
- If applicable, present work at internal AbbVie meetings, a professional meeting and/or author a scientific publication

Application Requirements

- PhD from an accredited university or equivalent
- Experience and coursework in pharmacology, biochemistry, molecular biology, cell biology, ophthalmology, dermatology/medical aesthetics, a plus
- Excellent oral and written communication skills, teamwork, professionalism, and an interest in biopharmaceutical industry are required for all fellowship positions
Overview

Certain core AbbVie therapeutic areas, such as Eye Care and Aesthetics, are highly reliant on local delivery of drugs to enable the desired therapeutic effect. AbbVie’s Drug Delivery Sciences Department, part of Development Sciences, has established industry-leading drug delivery capabilities (e.g. bio-erodible sustained release, delivery devices) to support a diverse portfolio of small molecules and biologics. The one-year Drug Delivery Sciences fellowship focuses on the design and development of new drug delivery systems and related capabilities including new technologies and novel adaptations of existing systems. This fellowship is intended to give postdoctoral researchers exposure to conducting R&D in the pharmaceutical industry, while advancing the fellow’s own scientific and professional growth. The fellow will also have the opportunity to collaborate with colleagues in other departments and disciplines within R&D.

Objectives

• Contribute to the advancement of AbbVie’s science and capabilities in one or more areas of drug delivery.
• Collaborate with other scientists, both within and outside the department, to design and evaluate drug delivery systems and enable new products that address unmet medical need.

Application Requirements

• PhD in chemical engineering, biomedical engineering, mechanical engineering, materials science, polymer chemistry, colloidal chemistry, physical chemistry, pharmaceutical chemistry or a similar field
• Subject matter expertise in areas relevant to drug delivery such as, formulation, physical and chemical characterization, drug targeting and associated biology, or medical devices is also desirable
• Excellent oral and written communication skills, ethics, professionalism, and an interest in the biopharmaceutical industry
Pharmaceutical Sciences

Overview

The one-year Pharmaceutical Sciences Fellowship focuses on the design and evaluation of novel oral, ophthalmic, and dermal formulations. As part of the training program, the fellow will be provided opportunities to gain first-hand experience with the different functional areas of the Pharmaceutical Sciences organization. This fellowship program is intended to give postdoctoral research training to support the fellow’s professional and career growth.

Objectives

- Design and evaluate novel oral, ophthalmic, and dermal formulations
- Evaluate the effect of excipients and processing parameters on quality and performance
- Investigate new formulation platform technologies
- Expand technical writing skills by developing, reviewing, and writing protocols and technical reports

Application Requirements

- PhD from an accredited university or equivalent
- Experience and coursework in pharmacology, biochemistry, molecular biology, cell biology, neuroscience, a plus
- Excellent oral and written communication skills, teamwork, professionalism, and an interest in biopharmaceutical industry are required for all fellowship positions

Tayebeh Anajafi, PhD
Pharmaceutical Sciences Fellow
Current Fellows

**Ashor Oshana, PharmD**
Medical Affairs, Evidence Solutions, Global Phase IV Fellow
Midwestern University – Chicago College of Pharmacy

Miles McLennan, MBA
Associate Vice President, Evidence Solutions
Medical Affairs Fellowship Mentor

**Hanieh Khatibi, PharmD, MS**
Medical Affairs, Global Medical Information Fellow
University of Southern California School of Pharmacy

Jimmie Overton, PharmD
Vice President, Global Medical Information
Medical Affairs Fellowship Mentor

**Vivian Fu, PhD**
Medical Affairs, Global Medical Communications Fellow
University of California, San Diego

Keith Goldman, MBA
Executive Director, Global Medical Communications,
Medical Affairs Fellowship Mentor

**Liza Selwan-Lewis, PhD**
Research Pharmacology Fellow, Medical Aesthetics
University of California, Irvine

Neil Poloso, PhD
Executive Director, Biological Research
Research Pharmacology mentor

**Lia Eunson Jung, PhD**
Research Pharmacology, Eye Care Research
University of Southern California School of Pharmacy

Lori-Ann Christie, PhD
Director, Biological Research
Research Pharmacology Fellowship Mentor

**Caroline Black, PhD**
Drug Delivery Sciences Fellow
University of Southern California School of Pharmacy

James Cunningham, PhD
Executive Director, Drug Delivery
Drug Delivery Sciences Fellowship Mentor

**Hannah Huh, PharmD**
Clinical Pharmacology Fellow
University of the Pacific Thomas J. Long School of Pharmacy and Health Sciences

Ashutosh Kulkarni, PhD
Executive Director, Clinical Pharmacology
Clinical Pharmacology Fellowship Mentor

**Tayebeh Anajafi, PhD**
Pharmaceutical Sciences, Development Sciences R&D Fellow
North Dakota State University

Adnan Salameh, PhD
Executive Director, Pharmaceutical Sciences
Development Sciences R&D Fellowship Mentor

**Pham Chiem, PhD**
Associate Director, Pharmaceutical Sciences
Development Sciences R&D Fellowship Mentor

**Ellen Brossart, PharmD**
Clinical Development, Ophthalmology Fellow
University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences

Francisco J. López, MD, PhD
Executive Medical Director, Clinical Development,
Ophthalmology
Clinical Development Fellowship Mentor

**Edward Jierjian, PharmD**
Clinical Development Fellow, Medical Aesthetics
University of California, San Francisco School of Pharmacy

Elisabeth Lee, MPH, MBA
Associate Vice President, Clinical Development, Medical Aesthetics
Clinical Development Fellowship Mentor

**Erica Su, PharmD**
Clinical Development Fellow, Neuroscience
University of the Pacific Thomas J. Long School of Pharmacy and Health Sciences

Lynn M James, MPH
Executive Director, Clinical Development, Neuroscience,
Clinical Development Fellowship Mentor

**Kenny Nguyen, PharmD**
Global Regulatory Affairs Fellow, CMC
University of Oklahoma Health Sciences Center

Elsa Lloyd, BS
Director, CMC Technical Writing
Global Regulatory Affairs Fellowship Mentor

**Alec Vigil, PharmD**
Global Regulatory Affairs Fellow, CMC
University of Southern California School of Pharmacy

Elsa Lloyd, BS
Director, CMC Technical Writing
Global Regulatory Affairs Fellowship Mentor
The USC-AbbVie Pharmaceutical Industry Fellowship program provides exceptional preparation and education for postdoctoral graduates entering the pharmaceutical industry. Entry into the program is competitive and applicants are encouraged to review all admission requirements and deadlines prior to beginning the application process.

The University of Southern California is an Equal Opportunity/Affirmative Action employer. USC-AbbVie Fellows are classified as students, and are affiliated with AbbVie for the purpose of training and career development.

**Requirements**

To be admitted to the USC-AbbVie Pharmaceutical Industry Fellowship program, you must have obtained:

- A PharmD, PhD, MD or equivalent doctorate degree from an accredited college or university within five years of initial appointment

**Admission**

To apply, go to http://web-app.usc.edu/web/pharmacy/application

You will be asked to provide:

- The email addresses of three references
- Curriculum Vitae (CV)
- Letter of intent
- Official pharmacy school, medical school, or graduate school transcript

**Contact Information**

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Additional information available at:
http://pharmacyschool.usc.edu/programs/fellowship/

**DEADLINE**

Candidates must submit the online application by

December 11, 2020