Pharmaceutical Industry Fellowship Program 2021

Leadership | Tradition | Motivation | Development | Dedication

Rutgers
Ernest Mario School of Pharmacy

Novartis
Pharmaceutical Industry Fellowship Program 2021

Novartis
Reimagining Medicine
Message to Prospective Fellows

When I started my career as a Post-Doctoral fellow at Novartis, I was seeking a fulfilling career in an untraditional pharmacy setting. The Rutgers Pharmaceutical Industry Fellowship exposed me to unique opportunities, provided me with lifelong mentors, an incredible network of colleagues and allowed me to build the foundation for my career in the pharmaceutical industry. Through the years I have remained a strong advocate for the Rutgers Pharmaceutical Industry Fellowship as a key vehicle for accelerated professional development.

I can attest that the broad background possessed by a Pharm.D. graduate is highly valued in our industry – and certainly here at Novartis. Established in 1990, the Novartis Fellowship is one of the longest standing programs within the Rutgers family of fellowships with over 200 fellows completing the program, signifying its strength and longevity. Each year, we set out to find the “best and the brightest” among the nation’s pharmacy doctoral programs.

Novartis fellows consistently demonstrate the drive, self-motivation, and eagerness to learn and succeed within the various disciplines we offer, including early clinical development/translational medicine, clinical development, regulatory affairs, medical affairs, and commercial strategy/brand marketing.

I am enthusiastic about your interest in Novartis and wish you the best of luck during the challenging interview and application process.

Rob Kowalski, Pharm.D.
Global Head Regulatory Affairs
US Head Development
Novartis
Fellow 1993–1995

“The broad background possessed by a Pharm.D. graduate is highly valued in our industry – and certainly here at Novartis.”

Rob Kowalski was one of the first fellows in the original Sandoz fellowship program from 1993-1995. Rob attended the University of Wisconsin-Madison where he received both a Bachelor of Science in Pharmaceutical Sciences and a Doctorate in Pharmacy.
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Who We Are

Our Purpose
We reimagine medicine to improve and extend people’s lives. We use innovative science and technology to address some of society’s most challenging healthcare issues. We discover and develop breakthrough treatments and find new ways to deliver them to as many people as possible. We also aim to reward those who invest their money, time and ideas in our company.

Our Strategic Priorities

1. Unleash the power of our people
2. Deliver transformative innovation
3. Go big on data and digital
4. Embrace operational excellence
5. Build trust with society

Our Culture
Curious
Inspired
Unbossed

Our Values
Innovation
Quality
Collaboration
Performance
Courage
Integrity
Who We Are

Our Company

Innovative Medicines
The Innovative Medicines Division has two business units:

Novartis Oncology
Novartis Oncology focuses on patented treatments for a variety of cancers and rare diseases.

Novartis Pharmaceuticals
Novartis Pharmaceuticals focuses on patented treatments in multiple disease areas to enhance health outcomes to patients and offer solutions to healthcare providers.

Sandoz
Sandoz offers patients and healthcare professionals high-quality, affordable generics and biosimilars.

Research and Development (R&D)

The Novartis Institutes for Biomedical Research (NIBR) is the innovation engine of Novartis. NIBR focuses on discovering new drugs that can change the practice of medicine.

Novartis Gene Therapies
Formerly Ave Xis, Novartis Gene Therapies is dedicated to developing and commercializing novel treatments for patients suffering from rare and life-threatening neurological genetic diseases.

Global Drug Development (GDD) organization oversees the development of new medicines discovered by our researchers and partners.
Who We Are

Our People
The greatest strength of Novartis is our people, whose diversity, energy and creativity are crucial to our success.

Our Ethics
Novartis has adopted a single set of ethical principles that should be applied in daily decision-making by all Novartis associates.

- Put patients first
- Fund responsibly
- Research for the right reason
- Engage appropriately
- Act with clear intent

Contents

HEADCOUNT
108,775

NATIONALITIES
149

ANNUAL TRAINING HOURS PER EMPLOYEE
35.8

WOMEN IN MANAGEMENT
44%

Reimagining Medicine
Novartis Company Profile

Novartis provides healthcare solutions that address the evolving needs of patients and societies worldwide. Our current portfolio includes more than 50 key marketed products, many of which are leaders in their respective therapeutic areas.

Novartis Pharmaceuticals Corporation is headquartered in East Hanover, New Jersey, which is approximately 40 miles west of New York City.

Novartis Gene Therapies is headquartered in Bannockburn, IL with another location in Deerfield, IL. We are dedicated to developing and commercializing novel treatments for patients suffering from rare and life-threatening neurological genetic diseases.

Sandoz is located in Princeton, New Jersey. We offer a broad line of generic medicines – the foundation of global healthcare systems, but we’re also discovering new ways to improve and extend people’s lives through our innovative off-patent medicines [505(b)(2)], and global leadership in biosimilars.

Novartis Pipeline  Key Performance Indicators

2019 Annual Report
Our Products and Reach

We develop and produce innovative medicines to address patient needs in disease areas where our experience and knowledge have the potential to produce transformative treatments.

We offer about 1,000 generic medicines and biosimilars covering major therapeutic areas. They can bring substantial savings to patients and healthcare systems and help improve access to healthcare.

Through Novartis Gene Therapies, we are also exploring advanced therapy platforms such as genes and therapeutic viruses including Adeno-associated viruses (AAVs) in neuroscience, as well as potential treatments for Rett syndrome, a genetic form of amyotrophic lateral sclerosis (ALS), and Friedreich’s ataxia.

155 COUNTRIES
where Novartis products are sold

799 m
PATIENTS
reached in total

16 m
PATIENTS
reached through access programs
Novartis Fellowship Program

Our Program

The first year of the fellowship is typically dedicated to one of the departments described in this brochure. In the second year, fellows have the option to remain in the same department or transfer to another group elsewhere within Novartis.

Specific fellowship opportunities within departments vary depending on the interests of prospective candidates as well as the needs of Novartis. In order to maximize their overall experience and to build a solid skill set, fellows may be presented with the opportunity to participate in special projects of interest. Fellows may also attend seminars and workshops designed to build professional skills such as time and project management, negotiation, and developing and delivering presentations. Opportunities to take internal training classes are also available. Fellows may be eligible to attend medical and professional conferences where they may present posters, participate in scientific sessions for continuing education credit, and network with colleagues.

Novartis fellows have the opportunity to participate in a three-month rotation either within or outside of Novartis. A broad range of opportunities are available, including clinical rotations at a university affiliated hospital, the Ernest Mario School of Pharmacy, government agencies such as the US Food and Drug Administration or the National Institutes of Health, or other external vendors. Such rotations are structured to allow fellows to broaden their experience.

“The program at Novartis focuses on building a solid foundation with the goal of making a smooth transition to a successful career after the fellowship.”
Objectives

During the two-year program at Novartis, the fellow will:

1. Gain a comprehensive overview of key areas within the pharmaceutical industry through practical insights and experiences.

2. Expand clinical knowledge through participation in both industrial and academic programs.

3. Promote the role and value of a clinically trained pharmacist within the pharmaceutical industry.

4. Actively participate in specific areas of industry and academia through direct involvement in various projects and assignments.

5. Become highly marketable for employment opportunities within the pharmaceutical industry.

“Our name, derived from the Latin novae artes, means “new skills” and reflects our commitment to bringing new healthcare products to patients and physicians worldwide.

Watch videos to learn more about the program, culture and why Novartis is for you:

- [Choosing Novartis for Your Fellowship](#)
- [Experiencing a High Energy Culture](#)
- [Building Your Professional Network](#)
The Novartis Fellowship Program Leadership Team is comprised of past fellows that work in partnership with preceptors to champion the fellowship experience. The Novartis group leaders are additional mentors that provide support, guidance and background for the fellows to maximize their experience at Novartis.
First Year Fellows

Jay Shah
Commercial
Commercial Strategy & Operations
Oncology
Pharm.D.,
University of Maryland, Baltimore
B.S. Business Administration and Economics, Drexel University

Mary Soorial
Commercial
Brand Marketing, Oncology
Pharm.D., M.B.A.,
B.S., Biochemistry,
Fairleigh Dickinson University

Mona Vaidya
Global Development
Global Trial Management, Clinical Development
Cardio Renal Metabolic
Pharm.D., Keck Graduate Institute School of Pharmacy and Health Sciences
B.S., Clinical Science: Medical Technology, California State University Dominguez Hills

Kim Kornbluth
Global Development
Early Clinical Development
Translational Clinical Oncology
Pharm.D., Rutgers University,
Ernest Mario School of Pharmacy
B.A. Biochemistry & Molecular Biology, Applied Math,
Franklin & Marshall College

Clara Kim
Medical Affairs
U.S. Oncology Medical Information & Global Oncology Medical Science Liaison Strategy
Pharm.D., University of North Carolina Eshelman School of Pharmacy
B.A., Neuroscience, Vanderbilt University

Dwipi Patel
Medical Affairs
U.S. Publications
Medical Affairs Communications U.S. CDMA
Pharm.D., B.S., Pharmaceutical and Healthcare Studies, Philadelphia College of Pharmacy

Frencina Monteiro
Medical Affairs
U.S. Oncology
Scientific Communications
Pharm.D., University at Buffalo School of Pharmacy and Pharmaceutical Sciences

Moyra Aziz
Medical Affairs
Global Oncology
Scientific Communications
Pharm.D., University of Rhode Island

Nicole Coccia
Medical Affairs
U.S Medical Information
U.S. CDMA
Pharm.D., B.S., Biology,
Temple University

Taylor Todd
Medical Affairs
U.S. Field Medical Capabilities & Medical Science Liaison
Pharm.D., University of Cincinnati College of Pharmacy
B.S., Biology,
University of Charleston
“Working and learning from team members across functional areas, while striving towards a shared vision of helping patients, has truly been a rewarding experience.”

Amita Jain  
Regulatory Affairs  
Neuroscience  
Pharm.D., University of Maryland, Baltimore  
B.S., Chemistry, University of Maryland, College Park

Farah Elziny  
Regulatory Affairs  
Global Labeling  
Pharm.D., MCPHS University

Joseph Greer  
Regulatory Affairs  
Sandoz  
Pharm.D., M.P.H., University of Georgia  
B.A. Chemistry, UNC Chapel Hill

Karli Boniello  
Regulatory Affairs  
Immunology, Hepatology & Dermatology (IHD)  
Pharm.D., Rutgers University, Ernest Mario School of Pharmacy

Sarah Bright  
Regulatory Affairs  
Oncology  
Pharm.D., Rutgers University, Ernest Mario School of Pharmacy
Second Year Fellows

Jacob Tebbe
Commercial
Brand Marketing
Cardio Renal Metabolic
Pharm.D., Purdue University

Daniel Dudman
Global Development
Quantitative Safety & Epidemiology
Pharm.D., M.S., Butler University

Jordan Haines
Global Development
Global Program Management
Neuroscience
Pharm.D., MCPHS University
B.S. Biology, University of Hartford

Katelyn Schad
Global Development
Global Trial Management, Clinical Development
Cardio Renal Metabolic
Pharm.D., Saint Louis College of Pharmacy

Tori Morgan
Global Development
Global Trial Management, Clinical Development
Oncology
Pharm.D., Purdue University

Jennifer Han
Global Development
Early Clinical Development
PK Sciences
Pharm.D., M.S., University at Buffalo School of Pharmacy
B.S., Nutrition Science, University of Georgia

Naomey Sarkis
Global Development
Early Clinical Development
Translational Clinical Oncology
Pharm.D., B.S. Pharmaceutical and Healthcare Studies, Philadelphia College of Pharmacy

Christopher Oh
Medical Affairs
Policy, Medical & External Engagement
Sandoz
Pharm.D., University of Illinois, Chicago
B.A., Biology, Northwestern University

Cole Cecchini
Medical Affairs
Regulatory Advertising & Promotion
U.S. CDMA
Pharm.D., Temple University
B.S., Biology, University of Alabama

Yasha Patel
Medical Affairs
U.S. Oncology Medical Information & Global Oncology Medical Science Liaison Strategy
Pharm.D., B.A., Cell Biology & Neuroscience, Rutgers University
Second Year Fellows

Boning Zhao
Regulatory Affairs
Cardio Renal Metabolic
Pharm.D., Ernest Mario School of Pharmacy, Rutgers University

Brianna Devitt
Regulatory Affairs
Oncology
Pharm.D., Ernest Mario School of Pharmacy, Rutgers University

George Shyu
Regulatory Affairs
CMC
Pharm.D., University of Connecticut School of Pharmacy
B.S., Animal Biotechnology, Rutgers University

Joanna McCormack
Regulatory Affairs
Immunology, Hepatology & Dermatology (IHD)
Pharm.D., MCPHS University

June Wie
Regulatory Affairs
Global Health
Pharm.D., B.S. Pharmaceutical and Healthcare Studies, Philadelphia College of Pharmacy

“Preceptors and colleagues provide hands-on mentorship and meaningful feedback which enhance the fellowship experience and allow for a custom learning experience based on the fellow's passions and interests.”
Reimagining How We Work Virtually

At Novartis, people are our most valuable resource. Our culture wants everyone to feel like they can be their best selves at work and at home. We are committed to supporting and enabling employees to be inspired, curious and unbossed regardless of their location.
“Novartis fellows have adapted to these unprecedented times and optimized their fellowship experience by staying connected with each other and their teams virtually.”
2020–2021 Novartis Fellowship Program

**Commercial**
- Brand Management
- Commercial Strategy & Operations
- Digital Innovation
- Launch Excellence

**Global Development**
- Global Trial Management
  - Clinical Development
  - Medical Affairs
- Quantitative Safety & Epidemiology
- Global Program Management
- Early Clinical Development
  - Translational Clinical Oncology
  - PK Sciences

**Medical Affairs**
- US Medical Information/Global Medical Science Liaison (MSL) Strategy
  - US Field Medical
  - Scientific Communications
- US Medical Information/Publications
- US Medical Information/Regulatory Advertising & Promotion
- Sandoz Medical Affairs (Princeton, NJ)

**Regulatory Affairs**
- Regulatory Affairs Strategy
  - Novartis Gene Therapies (Bannockburn, IL)
  - Novartis
  - Sandoz (Princeton, NJ)
- Regulatory CMC
- Regulatory Affairs Global Labeling

Positions located in East Hanover, NJ unless otherwise noted; position not recruiting for 2021.
Commercial

The fellow works in cross-functional disease areas or brand teams that drive US Pharma/Oncology strategy and growth. The primary objective is to deliver commercially meaningful brands to the US, providing recommendations to maximize US market opportunities including shaping Phase II and Phase III development programs, optimizing product profiles for successful launch and delivering on brand strategies to drive growth of Novartis promoted products. Fellowships in this area include Brand Marketing, Commercial Strategy & Operations, Digital Innovation, and Launch Excellence.

Group Leaders

Christy Siegel
VP, Respiratory Franchise Head
Novartis Pharmaceuticals Corporation
Pharm.D., Ernest Mario School of Pharmacy, Rutgers University Fellow 2000-2001

Christopher McBurney
VP, Head of US CAR-T Franchise
Novartis Oncology
Pharm.D., University of Toledo

Second Year Fellow

Jacob Tebbe
Brand Marketing
Cardio Renal Metabolic

First Year Fellows

Jay Shah
Commercial Strategy & Operations
Oncology

Mary Soorial
Brand Marketing
Oncology
Commercial

Commercial Fellowship Overview

- Drive development of pipeline products through deliverables including situation analysis, options assessment, patient journey, target product profile, forecast and launch readiness plans.
- Participate in evaluation of business development and licensing opportunities, including scientific/clinical and commercial assessments and participate in due diligence of select opportunities.
- Develop, implement, and execute brand strategy, marketing mix and operational plans that optimize sales, market share and revenue growth for the short and long term.
- Engage with marketing training, field force operations, and field training to enable our brands to achieve their strategic objectives to help patients with access.

“Fellows at Novartis receive mentorship and resources to be trained within their program’s functional area, but also opportunities to develop as well-rounded leaders in pharmaceutical industry as well.”
Global Development

Global Development roles oversee the development of new medicines discovered by our researchers and partners. These roles drive breakthrough innovations to improve and extend the lives of patients.

Group Leaders

Charlene Hall
Global Head, Cell & Gene Technical Services
Pharm.D., University of Michigan Fellow 2000-2002

Daniel Carreon
Lead Clinical Trial Leader
Translational Clinical Oncology
Pharm.D., Western University of Health Sciences Fellow 2010-2012

Kudsia Hafeez
Global Program Executive Director
Cardio-Renal-Metabolic
Pharm.D., Purdue University Fellow 2001-2003

“A Pharm.D. has the unique skill set to drive drug development from the lab to the patient.”
Global Development

Second Year Fellows

Daniel Dudman
Quantitative Safety & Epidemiology

Jennifer Han
PK Sciences

Jordan Haines
Global Program Management Neuroscience

Katelyn Schad
Global Trial Management, Clinical Development Cardio Renal Metabolic

Naomey Sarkis
Translational Clinical Oncology

Tori Morgan
Global Trial Management, Clinical Development Oncology

First Year Fellows

Mona Vaidya
Global Trial Management, Clinical Development Cardio Renal Metabolic

Kim Kornbluth
Translational Clinical Oncology
Global Development

Global Trial Management – Clinical Development & Medical Affairs

Global Trial Management fellows serve as key members of their trial teams, providing operational input to the study worldwide. In this role, fellows will:

- Support the conduct of global Phase II and III clinical trials and/or Phase IV or medical affairs related activities (e.g., managed access plans, investigator initiated trials, post trial access) with study startup, execution, and close-out activities.

- Collaborate with the Global Trial Director to coordinate activities with the Global Clinical Trials Teams to ensure goals are met for study timeline, budget, operational procedures, and quality standards.

- Assist the Global Trial Director with the development of study documents such as protocols, case report forms, and clinical study reports.

- Interact regularly with all members of the global clinical development teams and with other Novartis line functions (such as Biostatistics, Data Management, Programming, Medical Writing, Regulatory Affairs and Drug Supply Management) as a participant in the Global Clinical Trial Team.
Global Development

Quantitative Safety & Epidemiology

Quantitative Safety & Epidemiology provides high quality scientific contributions to safety management teams to support decision making by providing evidence-based evaluation, understanding, and communication of both safety data and benefit-risk to support decision-making at all stages of the drug life-cycle.

In this global role, the Pharmacoepidemiologist fellow will:

- Learn how to synthesize evidence from published data and how to evaluate, understand, interpret, and communicate patient safety data from diverse sources (e.g. clinical studies, spontaneous reports) but with a focus on real world data.
- Plan, discuss, and execute simple non-interventional studies. Analyses will be used in product submissions, in response to Health Authority questions, in labeling updates, and in regulatory documents, such as Periodic Safety Update Reports (PSURs) and Risk Management Plans (RMPs).
- Gain the skills needed to conduct pharmacoepidemiological studies using large, real world databases. As a part of this training, the fellow will take classes in PE, study design and statistical analysis. Upon completion a certificate in PE will be earned from the Rutgers Center for Pharmacoepidemiology and Treatment Science.
- Utilize his/her analytical skills, previous experience in research training in epidemiology, statistics or related areas, and computing ability, including knowledge of specialized statistical packages (advanced level, SAS or R) to effectively provide support to drug products.

Global Program Management

Global Program Management drive the planning and execution of drug development programs and provides the information the enterprise needs to make the right portfolio decisions. GPM associates enable the cross-functional Global Program Teams (GPTs) to deliver the pipeline with optimal strategies, realistic plans, and seamless execution. The GPM fellow will:

- Be assigned a GPT where they will support the team to develop and maintain accurate plans and documentations, ensure smooth day-to-day operations, and help to resolve program issues.
- Trained in the enterprise project management system and will participate in planning projects, identifying alternative development scenarios, integrating line function activities, challenging schedules, and monitoring implementations.
- Have the opportunity to experience drug development first-hand through the lens of a single program. They will have extensive matrix interactions across a wide range of disciplines with the line function members of the GPT and their colleagues.
Global Development

Early Clinical Development

Translational Medicine

Scientists and clinicians within TM Clinical Sciences & Innovation (TM CS&I) and Translational Clinical Oncology (TCO) are primarily responsible for designing and conducting early phase clinical trials that explore the safety, tolerability and initial assessment of efficacy in healthy volunteers and patients.

- **NIBR TCO**: Fellows will be trained as a Clinical Trial Leader, coordinating all aspects of a clinical trial, which may include: leading a clinical trial team, developing clinical study protocol(s), designing case report forms (CRFs) and informed consent documents, selecting and initiating clinical sites, reviewing safety data, conducting dose escalation meetings, reporting and interpreting study results as well as managing study timelines, drug supply, and study vendors.

- All NIBR Fellows may contribute to program-level activities, including the development of regulatory documents such as the Investigator’s Brochure, briefing documents, annual safety reports, regulatory submissions, study abstracts, posters and meeting presentations as opportunities arise.

- Fellows may have the opportunity to support or conduct one or more: first-in-human, proof-of-concept, dose-range finding, PK drug-interaction and/or mechanistic profiling studies for novel therapeutics.

Clinical Pharmacology/PK Sciences

PKS scientists work across the development spectrum and are engaged in the analysis, interpretation and reporting of pharmacokinetic (PK), pharmacodynamic (PD), toxicokinetic (TK) and immunogenicity data generated during discovery through late phase development.

- **NIBR PKS**: Fellows will be trained as a PK Scientist designing studies and analyzing PK/PD data generated across research and full development. Fellows will support project teams and will gain proficiency with key modeling and analysis software platforms, e.g. Phoenix, as well as expertise in clinical pharmacology and PK/TK study design. PKS Fellows will also gain expertise in global regulations guiding clinical pharmacology and biopharmaceutical development.

- Fellows may contribute to planning, writing, and reviewing study designs, data analysis plans, clinical pharmacology study reports, and regulatory documents such as IBs, and INDs.

- The fellow may have the opportunity to gain experience in biologics, first-in-human, drug-drug interactions, food-effect studies, QTc assessment strategies, and special population studies.
Medical Affairs

As part of the Medical Affairs umbrella of disciplines, Scientific Communications, Medical Information, and Field Medical work collaboratively to develop and execute strategic medical communications. Fellowship opportunities in Medical Affairs can include positions in the Novartis divisions of Pharmaceuticals and Oncology, in both US and Global functions.

Group Leaders

Jennifer Slade
Scientific Engagement & Communications Franchise Head
Cell & Gene Therapies
Pharm.D., Purdue University Fellow 2000-2002

Pamela Hill
Associate Director, Global Oncology
Scientific Communications
Pharm.D., St. John's University Fellow 2016-2018

Second Year Fellows

Christopher Oh
Medical Affairs Policy, Medical & External Engagement
Sandoz

Cole Cecchini
Regulatory Advertising & Promotion
U.S. CDMA

Yasha Patel
U.S. Oncology Medical Information & Global Oncology
Medical Science Liaison
Strategy/Medical Information

First Year Fellows

Clara Kim
U.S. Oncology Medical Information & Global Oncology
Medical Science Liaison
Strategy/Medical Information

Dwipi Patel
U.S. Publications Medical Affairs Communications
U.S. CDMA

Frencina Monteiro
U.S. Oncology Scientific Communications

Moyra Aziz
Global Oncology Scientific Communications

Nicole Coccia
U.S. Medical Information U.S. CDMA

Taylor Todd
U.S. Field Medical Capabilities & Medical Science Liaison
Medical Affairs

Individual Fellowship Role Descriptions

Global MSL Strategy focuses on developing and executing field medical strategic and tactical plans for scientific exchange.

- In this role, the fellow will support global MSLs by creating MSL resources (e.g. slide decks, FAQs), scientific communication platforms, internal communications and will lead global MSL team discussions to gather external HCP feedback. The fellow will also be responsible for the medical training curriculum for defined product(s) and related disease states.

Field Medical (MSL) (Not Recruiting) is responsible for establishing and maintaining relationships with healthcare professionals by engaging in scientific discussions regarding Novartis products, therapeutic areas of interest, and sponsored research.

- In US Field Medical, the fellow will have the opportunity to develop internal medical resources and conduct field medical training for the US field medical team. The fellow will receive medical training curriculum for the defined product(s) and related disease states. During the second year of the program, the fellow will be assigned a territory to engage healthcare professionals in the field.

“The Medical Affairs fellowship at Novartis is the perfect balance of structure and flexibility, while also providing mentorship, support and professional growth.”
Medical Affairs

Individual Fellowship Role Descriptions

Scientific Communications (Not Recruiting) is responsible for developing and disseminating scientific information on Novartis products through publications, medical education, and medical expert management.

- In this role, the fellow will have the opportunity to develop and execute the global publication plan, medical education curriculum, and driving congress strategy. The fellow will be responsible for the accuracy and quality of scientific content of manuscripts, abstracts, posters and presentations of clinical data. In addition, the fellow will develop internal medical communications and training.

Medical Information is responsible for using scientific information to develop medical literature and drug information databases to research, evaluate, and develop evidence-based medical content for countries and regions to manage healthcare professional and customer interactions. The fellow will also be responsible for congress planning including HCP engagement, medical booth staffing and congress debriefs.

- In this role, the fellow will have the opportunity to develop high quality (relevant, rigorous, balanced) medical information documents for healthcare customers in response to unsolicited inquiries about Novartis products.

Regulatory Advertising & Promotion (A&P) is responsible for ensuring company communications promoting its products are consistent with laws and regulations which govern the promotion of prescription drugs in the US, as well as company policies and procedures related to these activities.

- In this role, the fellow will learn about the principles which inform US prescription drug promotional rules. In addition, the fellow will meet with multi-disciplinary teams who review proposed promotional materials and will have the opportunity to provide regulatory guidance and inform business strategy on non-promotional materials for use by medical affairs associates.

- In this unique role, the fellow will complete one year in Medical Information & Communications and one year in Regulatory A&P.
Medical Affairs

Sandoz Medical Affairs

The various roles within Medical Affairs, Field Medical and Medical Services & Operations work collaboratively together to provide an educational communication platform for HCPs. This two-year fellowship within Sandoz Medical Affairs provides an opportunity to learn the fundamental role of a Medical Science Liaison and various areas within the Medical Services & Operations team.

Medical Services & Operations

- Responsible for supporting key Medical Services such as Medical Information, Medical Education, Medical Communications as well as project management/operational needs for Medical Affairs.
- Help develop medical information standard response letters to frequently asked questions and shadow the real-time medical information process.
- Support the needs assessments and knowledge gaps for HCPs in several therapeutic areas and the process for reviewing and approving independent medical education grants.
- Participate in medical reviews for promotional and non-promotional material, and launch planning.
- Gain exposure to investigator-initiated trials (IITs) and engage with global stakeholders to assess areas where we can enhance alignment and communications regarding US IITs.

Sandoz Field Medical

Sandoz Field Medical is responsible for interactions with healthcare practitioners providing scientific and clinical education regarding biosimilars and other Sandoz products.

- Develop relationships with HCPs (academic and non-academic physicians, nurse practitioners, registered nurses and physician assistants) to ensure that there is access to current medical and scientific information.
- Shadow both with MSL team and Medical Account Management and Strategic Alliance team, with attendance at national and regional meetings, participation in national and regional teleconferences.
- Development of KOL engagement strategy.
- Support compendium and guideline submissions.
Three distinct Regulatory Affairs fellowship opportunities are offered: Regulatory Affairs Strategy (Novartis Gene Therapies, Novartis, Sandoz), Regulatory Affairs Global Labeling (Novartis), and Regulatory Affairs Chemistry, Manufacturing and Controls (CMC; Novartis). In these roles, fellows liaise with global cross-functional teams to provide strategic inputs to support product development, original registration and life cycle maintenance activities.

**Group Leaders**

**Nina Katz**
Senior Global Program Regulatory Director
Regulatory Affairs, Oncology
*Pharm.D.*, Ernest Mario School of Pharmacy, Rutgers University
Fellow 2007-2009

**Lincy Thomas George**
Global Therapeutic Area Lead, Regulatory Affairs, Oncology
*Pharm.D.*, Ernest Mario School of Pharmacy, Rutgers University
*M.B.A.*, Gabelli School of Business, Fordham University
Fellow 2003-2005

“From day one, Novartis fellows start to gather more responsibilities and work towards being an independent leader and valuable contributor on their respective teams.”
Regulatory Affairs

Second Year Fellows

Boning Zhao
Regulatory Affairs
Strategy
Cardio Renal Metabolic

Brianna Devitt
Regulatory Affairs
Strategy
Oncology

George Shyu
Regulatory Affairs
CMC

Joanna McCormack
Regulatory Affairs Strategy
Immunology, Hepatology & Dermatology (IHD)

June Wie
Regulatory Affairs Strategy
Global Health

First Year Fellows

Amita Jain
Regulatory Affairs Strategy
Neuroscience

Farah Elziny
Regulatory Affairs Global Labeling

Joseph Greer
Regulatory Affairs Strategy
Sandoz

Karli Boniello
Regulatory Affairs Strategy
Immunology, Hepatology & Dermatology (IHD)

Sarah Bright
Regulatory Affairs Strategy
Oncology
Regulatory Affairs

Regulatory Affairs Strategy – Novartis Gene Therapies and Novartis

- Serve as the primary liaison with Health Authorities worldwide (e.g., the US Food and Drug Administration) for regulatory activities and submissions.
- Provide strategic input and tactical support to expedite the development, submission and regulatory approval of new products.
- Submit and maintain regulatory applications (e.g., Investigational New Drugs [INDs], New Drug Applications [NDAs], Biologics License Applications [BLAs], Clinical Trial Applications [CTAs], Marketing Authorization Applications [MAAs], 505(b)(2) NDAs, Abbreviated NDAs [ANDAs], and 351(k) biosimilar applications).

Regulatory Affairs Global Labeling – Novartis (Not Recruiting)

- Lead global, cross-functional teams in defining and setting labeling strategy or development programs and marketed products.
- Create and maintain regulatory compliant, competitive, and up-to-date labeling documents.
- Guide and support Country Organizations worldwide in the local implementation of labeling, including preparation of responses to labeling-related questions from Health Authorities.
Regulatory Affairs

Regulatory CMC – Novartis

- Serve as a liaison between Novartis and Health Authorities worldwide (e.g. the US FDA) for regulatory activities and submissions on CMC topics.
- Develop CMC regulatory strategies specific to the manufacturing, testing and packaging for global products covering a variety of dosage forms in small molecule, biologic, cell and gene therapy, and/or biosimilar products, on a rotating basis.
- Lead planning and preparation of global CMC regulatory documents for submissions covering different stages of product development and life cycle management (INDs, NDAs, BLAs, CTAs, MAAs, and post-approval change submissions).

Regulatory Affairs Strategy – Sandoz (Not Recruiting)

- Serve as the primary liaison between Sandoz and Health Authorities worldwide (e.g. the US Food and Drug Administration) for regulatory activities and submissions.
- Provide strategic input and tactical support to expedite the submission and regulatory approval of generic drugs and biosimilar medicines.
- Review, organize, and interpret Chemistry, Manufacturing, and Controls (CMC) information and data for regulatory submissions.
- Submit and maintain 505(b)(2) New Drug Applications (NDAs), abbreviated NDAs (ANDAs), and 351(k) biosimilar applications.
- Provide strategic input on product labeling.
- Review global advertising and promotional materials.

“Novartis Regulatory Affairs fellowships allow each fellow to engage in various milestones of drug development. They provide unique opportunities for fellows to be involved at various phases of the drug lifecycle processes.”
At Novartis, we are reimagining medicine.
Novartis Fellowship Program Alumni

1990–1992
Mark Ammann
John Gladish

1991–1993
Irene Laurora
Bruce Robbins

1992–1994
Joseph Cordaro

1993–1995
Tracy Acker
Robert Kowalski
Sheri Thornberg

1994–1996
Veronica Valvano Benedetto
Beth Keibler
Taufia Markvicka

1995–1997
Michele Pongowski Ball
John Messina

1996–1998
Latifa Alladina
Branka Kowalski
Patricia Ledford
James Rawls

1997–1999
Soma Gupta
Sausanne Khalilieh
Lisa Kutney
Henry Owunna
Maria Pryor
Katenka Svendsen Schumm

1998–2000
Kelley Piper Bradley
Kimberly Chappell
Lisa Malaty Ghaly
Lisa Pitt
Angela Sansone
Jane Chong Shen
Sheri Dranzo Siegel

1999–2001
Angela Browne
Kay Chitale
Shamita Gupta
Fonda Chen Liu
John Martin
Mendy McGuire
Scott Moren
Maria Moricz
Deepa Patel
Asli (Guven) Santos
Michelle Stolpman Tsai

2000–2002
Bryan Campbell
Bonnie Lieberman
Ariel Mhlc
Lillian Ng
Monil Shah
Jennifer (Stolk) Slade
Charlene (So) Hall
Susan Trieu
Andrea Viegas

2001–2003
Kevin Carl
Kimberly Dickerson
Kudisia Hafeez
Angela Liu
Ayanna (Abadie) Osson
Ram Palanki
Gar Park
Rick Satipunwaycha

2002–2004
Telly Chi
Joseph A. Chiodo III
Darin Curtiss
Vanessa Foti Trainor
Clena Kwong
Laura B. Munir
Dat Nguyen
Alain Slade
Stephanie Tallon
Theresa Valdez

2003–2005
Payman Daroian
Harinder Dhillon
Michael Lu
Melissa (Pao) Mitchener
Stephen Mitchener
Todd Phillips
Lincy Thomas George
Lotus Yung

2004–2006
Ira Do
Aaron Huang
Michelle Libner
Erika Massenburg
Felice Peng
Emily Scalise
Bijal Sheth
Lucio Volino

2005–2007
Amena Ali
Chyrin (Buu) Chung
Andy Hwang
Glendolynn Johnson
Amy (Patel) Shah

2006–2008
Melina Cioffi
Kathy Dong
Vanessa Kan
Suzanne Maahs
Melody M. Lee
Dale Nepert
Leslie Servidio
Chris Sung
Stephanie Whalen
<table>
<thead>
<tr>
<th>Year</th>
<th>Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009–2011</td>
<td>Mercy Mathew Abraham, Katherine Carter, Brian Manning, Kimberly Mazzarisi Colligan, Bijal Pandhi, Puja (Patel) Geist, Arshdeep Pooni, Jessica Wang</td>
</tr>
<tr>
<td>2010–2012</td>
<td>Narin Ahmed, Daniel Carreon, Dannis Chang, Brenanne Donohue, Farah N. Hossain, Nickie Gallaher, Drea Pangilinan, Manisha Patel, Jiten Rana, Therese Swan, Alex Wang</td>
</tr>
<tr>
<td>2011–2013</td>
<td>Robert Boothroyd, Phillip Koo, Doris Lo, TanTan (Liza) Ng, Demetre Stamatis, Allison Upalawanna</td>
</tr>
<tr>
<td>2012–2014</td>
<td>Madhuri Dhawan, Beth Drimalia, Melissa Kuhn, Jeremy Lim, Melissa Neighbors, Joanne Nguyen, Michelle Pernice, Lincoln Rogers, Marilyn Tsourounis</td>
</tr>
<tr>
<td>2014–2016</td>
<td>Geetha Pudussery, Associate Director, Clinical Development, Ovid Therapeutics, Viraj Degaonkar, Clinical Scientist Associate, Genentech, Ashley Brower, Global Program Manager, Regulatory Affairs, Novartis, Naomi Kozlowski, US Lead, Regulatory Affairs, Amgen, Anisha Baghat, Associate Director, Medical Affairs, Intercept Pharmaceuticals, Julia Hautmann, MSL Respiratory, Medical Affairs, Sanofi Genzyme, Priya Ramachandran, Director, Field Medical, Oncology, Pfizer</td>
</tr>
<tr>
<td>2015–2017</td>
<td>Kate Bender, Manager, Global Scientific Communications, Novartis, Alexandra Hendzel, Senior Regulatory Manager, Novartis, Rashaad Joseph, Associate Director, Global Scientific Communications, Novartis, Ramya Mathew, Associate Director, Global MSL Strategy and Medical Information, Novartis, Rubin Modi, Senior Manager, Global Regulatory Affairs, Celgene, Zachary Post, Associate Director, MSL, Immunology/Dermatology, Novartis, Dean Wetty, Early Development Regulatory Manager, NIBR</td>
</tr>
</tbody>
</table>
Novartis Fellowship Program Alumni (Continued)

2016–2018
Jake Myhill
Senior Manager, Global Program Regulatory Novartis
Amanda Bright
Senior Product Manager Novartis
Mona Fassihi
Manager, Global Program Regulatory Novartis
Nehali Parikh
Clinical Program Leader Novartis
Pamela Gorczyca
Associate Director, Global Oncology Scientific Communications Novartis
Gunjan Patel
Associate Director, Global Scientific Communications Novartis
Galina Perel
Senior Medical Science Liaison Jazz Pharmaceuticals
Joe Britt
Medical Science Liaison Allergan
Natalia Ceicovscaia
Associate Director, Early Clinical Development AstraZeneca

2017–2019
Clarice Lee
Director, Clinical Development Neurogene Inc.
Sapna Chhagan
Associate Director, Translational Clinical Oncology Novartis

2018–2020
Ryan Conway
Manager, Global Program Regulatory Novartis
Joe Fink
Manager, Expert Global Trial Novartis
Lauren Holmes
Manager, Expert Global Trial Novartis
Kurtis Lee
Senior Product Manager Novartis
Alan Ross
MSL Manager Novartis
Michael Severo
Senior Manager, Scientific Communications Novartis
Victoria Nesbitt
Clinical Trial Leader Novartis

Andrew Van Deusen
Senior Product Manager, Professional Marketing Novartis
Akshay Patel
Manager, Commercial Regulatory Affairs Bristol Myers Squibb
Francesca Francois
Manager, Global Medical Communications and Operations Vertex Pharmaceuticals

There is an extensive network of past fellows from Novartis working at the company and across the pharmaceutical industry.
Program History

In 1984, at Rutgers, The State University of New Jersey, the Ernest Mario School of Pharmacy and two pharmaceutical companies began a collaborative pilot program to evaluate the potential contributions of clinically-trained pharmacists within a pharmaceutical industry practice setting. Following the successful pilot, the Rutgers Pharmaceutical Industry Fellowship (RPIF) Program grew significantly and expanded to include 21 companies within the pharmaceutical and biopharmaceutical industries and over 250 fellows annually.

In 2002, Dr. Ernest Mario generously provided an endowment to establish the Institute for Pharmaceutical Industry Fellowships to enhance and promote the role of pharmacists in industry through the RPIF Program. The Institute staff members:

- Provide leadership and administrative support;
- Promote quality, communication, and scholarly activity; and
- Arrange specialized fellowship training opportunities within the pharmaceutical and biopharmaceutical industries.
Program History (continued)

Recently in 2018, our program has expanded to offer interdisciplinary fellows’ training by adding select physician fellowship opportunities to our well-established program.

The RPIF Program has thrived under the leadership of the founder, Dr. Joseph A. Barone, Dean and Professor II of the Ernest Mario School of Pharmacy and Dr. Lesley Fierro the Director for the Institute for Pharmaceutical Industry Fellowships.

More than 1000 post-doctoral fellows have completed the RPIF Program, most of whom are pursuing influential and rewarding careers in the pharmaceutical and biopharmaceutical industries throughout the US and abroad. The RPIF Program has preceptors/mentors from industry who share their knowledge and experiences with the fellows through an intense but closely guided training program. Assignments and projects are challenging, meaningful, and designed to enhance understanding of the pharmaceutical and biopharmaceutical industries and the fellow’s functional area.

Professional Development Series

All fellows gather at Rutgers once monthly as a group to participate in the Professional Development Day (PDD) Series, an important component of their training that complements the hands-on experience provided at the partner companies. The PDDs are steered by a committee of fellows and are designed to enhance the fellows’ presentation skills, emotional intelligence, promote connectivity and a sense of community among fellows from different companies and disciplines, develop new skill sets under the guidance of external trainers, and provide general knowledge about various aspects of drug development and issues facing the pharmaceutical and biopharmaceutical industries.

The fellows learn from each other through individual and group presentations and debates on topics and issues related to the pharmaceutical and biopharmaceutical industries. This dynamic forum provides an opportunity for open discussion and debate among fellows, Rutgers faculty, and company preceptors. In addition, outside experts provide training and professional development in a variety of areas (e.g., tools for corporate success; professional writing, presentations, meeting facilitation, negotiating, influencing, networking, and conflict resolution skills; giving and receiving feedback; and business and dining etiquette). Other PDD guest speakers include senior industry executives, patient advocacy groups, and successful RPIF Program alumni who share their insights and experiences. Importantly, PDDs provide an excellent opportunity for fellows to interact with each other and develop lasting personal friendships and a strong professional network of fellows, faculty, alumni, and other industry executives.
Key Program Features

The Rutgers Pharmaceutical Industry Fellowship Program fosters the growth and development of future pharmaceutical and biopharmaceutical industry professionals through the following key program features:

- **Family of Leading Companies** — Partners include several of the top 21 global pharmaceutical and biopharmaceutical companies.
- **Outstanding Alumni Track Record** — Over 1,000 alumni hold prominent positions at many leading companies.
- **Strong Network** — Over 250 fellows each year develop valuable, lasting connections with each other, alumni, preceptors and faculty.
- **The Pathway to Industry** — Since 1984, the Rutgers program has been nationally recognized, trusted, and proven as the pathway to industry for pharmacists.
- **Enhanced Career Path** — Increasingly challenging assignments build depth of experience and enhance the potential for an accelerated career path.
- **Rigorous Academic Component** — Rutgers affiliation provides academic and professional development opportunities.

Rutgers, The State University of New Jersey, with approximately 70,875 students in its three campuses, is one of the major state university systems in the United States. The New Jersey College of Pharmacy was founded in 1892 and was incorporated into the University in 1927. The Ernest Mario School of Pharmacy is part of Rutgers Biomedical and Health Sciences, the only state school of pharmacy in New Jersey, with approximately 1,300 students in its Doctor of Pharmacy program. The Rutgers Ernest Mario School of Pharmacy is located on the University’s main science and technology campus in Piscataway, New Jersey. Due to its close proximity to the nation's leading pharmaceutical and biopharmaceutical companies, the Ernest Mario School of Pharmacy and the RPIF Program are uniquely capable of providing fellows with advanced training in the pharmaceutical and biopharmaceutical industries.
Application Process and Eligibility Requirements

Fellows for the Rutgers Pharmaceutical Industry Fellowship Program are selected on a nationally competitive basis. Candidates must have completed a Doctor of Pharmacy degree from an ACPE accredited institution before July 1st of the fellowship term.

Due to the ongoing pandemic, participation in PPS/ASHP is required. The PPS Portal will be necessary to request an interview with positions of interest. In addition, interested individuals may submit their application materials (curriculum vitae, three letters of recommendation and a letter of intent) beginning September 2020 by visiting our website at: pharmafellows.rutgers.edu

All application materials must be submitted electronically to the RPIF Website, in addition to requesting an interview via the PPS Portal.

How to apply:

<table>
<thead>
<tr>
<th>Required Items</th>
<th>Deadline*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum Vitae (CV)</td>
<td>November 6th</td>
</tr>
<tr>
<td>Letter of Intent (LOI)</td>
<td>November 6th</td>
</tr>
<tr>
<td>Letters of Recommendation (LORs)</td>
<td>December 4th</td>
</tr>
</tbody>
</table>

*This is a rolling submission.

Applicants are strongly encouraged to submit application materials as soon as possible to request an interview. The PPS Portal opens October 21st and first round of interviews begin October 23rd. The final day to request an interview via the PPS Portal is November 6th at 11:59 PM PST.

Please address your Letter of Intent and Letters of Recommendation to:
Joseph A. Barone, Pharm.D., F.C.C.P.
Dean and Professor II
Ernest Mario School of Pharmacy
Rutgers, The State University of New Jersey
160 Frelinghuysen Road
Piscataway, NJ 08854-8020