





Ironwood®

PharmD Industry Fellowships

Dear Prospective Fellow



We're thrilled that you're considering Ironwood Pharmaceuticals, for your next big career step! At Ironwood, we're committed to advancing the treatment of GI diseases and redefining the standard of care for millions of GI patients. Ironwood is more than just a company—we're a community of passionate individuals each with unique perspectives and talents, working together to create medicines designed to improve the lives of GI patients.

Joining Ironwood means you'll be part of a diverse, inclusive, and collaborative team where fresh ideas are encouraged and everyone's voice is valued. We believe that the unique viewpoints each person brings help us create innovative ideas that can help us discover and deliver break-through therapies for patients and build the next great pharmaceutical company.

If you're interested in working in a hands-on environment, taking on innovative discovery opportunities and advancing them into drugs designed to alleviate patients' symptoms, improve their quality of life, and even tackle diseases, look no further than our PharmD Fellowship Program.

Our Fellowships offer a unique learning experience, providing a solid foundation in research and opportunities to deepen your understanding of disease biology, pharmacology and drug delivery including the different phases of drug development. You'll also have the opportunity to make meaningful contributions to GI patient care and learn from seasoned experts in medical safety, and regulatory affairs, and more, all while growing both personally and professionally.

On behalf of everyone at Ironwood Pharmaceuticals, thank you for your interest in our PharmD Fellowship Program class of 2025-2027.We're excited about the possibility of you joining and invite you to apply and explore a future with us.

All the best,

Mike Shetzline, MD, PhD

SVP, Chief Medical Officer and Head of Research and Development

Our PharmD Fellowship Programs

Ironwood's fellowship programs are designed to offer Doctor of Pharmacy (PharmD) graduates in-depth experience within a biopharmaceutical setting. We are offering two unique experiences: A Clinical Development and Medical Scientific Affairs (Clin Dev/MSA) fellowship and a Global Patient Safety and Regulatory Affairs (GPS/RA) fellowship. As part of the drug development and commercialization process, Ironwood fellows gain the confidence and knowledge needed to excel in a dynamic, cross-functional team environment. Our fellowships are designed to foster individual learning and growth, both professionally and personally, and offer the opportunity to be involved in high-visibility, high-impact projects. By the end of the two-year fellowship, Ironwood fellows can develop highly marketable skills and the experience needed to pursue a successful career within the pharmaceutical industry. The fellows will be interacting with preceptors in their respective functional areas. Both fellowships will be based out of Ironwood's headquarters in Boston.



"I have a deep appreciation of how well the mutli-faceted education of a PharmD uniquely prepares you for many career paths in the pharmaceutical industry. The fellowship program at Ironwood builds on that foundation by offering broad and in-depth experience in pharmacovigilance /regulatory affairs or clinical development / medical affairs. As a small company, we wear many different hats, giving the Fellow the opportunity to see how their work contributes to the big picture."

Patricia Valencia, PharmD, RPh

Vice President, Global Patient Safety

Fellowship Director

"The Ironwood Clin Dev/MSA Fellowship offers fellows a hands-on experience in multiple aspects of clinical development and medical scientific affairs, with emphasis on a gradual increase in responsibility and independence under the supervision of an experienced preceptor. Each fellow should acquire the fundamental knowledge and practical experience to form a strong foundation for a career in clinical development or medical affairs."



Susanna Huh, MD, MPH

Head of Clinical Development

Clinical Development / Medical Scientific Affairs

2-Year Fellowship, Recruiting 1 Position

About the Fellowship:

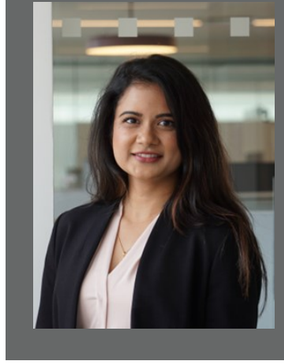
The Clinical Development/ Medical Scientific Affairs (Clin Dev/MSA) Fellowship allows the fellow to acquire the knowledge and skills to perform as an individual contributor within the Clin Dev or MSA group. Collaboration between these two functions is essential to both the development of a commercialized therapeutic product and a product's lifecycle management. The fellow's goal during the Clin Dev year is to learn and contribute to clinical development strategy and execution for Ironwood's pipeline compounds. During the medical affairs year, the fellow will contribute to the design and implementation of complex strategic medical affairs plans for Ironwood GI products and acquire in-depth GI disease state knowledge.

Fellowship Year Directors:



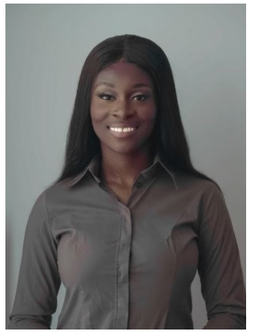
"Joining fellows will be immersed in our mission to lead and implement the clinical development strategy for Ironwood's pipeline committed to delivering novel GI therapies to patients with unmet needs. Under preceptor supervision, they learn the critical skills necessary to formulate a successful clinical development plan focused on patient-centric clinical trial design and be exposed to the role and responsibilities of a clinical scientist. Fellows collaborate cross functionally to cultivate a drug development program aimed at bringing an asset from the preclinical stage, regulatory approval, and the post-market lifecycle."

Tina Shakhnovich, MD
Medical Director, Clinical Development



"The Clin Dev/MSA fellowship at Ironwood provides you with a unique experience to join a fast paced, ever-evolving, collaborative team. This unique fellowship enables fellows the opportunity to explore and experience key functional groups throughout the drug development process. With diverse hands-on experiences and mentorship opportunities, fellows can personalize their experiences to develop the necessary foundation and skills to thrive in industry."

Niha Yerneni, PharmD, MPH
Medical Affairs Manager, Medical Scientific Affairs



"Joining Ironwood Pharmaceuticals as a PharmD Fellow is a thrilling opportunity for me to contribute to a pioneering company. I am eager to collaborate with the passionate team here, contribute to advancing healthcare solutions, and deepen my expertise in clinical development and medical scientific affairs. This fellowship aligns perfectly with my lifelong goal of leveraging my skills to improve healthcare access, particularly in underserved communities. I am excited to embark on this journey with Ironwood and make a meaningful impact."

Mildred Asamoah, PharmD
First Year Clin Dev Fellow



"Starting my career at Ironwood has given me the opportunity to expand my knowledge of the drug development process in an environment that fosters growth and collaboration. I was drawn to Ironwood for their commitment to advancing treatment for patients with unmet needs, unique fellowship structure, and overall company culture. The Clin Dev/ MSA fellowship is unique in that it combines two functional areas that are clinically related and fundamental to the drug development process. The ability to dive deep into each area will give me a diverse skillset that will prepare me for a successful career in the pharmaceutical industry."

Danielle D'Achino, PharmD
Second Year MSA Fellow

Fellowship Program Timeline & Experiences

First Year

Under preceptor mentorship, the fellow will work within the Clin Dev team to gain experience in clinical development strategy, study design, data interpretation, trial execution. Activities may include assisting the team with literature reviews, study document preparation, evaluating strategies to enhance trial recruitment, supporting site training, and data cleaning and interpretation.

Second Year

The fellow will be integrated within the MSA team to gain experience in medical strategy, Medical Legal Regulatory review process, publication strategy, content development, advisory board and congress strategy and insight generation.

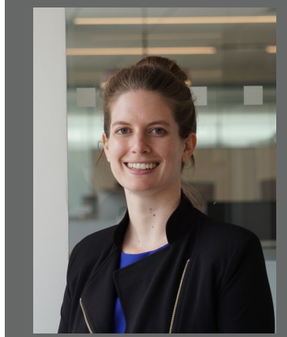
Global Patient Safety / Regulatory Affairs

2-Year Fellowship, Recruiting 1 Position

About the Fellowship:

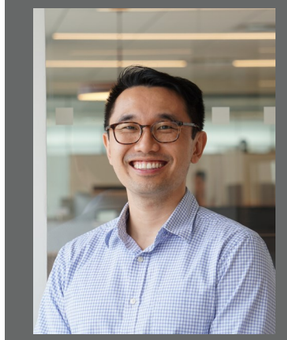
The purpose of the Global Patient Safety / Regulatory Affairs (GPS/RA) Fellowship is to provide the fellow with training in both functional areas to prepare them to enter an industry role as an individual contributor in safety or regulatory after the end of their two year fellowship. The cross-functional collaboration between these two groups is essential to both the development of a therapeutic product and management of that product throughout its lifecycle. By gaining experience in both functional areas, the fellow will be able to pursue a career in either functional area and have a practical understanding of the other function's responsibilities to enable them to be an optimal collaborator and colleague.

Fellowship Year Directors:



"Ironwood knows the value an industry fellowship can provide and has hired multiple fellows from other programs, including myself. We are excited to continue our own fellowship programs and alumni, allowing more PharmD graduates to jumpstart their career in the pharmaceutical industry. In the GPS/RA fellowship, our fellow will have the opportunity to interact closely with other departments within Ironwood and gain valuable experience in both safety and regulatory to prepare them for a career in industry in either field."

Theresa Foster, PharmD
Director of Pharmacovigilance, Global Patient Safety



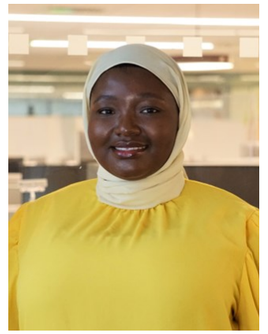
"Fellows at Ironwood will have the opportunity to get real hands-on experience working with the cross-functional team on assets in development or in lifecycle management. As a company, Ironwood is a wonderful place for you to learn, develop, and hone your skills in a challenging, yet rewarding environment where opinions are valued and the potential for career growth is high."

Martin Kwok, PharmD, RAC
Sr. Director, Regulatory Affairs



"What drew me to this fellowship program is their distinctive offering in GPS and RA. I always thought of GPS as the roots and RA as the petals. Both need to be nurtured to grow. Having a foundational base with patient safety my first year is imperative to progressing as a competent fellow in the industry. The supportive work environment has played a crucial role in my growth and development. I've been struck by how welcoming and encouraging my colleagues have been. Their openness to sharing their knowledge and insights about the industry has accelerated my learning curve significantly. This opportunity not only allows me to grow professionally, but also make a meaningful difference in the lives of others – a prospect that inspires and motivates me everyday."

Yasser Ibrahim, PharmD
First Year GPS Fellow



"Starting my career in the pharmaceutical industry at Ironwood has been an incredible opportunity because the working environment is conducive to growth and learning. As a fellow who had no prior industry experience, my time here has been nothing short of amazing. I have found my colleagues and preceptors to be amiable and open to teaching me about the industry. The GPS/RA fellowship is unique as fellows can be fully immersed in the workings of two distinct, yet closely related functional areas which equips you with the necessary skillset and training to take ownership of your own career and be a competitive candidate in the job market."

Amira Abubakari, PharmD
Second Year RA Fellow

Fellowship Program Timeline & Experiences

First Year

The fellow will work within GPS to gain experience in case processing operations, safety database management, signal detection, signal management, aggregate reports, safety governance, and advanced pharmacovigilance analytics.

Second Year

The fellow will work within Regulatory Affairs to gain experience in global/regional labeling, maintenance of IND and/or NDA applications, regulatory strategy, regulatory intelligence, Agency meeting management and correspondences, and regulatory operations.

About Ironwood

Ironwood Pharmaceuticals is a leading global gastrointestinal (GI) healthcare company on a mission to advance the treatment of GI diseases and redefine the standard of care for GI patients. We are pioneers in the development of LINZESS® (linaclotide), which is the U.S. branded prescription market leader for adults with irritable bowel syndrome with constipation (IBS-C) or chronic idiopathic constipation (CIC) and is also indicated for the treatment of functional constipation in pediatric patients ages 6-17 years old. Ironwood is also advancing apraglutide, a next-generation, long-acting synthetic GLP-2 analog being developed for rare gastrointestinal diseases, including short bowel syndrome with intestinal failure (SBS-IF), as well as several earlier stage assets.

Building upon our history of GI innovation, we keep patients at the heart of our R&D and commercialization efforts to reduce the burden of GI diseases and address significant unmet needs. With a seasoned GI leadership team at the helm, deep relationships within the GI community, and a proven track record of success, we are poised to unearth new opportunities to create next-generation GI advancements.

Founded in 1998, Ironwood Pharmaceuticals is headquartered in Boston, Massachusetts, with a site in Basel, Switzerland. For more information, please visit www.ironwoodpharma.com or click the links below.

Our Values **Our Products** **Our Pipeline**





Benefits of the Boston-Based Ironwood Fellowship



Allison Corlett Caso, MPH, RAC
Sr. Manager, Regulatory Affairs
Fellowship Coordinator

"Ironwood's office is situated on the 23rd floor of a modern skyscraper in downtown Boston. It is a blend of modern design and comfort, characterized by natural light, spacious workstations, state-of-the-art conference rooms, and common areas designed to foster collaboration and creativity. Our vantage point offers amazing panoramic views of the Boston and Cambridge skylines, the Charles River, and Boston Harbor. Located just steps away from the Boston Common and of the surrounding neighborhoods like the Seaport District, our office sits amidst the city's bustling streets, iconic landmarks, and impressive modern architecture. Our location offers access to a multitude of diverse restaurants, shops, and cultural attractions such as galleries, museums, and sports venues. Ironwood Fellows will be able to immerse themselves in the unique blend of history, culture, and modernity that Boston has to offer."

Potential Opportunities for Fellows

- Attending national scientific or regulatory conferences
- Presenting topics at company-wide meetings
- Participation in interactive R&D workshops led by functional experts
- Co-precepting pharmacy students on longitudinal and experiential rotations
- Developing professional and work skills through internal workshops





Fellowship Alumni

Name	Alma Mater	Current Position
Medical Scientific Affairs Fellowship		
Niha Yerneni, PharmD, MPH	MCPHS-Boston	Medical Affairs Manager Ironwood Pharmaceuticals
Clinical Development / Medical Scientific Affairs Fellowship		
Kayla Reid, PharmD, RPh	MCPHS– Worcester	Medical Science Liaison IBSA USA
Laura Nduka, PharmD, RPh	University of Maryland - Baltimore	Interdisciplinary Scientist Food and Drug Administration
Global Patient Safety / Regulatory Affairs Fellowship		
Julia Busiere, PharmD	University of New England	Regulatory Affairs Project Manager Daiichi Sankyo
Georgia Quartey, PharmD	MCPHS-Boston	Regulatory Affairs Manager Verve Therapeutics

Northeastern University
Pharmaceutical Industry Fellowships

ABOUT OUR PROGRAM

OVERVIEW

Northeastern University Pharmaceutical Industry Fellowships Program is a two-year experiential program designed to advance lifelong learning and the education and training of PharmD graduates. Critical to the success of the program is our ability to prepare fellows to meet the ongoing workforce needs in various areas of industry.

Our program provides fellows an opportunity to work with our innovative biopharmaceutical industry partners while collaborating with Northeastern University faculty in the areas of professional and career development, service, scholarship, and teaching.



OUR MISSION

Our mission is to provide the highest quality training for future biopharmaceutical industry professionals by combining industry expertise with Northeastern University's renowned tradition of lifelong and experiential learning.

CORE VALUES

- Innovation
- Lifelong Learning
- Social Impact Through Drug Development
- Quality Industry Pharmacy Training

FOCUS AREAS

LEARN

Pursue graduate degrees or certificates in Regulatory Affairs, Business, Public Health, and more through tuition reimbursement.

TEACH

Teach pharmacy students in various small and large group classes. Earn a Teaching Certificate of achievement.

RESEARCH

Perform research with faculty and students. Present data at conferences. Publish your findings. Generate literature.

NETWORK

Boston has a lot to offer, both socially and professionally. Our program takes advantage of it all!

> "Thanks to the collaboration and dedication of our industry partners over the course of nearly 10 years, our program is now the 3rd largest industry fellowship program in the nation."

OUR PROGRAM PILLARS



TEACHING & SCHOLARSHIP

Teaching and Learning Seminar Series provides contextual activities and reflection on adult education and pedology outcomes.

PROFESSIONAL & CAREER TRAINING

Professional Development and Career Training Series is customized to engage fellows in appropriate and professional conduct for success.

SERVICE

Through their service on committees, fellows have an active connection within the community and program. This allows an opportunity to demonstrate leadership development and skills.

Northeastern University Pharmaceutical Industry Fellowships Program provides a dynamic academic environment offering fellows the opportunity for a wide breadth of experiences.



PROGRAM OPPORTUNITIES

Develop teaching skills through participation in our Teaching and Learning Seminar Series

Utilize a layered learning model in experiential education by co-precepting students on pharmacy practice experiences including Northeastern's unique co-op program

Facilitate small and large group didactic education in partnership with a faculty mentor

Create, present, and publish scholarly research through collaborative industry and university relationships

Engage with faculty who participate in various interdisciplinary graduate programs including biotechnology, nanomedicine, immunology, health informatics, and drug discovery

Network with local residents and other Northeastern fellows via professional development programs, teaching seminars, and participation on fellowship committees

OUR PARTNER COMPANIES

SINCE 2015

Through these exciting partnerships, Northeastern fellows collaborate and learn from each other, further positioning them to be successful in both academic and industry settings. Fellows are empowered to shape their experience, as well as the future of the program, through leadership on the Professional Development & Networking and Recruitment committees.



24	73	119	99%
Industry Partnerships	Active Fellows	Fellowship Alunmi	Employment in Industry within 90 days of Fellowship Completion

Abbott
Alnylam PHARMACEUTICALS
AMRYT PHARMA
Apellis
ARVINAS
BAUSCH Health
blueprint MEDICINES
bridgebio
Chiesi global rare diseases
CSL Seqirus
flatiron
GSK
IPSEN Innovation for patient care
Ironwood IRONWOOD PHARMACEUTICALS
Karyopharm Therapeutics
PACIRA BIOSCIENCES, INC.
PRAXIS
SAREPTA THERAPEUTICS
Takeda
VERTEX

OUR TEAM



Andrew Orr-Skirvin
Faculty Director



Sherisse Mayala-Nelson
Program Manager



Sophia Sawtelle
Senior Program Coordinator



Karen Stanley
Bouvé Director of Finance and Administration



Julia Van
Director of Corporate and Foundation Relations



Milini Rambukwella
Human Resources Associate



Dayna D'Angelo
Budget Coordinator

CONNECT WITH US!

Instagram
@nufellowship

LinkedIn
Northeastern Pharmaceutical Industry Fellowships



Jenny Van Amburgh
Clinical Professor
Fellowship Faculty Manager



Debra Copeland
Clinical Professor
Fellowship Faculty Manager



Joseph Elijah
Clinical Professor
Fellowship Faculty Manager



Michael Gonyeau
Clinical Professor
Fellowship Faculty Manager



Jason Lancaster
Clinical Professor
Fellowship Faculty Manager



Adam Wooley
Clinical Professor
Fellowship Faculty Manager

BOSTON, MA:

Northeastern University is in the heart of Boston, steps away from the famous Fenway Park and downtown Boston. Surrounded by top tier academic and research institutions, the area is home to pioneers of innovation who are committed to intellectual curiosity and scientific advancement. The greater Boston area is a cultural hub, offering world-class attractions and rich history.

NORTHEASTERN FELLOWS























YEAR 1 FELLOWS



Druti Shukla, PharmD, MHA
Abbott
Global Medical Affairs



Nathan Gruenke, PharmD
Alnylam
Clinical Development



Nicholas Saad, PharmD, RPh
Abbott
Global Medical Affairs



Pavlos Papamanolis, PharmD
Apellis
Medical Affairs



Alice Fan, PharmD
Alnylam
Medical Communications
and Publications



Kaitlin Greco, PharmD
Arvinas
Medical Affairs



Eva Houser, PharmD
Alnylam
US Medical Affairs



Yohanna Berhanu, PharmD
BridgeBio
Regulatory Affairs /
Clinical Development



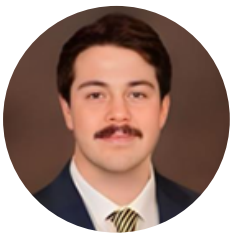
Hina Patel, PharmD, RPh
Alnylam
Global Medical Information



Jonathan Lu, PharmD
Chiesi
North America Medical Affairs



Hirra Zaidi, PharmD
Alnylam
Global Patient Safety
and Risk Management



Thomas Senneff, PharmD, RPh
CSL Seqirus
Medical Affairs

YEAR 1 FELLOWS



Ali Al Juboori, PharmD, MBA
IPSEN
Medical/Regulatory Affairs



Palmer McNally, PharmD
Sarepta
Global Scientific Communications



Alison Bechwati, PharmD
IPSEN
Commercial Rare Disease
Operations and Marketing



Abhishek Alagaratnam, PharmD, MS DRA
Takeda
Global Regulatory Affairs



Deborah Nikolla, PharmD, MPH
IPSEN
Epidemiology and
Real World Evidence



Brandi McKnight, PhD
Takeda
Global Medical Affairs



Nasim Malakoti Negad, PharmD
IPSEN
Commercial Oncology



Cathy Cheng, PharmD
Takeda
Global Medical Affairs



Mildred Asamoah, PharmD, MBS
Ironwood
Clinical Development /
Medical Scientific Affairs



Kathryn DeStefano, PharmD
Takeda
Clinical Science



Yasser Ibrahim, PharmD
Ironwood
Global Patient Safety /
Regulatory Affairs



Michael Nome, PharmD
Takeda
Clinical Science

YEAR 1 FELLOWS



Raymond Jubrail, PharmD
Takeda
Global Medical Affairs



Michael McShan, PharmD
Vertex
Global Regulatory Affairs



Danielle Mauro, PharmD
Vertex
Global Medical Affairs



Naafiah Raidah, PharmD, MBA
Vertex
Global Regulatory Affairs



Eunice Lee, PharmD
Vertex
Global Regulatory Affairs



Olivia Laprade, PharmD
Vertex
Clinical and Quantitative Pharmacology



Julieta Rossi Fortunati, PharmD
Vertex
Clinical Scientist



Ryan Ha, PharmD
Vertex
Clinical and Quantitative Pharmacology



Kailey Davies, PharmD
Vertex
North America Commercial – Marketing



Samin Malek Marzban, PharmD
Vertex
North America Commercial – Market Access



Loren Sampson, PharmD, MBA
Vertex
North America Commercial – Guidance and Patient Support

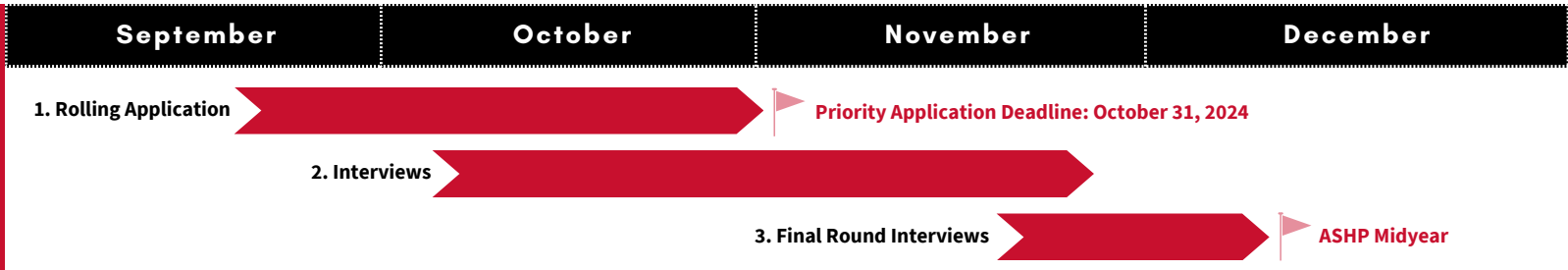


Sarah Casella, PharmD
Vertex
Global Medical Affairs

Northeastern University
Pharmaceutical Industry Fellowships

APPLICATION REQUIREMENTS

Fellows are selected on a nationally competitive basis. Unless otherwise noted in the position description, candidates must have a Doctor of Pharmacy degree from an ACPE-accredited college of pharmacy by June 30, 2025. Candidates must apply through Northeastern's career portal and are encouraged to do so by the priority application deadline of October 31, 2024.



Step 1: Application

- Fellowship position postings go live on **September 16, 2024**. We will cross-post positions on ASHP's PPS website.
- Complete the application by **October 31, 2024**, for priority consideration for first-round interviews.

Step 2: Interviews

- Phone screenings and initial interviews will be conducted with eligible candidates starting in early October into November.
- After the priority deadline, interviews will be conducted with both the sponsor company and Northeastern University.

Step 3: Final Round Interviews & Offers

- Final round interviews will take place **virtually or in person** during ASHP Midyear in New Orleans, LA. Visit midyear.ashp.org for event details.
- Northeastern University, in conjunction with the Alliance of Industry Fellowship Associates (AIFA), has agreed to extend offers for fellowships no earlier than **December 16, 2024.**

Applications are reviewed on a rolling basis - apply early!

Application Materials:

- Curriculum Vitae (CV)
- Unofficial PharmD Transcript
- Cover Letter

3 Letters of Recommendation:

- Highly encouraged to submit by **October 31, 2024**
- Official Deadline: **November 22, 2024**
- Email: PharmDFellowships@northeastern.edu
- Letter writers should submit one letter per candidate and indicate the companies of interest in the subject or body of the email

ADDRESS YOUR COVER LETTER AND 3 LETTERS OF RECOMMENDATION TO:

J. Andrew Orr-Skirvin, PharmD, BCOP
Clinical Professor, School of Pharmacy
Chair, Department of Pharmacy & Health System Sciences
Director of Pharmaceutical Industry Fellowship Program
360 Huntington Ave, 140TF R218
Boston, MA 02115

For more information and fellowship resources:

Visit: a27p.com

Visit: bouve.northeastern.edu/pharmacy/fellowships

Email: PharmDfellowships@northeastern.edu