Alnylam PharmD Fellowship Program

Program Guide and Application Information 2025-2027

Alnylam® IN PARTNERSHIP WITH Northeastern University
Bouvé College of Health Sciences

Alnylam®

A Message from Alnylam's Leadership

The Alnylam Fellowship Program offers a unique experience that, I believe, is unrivaled in our industry. Alnylam's broad pipeline, continued growth, and open culture allows fellows to take on meaningful projects and roles and explore interests in multiple expertise areas across the company. The opportunities for an Alnylam fellow are limited only by their interests.

The fellowship program is rewarding for Alnylam as well as it allows our organization to develop a pipeline of top talent capable of tackling the complex challenges we face in our mission to bring groundbreaking medicines to patients around the world. We have had a strong track record of recruiting those fellows who complete the program into positions across the company. Seeing our past fellows continue to succeed in various roles within Alnylam, and across the industry, is personally rewarding to me and our preceptors and reflects the breadth of possibilities the Alnylam Fellowship Program offers.

Andrew Slugg, MS, MBA

Senior Vice President, Regulatory Affairs

Executive Sponsor of the Alnylam/Northeastern Fellowship Program

A Message from Alnylam's Fellowship Program Director

Commitment to People, Open Culture, Fiercely Innovative, Passion for Excellence, and Purposeful Urgency. These are Alnylam's core company values, and these qualities are found in everything we do here at Alnylam, including the Alnylam Fellowship Program. This is a truly unique program that provides unparalleled, hands-on experiences that allow a fellow to develop valuable skills that will contribute to their future success in the biotech and pharmaceutical industry.

I have been involved with the Alnylam Fellowship Program for several years now, and every year, I am incredibly impressed with the talent and enthusiasm that each fellow brings to the company. They are valuable assets to Alnylam and are recognized for their significant contributions. As Program Director and mentor to the fellows, I am exceedingly proud of what they have all accomplished and will continue to accomplish in the future.

Heather Sun, PharmD

Senior Director, Medical Information & Review

Alnylam Fellowship Program Director

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Alnylam Pharmaceuticals

Company Overview

Founded in 2002, Alnylam Pharmaceuticals established an unwavering commitment to harnessing the power of RNA interference (RNAi) for treating rare conditions for patients with high unmet medical needs. Alnylam has led the translation of RNAi to an innovative class of approved and investigational medicines used to treat a wide range of diseases using its powerful, clinically validated approach. In the summer of 2018, Alnylam established a new class of medicines, pioneering the delivery of RNAi therapeutics to patients through the FDA and EMA approval of ONPATTRO® (patisiran). This is the first of multiple launches anticipated in the "Alnylam P5x25" guidance for the advancement and commercialization of RNAi therapeutics. The passionate and dedicated employees at Alnylam look forward to delivering its medicines to patients who need them around the world.

To those who say "impossible, impractical, unrealistic," we say:

CHALLENGE ACCEPTED

We are relentless in our pursuit of new treatments. Because patients shouldn't have to wait for hope.

"RNAi has been heralded as a major scientific breakthrough that happens once every decade or so."

Phillip Sharp, PhD

Noble Laureate & Founder of Alnylam

An Award-Winning Company

FAST COMPANY BEST WORKPLACES FOR INNOVATORS 2024

Science 2024 TOP EMPLOYER

AMERICA'S MOST RESPONSIBLE COMPANIES 2024 Newsweek statista

Great Place To Work®

We Have Been Named a Top Place to Work 9x in a Row

The Boston Globe

TOP PLACES TO WORK

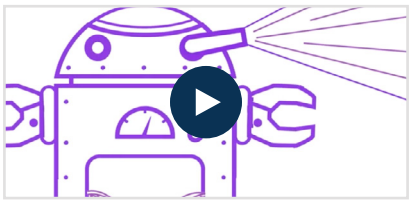
2015-2024

Alnylam's Science and RNAi Platform

RNAi was first discovered in the purple petunia flower and later translated into worms by biologists Andrew Fire and Craig Mello, marking a major scientific breakthrough while establishing a new frontier in drug development. Alnylam's mission is to build a top-tier biopharmaceutical company founded on RNAi. Rather than treating symptoms, Alnylam's approved and pipeline of investigational therapies work upstream of today's medicines by silencing the messenger RNA (mRNA) that is transcribed into disease-causing or disease-contributing proteins. Through RNAi, patients are treated in a fundamentally new way.

FROM POSSIBILITIES TO PATIENTS

WHAT IS RNAI AND HOW DO RNAI THERAPEUTICS WORK?



NEW CLASS OF MEDICINES

Our Pipeline

PRODUCT	DISEASE	PIPELINE: PHASE 1	PHASE 2	PHASE 3	COMMERCIAL
TTR					
ONPATTRO® (patisiran)	hATTR Amyloidosis with Polyneuropathy (PN)				
AMVUTTRA® (vutrisiran)	hATTR Amyloidosis with Polyneuropathy (PN)				
Vutrisiran	ATTR Amyloidosis with Cardiomyopathy (CM)				
Nucresiran (ALN-TTRsc04)	ATTR Amyloidosis				
RARE					
GIVLAARI® (givosiran)	Acute Hepatic Porphyria (AHP)				
OXLUMO® (lumasiran)	Primary Hyperoxaluria Type 1 (PH1)				
Fitusiran	Hemophilia[1]				
Cemdisiran (+/- Pozelimab)	Myasthenia Gravis[1]				
Cemdisiran (+ Pozelimab)	Paroxysmal Nocturnal Hemoglobinuria[1]				
ALN-6400	Bleeding Disorders				
CARDIOVASCULAR					
Leqvio® (inclisiran)	Hypercholesterolemia[1]				
Zilebesiran	Hypertension[2]				
Zilebesiran + REVERSIR	Hypertension[2]				
METABOLIC					
Rapirosiran (ALN-HSD)	Metabolic Dysfunction-Associated Steatohepatitis (MASH)[1]				
ALN-4324	Type 2 Diabetes Mellitus				
ALN-PNP	Non-Alcoholic Fatty Liver Disease (NAFLD)[3]				
ALN-APOC3	Dyslipidemia[1]				
NEUROLOGIC					
Mivelsiran (ALN-APP)	Cerebral Amyloid Angiopathy (CAA)				
Mivelsiran (ALN-APP)	Alzheimer's Disease				
ALN-HTT02	Huntington's Disease[4]				
ALN-SOD	SOD1 Amyotrophic Lateral Sclerosis (ALS)[3]				
OTHER					
Cemdisiran (+/- Pozelimab)	Geographic Atrophy[1]				
Elebsiran (ALN-HBV02/VIR-2218)	Hepatitis B Virus Infection[5]				
Elebsiran (ALN-HBV02/VIR-2218)	Hepatitis D Virus Infection[5]				
ALN-BCAT	Hepatocellular Carcinoma				
ALN-ANG3	Healthy Volunteers[1]				

[1] Out-licensed with milestones and/or royalties
[2] Partnered, Alnylam-led development with US profit split and milestones/royalties ex-US
[3] Partner-led with profit split
[4] Partnered, Alnylam-led with profit split
[5] Partner-led with Alnylam option for profit split

Alnylam Clinical Development Pipeline as of February 2025

Fellowship Program

Overview

In 2015, Alnylam Pharmaceuticals partnered with Northeastern University to offer a unique fellowship opportunity in the heart of Boston. The program set out to equip postdoctoral PharmDs with the skills necessary to develop the advanced medicines of the future, like RNAi. The goal was and remains the same: to cultivate the future leaders of biotechnology and allow fellows to pioneer new therapies for patients. Alnylam fellows are grounded in their core expertise area but utilize the fellowship's flexibility to branch out and discover other opportunities throughout the organization. Part of the backbone of the fellowship program is the Northeastern University teaching opportunities which allow fellows to share their knowledge in an educational setting.

What sets the Alnylam/Northeastern fellowship apart?

- Ability to work in multiple therapeutic areas across pre-commercial, launch, and post-approval activities
- Vested interest and individualized mentoring from leading professionals in their field
- Opportunities to engage in immersive, personalized experiences inside and out of one's expertise area
- Ability to conduct academic research aligned with your interests under the mentorship of engaged Northeastern faculty members
- Located in the heart of the world's biotech hub, Cambridge, MA

Heather Sun, PharmD

Alnylam Fellowship Program Director & Senior Director, Medical Information & Review

Jenny A. Van Amburgh, BS, PharmD, RPh, FAPhA, FNAP, BCACP, CDCES

Northeastern Faculty Fellowship Manager

Regulatory Affairs

Actively Recruiting: 2 Fellows

Regulatory Affairs at Alnylam is a group with diverse scientific, technical, and clinical expertise. The team is responsible for creating and implementing innovative global strategies for expedited drug development and approval of Alnylam's products. All stages of drug development are dependent on effective regulatory support and management. The experience gained throughout this fellowship will allow the Regulatory Affairs fellow to develop a deep understanding of Global Regulatory Strategy across development programs and to gain hands-on project-based exposure across other regulatory affairs disciplines.

EXPERIENTIAL OPPORTUNITIES

- Global Regulatory Affairs Strategy
- Advertising and Promotional Review
- Global Labeling Strategy
- Chemistry, Manufacturing, and Controls

Roles and Responsibilities

- Support, prepare, and submit a wide range of regulatory filings such as investigational new drug applications, clinical trial applications, new drug applications, and international marketing authorization applications
- Collaborate with Clinical, Global Patient Safety and Risk Management, Biostatistics, and Medical teams in US and EU to achieve regulatory milestones
- Participate in cross-functional meetings to support and contribute to the clinical development plan and regulatory strategy
- Conduct guidance and precedent research to support regulatory strategy
- Support the development and lifecycle maintenance submissions for commercial programs

How is the Alnylam fellowship unique from your perspective?

"The Alnylam fellowship enables fellows to partake in impactful projects and experiences, while also fostering meaningful relationships within and outside your expertise area. At Alnylam, fellows have the opportunity to work with RNAi therapeutics, providing an exciting perspective that helps elevate one's career in the biopharmaceutical industry. All of these factors show how truly unparalleled the Alnylam fellowship is."

Allison Kotas, PharmD, 2nd Year Regulatory Affairs Fellow

What will you take away from this fellowship?

"Alnylam's Regulatory Affairs fellowship is focused on gaining regulatory experience throughout all parts of drug development. Outside of regulatory focused skills, the fellowship programs prioritizes professional development and leadership skills by providing mentorship from regulatory leadership, attending conferences, and presenting to the global regulatory group. We believe that this fellowship will jump start your career in regulatory."

Kristen Milenki, PharmD, RPh, Preceptor & Senior Manager, Regulatory Affairs

What characteristics do you believe define an Alnylam fellow?

"An Alnylam fellow is defined by their unwavering curiosity, intellectual rigor, and collaborative spirit. They thrive on tackling complex scientific challenges with creativity and perseverance, contributing to groundbreaking research and development. Their dedication to advancing our mission and their ability to work seamlessly with diverse teams are crucial to their success and impact at Alnylam."

Bridget Rothwell, PharmD, RPh, Preceptor & Director, Regulatory Affairs

US Medical Affairs

Actively Recruiting: 1 Fellow

US Medical Affairs translates and implements the disease and product strategy set at the global level and adapts it to the US healthcare landscape. US Medical works within a cross-functional team to build tactical alignment with internal partners and delivers on the medical plan. US Medical Directors play a key role in informing global product development and data generation strategies with perspective of US Region. The team also provides disease and product education to internal stakeholders and the external healthcare community. The US Medical Affairs fellow will support the development and pull-through of scientific presentations to support upcoming launch activities. The fellow will also have a chance to shadow MSLs and understand the principles of engagement with HCPs, such as gathering insights and leading scientific discussions.

Roles and Responsibilities

- Contribute to the tactical planning and execution of US Medical Affairs plans
- Understand patient pathways, care gaps, and HCP education needs in different US geographies and support development of regional field medical plans
- Support the medical plan for the ongoing evolution of Alnylam and its products in the ATTR amyloidosis space
- Support the development and/or pull-through of US-specific medical communications, publications, and training materials

EXPERIENTIAL OPPORTUNITIES

- Field Medical
- Medical Publications and Communications
- Value & Evidence Strategy / HEOR
- US Medical Operations
- Medical Omnichannel Engagement

What makes Alnylam stand out to you?

"Alnylam stands out to me as a leader in the pharmaceutical industry, committed to harnessing the power of RNAi to address the underlying causes of both prevalent and rare conditions. Alnylam's robust pipeline is a result of groundbreaking research and development efforts, demonstrating a capacity for translating scientific discoveries into real-world solutions and a fierce commitment to the scientific and medical community. Alnylam's commitment to people and patient-centered approach make Alnylam a truly exceptional leader in the pharmaceutical industry."

Eva Houser, PharmD, 1st Year US Medical Affairs Fellow

Why did you choose Alnylam?

"During pharmacy school, I realized a strong desire to work "upstream" of patient care to broaden my impact in the pharmaceutical sciences. I chose Alnylam for a variety of reasons, one being how our Nobel Prize-winning RNAi technology redefines what it means to work upstream. I am experiencing firsthand how Alnylam is changing the way we treat diseases, from rare, genetic diseases to cardio-metabolic conditions that impact a vast majority of the population."

Rachel Hawley, PharmD, 2nd Year US Medical Affairs Fellow

What learning opportunities and impact can a US Medical fellow have?

"Alnylam's mission is to harness the potential of RNAi therapeutics to transform the lives of people living with diseases for which there are limited or inadequate treatment options. US Medical Affairs is a vanguard in forwarding this mission. A fellow deeply embedded within our department will have an incredible opportunity to learn and provide measurable impact. I have personally observed the work of keen past and current fellows directly impacting strategic and tactical decisions and outputs that ultimately translated into improved patient care. Not only does this work provide a profound sense of accomplishment, but these tangible examples can also be pulled-through into a career-launching portfolio."

Steven Roblin, PhD, Preceptor & Senior Medical Director, US TTR Lead

Global Medical Information

Actively Recruiting: 1 Fellow

The Global Medical Information team serves to provide healthcare professionals, patients, and caregivers with balanced, accurate, and current medical information about Alnylam's products. Medical Information engages cross functionally with other expertise areas such as Pharmacovigilance/Safety, Quality, Legal, Regulatory Affairs, Commercial, Clinical Operations, Clinical Development, and Information Technology, to ensure the safe, effective, and appropriate use of our therapies. Furthermore, fellows sharpen their ability to read, interpret, and develop medical content accurately and fairly.

Roles and Responsibilities

- Global management of requests for medical information
- Medical Information content development, including standard response letters, custom response letters, and frequently asked questions
- Data analytics and insights collection and reporting
- Global product launch preparation and execution pertaining to medical information activities
- Support of medical congress and information booth

EXPERIENTIAL OPPORTUNITIES

- Medical Review
- Medical Communications and Publications
- Medical Training
- Medical Omnichannel Engagement
- Field Medical (e.g. Medical Science Liaisons)
- Medical Operations
- Pharmacovigilance and Safety

What is something that has surprised you about working at Alnylam?

"From the very start, I was pleasantly surprised by my exposure to Alnylam's culture of innovation, patient-centeredness, and teamwork. Guided by thoughtful direction and tailored mentorships, I was seamlessly integrated as a core member of the Global Medical Information team. Working with highly experienced professionals including colleagues who were previously Alnylam fellows is a motivating experience for me, as it fosters qualities that are essential for success: consistently pushing boundaries, blending confidence with competence, and actively seeking opportunities for growth."

Hina Patel, PharmD, RPh, 1st Year Global Medical Information Fellow

What inspires you about Alnylam?

"I am inspired by Alnylam's constant drive to develop groundbreaking medicines for patients by leveraging the potential of RNAi therapeutics. It's exciting to work at a company that has pioneered the use of RNAi to transform the treatment landscape for certain rare diseases and expand its scope to target more prevalent diseases as well."

Charlene Guo, PharmD, 2nd Year Global Medical Information Fellow

How do you believe the fellowship will drive your fellow's future career path and help them achieve their career goals?

"The Global Medical Information fellow will be fully integrated into the team and have the opportunity to learn the role by gaining real-world experience. Working hands-on with the team, the fellow will develop a strong platform of knowledge and skills that will serve as the basis of their professional career. At the completion of the fellowship, the fellow will be fully prepared to launch into their career path in the pharmaceutical or biotech industry."

Alana McGill, PharmD, RPh, Preceptor & Associate Director, Medical Information

Global Medical Communications and Publications

Actively Recruiting: 1 Fellow

The Medical Affairs organization at Alnylam plays a leading role in supporting pipeline assets, preparing for launch, and supporting commercially available products, as we advance medicines for patients who have limited or inadequate treatment options. The Global Medical Communications and Publications team leads the strategic dissemination of data through strong stakeholder engagement, enabling scientific exchange, with the ultimate goal of improving the care of patients. Fellows can expect to drive Global Scientific Communication strategy through engagement with cross-functional collaborators. This position is ideal for determined, highly motivated, and adaptable individuals seeking unique experiences and professional growth within Global Medical Affairs.

EXPERIENTIAL OPPORTUNITIES

- Medical Strategy
- Medical Training
- Field Medical
- Value & Evidence Strategy / HEOR
- Patient Advocacy

Roles and Responsibilities

- Contribute to the tactical planning and execution of global publications plans, including peer-reviewed manuscripts
- Lead the development of medical congress materials, including publications (abstracts, posters/presentations), booth content, and/or symposia)
- Engage with key opinion leaders to develop various deliverables in alignment with medical communication objectives
- Opportunities through expand to additional experiences tailored to your career goals

How is the Alnylam fellowship unique from your perspective?

"The Alnylam fellowship stands out due to its emphasis on innovation in the field of RNAi therapeutics and nurturing leadership. Fellows benefit from direct mentorship by industry leaders, hands-on experience with cutting-edge RNAi technologies, and opportunities to contribute to pioneering projects that can significantly impact patient outcomes. This program equips fellows with a rare blend of technical expertise, strategic insight, and a profound understanding of the therapeutic landscape, setting them apart in their professional journeys."

Alice Fan, PharmD, 1st Year Global Medical Communications and Publications Fellow

Why did you choose Global Medical Communications and Publications at Alnylam?

"The Global Medical Communications and Publications fellowship at Alnylam provides me with the amazing opportunity to work with a cross-functional team of motivated and talented individuals in a fast-paced and exciting environment. As a fellow, I have been able to contribute to a variety of impactful deliverables as Alnylam's pipeline continues to grow and the company pushes the boundaries of RNAi."

Alba Ilia, PharmD, RPh, 2nd Year Global Medical Communications and Publications Fellow

What does being a mentor mean to you?

"I've devoted my career to science and to educating healthcare professionals as well as those interested in the pharmaceutical industry. As a mentor, I develop trusted relationships with individuals, help guide their journey, and act as an advisor and sounding board for new ideas. In this manner, I support fellows to make important decisions that will define their career path."

Thierry Aupérin, PhD, Preceptor & Vice President, Global Scientific Communications

Global Patient Safety and Risk Management

Actively Recruiting: 1 Fellow

Global Patient Safety and Risk Management (GPSRM) oversees all activities related to the detection, assessment, understanding, and prevention of adverse effects or other medicine-related safety concerns to ensure safe use of medicines and to safeguard health of patients. The fellow can expect to gain a thorough understanding of pharmacovigilance (PV) activities and actively participate in the development and maintenance of the drug safety profiles for our revolutionary RNAi platform.

EXPERIENTIAL OPPORTUNITIES

- PV Science
- Safety Operations
- Safety in Clinical Development
- Safety in Post Marketing

Roles and Responsibilities

- Provide scientific and strategic assistance to safety product leads to support Alnylam products
- Participate in the collection, interpretation, and presentation of safety data in internal forums
- Support signal detection and management activities with lead safety physicians and PV scientists
- Engage in safety data review, analysis, and reporting of safety data to internal and external stakeholders by planning, managing, and authoring safety aggregate reports (PBRERs, DSURs)
- Participate in the development and management of Risk Management Plans

Why did you choose Alnylam?

"I was immediately drawn to the culture and inclusive environment at Alnylam! Employees are encouraged to use their platform to seek new opportunities and work cross functionally for professional development. Alnylam has been leading in the realm of RNAi science, with 5 products on the market in a short period of time! This is reflective of their commitment to keeping patients at the heart of their innovative research, providing treatment options and hope to patients dealing with debilitating diseases."

Hirra Zaidi, PharmD, 1st Year Global Patient Safety and Risk Management Fellow

Why did you choose Alnylam?

"Alnylam's commitment to its patients and employees is what stands out to me. Bringing 5 products to market in 4 years with a new drug class targeting patients with limited treatment options is a testament to their innovation and dedication to improving human health. Alnylam's inclusive work culture creates an environment that inspires its employees and creates endless opportunities for growth and learning."

Nina Teo, PharmD, RPh, Senior Manager, PV Science & Fellowship Alumnus

What is the commitment to professional development at Alnylam?

"At Alnylam, we are driven by a desire and passion to do work that matters. The GPSRM group works to ensure that the safety profiles of all products are continually monitored and assessed to ensure patient safety. Through the fellowship program, we provide a setting to enable professional development and growth and offer the opportunity to apply clinical knowledge in an industry setting to ensure that the right patients are receiving the right therapies."

Lois Ahn, PharmD, Preceptor & Associate Director, Pharmacovigilance Science

What learning opportunities will the GPSRM fellow have?

"This program will provide an opportunity to work closely with safety physicians and PV scientists in collaboration with other departments, such as Clinical Development, Medical Affairs and Regulatory. The GPSRM fellow will be exposed to the broad spectrum of pharmacovigilance activities from first-in-human studies throughout the entire lifecycle of the product and will gain skills on signal detection, risk management and other crucial aspects of patients' safety in clinical trials as well as post-marketing arena."

Elena Yureneva, MD, MHA, Preceptor & Executive Director, Head of Medical Safety and Risk Management

Early Assets (Pipeline) Global Medical Affairs

Actively Recruiting: 1 Fellow

The Early Assets Medical Affairs function develops the Medical strategy and leads Medical execution to support the development of Alnylam's investigational RNAi therapeutics. As Alnylam is a platform-based biopharmaceutical company, its early pipeline spans diverse therapeutic areas. Early Assets Medical Affairs partners with experts across the organization to guide each unique investigational program as it enters the clinic and throughout its Ph 1 and Ph 2 development. Key activities include mapping the clinical landscape, fostering scientific engagement with key opinion leaders (KOLs) and other stakeholders, and supporting the dissemination of early clinical study results. fellows can expect to contribute to strategic medical planning, champion congress engagements, and support the development of medical materials. They will collaborate with leaders from VESt, Scientific Communications, Clinical Development, Program Leadership, and others.

This position is ideal for intellectually curious and scientifically-minded individuals with strong communication and data-interpretation skills who are seeking a range of Medical Affairs experiences throughout the course of their fellowship.

EXPERIENTIAL OPPORTUNITIES

- Medical Strategic Planning
- Medical Communications and Publications
- External Stakeholder Engagements
- Congress Execution
- Study Start-Up Activities
- Integrated Evidence Generation Planning

Roles and Responsibilities

- Lead therapeutic landscape and KOL mapping exercises to inform early program strategy
- Contribute to relationship building and insights generation with externals stakeholders (KOLs, societies, advocates)
- Interpret pre-clinical and early clinical study results and develop publications supporting key messages for a clinical audience
- Support the creation/refinement of program-specific scientific narratives, aspirational value messages, and program medical plans
- Develop slide decks, posters, publications, and other materials to support clinical development success
- Support, as interested/needed, other key functional areas within and outside of Medical Affairs including Medical Communications and Publications, VESt, Patient Advocacy, and Clinical Research

How will the Early Assets fellowship develop the fellow for future career opportunities?

"As a previous Northeastern/Alnylam fellow myself, I can attest to the impact this program has had on my early career. My goal for a fellow is to provide a solid education regarding the role of Medical in early clinical development by offering well curated experiences. The fellow will work with outstanding teams from across the organization who will support and develop their competence and professionalism. The path post-fellowship will be informed by the unique strengths and interests of the fellow!"

Madeline Merkel, PharmD, MS, Preceptor & Associate Director, Early Assets Medical Affairs

US Marketing

Actively Recruiting: 1 Fellow

The US Marketing team is responsible for defining and executing the US marketing strategy for Alnylam's RNAi therapeutics. The US Marketing fellow will engage in the development and execution of strategic brand plan, key marketing initiatives and tactics, and the generation of commercial insights across both HCP and Patient teams. This fellowship is for individuals who are entrepreneurial, are biased for action, and enjoy working in a dynamic business environment. This role will involve extensive cross-functional collaboration with teams including Medical Affairs, Regulatory Affairs, Legal, Sales, Market Access, and Insights & Analytics. The fellow will gain key experiences and skills in communication, commercial execution, marketing, and strategic planning.

EXPERIENTIAL OPPORTUNITIES

- Commercial Operations
- Market Insights
- Market Access
- Launch Excellence

Roles and Responsibilities

- Development of strategic and tactical plans for the Alnylam TTR franchise
- Execution of personal promotion and non-personal promotion tactics
- Execution of commercial activities at key conferences, including booth development, product theaters, and promotional sponsorships
- Creation of product messaging and disease awareness materials to support field personnel, including relevant field training
- Evaluation of competitive landscape and evolution of brand strategy and messaging
- Cross-functional collaboration with Medical Affairs, Legal, Regulatory, Patient Services, Market Access, Data & Analytics, Market Insights, Competitive Intelligence, and US Commercial Field teams to support promotional activities
- Assessment of commercial opportunity and strategic fit of early pipeline assets including market sizing, competitive landscape scanning, target product concept development, and revenue forecasts

What is the environment like in the office?

"My team fostered a welcoming and supportive environment right at the start of my fellowship where I was encouraged to ask questions, seek guidance, and collaborate with more experienced individuals. The willingness of my team members to share their knowledge and expertise not only accelerated my learning, but also instilled a sense of confidence and belonging. Through weekly meetings and one-on-one mentorship, I felt empowered to contribute my ideas and perspectives. My time with this exceptional team inspires me to embrace a more innovative mindset and challenges me to think outside the box to deliver RNAi therapeutics to patients."

Andrew Do, PharmD, 2nd Year US Marketing Fellow

How do fellows contribute to the larger goals of the team and the company during the program?

"Fellows play an integral role in our team's success as core members of the marketing team throughout the two-year program. They engage in key projects ranging from strategic brand planning to execution of marketing tactics. I've personally observed the direct impact that fellows have on marketing strategy and execution, contributing to our mission of delivering impactful therapies to patients. Additionally, their contributions have profound and broad-reaching impact, often sparking innovative approaches within the team."

Mallory West, Preceptor & Senior Director

Global Market Access

Not Actively Recruiting 2025-2027

The purpose of the Global Market Access (GMA) team at Alnylam is to lead the development of the overall access strategy and pricing philosophy for inline and pipeline products across the company's portfolio through cross-functional collaboration with New Product Commercialization, VESt, US / International / Emerging / Partner Markets, Clinical Development, Regulatory Affairs, Market Insights, and other expertise areas. GMA's goal is to ensure excellence in getting approved medicines broadly reimbursed and into patients' hands. The fellow will develop a thorough understanding of and gain hands-on experience in working with and communicating the value of our products to payers on the global and local levels, navigating national / regional pricing and reimbursement processes across all major markets and developing sustainable pricing models, including pioneering new and innovative ways such as financial, performance- and outcomes- based models to ensure patient access to our medicines. The experience gained throughout this fellowship will allow the Global Market Access fellow to develop a deep understanding of global market strategy from Phase 1 through peri-launch, commercialization, and beyond.

EXPERIENTIAL OPPORTUNITIES

- Value & Evidence Strategy / HEOR
- New Product Commercialization
- US Commercial
- International / Regional Affiliates

Roles and Responsibilities

- Support Global Market Access leads, regions, and key markets (US, EU, UK, Japan, and Brazil), in developing and executing on strategic pricing and market access strategy for inline and pipeline assets
- Contribute to the development of strategic pricing and value framework decisions for ultra-rare, specialty and prevalent disease assets through highly integrated global, regional, and local commercial teams
- Work with regional partners to monitor global pricing and market access trends and pricing decisions across countries to ensure alignment with global pricing strategy and identify opportunities for novel payer engagement
- Lead a Global Market Access product sub-team and participate in cross-functional working groups

Why did you choose Global Market Access at Alnylam?

"When I was applying to fellowships, I exclusively chose programs that were highly focused on global market access. Alnylam has provided me the opportunity to explore different parts of access across the globe, while simultaneously exposing me to all assets from Phase 1 through our launched products. Being the first fellow in the broader Global Commercial Organization has allowed me to shape the fellowship to my interests, while holistically developing me as a professional."

Jung Seo, PharmD, 2nd Year Global Market Access Fellow

What learning opportunities will the Global Market Access fellow have?

"This program will provide an opportunity to work closely with a broad swath of cross-functional colleagues, from New Product Commercialization, to our International / Regional affiliates and beyond and gain a deep understanding of the demands and needs of payers across the world. While on the surface this may sound daunting, my goal is for the fellow to learn a framework in which to assess and communicate the value of new pharmaceutical products in this complex and ever changing healthcare landscape and ultimately walk away as the go-to country access expert. The fellow will get hands on experience working closely with global public and private payers and health systems, developing access and pricing strategies, testing new asset business cases, and obtain familiarity with all of Alnylam's assets, from Phase 1 through our launched products."

Steven Sligh, PharmD, MBA, Preceptor & Associate Director, Global Market Access

Clinical Development

Not Actively Recruiting 2025-2027

Clinical Development is the cornerstone of data generation in delivering novel medicines to patients. The Clinical Development fellowship at Alnylam will engage the fellow in work that is a fusion of scientific knowledge and operations of trial management to support clinical trial excellence. The fellow will work in Clinical Operations and collaborate closely with Clinical Research, while also working alongside other expertise areas involved in the day-to-day of the trials. The intent of this program is to train fellows in comprehensive Clinical Development activities to build a foundation for roles as a clinical drug developer.

EXPERIENTIAL OPPORTUNITIES

- Regulatory Affairs
- Patient Recruitment and Retention
- Clinical Oversight and Systems
- Data Science & Statistics
- PV / Patient Safety
- Pharmacokinetics / Pharmacodynamics

Roles and Responsibilities

- Operational, technical, and scientific aspects of generating clinical development plans and clinical trial execution from startup through closeout, including management of contract research organizations (CROs) and vendors
- Development of key study documents, including protocol concepts and protocols (Phase I-III, natural history), and data capture tools such as case report forms, procedure manuals, study operation plans, informed consent forms, clinical study reports, and IND/NDA submission documents
- Engagement in ongoing medical data review, analysis, and reporting of clinical information in materials for sites, investigators, and other stakeholders
- Planning and execution of investigator meetings and congresses to provide key messages about clinical trial data and study execution
- Participate in the development of effective working relationships with key investigators to optimize scientific quality/innovation of clinical study design, execution, reporting, and publication
- Process evaluation to ensure that all studies are conducted with the highest level of ethical and safety standards and in compliance with ICH/GCP guidelines and all applicable regulatory policies

Why did you choose Clinical Development at Alnylam?

"I chose Clinical Development at Alnylam because I want to be on the cutting edge at a company that finds new and innovative ways to treat those with unmet needs. Alnylam does exactly that by pioneering RNAi-based medicines and leveraging genetics to accelerate drug development, all while also giving its fellows invaluable insight into the process of bringing new and unique drugs to market. This program provides fellows a valuable opportunity to experience trials across multiple therapeutic areas throughout their lifecycle while working with exceptionally talented cross-functional teams."

Nathan Gruenke, PharmD, 1st Year Clinical Development Fellow

What characteristics do you believe define an Alnylam fellow?

"A few key characteristics of our Alnylam fellows include exceptional people skills and a passion for excellence in their work. They also possess a remarkable talent for translating scientific knowledge into effective strategy and operations. Early in the program, fellows are given opportunities to lead essential projects and have consistently exceeded expectations."

Benjamin Waddell, PharmD, Preceptor & Clinical Trial Manager, Clinical Operations

Value & Evidence Strategy (VESt)

Health Economics & Outcomes Research (HEOR)

Not Actively Recruiting 2025-2027

The purpose of the Value & Evidence Strategy team at Alnylam is to lead evidence generation and value demonstration activities through cross-functional collaboration with Clinical Development, Market Access, Data Science & Epidemiology, Field Medical, and other expertise areas. VESt's goal is to ensure excellence in evidence generation to allow Alnylam's innovative therapies to reach patients and healthcare systems. The fellow will develop a thorough understanding of, and hands-on experience in, health economics and outcomes research methodologies through various research projects and recommended Master of Science coursework. The experience gained throughout this fellowship will allow the VESt fellow to develop a scientifically-driven value story for a therapy based on its clinical, humanistic, and economic impact.

EXPERIENTIAL OPPORTUNITIES

- Market Access
- Commercial
- Field Medical/Payer Field Medical
- Patient Advocacy
- Clinical Development

Roles and Responsibilities

- Support the development of strategically-imperative projects with program-wide implications
- Present results of research to internal committees and external stakeholders through presentations, posters, and manuscripts
- Support therapeutic area-specific research throughout the lifecycle of therapy including evidence mapping and gap assessment, developing evidence generation plans and conducting research to address evidence gaps, and supporting the development of the value story of a therapy
- Support or lead the planning and execution of research activities including prospective and retrospective observational research analyses, cost-effectiveness analyses, comparative effectiveness analyses, chart reviews, and patient-reported outcomes assessments, with potential for publication
- Support the development of evidence dossiers for use by key healthcare decision makers
- Collaborate with internal cross-functional teams and external stakeholders including KOLs and payers to disseminate research

How do you believe this fellowship will drive your future career path and help you achieve your career goals?

"One of the things that immediately stood out to me about the VESt fellowship was the breadth of projects fellows are exposed to that really touch on all the foundations of HEOR. This real-world experience is coupled by the recommended Master of Science coursework, giving the fellow a strong platform of knowledge that will serve as the basis for their professional career. The support system, both from my team and my co-fellows, is also an integral piece of achieving my professional goals by creating a very warm and welcoming environment for me to learn and grow. It speaks to the level of commitment and passion exhibited by all the people I have crossed paths with at Alnylam, giving me the confidence that this fellowship serves as a great launch pad for my career path."

Matthew Doenges, PharmD, MS, 2nd Year Value & Evidence Strategy Fellow

How does the VESt fellowship provide opportunities for professional development?

"The role of the VESt function is to develop and generate evidence to support the value story for Alnylam's therapies, in a way that resonates with payers and other relevant access stakeholders in the United States and globally. Through this VESt fellowship program, fellows are offered the opportunity to develop and enhance their scientific research skills by participating in different facets of value story development and evidence generation, including economic modeling, comparative effectiveness assessments, access-focused trial endpoint selection, pre- and post-drug launch activities including dossier development and real-world evidence generation, to name a few. They are also offered opportunities to develop their professional skills by engaging with Alnylam's internal stakeholders through cross-functional collaborations across various projects and by engaging with external audiences by participating in and presenting at conferences."

Varun Kumar, MSc, MPH, Preceptor & Director, Value & Evidence Strategy

Past Fellows

The Alnylam fellowship Program is proud to be able to watch our fellowship alumni continue their professional development in key roles within the industry. The experiences and skills they gained during their fellowship tenure have become a launching pad for continued success and learning.

Alex Wei, PharmD
2015-2017 Medical Affairs Fellow
Current Role: Regional Director, Medical Science Liaisons at Blueprint Medicines

Dayna LeSueur, PharmD
2016-2018 Regulatory Affairs Fellow
Current Role: Medical Science Liaisons at CRISPR Therapeutics

Anastasia McManus, PharmD, RPh
2016-2018 Medical Affairs Fellow
Current Role: Director, US Medical Communications at Takeda

Ruthvik Malladi, PharmD
2017-2019 Medical Affairs Fellow
Current Role: Director, Medical Affairs at Hemab Therapeutics

Madeline Merkel, PharmD
2017-2019 Value & Evidence Strategy Fellow
Current Role: Associate Director, Early Programs Medical Affairs at Alnylam

Sarah Scott, PharmD
2017-2019 Regulatory Affairs Fellow
Current Role: Regulatory Affairs at Immunovant

Caitlin Skenyon, PharmD, RPh
2018-2020 Regulatory Affairs Fellow
Current Role: Associate Director, Regulatory Affairs at Kura Oncology

Jit Sheth, PharmD, RPh
2018-2020 Medical Affairs Fellow
Current Role: Regional Medical Director at Amgen

Stephen Meninger, PharmD, MS, MBA
2018-2020 Value & Evidence Strategy Fellow
Current Role: Medical Outcomes Science Liaison at Alnylam

Ralph Reyes, PharmD, RPh
2018-2020 Medical Information Fellow
Current Role: Associate Director, Medical Training US TTR at Alnylam

Jessica Baldwin, PharmD
2019-2021 Value & Evidence Strategy Fellow
Current Role: Senior Manager, Global Health Economics and Outcomes Research at Vertex

Katie Christensen, PharmD, RPh
2019-2021 Medical Affairs Fellow
Current Role: Director, Scientific Communications at Sarepta Therapeutics

Farida Azizova-Such, PharmD, RPh
2019-2021 Regulatory Affairs Fellow
Current Role: Associate Director, Regulatory Affairs at argenx

May Le, PharmD
2019-2021 Medical Information Fellow
Current Role: Senior Manager, Global Medical Information Operations at Alnylam

Past Fellows (cont.)

Joshua Emerson, PharmD, RPh
2019-2021 Clinical Development Fellow
Current Role: Associate Director, Senior Clinical Scientist at Bristol Myers Squibb

David Iong, PharmD
2019-2021 US Marketing Fellow
Current Role: Associate Director, Rare Disease Marketing at Ipsen

Caitlin Albrecht, PharmD
2020-2022 Regulatory Affairs Fellow
Current Role: Associate Director, Regulatory Strategy at Kura Oncology

Andrew Karaki, PharmD
2020-2022 Marketing Fellow
Current Role: Senior Manager, TTR Marketing at Alnylam

Lauren Elfman, PharmD
2020-2022 Medical Publications Fellow
Current Role: Associate Director, Scientific Communications at Ionis Pharmaceuticals

Siddharth Jain, PharmD
2020-2022 Value & Evidence Strategy Fellow
Current Role: Senior Manager, North America HEOR at Vertex Pharmaceuticals

Basia Reed, PharmD, RPh
2020-2022 Medical Information Fellow
Current Role: Senior Manager, Global Medical Information at Astellas Pharma US

Thomas Solomon, PharmD, RPh
2020-2022 Clinical Development Fellow
Current Role: Clinical Scientist, Hematology at Bristol Myers Squibb

Andres Bermudez, PharmD
2021-2023 Regulatory Affairs Fellow
Current Role: Manager, Regulatory Affairs at Alnylam

Bhavna Jois, PharmD, MS
2021-2023 Medical Publications Fellow
Current Role: Senior Manager, Medical Communications and Publications at Alnylam

Victoria Guan, PharmD, RPh
2021-2023 VESt Fellow
Current Role: Senior Manager, HEOR at BioNTech SE

Henry Wu, PharmD, RPh
2021-2023 Medical Information Fellow
Current Role: Manager, Medical Information and Review at Takeda

Jake Kohley, PharmD
2021-2023 Marketing Fellow
Current Role: Senior Manager, US Marketing at Alnylam

Benjamin Waddell, PharmD
2021-2023 Clinical Development Fellow
Current Role: Clinical Trial Manager at Alnylam

Thao Luu, PharmD
2022-2024 Medical Publications Fellow
Current Role: Senior Manager, Medical Publications at Deciphera

Nina Teo, PharmD, RPh
2023-2025 Global Patient Safety & Risk Management Fellow
Current Role: Senior Manager, PV Science at Alnylam

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.

LVX VERITAS VIRTVS

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
braeburn
bridgebio
Chiesi global rare diseases
CSL Seqirus
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

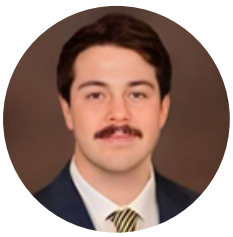
Eva Houser, PharmD
Alnylam
US Medical Affairs

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

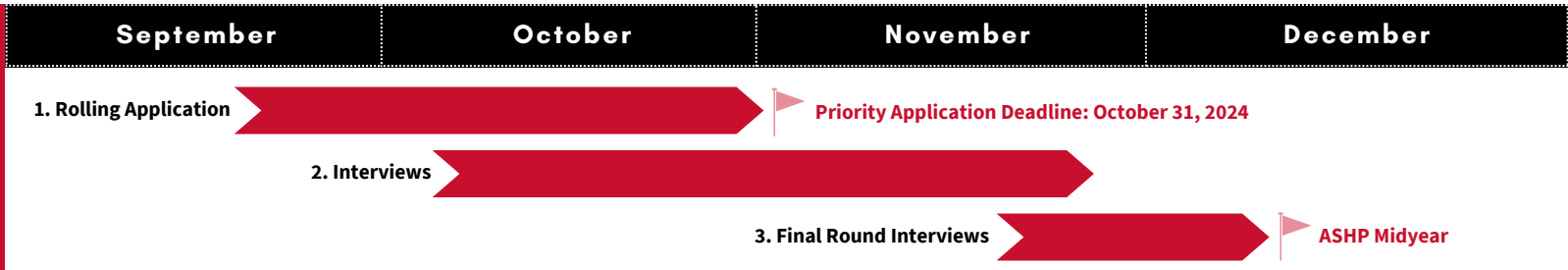
Loren Sampson, PharmD, MBA
Vertex
North America Commercial – Guidance and Patient Support

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