Outcomes Research Fellowships
Purpose

The Novartis Outcomes Research Fellowship Program provides training and hands-on experience in a broad-range of health economics, outcomes research and comparative effectiveness research (CER). These two-year programs are structured to allow the fellow to gain proficiency in the field of health economics/outcomes research and CER as conducted in academic, managed care, hospital, health policy, and pharmaceutical industry settings.

Overview

Novartis Pharmaceuticals Corporation is pleased to offer six 2-year Outcomes Research Fellowship positions in 2013. The objective of the first year is to educate the fellow on principles and methods in health economics and outcomes research. Concurrently, the fellow will participate in ongoing outcomes research projects at the first year fellowship site. While at Novartis, the fellow will participate in health economics and outcomes research projects and gain experience in how a pharmaceutical manufacturer uses clinical, economic, and humanistic data to support the development and commercialization of its products.

The fellowship positions differ by first year site, requirements, and type of experience offered. Each of these positions is described separately in this brochure. You are encouraged to review each one and evaluate which position is of the most interest to you. Compensation includes a competitive stipend, basic medical insurance, holiday and vacation time, plus other benefits associated with each specific academic/managed care institution.
The Fellowship sites are as follows:

Novartis Pharmaceuticals / Scott & White Health Plan / University of Texas Fellowship
1st year:
Scott & White Health Plan, Temple, TX / The University of Texas at Austin, Austin, TX
2nd year:
Novartis Pharmaceuticals Corporation, East Hanover, NJ

Novartis Pharmaceuticals / Rutgers University Fellowships (two fellowships offered in even years only)
1st & 2nd year:
Novartis Pharmaceuticals Corporation, East Hanover, NJ

Novartis Pharmaceuticals / University of Maryland School of Pharmacy
1st year:
Department of Pharmaceutical Health Services Research, University of Maryland, Baltimore, MD
2nd year: Novartis Pharmaceuticals Corporation, East Hanover, NJ

Novartis Pharmaceuticals / Pharmacotherapy Outcomes Research Center at The University of Utah Data Analytics Fellowship (offered in odd years only)
1st & 2nd year:
Pharmacotherapy Outcomes Research Center at the University of Utah, Salt Lake City, UT

Novartis Pharmaceuticals/ Thomas Jefferson University
1st year:
Jefferson School of Population Health at Thomas Jefferson University, Philadelphia, PA
2nd year:
Novartis Pharmaceuticals Corporation, East Hanover, NJ
Novartis Pharmaceuticals is a world leader in the research and development of products to protect and improve health and well-being. Novartis was created in 1996 from the merger of the Swiss companies, Ciba-Geigy and Sandoz. As a result of the merger, Novartis holds a top global position in its core business segments: pharmaceuticals, eye care, consumer health, generics, and vaccines and diagnostics. Novartis Pharmaceuticals is dedicated to discovering, developing, manufacturing, and marketing prescription drugs to prevent and cure diseases, to ease suffering, and to enhance quality of life. Novartis’ portfolio includes more than 45 key marketed products, many of which are leaders in their respective areas. Products are concentrated on key therapeutic areas such as cardiovascular and metabolism, arthritis and bone, infectious disease, transplantation, oncology and hematology, neuroscience, and respiratory. Novartis, derived from the Latin novae artes, meaning “new skills,” is committed to using new skills to improve health and well-being through innovative products and services.

Recognizing an increasing need for outcomes information, resources, and expertise, the Health Economics & Outcomes Research (HE&OR) group was formed at Novartis with the vision to be the best-in-class in the development of outcomes evidence that demonstrates value, and optimizes patient access to Novartis products.

HE&OR professionals serve an important role at Novartis, demonstrating the value of health care solutions through cost-of-illness evaluations, economic evaluations in clinical trials, cost-effectiveness studies, naturalistic prospective evaluations, retrospective database analyses, patient-reported outcomes research, and decision-analytic modeling.
Novartis Pharmaceuticals / Scott & White / The University of Texas

Eligibility
Eligible candidates must have a doctorate in pharmacy or the combination of an undergraduate degree in pharmacy plus an advanced degree in health services research, public health, health policy, pharmacy, economics, medicine, or other related area. Experience in, or at a minimum, exposure to some aspect of outcomes research, health economics or another related field of research is preferred.

Information
For questions or additional information, please contact:
Kangho Suh, PharmD
Health Economics and Outcomes Research Fellow
Novartis Pharmaceuticals Corporation
Phone: (862) 778-6501
Email: kangho.suh@novartis.com

Fellowship Sites & Preceptors

• Scott & White Health Plan
  Paul Godley, PharmD, FASHP, BCPS, Director, Clinical Services, Temple, TX

• The University of Texas at Austin College of Pharmacy
  James Wilson, Ph.D., PharmD, FASHP, Associate Professor, Austin, TX

• Novartis Pharmaceuticals Corporation
  Kristijan Kahler, R.Ph., Ph.D., Head Outcomes Research Methods & Analytics. Novartis Pharmaceuticals Corporation, East Hanover, NJ

Scott & White Health Plan / The University of Texas at Austin
Scott & White is an integrated healthcare system in central Texas that includes a 550-bed acute care hospital, a 600-physician clinic organization, and a staff-model health maintenance organization with 220,000 covered lives. Scott & White is affiliated with the College of Medicine, Texas A&M University Health Science Center and the College of Pharmacy, The University of Texas at Austin.

The Department of Pharmacy at Scott & White provides progressive and innovative pharmaceutical services in a variety of environments for all components of the institution. Included are clinical and distributive services for the hospital, clinic and health plan, as well as sponsorship of pharmaceutical care programs and ambulatory care clinics focusing on lipid, diabetes and anticoagulation management. Fellows will gain significant understanding of the key issues involved in pharmacy services provided by prescription benefits management and managed care organizations. The integrated character of the institution and the Department of Pharmacy provide significant opportunities for pharmacy practice, research, and education.

The Health Outcomes and Pharmacy Practice Division, College of Pharmacy, The University of Texas at Austin, is one of the preeminent educational institutions for pharmacy education in the nation. The college is located in downtown Austin, and the fellow is presented with the option of pursuing the Master of Science degree in Pharmacy Administration at the University of Texas, Austin. The degree would be granted at the end of the fellowship provided that the required coursework and thesis have been completed. The recommended course of study is designed to assist the fellow in coordinating required and recommended coursework along with the fellowship requirements. However, the coursework is tailored based on individual interests, background, and career goals. Additionally, the College has a Center for Pharmacoeconomics Studies which currently has 12 researchers on staff and conducts a variety of outcomes research studies each year.

The unique nature of the Scott & White integrated health care system, combined with the pharmacoeconomic expertise at the College of Pharmacy, offers significant opportunity for individuals interested in the Novartis Fellowship experience.
Current Fellows

Second Year Fellow: Kangho Suh, PharmD
Kangho is the second year Health Economics & Outcomes Research fellow with Novartis Pharmaceuticals Corporation, Scott & White Health Plan (SWHP), and The University of Texas at Austin.

During his first year at SWHP, Kangho gained an understanding of the processes of an integrated healthcare system, including: drug pricing, formularies, and medication utilization evaluations. His research projects included a clinical and economic evaluation of a diabetes medication management program, validation of a claims-based algorithm to detect multiple sclerosis relapses, determining the primary non-adherence rate for –statin medications, and providing data analyses to the Scott & White pharmacy residents’ research projects.

In conjunction with his work at SWHP, Kangho completed the didactic portion of his Master of Science Degree in Pharmacy Administration at The University of Texas at Austin. His course work included Health-Related Quality of Life, Experimental Design and Statistical Inference, Measurement and Evaluation, Qualitative Research Design, Data Analysis, and Research Design in Pharmacy Administration. Kangho will complete his thesis during his second year focusing on a survey analysis of patient factors that influence prevention of initiating or continuing multiple sclerosis treatment.

Kangho received his Doctor of Pharmacy degree from the Ernest Mario School of Pharmacy at Rutgers University. During his final two years, he served as Chapter President for the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). He continues to be an active member of ISPOR through the UT-Austin chapter.

First Year Fellow: Jackie Lu, PharmD
Jackie is the first year Health Economics & Outcomes Research Fellow with Novartis Pharmaceuticals Corporation, Scott & White Health Plan, and the University of Texas at Austin.

Jackie received her Doctor of Pharmacy degree from the University of Maryland. As a pharmacy student, Jackie was interested in combining her passion for public health with pharmacy practice. She participated in AMCP’s Pharmacy and Therapeutics Competition and carried out several quality improvement projects with the pharmacy administration at the University of Maryland Medical Center. At the end of her second year, Jackie spent three months in Geneva, Switzerland with the World Health Organization working as a pharmacovigilance intern. There she gained appreciation for the impact of outcomes and surveillance data on health care decisions at a global level. In the last year of pharmacy school, Jackie pursued several non-traditional rotations in managed care, public health, and drug safety, all of which provided her with exposures to health economic evaluation.

Currently, Jackie is working on evaluating the impact of Scott & White’s Medical Management Program on outcomes in diabetic patients. At the same time, she is working towards a Master’s Degree in Pharmacy Administration from the Division of Health Outcomes and Pharmacy Practice at the University of Texas at Austin, College of Pharmacy.
Novartis Pharmaceuticals / Rutgers University

Eligibility

Eligible candidates should have an advanced degree in health services research, public health, economics, epidemiology, pharmacy, pharmacy administration, or a related discipline. A background in pharmacy or medicine and experience in outcomes research, health economics, or another related field of research is preferred. Candidates must have excellent written and verbal communication skills.

This fellowship is offered every even year and will be open to applicants in 2014.

Information

For questions or additional information, please contact:
Stuart Turner, BPharm, MPH
Health Economics and Outcomes Research Fellow, Novartis Pharmaceuticals Corporation
Phone: (862) 778-3439
Email: stuart.turner@novartis.com

Fellowship Sites & Preceptors

• Rutgers University
  Dong-Churl Suh, PhD, MBA, Professor and Director
  Center for International Pharmaceutical Economics and Policy
  Rutgers University School of Pharmacy, Piscataway, NJ

• Novartis Pharmaceuticals Corporation
  Kristijan Kahler, R.Ph., Ph.D., Head, Outcomes Research Methods & Analytics
  Novartis Pharmaceuticals Corporation, East Hanover, NJ

Ernest Mario School of Pharmacy, Rutgers University

Ernest Mario School of Pharmacy, Rutgers University, was founded in 1892 as the New Jersey College of Pharmacy by a group of citizens dedicated to the interest of pharmacy. It was incorporated into the university in 1927. The School is located less than an hour away from Novartis at the Busch campus in Piscataway, adjacent to the University of Medicine and Dentistry of New Jersey – Robert Wood Johnson Medical School. The School, widely known as one of the finest educational institutions for pharmacy instruction in the nation, combined with the expertise of Novartis’ HE&OR department, offers a significant opportunity to individuals interested in the health economics and outcomes research and teaching experience.

The fellowship is composed of practical research experience, didactic courses, and seminars. Upon being selected for the program, the fellow will be employed for two years by Rutgers University; however, the fellow will spend most of his/her time during the fellowship at Novartis, with the HE&OR department, located in East Hanover, New Jersey. The fellow will gain training in the principles of health economics and outcomes research as they relate to the pharmaceutical industry.

Additionally, the fellow will acquire experience in designing and conducting outcomes research studies that examine economic, clinical, and humanistic outcomes. The fellow will also regularly interact on cross-functional teams at Novartis in an effort to gain a better understanding of how health economics and outcomes research can be used in the decision making process associated with the development and commercialization of Novartis’ products.

The fellow will also have the opportunity to learn about the application of health economics and outcomes research in an academic setting at the Ernest Mario School of Pharmacy, Rutgers University. Didactic training is available and includes up to 3 courses per year. Course emphasis will be determined by the fellow in cooperation with the fellowship primary preceptors. There are also opportunities to provide lectures and receive an adjunct faculty appointment at the School of Pharmacy.
Current Fellow

First Year Fellow: Stuart Turner, BPharm, MPH
Stuart Turner is the first year Rutgers University / Novartis Pharmaceuticals General Medicine HEOR fellow. Stuart received his Bachelor of Pharmacy from Monash University in Australia and worked for a considerable time as a clinical pharmacist and later as a manager of a multidisciplinary health care team in Australia. He received his Master of Public Health from Melbourne University in Australia in 2010, focusing on health economics.

Stuart’s interests include economic modeling, international health, the use and measurement of patient reported outcomes and in translating evidence to policy. Previous research that he has been involved in prior to commencing the fellowship include: An economic analysis of empiric antifungal use in Turkey, an economic review of Hepatitis C protease inhibitors, a review of economic evaluations of clinical pharmacy services in the United States and pharmacokinetic/pharmacodynamic modeling studies of vancomycin and daptomycin in the treatment of MRSA.

He is looking forward to expanding his skills and understanding of health economics from an industry perspective while supporting the respiratory team over the next two years, providing input on projects such as determining the effect of adherence to antibiotic therapy for cystic fibrosis on health outcomes.
Novartis Pharmaceuticals / Rutgers University

Fellowship Sites & Preceptors

- **Rutgers University**
  - Dong-Churl Suh, PhD, MBA, Professor and Director, Center for International Pharmaceutical Economics and Policy
  - Rutgers University School of Pharmacy, Piscataway, NJ

- **Novartis Pharmaceuticals Corporation**
  - John Coombs, PharmD, MBA, Director, Health Economics & Pricing, Global Oncology, Florham Park, NJ

Ernest Mario School of Pharmacy, Rutgers University
Ernest Mario School of Pharmacy, Rutgers University, was founded in 1892 as the New Jersey College of Pharmacy by a group of citizens dedicated to the interest of pharmacy. It was incorporated into the university in 1927. The School is located less than an hour away from Novartis at the Busch campus in Piscataway, adjacent to the University of Medicine and Dentistry of New Jersey – Robert Wood Johnson Medical School. The School, widely known as one of the finest educational institutions for pharmacy instruction in the nation, combined with the expertise of Novartis’ Global Oncology Health Economics & Pricing (HE&P) department, offers a significant opportunity to individuals interested in the health economics, outcomes research, global pricing strategy, and teaching experience.

The fellowship is composed of practical research experience, didactic courses, and seminars. Upon being selected for the program, the fellow will be employed for two years by Rutgers University; however, the fellow will spend most of his/her time during the fellowship at Novartis, with the Oncology HE&P department, located in Florham Park, New Jersey.

The Fellow will have opportunities to engage in meaningful projects and learn by working with mentors from the Global Oncology HE&P department and other cross-functional groups. Possible activities/projects may include:

- Contributing to trial design discussions (Phase II-Phase III) to incorporate patient reported outcomes (PROs) and health economic measures (e.g. healthcare resource utilization), as appropriate, through conducting literature reviews and providing PRO questionnaire selection and recommendations to the clinical trial team
- Learn critical elements of evidence generation and value communication through coordination with the product team to build strong Value Propositions and prepare Global Value Dossier and communication tools for use by regional and country colleagues
- Conduct burden of illness evaluations to better characterize patient and population unmet needs through database analysis and literature review
- Develop health economic models to characterize and communicate the budget impact and cost-effectiveness of new oncology therapeutics

Eligibility

Eligible candidates should have an advanced degree in health services research, public health, economics, epidemiology, pharmacy, pharmacy administration, or a related discipline. A background in pharmacy or medicine and experience in outcomes research, health economics, or another related field of research is preferred. Candidates must have excellent written and verbal communication skills.

This fellowship is offered every even year and will be open to applicants in 2014.

Information

For questions or additional information, please contact:
Bhavini Srivastava, BS Pharm, MPA
Health Economics and Outcomes Research Fellow
Novartis Pharmaceuticals Corporation
Phone: (862) 778-3328
Email: bhavini.srivastava@novartis.com.
• Learn global pharmaceutical pricing strategy through payer insight research, product pricing analogues, and examination of prior reimbursement decisions

• Present and/or publish research findings to support product differentiation and market access

The fellow will also have the opportunity to learn about the application of health economics and outcomes research in an academic setting at the Ernest Mario School of Pharmacy, Rutgers University. Didactic training is available and includes up to 3 courses per year. Course emphasis will be determined by the fellow in cooperation with the fellowship primary preceptors. There are also opportunities to provide lectures and receive an adjunct faculty appointment at the School of Pharmacy.

Current Fellow

First Year Fellow: Bhavini Srivastava, BS Pharm, MPA

Bhavini completed her Bachelor of Science in Pharmaceutical Sciences from Campbell University, North Carolina and then pursued a Masters in Pharmacy Administration from Duquesne University Pittsburgh, PA. As a graduate student, Bhavini’s primary interests were in database analysis and pharmacoeconomics. As part of her thesis she studied direct costs involved in patients with asthma and COPD using the Medical Expenditure Panel Survey (MEPS) data. As a graduate student, Bhavini also had the opportunity to present her research in the form of poster presentations at ISPOR meetings. During her graduate studies, Bhavini also had the opportunity to be involved in studying resource utilization in non-small cell lung cancer using Healthcare Cost Utilization Project (HCUP) data and in systematic literature reviews pertaining to economic costs and measuring quality of life (QoL) in patients with Renal Cell Carcinoma (RCC).

Bhavini was also fortunate enough to complement her graduate studies with an internship at Novartis in the Outcomes Research and Method Analytics group in the summer of 2010. This internship experience at Novartis further enhanced her knowledge in database analysis. As an intern at Novartis, Bhavini learned about the fellowship programs Novartis offers in the field of Health Economics and Outcomes Research (HE&OR) and decided to pursue this opportunity to provide some more hands on experience in the field of HE&OR.

Bhavini has started as a first year fellow in the Health Economics and Market Access Group, Global Oncology. Currently she is working on a variety of projects which include developing an early global value dossier for a new product in multiple myeloma, and a payer research project which involves collaborating with payer research vendor in order to identify payer evidence needs for a targeted non small cell lung cancer therapy, and payer perceptions on PROs. Bhavini has also started to work on a Phase II clinical trial in myelofibrosis and will assist in incorporating Patient Reported Outcome measures in the study design.
Novartis Pharmaceuticals / Pharmacotherapy Outcomes Research Center at the University of Utah

Data Analytics Fellowship Preceptors

- **Pharmacotherapy Outcomes Research Center at The University of Utah**
  Joseph Biskupiak, PhD, MBA, Research Associate Professor
  University of Utah College of Pharmacy, Dept. of Pharmacotherapy
  Salt Lake City, UT

- **Novartis Pharmaceuticals Corporation**
  Kristijan Kahler, PhD, RPh
  Head, Outcomes Research Methods & Analytics
  Health Economics & Outcomes Research

---

Pharmacotherapy Outcomes Research Center at The University of Utah

The Pharmacotherapy Outcomes Research Center (PORC) was established in 2002 at the University of Utah’s College of Pharmacy in Salt Lake City, Utah. The PORC’s mission is to facilitate the interaction of academia and patient care systems in the conduct of outcomes research, the presentation and publication of results, training of healthcare professionals and facilitating the utilization of outcomes research information to improve patient care.

PORC is part of the Department of Pharmacotherapy in the College of Pharmacy, which houses 24 clinical and research based faculty. The Center also has research and administrative staff to support faculty in conducting outcomes research in the areas of clinical outcomes, comparative effectiveness research, patient reported outcomes, economic evaluations and health services research. Research projects are funded by the pharmaceutical industry, foundations, managed care organizations and the government. PORC utilizes local and national comprehensive inpatient and outpatient data sources to conduct their research. Data sources include the University of Utah Hospital and Clinics Network, the TOPS (Total Outcomes in Pain Survey) database which contains quality of life assessment of over 5000 patients, and several nationally integrated patient databases that collectively include real-time retail pharmacy data, clinical data from the electronic medical record, resource utilization, as well as cost data.

---

Eligibility

Eligible candidates should have an advanced degree in health services research, public health, economics, epidemiology, pharmacy, pharmacy administration, or a related discipline. A background in pharmacy or medicine and experience in outcomes research, health economics, or another related field of research is preferred. Candidates must have excellent written and verbal communication skills.

This fellowship is offered every odd year and will be open to applicants in 2013.

Information

For questions or additional information, please contact:
Junji Lin PhD, MS candidate
Health Economics & Outcomes
Analytical Fellow
Pharmacotherapy Outcomes Research Center University of Utah College of Pharmacy
Phone: 801-587-9374
Email: junji.lin@hsc.utah.edu
Current Fellow

Second Year Fellow: Junji Lin, PhD, MS candidate

Junji Lin is the second year Health Economics & Outcome Analytical Fellow with Novartis Pharmaceuticals/University of Utah. During her first year of the fellowship program Junji supported the HE&OR group on multiple projects based on different therapeutic area on the analytical aspect. Junji worked closely with the analytical group in East Hanover on observational studies including rheumatoid arthritis, Alzheimer’s Disease, hypertension, multiple sclerosis and COPD. During the training, Junji involved closely with study design, data management, analysis and result delivery. As part of her first year fellowship, Junji got extensive training in outcomes research using Electronic Medical Records (EMRs), specifically with GE centricity data. Junji is also participating in the University of Utah projects on HCV treatment compliance studies using US veteran database (VA). Understanding the typical EMR database structure, strength and weakness of these databases is her main focus. She gained plenty of experience on outcomes studies using EMRs including health outcomes, treatment effects, drug adherence and compliance.

Starting with her second year training, Junji is focusing on using commercial claim database, mainly with MarketScan. She will be the main analytical fellow working on projects related to the burden of pneumonia patients. Both cost and health outcomes will be evaluated. She is expecting to gain insight of conducting health and economics outcomes studies using appropriate database.

Prior to joining the Novartis HE&OR team, Junji had her Ph.D. in Biology and served as a post-doctoral fellow in the Department of Neurobiology & Anatomy at the University of Utah. She is also a part-time student in the Department of Family and Preventive Medicine at the University of Utah, towards an MS degree in Bio-Statistics. She utilized her biology and statistics background to conduct an analysis of second generation high-throughput sequencing and develop mutant generation methods by Zinc-Finger-Nuclease technique. A research paper based on this study was published in BMC. She also provides statistics consultants to multiple CQI projects held in the University of Utah medical school. A study with healthy eating vital sign was also recently published in ISRN Obesity.
The University of Maryland, School of Pharmacy

The University of Maryland School of Pharmacy, founded in 1841, is the fourth oldest school of pharmacy in the nation. The School is one of seven professional schools and a graduate school located at the University of Maryland Baltimore, a thriving center for health services practice and research. Through its education, research, and service programs, the School of Pharmacy strives to improve the health and well-being of society by aiding in the discovery, development, and optimal use of medicines. One of three departments within the School, the Department of Pharmaceutical Health Services Research strives to improve the health of diverse populations through health services and other drug-related research, education, service and community outreach.

PHSR scholarship centers around pharmaceutical health services research and spans the disciplines of behavioral sciences, pharmacoeconomics, pharmacoepidemiology, and policy. Fifteen faculty conduct research sponsored by Federal and State government agencies, foundations, and pharmaceutical industry, with work clustering around issues inherent in their Centers: The Peter Lamy Center on Drug Therapy and Aging, the Center on Drugs and Public Policy, and the Center for Drug Safety. Pharmaceutical Research Computing, a fourth Department center, provides computer programming, data management, and analytic support to faculty, students, and staff. The Department houses numerous, comprehensive databases, including the Chronic Condition Warehouse (CCW) 5% sample of Medicare beneficiaries linked to Part D data; the Medicare Current Beneficiary Survey; Medicaid and MAX data; and other proprietary and public data sets.

This two-year fellowship focuses on the development of research skills relevant to health policy, with a particular focus on pharmaceutical policy. Fellows will spend the first year at the University of Maryland Baltimore honing research and policy skills and the second year at Novartis, where they will apply training and interests in an industry environment. Fellow and the mentoring team, but broad domains of interest include: comparative effectiveness research; patient-centered
outcomes research; health care reform; research focusing on medication management and outcomes in geriatric patients suffering multiple chronic illness; Medicare policy; disparities in pharmaceutical utilization, adherence, and outcomes; long-term care policy; mental health policy; and pharmacogenomics. The applicant will work closely with a Mentoring Team to identify relevant research areas and ideas. The unique combination of rigorous academic training with industry experience in the second year will provide the Fellow considerable experience to conduct policy-relevant health services and outcomes research.

Current Fellows

Second Year Fellow: Mario Luong, PharmD, MPH
Mario is the second year Health Economics & Outcomes Research Fellow with the University of Maryland School of Pharmacy and Novartis Pharmaceuticals Corporation. He is presently supporting the Novartis primary care franchise, gaining extensive hands-on experience in study design and project management.

As a first year fellow, Mario worked on creating psychopharmacological medication quality indicators for long-term care Medicare beneficiaries and examining medication use patterns in elderly patients with dementia. He also worked on an extensive review of patient-prescriber agreements as part of a Centers of Excellence in Regulatory Science and Innovation partnership between the University of Maryland and the Food and Drug Administration.

Mario received his Doctor of Pharmacy and Master of Public Health degrees, with a focus on Community and Population Health, from the University of Maryland, Baltimore. Prior to coming to Baltimore, he received his Bachelor of Science degree in Chemistry from the University of Maryland, College Park. As a PharmD/MPH student, Mario practiced evidence-based formulary management at the Maryland Department of Health and Mental Hygiene and participated in health services research at the University of Maryland School of Pharmacy. He also participated in extensive clinical and retail pharmacy training in a variety of other pharmacy practice settings.

First Year Fellow: Zippora Kiptanui, BS Pharm, MPH
Zippora is currently the first year Novartis Outcomes Research Fellow at the Department of Pharmaceutical Health Services Research at the University of Maryland School of Pharmacy.

Zippora is furthering her research skills through involvement in ongoing studies on patient outcomes associated with anticoagulants and psychotherapeutics. Zippora is also gaining experience in data analysis using national datasets such as Medicare Part D data. She works with a multidisciplinary team of experts in pharmacoepidemiology, biostatistics, trauma, cardiology, and geriatric medicine.

Zippora received her pharmacy training at the University of Nairobi, Kenya and is a public health graduate from the University of Minnesota. She has industry experience at Pfizer Global Pharmaceuticals in East & West Africa where she worked as a liaison officer for oncology products. She also developed clinical expertise in HIV/AIDS drug management garnered at Medecins Sans Frontieres (Doctors without Borders). During her MPH training, Zippora’s focus was health administration & policy where she incorporated her pharmaceutical knowledge to policy development and analysis. She also participated in a research project at the Minnesota Department of Health involving health care access for refugees in Minnesota.
Novartis Pharmaceuticals / Thomas Jefferson University

Eligibility
Eligible candidates should have an advanced degree in health services research, public health, economics, epidemiology, pharmacy, pharmacy administration, or a related discipline. A background in pharmacy or medicine and experience in outcomes research, health economics, or another related field of research is preferred. Candidates must have excellent written and verbal communication skills.

Information
For questions or additional information, please contact:
Slaven Sikirica MS
Health Economics and Outcomes Research Fellow Jefferson School of Population Health
Phone: (215) 955-0107
Email: slaven.sikirica@jefferson.edu

Fellowship Sites & Preceptors

• Thomas Jefferson University
  Joseph D. Jackson, PhD, Program Director
  Applied Health Economics and Outcomes Research Thomas Jefferson University, School of Population Health, Philadelphia, PA

• Novartis Pharmaceuticals Corporation
  Kristijan Kahler, R.Ph., Ph.D.
  Head, Outcomes Research Methods & Analytics
  Novartis Pharmaceuticals Corporation, East Hanover, NJ

Jefferson School of Population Health, Thomas Jefferson University
The Jefferson School of Population Health (JSPH), founded in 2008, was built upon the 18-year history of Jefferson’s Department of Health Policy. JSPH is one of six schools that comprise Thomas Jefferson University, which includes Jefferson Medical College, the nation’s oldest private medical school. JSPH’s involvement in health policy and outcomes includes outcomes management, pharmacoeconomic research, clinical evaluative sciences, and health services research. The School is proud to have one of the oldest and most established outcomes research fellowship programs in the country. To date, more than thirty five individuals have graduated from School fellowships and have been successful in their pursuits of careers in the healthcare industry, health insurers, and consulting.

During the first year, the Fellow will work at JSPH at Thomas Jefferson University in Center City, Philadelphia. There, the Fellow will be assigned to manage specific outcomes research projects. The primary role of the Fellow is to serve as a member of the research team. Fellows also have the opportunity to attend and present at JSPH’s research meetings, journal clubs, health policy forums, sponsored educational programs, and may contribute to any one of several graduate-level classes taught by faculty for JSPH’s public health, applied health economics and outcomes research, health policy, healthcare quality and safety, and chronic care management programs. Fellows’ writing skills are developed through completion of a writing seminar, peer-review of continuing education articles for P&T, and authorship of manuscripts for publications edited by JSPH, including P&T, as well as Biotechnology Healthcare, American Journal of Medical Quality, Population Health Management, and the Health Policy Newsletter.
Networking is also an important activity during the first year, as the Fellow will interact with decision-makers from both within the University and from a broad variety of organizations, including pharmaceutical and device manufacturers, health plans, and other employers. The Fellow will regularly meet with faculty and staff from the School of Population Health to discuss research projects and academic experiences, and he/she will be assigned a faculty mentor to coach him/her during the first year. Completion of master’s level coursework at Jefferson is a formal component of this Program, and serves to develop the knowledge and skills required for health economics and outcomes research. The Fellow has the option and is provided adequate support to pursue a master’s degree in any of JSPH’s programs over the two years of their fellowship, including public health, health policy, and applied health economics and outcomes research.

The second year of training will take place at Novartis, located in East Hanover, New Jersey. During this time, under the guidance of a Novartis preceptor, the Fellow will work directly with the HE&OR department at Novartis for a period of one year in order to further their educational objectives by gaining applied experience in health economics and outcomes research. In addition to project work, the Fellow will participate in meetings to share his or her work, and further develop networking and presentation skills.

**Current Fellow**

**First Year Fellow: Slaven Sikirica, MS**

Slaven Sikirica, MSc Health Economics, is an incoming Health Economics and Outcomes Research Fellow at the Thomas Jefferson University School of Population Health. Over the course of the fellowship, Mr. Sikirica will seek to grasp a better understanding of how pending alterations to healthcare systems in the U.S. and U.K. will affect R&D and reimbursement in the global pharmacoeconomic market. Mr. Sikirica currently holds degrees in biological sciences and economics from the University of Maryland Baltimore County and a degree in Health Economics from City University London.
Previous Fellows

**Neetu Agashivala, MS**  
Assistant Director, Health Economics & Outcomes Research  
Novartis Pharmaceuticals Corporation

**William Boyko, PharmD**  
Owner, Medicine Shoppe Pharmacy

**Cat Bui, PharmD**  
Manager, Health Economics & Outcomes Research  
Astellas Pharma US, Inc.

**Scott Bull, PharmD**  
Director, Clinical Development  
Johnson & Johnson Pharmaceutical Research & Development

**Jane Chang, MPH**  
Deputy Director, Global Health Economics & Outcomes Research  
Bayer Healthcare Pharmaceuticals

**Paul C. Cockrum, PharmD, DPh**  
National Managed Care Sr. Medical Science Liaison  
Galderma, L.P.

**QuynhChau Doan, MS, RPh, PhD**  
Senior Manager, Clinical Epidemiology  
Abbott Laboratories

**Joseph Doyle, MBA, RPh,**  
Health Economics & Outcomes Research Consultant

**Shilpa Ekbote, PharmD**  
Staff Pharmacist  
Rite Aid Pharmacy

**John Fastenau, MPH, RPh**  
Senior Director, Health Economics & Outcomes Research  
Ortho McNeil Janssen Scientific Affairs

**Kelly Fee-Bell, PharmD, MSPhr**  
Associate Director, Health Services  
Bristol-Meyers Squibb Company

**Feride Frech-Tamas, MPH, RPh**  
Senior Director, Health Economics & Outcomes Research  
Daiichi Sankyo, Inc.

**Geneen Graber, PharmD**  
President and CEO  
DrG’s Pharmacy By The Sea

**Bill Grant, PhD**  
Assistant Professor, Department of Economics  
James Madison University

**Amy Grogg, PharmD**  
President, Xcenda

**Kristy Hanson, PharmD, MS**  
Senior Research Associate, Outcomes Research  
United BioSource Corporation

**Archi Jackson, PharmD**  
President  
A&S Healthcare Consulting and Analytics, Inc.

**Jennifer Kim, PharmD**  
Director, Health Economics & Outcomes Research  
AstraZeneca Pharmaceuticals

**John Kim, PharmD**  
Director, Global Pricing & Payer Planning  
Amgen, Inc.

**Yoona Kim, PharmD**  
Senior Medical Scientist, Managed Care and Government Accounts  
Gilead Sciences

**Amy Law, PharmD, MS**  
Deputy Director, US Health Economics & Outcomes Research  
Bayer HealthCare Pharmaceuticals, Inc.
Previous Fellows

Jeannie Menz, PharmD
Associate Director, Medical Training
Novartis Pharmaceuticals Corporation

Gilbert Ngan, PharmD
Clinical Manager
CVS Caremark

Lina Nol-Heiring, MBA, RPh
Executive Sales Consultant, NE - Princeton
Novartis Pharmaceuticals Corporation

Hoa Pham, PharmD
Senior Manager, Health Economics & Outcomes Research
Novo Nordisk

Craig Plauschinat, PharmD, MPH
Regional Account Scientific Director, Medical Account Management
Novartis Pharmaceuticals Corporation

Shibani Pokras, MPH
Director, Health Economics & Outcomes Research
IMS Consulting Group

Karim Prasla, PharmD, MS
Vice President, Clinical Outcomes Analytics and Research
Magellan Health Services

Seonyoung Ryu, PharmD
National Managed Care Liaison
Genentech, Inc.

Rahul Sasané, PhD, MS, B.Pharm
Director, Global Market Access
Bayer Pharmaceuticals

Veronica Sendersky, PharmD
Market Access Freelancer
Self-employed

Hemal Shah, PharmD
Senior Vice President, Health Economics & Outcomes Research and New Products Marketing
Optimer Pharmaceuticals

Amishi Shah, PharmD
Senior Manager, Oncology Medical Communications
Amgen, Inc.

Anh Singhania, PharmD
Health Outcomes Liaison II, Field Medical Affairs
Daiichi Sankyo

Liz Stanley, MPH
Research Manager
Deloitte LLP

Devi Thaker-Mehta, PharmD, MS
Senior Clinical Consultant
PharmacoAnalytics
Express Scripts

Joel Wallace, PharmD, MPH, MBA
Signaling Products Group Head – Oncology, Global Health Economics & Pricing
Genentech, Inc.

Krista Yokoyama, PharmD
Sr. Manager, Pharmacy Analytics & Reporting Pharmacy Services
Blue Shield of California

Dusica Tasic
Manager, Health Economics & Outcomes Research
GE Healthcare

Boris Gorsh, PharmD
Manager, Clinical Programs
Clinical Pharmacy Services, CDMI

Swetha Raparla
Research Analyst
HealthCore, Inc.
Please type or print

Name:

Last                        First                        MI

Address:

Street                        City                        State                        Zip Code

Phone:

Primary                        Secondary

E-mail:

________________________________________________________________

________________________________________________________________

________________________________________________________________

Undergraduate Degree(s): (received and expected)

________________________________________________________________

________________________________________________________________

________________________________________________________________

Advanced Degree(s): (received and expected)

________________________________________________________________

________________________________________________________________

________________________________________________________________

Please check your site(s) of interest and then rank those sites in order of interest priority:

Rank checked boxes (1 as highest priority)

☑ _____ Scott & White Health Plan / The University of Texas at Austin / Novartis Pharmaceuticals Corporation

☑ _____ The University of Maryland / Novartis Pharmaceuticals Corporation

☑ _____ Thomas Jefferson University School of Population Health / Novartis Pharmaceuticals Corporation

☑ _____ University of Utah PORC Data Analytics

If you are interested in more than one program, please send the application for your top choice.

APPLICATION MATERIALS REQUIRED

• Application form

• Letter of intent

• Curriculum vitae

• Three letters of recommendation (forwarded directly by the authors of these letters)

• Official academic transcript(s) (forwarded directly from the Registrar’s Office)

Please list schools from which transcript(s) were requested.

________________________________________________________________

________________________________________________________________

________________________________________________________________

Please mail the completed application materials and the Outcomes Research Fellowship Application Form by December 31, 2012 to:

Kristijan Kahler, R.Ph., Ph.D.
Head, Outcomes Research Methods & Analytics
Novartis Pharmaceuticals Corporation
East Hanover, NJ 07936

Novartis Use Only

Date Received: