Novartis Pharmaceutical Industry Fellowship Program 2019

Pharmaceutical Industry Fellowship Program 2019

Leadership | Tradition | Motivation
Development | Dedication

NOVARTIS
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 150 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

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.

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

First Year Fellows
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Our mission is to discover new ways to improve and extend people’s lives.

Our vision is to be a trusted leader in changing the practice of medicine.
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.
Objectives
During the two-year program at Novartis, the fellow will:

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

• Expand clinical knowledge through participation in both industrial and academic programs

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

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

• 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
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 therapeutics areas, including: Cardiology, Dermatology, Immunology, Neuroscience, Oncology, Ophthalmology, and Respiratory.

Novartis Pharmaceuticals Corporation is headquartered in East Hanover, New Jersey, which is approximately 40 miles west of New York City. Novartis Pharmaceuticals Corporation represents the United States pharmaceutical business headquarters of the worldwide Swiss firm Novartis AG, which was formed in January 1997 following the merger of Ciba-Geigy Ltd. and Sandoz Ltd.

View documents:

- Novartis Pipeline
- Key Performance Indicators
- 2017 Annual Report

Performance highlights

**FINANCIAL**

- **49.1 bn**
  Net sales (USD)
- **12.9 bn**
  Total free cash flow (USD)
- **8.6 bn**
  Core operating income (USD)
- **7.7 bn**
  Operating income (USD)
- **10.4 bn**
  Net income (USD)

**INNOVATION**

- **200 +**
  Projects in clinical development
- **9.0 bn**
  Research and development spend (USD)

**SOCIAL**

- **46 m**
  Patients reached through access programs
- **15 m**
  People reached through health education programs

1In constant currencies and for continuing operations.
## Major Prescription Products

### Cardio-Metabolic
- Entresto™ (sacubitril and valsartan)
- Galvus® (vildagliptin)*

### Global Health
- Coartem® (artemether and lumefantrine)
- Comtan® (entacapone)
- Diovan®/Diovan HCT® (valsartan/valsartan and hydrochlorothiazide)
- Exforge®/Exforge HCT® (amlodipine and valsartan/amldipine, valsartan, hydrochlorothiazide)
- Ritalin®/Ritalin LA® (methylphenidate hydrochloride)
- TOBI®/TOBI® Podhaler™ (tobramycin)
- Voltaren® (diclofenac sodium)

### Immunology, Hepatology & Dermatology
- Cosentyx™ (secukinumab)
- Ilaris® (canakinumab)

### Neuroscience
- Myfortic® (mycophenolic acid)
- Neoral® (cyclosporine)
- Simulect® (basiliximab)
- Zortress® (everolimus)

### Oncology
- Myfortic® (mycophenolic acid)
- Neoral® (cyclosporine)
- Simulcent® (basiliximab)
- Zortress® (everolimus)

### Neuroscience
- Cosentyx™ (secukinumab)
- Ilaris® (canakinumab)

### Ophthalmology
- Ilevro® (nepafenac)
- Lucentis® (ranibizumab)
- Nevanac® (nepafenac)
- Pazeo® (lopatadine)
- Simbrinza® (brinzolamide/brimonidine tartrate)

### Respiratory
- Arcapecta™
- Neohaler™ (indacaterol)
- Xolair® (omalizumab)

### Other
- Promacta® (eltrombopag)
- Rydapt® (midostaurin)
- Sandostatin® (octreotide acetate)
- Tafinlar® (dabrafenib)
- Tasigna® (nilotinib)
- Zometa® (zoledronic acid)
- Zykadia™ (ceritinib)

*Product not approved in the US.
†For statement of complete indications, please consult full prescribing information at [www.pharma.us.novartis.com](http://www.pharma.us.novartis.com).
2018–2019 Novartis Fellowship Program Leadership

**Directors**

- **Angela Browne**
  - Global Program Regulatory Director
  - Regulatory Affairs
  - Respiratory
  - Pharm.D., Purdue University
  - B.S. Pharmacy, Purdue University
  - Fellow 1999–2001

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

**Fellowship Coordinator**

- **Ginny Manfredi**
  - Senior Administrative Assistant
  - Regulatory Affairs
  - Respiratory
Novartis Fellowship Program Leadership Team

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.

**Group Leaders**

**Alan J. Slade**
Clinical Development Director  
Global Clinical Development  
Immunology, Hepatology & Dermatology  
*Pharm.D.*, Purdue University  
Fellow 2002–2004

**Charlene Hall**
Global Head, Cell & Gene Technical Services  
Technical Operations  
Cell & Gene Therapy  
*Pharm.D.*, University of Michigan  
Fellow 2000–2002

**Jennifer Slade**
SEC Franchise Head, Solid Tumors & Rare Disease  
Scientific Engagement & Communications  
Oncology Global Medical Affairs  
*Pharm.D.*, Purdue University  
Fellow 2000–2002
Group Leaders

**Christy Siegel**
Head, Strategy & Operations  
Office of the President  
Novartis Pharmaceuticals Corporation

*Pharm.D.*, Ernest Mario School of Pharmacy, Rutgers University  
Fellow 2000–2001

**Nina Gutman Katz**
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
Clinical Development

**Group Leader**

**Charlene Hall**
Global Head, Cell & Gene Technical Services
Technical Operations
Cell & Gene Therapy
Pharm.D., University of Michigan
Fellow 2000–2002

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**First Year Fellows**

**Joseph Fink**
Global Development & Trial Management
Pharm.D., Drake University
M.B.A., Drake University

**Lauren Holmes**
Global Development & Trial Management
Pharm.D., Drake University
M.B.A., Drake University
B.S. Biochemistry & Biology,
University of Northern Iowa

“A Pharm.D. has the unique skill set to drive drug development from the lab to the patient.”
Clinical Development & Pharmacoepidemiology Overview

Clinical Development

• Supports the conduct of global Phase II and III clinical trials with study startup, execution, or closeout activities.

• Collaborates 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.

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

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

Global Drug Development, Patient Safety – Quantitative Safety & Epidemiology (newly recruiting)

Quantitative Safety & Epidemiology provides high quality scientific contributions to safety management teams to support decision making in all phases of the drug life-cycle by evaluating safety data and benefit-risk.

• Fellows will be trained as pharmacoepidemiologists which includes evidence synthesis from published data and all aspects of non-interventional studies: design, execution, interpretation and communication of results. Fellows will have the opportunity to participate in epidemiology training by Rutgers and the Center for Pharmacoepidemiology and Treatment Science to acquire a certificate in pharmacoepidemiology.

• Fellows will learn how to evaluate, understand, interpret, and communicate patient safety data from diverse sources but with focus on real world data. As a member of global teams they may contribute to product submissions, to answer Health Authority questions, to labeling updates and to regulatory documents like for example Periodic Safety Update Reports and Risk Management Plans.

• Fellows may have the opportunity for a part-time assignment to a research project at the Center for Pharmacoepidemiology and Treatment Science to gain experience with detailed Electronic Medical Records.
Early Clinical Development

**Group Leader**

*Alan J. Slade*
Clinical Development Director  
Global Clinical Development  
Immunology, Hepatology & Dermatology  
*Pharm.D.*, Purdue University  
Fellow 2002–2004

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**Second Year Fellow**

*Sharon Cross*
Translational Clinical Oncology  
*Pharm.D.*, University of New England  
College of Pharmacy  
*B.S.* Cellular & Molecular Biology, Saint Mary’s College

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**First Year Fellow**

*Victoria Nesbitt*
Translational Clinical Oncology  
*Pharm.D.*, Duquesne University  
*B.S.* Pharmaceutical Sciences, Duquesne University

“Innovation, creativity and collaboration run deep within every line function at Novartis.”
Clinical Pharmacology/Translational Medicine Overview

Translational Medicine (TM) and PK Sciences (PKS) are part of the Novartis Institutes for BioMedical Research (NIBR), the research arm of Novartis, and support all phases of development; from discovery through post-marketing.

**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.

**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.

Fellowship opportunities are being offered in TM CS&I (general and specialty medicine), TCO (oncology) as well as PKS.

During their two-year fellowship:

- **NIBR CS&I/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, conducting investigator meetings, reviewing safety data, conducting dose escalation meetings, reporting and interpreting study results as well as managing study timelines, drug supply, and study vendors.

- **NIBR PKS (newly recruiting):** 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.

- 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.
“Pharm.D. fellows are able to apply their vast scientific knowledge in clinical development to meet unmet medical needs.”
Commercial — Marketing/Business Development & Licensing (BD&L)

Group Leader

Christy Siegel  
Head, Strategy & Operations  
Office of the President  
Novartis Pharmaceuticals Corporation  
Pharm.D., Ernest Mario School of Pharmacy, Rutgers University  
Fellow 2000–2001

First Year Fellows

Kurtis Lee  
Marketing  
Oncology  
Pharm.D., University of Michigan  
B.S. Biological Sciences, University of California, Irvine

Andrew Van Deusen  
Commercial  
New Products, Business Development & Licensing  
Pharm.D., University of Charleston School of Pharmacy  
B.S. Pharmaceutical Sciences, Ohio State University

Commercial Overview

The fellow works in cross-functional disease areas or brand teams that drive US Pharma 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.

Roles and responsibilities of the fellow include:

• 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.
“Novartis offers a dynamic commercial experience with opportunities to work on product launches and learn from seasoned employees.”
Global Program Management

Group Leader

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

Global Program Management
(newly recruiting)

Global Program Management drives 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.

During the two-year fellowship:

• Fellows will be assigned to a Global Program Team where they will support the team to develop and maintain accurate plans and documentation, ensure smooth day-to-day operations, and help to resolve program issues.

• Fellows will be 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 implementation.

• Fellows will support the preparation of communications to Novartis Management.

• Fellows will 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.
Medical Affairs

Group Leader

Jennifer Slade
SEC Franchise Head, Solid Tumors & Rare Disease
Scientific Engagement & Communications
Oncology Global Medical Affairs
Pharm.D., Purdue University
Fellow 2000–2002

Medical Affairs Overview

As part of the Medical Affairs umbrella of disciplines, Scientific Communications, Medical Information, and Field Medical work together to provide an integrated medical communication platform for Novartis. Fellowship opportunities in Medical Affairs can include positions in the Novartis divisions of Pharmaceuticals and Oncology in both the US and Global functions.

**Scientific Communications** 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 and medical education curriculum. 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 this scientific information to develop medical literature and drug information databases to research, evaluate, and develop evidence-based medical content for use by countries and regions to manage healthcare professional and customer interactions. Novartis offers a variety of Medical Information fellowships.

- 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.
**Field Medical** personnel are responsible for establishing and maintaining relationships with healthcare professionals by engaging in scientific discussions regarding Novartis products, therapeutic areas of interest, and sponsored research. Novartis offers two unique Field Medical related fellowships:

- 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. During the second year of the program, the fellow will be assigned a territory to engage healthcare professionals in the field.

- In the Global Field Medical role, the fellow will have the opportunity to develop global field medical strategy, develop field medical resources, create internal global communications and conduct internal training.

**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 concepts and 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 proposed promotional materials. The fellow will also review scientific, non-promotional materials for use by medical affairs associates.

- In a unique role, the fellow will complete one year in Regulatory A&P, and one year in Medical Information & Communications.
Second Year Fellows

**Meghan Kelly**
Medical Affairs
US Field Medical
Pharm.D., University of Rhode Island College of Pharmacy

**Heena Mavani**
Medical Information & Communications
Regulatory Advertising & Promotion
Pharm. D., University of Connecticut School of Pharmacy
B.S. Pharmacy Studies, University of Connecticut School of Pharmacy

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

Asia Cook
Global Medical Information & Communications & Medical Science Liaison, Oncology
Pharm.D., Florida Agricultural & Mechanical University
College of Pharmacy & Pharmaceutical Sciences
B.S. Biology, Albany State University

Francesca Francois
Medical Affairs
Global Scientific Oncology Communications
Pharm.D., Florida Agricultural & Mechanical University
College of Pharmacy & Pharmaceutical Sciences
M.P.H., Florida International University
B.S. Health Education & Behavior, University of Florida

Akshay Patel
Medical Information & Communications
Regulatory Advertising & Promotion
Pharm.D., Ernest Mario School of Pharmacy, Rutgers University

Alan Ross
US Medical
General Medicine
Pharm.D., University of Tennessee College of Pharmacy
M.B.A., University of Memphis
B.S., Middle Tennessee State University

Michael Severo
Scientific Communications
US Oncology Medical
Pharm.D., Philadelphia College of Pharmacy
Regulatory Affairs

Group Leaders

**Nina Gutman Katz**
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

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

Fellowship opportunities are being offered in both Regulatory Affairs and Regulatory Affairs Chemistry, Manufacturing and Controls (CMC). In both roles, fellows will liaise with global cross-functional teams to provide strategic input to support product development, original registration and life cycle maintenance activities.

**Regulatory Affairs**

- Serve as the primary liaison between Novartis 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 development, submission and regulatory approval of new drug or biologic products
- Submit and maintain Investigational New Drugs (INDs), New Drug Applications (NDAs), Biologics License Applications (BLAs), Clinical Trial Applications (CTAs), and Marketing Authorization Applications (MAAs)
- Develop labeling strategy and lead team in negotiating and maintaining competitive labeling with Health Authorities worldwide
- Review global advertising and promotional materials to ensure compliance with applicable laws, regulations and guidelines

**Regulatory CMC (newly recruiting)**

- 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)
“My experience at Novartis as a Regulatory Affairs fellow has been incredible. I have had the opportunity to gain an in-depth understanding of regulatory processes in both the EU and the US, to develop strategy for Health Authority interactions, and to collaborate in a cross-functional environment.”
Second Year Fellows

Austin Ferrara
Regulatory Affairs
Oncology
Pharm.D., University of Connecticut School of Pharmacy
B.S. Pharmacy Studies,
University of Connecticut School of Pharmacy

Nate Fons
Regulatory Affairs
Global Heath & Early Development
Pharm.D., University of Wisconsin-Madison
School of Pharmacy
B.S. Pharmaceutical Sciences,
University of Wisconsin-Madison School of Pharmacy

Shivani Shah
Regulatory Affairs
Cardio-Metabolic
Pharm.D., Ernest Mario School of Pharmacy,
Rutgers University
First Year Fellows

**Ryan Conway**
Regulatory Affairs  
Neuroscience  
*Pharm.D.*, Ernest Mario School of Pharmacy, Rutgers University

**Anthony Costy**
Regulatory Affairs  
Immunology, Hepatology & Dermatology  
*Pharm.D.*, Keck Graduate Institute School of Pharmacy  
*B.S. Medical Sciences & Biology*, University of Western Ontario

**Carolyn Zhu**
Regulatory Affairs  
Oncology  
*Pharm.D.*, Ernest Mario School of Pharmacy, Rutgers University
At Novartis, we are reimagining medicine.
Sandoz Fellowship

We pioneer novel approaches to help people around the world access high-quality medicine.

Sandoz is strategically positioned to reach one billion patients with a broad portfolio of complex generics, value-added medicines and biosimilars.

350+ Marketed Medicines
1000+ Molecules

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 though our innovative off-patent medicines [505(b) (2)], and global leadership in biosimilars.

Sandoz impact in US healthcare system

500+ Million Patients
Number patients Sandoz reached globally in 2017

273 Million Rx
Number of Sandoz prescriptions dispensed in US in 2017

Our global portfolio covers major therapeutic areas.

Group Leader

John Vaile
Director, Marketing Immunology
Pharm.D., St. John’s University Fellow 2005–2007
Sandoz Medical Affairs Fellowship

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 will provide the fellow an opportunity to learn the fundamental role of Medical Science Liaison and various areas under 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
- Research and help develop communication methods across the organization
- Support the needs assessments and knowledge gaps for HCPs in several therapeutic areas and the process for reviewing and approving independent medical education grants
- 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
- Participate in medical reviews for promotional and non-promotional material, and launch planning

Field Medical

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
- Medical engagement with HCPs, Payers, PBMs, GPOs, and SPs
- Development of KOL engagement strategy
- Planning field activities and overseeing logistics at major medical meetings (medical congresses)
- Support compendium and guideline submissions
Sandoz Regulatory Affairs Fellowship

The Sandoz Regulatory Affairs fellowship is designed to provide the fellow with an opportunity to develop core competencies and obtain knowledge and skills necessary to become proficient and confident in the practice of Regulatory Affairs in both the small molecule generic space (one year) as well as the biosimilar space (one year).

**Regulatory Affairs Overview**

- 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

Sandoz contributes to society’s ability to support growing healthcare needs by pioneering novel approaches to help people around the world access high-quality 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
Taunia 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 Mihic
Lillian Ng
Monil Shah
Jennifer (Stolk) Slade
Charlene (So) Hall
Susan Trye
Andrea Viegas

2001–2003
Kevin Carl
Kimberly Dickerson
Kudsia Hafeez
Angela Liu
Ayanna (Abadie) Osso
Ram Palanki
Gar Park
Rick Satitpunwaycha

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

2003–2005
Payman Darouian
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

2007–2009
Jonelle Chapman
Nina Gutman Katz
Shilpa Kurpad
John Noh
Kanan Solanki
Myah Tran
Bryan Zembrowski

There is an extensive network of past fellows from Novartis working at the company and across the pharmaceutical industry.
2008–2010
Shazia Ali
Lyh Ping Lam
Vickie Laurent
Samuel Lee
Christopher Morrison
Dalal Nesheiwat
Hannah Mosca

2009–2011
Mercy Mathew Abraham
Katherine Carter
Brian Manning
Kimberly Mazzarisi Colligan
Bijal Pandhi
Puja (Patel) Geist
Arshdeep Pooni
Jessica Wang

2010–2012
Narin Ahmed
Daniel Carreon
Dannis Chang
Breanne Donohue
Farah N. Hossain
Nickie Gallaher
Drea Pangilinan
Manisha Patel
Jiten Rana
Therese Swan
Alex Wang

2011–2013
Robert Boothroyd
Associate Director
Marketing
Oncology
Novartis

2012–2014
Madee Dhawan
HQ Medical Lead
Multiple Myeloma
Bristol-Myers Squibb

Phillip Koo
Clinical Scientist
Clinical Science and Innovation
Translational Medicine
Novartis

Jeremy Lim
Clinical Scientist
Early Development
Immunology & Infectious Diseases
Genentech

Melissa Neighbors
US Regulatory Lead
Regulatory Affairs
Amgen

Joanne Nguyen
Medical Science Liaison
Cardiovascular
Boehringer Ingelheim

Demetre Stamatis
Associate Director
Drug Regulatory Affairs
Oncology
Novartis

Allison Upalawanna
Clinical Trial Head
Clinical Development
Oncology
Novartis

Marilyn Tsourounis
Director
Oncology
AstraZeneca

2013–2015
Jenna Konkel
Medical Science Liaison
US Medical – Neuroscience
Novartis

Lisa White Krueger
Associate Director
Drug Regulatory Affairs
Oncology
Novartis

Brigette Nezami
Senior Manager
US Scientific Communications
Oncology
Novartis

Tuong Vi Nguyen
Clinical Research Scientist
Celgene

Hetal Pansuria
Associate Director
Regulatory Affairs
Pacira Pharmaceuticals

Jennifer Poon
Senior Manager
Global Regulatory Affairs
Allergan

Maryam Shirmohamadali
Clinical Trial Manager
Gilead Sciences

Matt Temer
Clinical Trial Manager
Gilead Sciences

Iris Wang
Senior Manager
US Scientific Communications
Oncology
Novartis
2014–2016
Geetha Pudussery
Senior Clinical Trial Manager
Oncology
Novartis
Viraj Degaonkar
Clinical Scientist Associate
Genentech
Ashley Brower
Global Program Manager
Regulatory Affairs Immunology, Hepatology & Dermatology
Novartis
Naomi Kozlowski
US Lead Regulatory Affairs Amgen
Anisha Baghat
Manager Global Medical Affairs Intercept Pharmaceuticals
Julia Hautman
Medical Science Liaison Respiratory Sanofi Genzyme
Priya Ramachandran
Director Field Medical Oncology Pfizer

2015-2017
Kate Bender
Expert Global Trial Manager GDO Trial Management Oncology Novartis
Alexandra Hendzel
Senior Regulatory Manager Regulatory Affairs Oncology Novartis
Rashaad Joseph
Manager Global Scientific Communications Oncology Novartis
Ramya Mathew
Manager Global MSL & Medical Information Oncology Novartis
Rubin Modi
Senior Regulatory Manager Regulatory Affairs Oncology Novartis
Zachary Post
Manager Medical Science Liaison Immunology, Hepatology & Dermatology Novartis
Dean Wetty
Early Development Regulatory Manager Regulatory Affairs Novartis Institutes for BioMedical Research

2016-2018
Jake Myhill
Global Program Manager Regulatory Affairs Immunology, Hepatology & Dermatology Novartis
Yekatsiaryna (Kate) Kastsetskaya
Global Program Manager Regulatory Affairs Neuroscience Novartis
Amanda Bright
Global Program Manager Regulatory Affairs Oncology Novartis
Mona Fassihi
Global Program Manager Regulatory Affairs Respiratory Novartis
Nehali Parikh
Global Program Manager Regulatory Affairs Oncology Novartis
Pamela Gorczyca
Manager Global Scientific Communications Oncology Novartis
Gunjan Patel
Manager Global Scientific Communications Oncology Novartis
Galina Perel
Medical Science Liaison Teva
Joe Britt
Sales Specialist Dermatology Novartis
Natalia Ceaicovscaia
Expert Global Trial Manager Oncology Novartis
Clarice Lee
Clinical Scientist Ovid Therapeutics
Sapna Chhagan
Clinical Trial Leader Translational Clinical Oncology Novartis Institutes for BioMedical Research
Rutgers Pharmaceutical Industry Fellowship Program

Ernest Mario School of Pharmacy
Rutgers, The State University of New Jersey

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 200 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.
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. Michael Toscani, Research Professor and the Director for the Institute for Pharmaceutical Industry Fellowships.

More than 950 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.

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

Professional Development Series

All fellows gather at Rutgers once or twice 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:

F - Family of Leading Companies — Partners include several of the top 21 global pharmaceutical and biopharmaceutical companies.

O - Outstanding Alumni Track Record — Over 950 alumni hold prominent positions at many leading companies.

S - Strong Network — Over 200 fellows each year develop valuable, lasting connections with each other, alumni, preceptors and faculty.

T - The Pathway to Industry — Since 1984, the Rutgers program has been nationally recognized, trusted, and proven as the pathway to industry for pharmacists.

E - Enhanced Career Path — Increasingly challenging assignments build depth of experience and enhance the potential for an accelerated career path.

R - Rigorous Academic Component — Rutgers affiliation provides academic and professional development opportunities.

Rutgers, The State University of New Jersey, with approximately 68,500 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 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. Because of 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 exposure to 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.

Participation in the ASHP Midyear Clinical Meeting/PPS is strongly encouraged. Interested individuals are invited to electronically submit a curriculum vitae, three letters of recommendation and a letter of intent and complete a program interest form online by visiting our website at: pharmafellows.rutgers.edu.

All application materials must only be submitted electronically via our website, pharmafellows.rutgers.edu (Applicant Portal) as early as November 17th. Applicants are strongly encouraged to submit a CV, Letter of Intent and (1) Letter of Recommendation by December 1st.

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

RPIF Fellowship Class of 2018 celebrates the completion of their fellowships at the annual certificate dinner.