

## Hospital and

### Department Overview

Brigham and Women's Hospital, located in Boston's Longwood Medical Area, is a 793-bed nonprofit teaching affiliate of Harvard Medical School and a founding member of Partners HealthCare, Inc. In 2019-2020, BWH was named the 13<sup>th</sup> best hospital in the United States by US News & World Report's Honor Roll of America's Best Hospitals. The Department of Pharmacy provides services to inpatient, outpatient, and satellite clinic locations throughout the Metro Boston area. The department is regarded as an innovator and leader in medication safety technology, clinical information systems, and clinical pharmacy services at the local and national level.

## Brigham and Women's Hospital

### PGY-2 Cardiology Pharmacy Residency



### General Information

The Department of Pharmacy at Brigham and Women's Hospital offers a specialized residency in cardiology pharmacy practice. This one-year program is designed to provide advanced training in the area of cardiovascular pharmacotherapy and research.

### Program Fundamentals

The PGY2 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in advanced or specialized practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care that improves medication therapy. Residents who successfully complete an accredited PGY2 pharmacy residency should possess competencies that qualify them for clinical pharmacist and/or faculty positions and position them to be eligible for attainment of board certification in the specialized practice area (when board certification for the practice area exists).

#### Accreditation

- ASHP Accredited

#### Positions Available

- 2 traditional positions
- 1 international position

#### Duration

- One year

#### Stipend

- ~\$65,900

## Program Leadership



Danielle Knowles, PharmD, BCPS, BCCP, CACP  
PGY-2 Cardiology Pharmacy Residency Director  
Clinical Pharmacy Specialist  
Department of Pharmacy Services  
Brigham and Women's Hospital  
75 Francis Street  
Boston, Massachusetts 02115  
[dmknowles@bwh.harvard.edu](mailto:dmknowles@bwh.harvard.edu)



Delaney Corcoran, PharmD, BCCP  
PGY-2 Cardiology Pharmacy Residency Coordinator  
Clinical Pharmacy Specialist  
Department of Pharmacy Services  
Brigham and Women's Hospital  
75 Francis Street  
Boston, Massachusetts 02115  
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Justin Culshaw, PharmD, BCCCP  
PGY-2 Cardiology Pharmacy Residency Coordinator  
Clinical Pharmacy Specialist  
Department of Pharmacy Services  
Brigham and Women's Hospital  
75 Francis Street  
Boston, Massachusetts 02115  
[jculshaw@bwh.harvard.edu](mailto:jculshaw@bwh.harvard.edu)

## **Prerequisites and Licensure**

- Doctor of Pharmacy degree from an accredited school or college of pharmacy
- Completion of an ASHP-accredited PGY-1 pharmacy practice residency
- Massachusetts pharmacist licensure required within 120 days of residency start date
- US citizenship or permanent resident visa

## **Application Information**

- Curriculum vitae, letter of intent, recommendation letters due by January 1<sup>st</sup>
  - All applications and documents should be submitted via Phorcas
- On-site interviews by invitation only

## **Program Structure**

The BWH residency programs are all one-year programs that provide diverse rotations in many areas of specialization and offer experience in the provision of adult patient-centered care. The scheduling of resident rotations includes a combination of required and elective rotations to ensure that the resident is exposed to a variety of patient populations, medications, disease states, range of complexity, and interdisciplinary team members.

All incoming PGY1 residents and any external PGY2 residents will complete a six-week required orientation learning experience with the Brigham and Women's Pharmacy Department. This introductory training experience will prepare the resident to perform the job functions as required as a pharmacist in the department. This will also serve to provide administrative insights into the provision of pharmacy services within the hospital and to contribute to perspectives for subsequent participation in clinical and/or administrative project activities. All early commit PGY2 residents will undergo an orientation to the PGY2 program outlining expectations, program structure, and responsibilities.

The standard length of time for a learning experience is four (4) weeks except for in the coronary care unit (CCU), where this rotation is six (6) weeks in length. For PGY2 residents, the eleven (11) learning experiences listed below comprise the required residency experiences for the program. External residents will be provided 4 weeks of elective time in which they may experience one 4-week rotation. Early commit residents will be provided 8 weeks of elective time in which they may experience two 4-week elective experiences (unless otherwise discussed with the RPD/residency coordinator). All required and elective learning experiences are listed below.

For additional information on resident learning experiences, additional required activities, and other specific program details please see the [Pharmacy Residency Manual](#)

Required PGY2 Cardiology Learning Activities*	Elective Learning Activities	Longitudinal Activities
<ul style="list-style-type: none"> <li>• Orientation</li> <li>• Coronary Care ICU</li> <li>• Cardiac Surgery ICU</li> <li>• AMB – Cardiology Clinic</li> <li>• AMB – Anticoagulation Management Service</li> <li>• Electrophysiology</li> <li>• General Cardiology (NEER/SMITH)</li> <li>• Heart Failure</li> <li>• Heart Transplant</li> <li>• Hemostatic Antithrombotic Stewardship</li> <li>• Advanced Integrated Clinical Pharmacy Practice</li> </ul>	<ul style="list-style-type: none"> <li>• AMB (focused on diabetes)               <ul style="list-style-type: none"> <li>○ Jen Center</li> <li>○ 800 Huntington</li> <li>○ South Huntington</li> </ul> </li> <li>• AMB – Accelerator for Clinical Transformation</li> <li>• AMB – Heart Failure Pharmacotherapy</li> <li>• Critical Care (<b>one</b> of the following)               <ul style="list-style-type: none"> <li>○ Medical ICU</li> <li>○ Thoracic ICU</li> </ul> </li> <li>• Academia</li> <li>• Emergency Medicine</li> <li>• Medication Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Research project</li> <li>• Service Commitment (staffing)</li> <li>• Aminoglycoside Program</li> <li>• Committee Membership</li> <li>• Inpatient Orthopedic Anticoagulation Management (AMMO) Service</li> <li>• Heart Failure Infusion Clinic (ACTIVE)</li> <li>• Student Precepting</li> </ul>
<p>*Unless otherwise approved by RAC; AMB = ambulatory</p>		

Rotation	Preceptors
Coronary Care ICU	Danielle Knowles, PharmD BCPS, BCCP, CACP
Cardiac Surgery ICU	Brian Schuler, PharmD, BCCCP Justin Culshaw, PharmD, BCCCP
General Cardiology	Dareen Kanaan, PharmD, MPH, BCCP Delaney Corcoran, PharmD, BCCP
Hemostatic and Antithrombotic Stewardship	Dareen Kanaan, PharmD, MPH, BCCP Delaney Corcoran, PharmD, BCCP
Heart Failure	Judy Cheng, PharmD, MPH, BCPS
Heart Transplant	Miae Kim, PharmD, BCPS
Anticoagulation Management Service (AMS)	Andrea Lewin, PharmD, CACP
Ambulatory Cardiology Clinic	Jackie Papadopoulos, PharmD, BCACP
Ambulatory Care Diabetes Clinic	Amy Bilodeau, PharmD, BCACP
Medical ICU	Kevin Dube, PharmD, BCCCP, BCPS
Thoracic ICU	Gaspar Hacobian, PharmD, BCPS
Academia	Stephanie Sibicky, PharmD BCPS, BCGP
Emergency Medicine	Kaylee Marino, PharmD, BCPS, BCCCP
Medication Safety	Heather Dell'Orfano, PharmD, CACP, CPPS, BCPS – AQ Cardiology

A full list of pharmacy residency preceptors with photos and titles can be found [here](#).

## Requirements for Successful Completion of the PGY2 Cardiology Residency Program

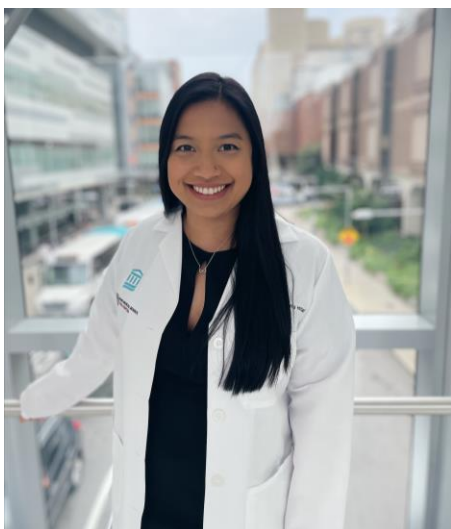
- Successfully licensed as a practicing pharmacist in the state of Massachusetts within 90 days of residency start date
- Successful completion of all required rotation learning experiences
  - Orientation
  - Coronary Care ICU
  - Cardiac Surgery ICU
  - General Cardiology (NEER/SMITH)
  - Heart Failure
  - Hemostasis and Antithrombotic Stewardship (HAT)
  - Anticoagulation Management Service (AMS)
  - Heart Transplant
  - Ambulatory cardiology clinic
  - Advanced Integrated Clinical Pharmacy Practice
  - Electrophysiology
- Successful completion of all longitudinal learning experiences (4 opportunities)
  - Aminoglycoside Program
  - Committee Membership
  - Inpatient Orthopedic Anticoagulation Management (AMMO) Service
  - Heart Failure Infusion Clinic (ACTIVE)
  - Research
- Successfully document the completion of all assigned disease states in the resident topic discussion spreadsheet
- Successfully reached 80% Achieved for Residency with objectives in Pharmacademic
- Adhere to duty hour policy and complete monthly duty hour tracking in Pharmacademic
- Conference poster presented at the ACC scientific sessions or some equivalent
- Successful completion of final report or manuscript of resident research project
- Successful completion one ACPE-accredited continuing education program with completed Pharmacademic evaluation
  - Continuing education program during heart week
- Successful completion of additional presentations as assigned with completion of longitudinal Pharmacademic evaluation
  - In-services as appropriate per rotation
  - At least 5 Pharmacist Huddle presentations
- Participation in Conferences
  - ACC Scientific Sessions or alternative national conference
- Successful completion of professional practice requirements (staffing)
  - Central operations – every third weekend and one weekday evening on resident-rotating basis
- Successful completion of Medication Policy Requirements
  - At least one written drug administration guideline (DAG) prepared for DAG Committee Review and presented at a Pharmacy and Therapeutics Committee



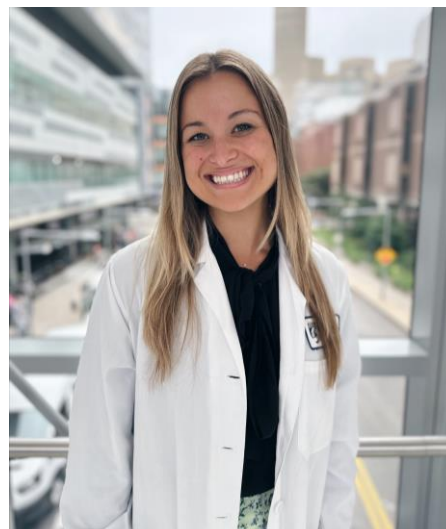
- Successful completion of additional required manuscripts/publications/posters
  - Resident poster presented at ACC scientific sessions or other national conference
  - Manuscript draft for publication
- Successful completion of all required documentation
  - Initial ASHP assessment
  - Quarterly self-assessments as part of the Resident Development Plan
  - All learning experience and preceptor and learning experience evaluations
  - Final assessment of residency and feedback
- Obtained both Basic Life Support certification and Advanced Cardiac Life support by the end of your residency year

## Current BWH PGY-2 Cardiology Residents

2023-24



Rebecca Sek, PharmD  
- PGY-1: Brigham and Women's Hospital  
Boston, MA



Madeleine DePinho, PharmD  
- PGY-1: Mount Auburn Hospital  
Cambridge, MA



Sumaiah Alarfaj, PharmD, BCPS, FHAE  
- PGY-1: Banner-University Medical Center  
Tucson, AZ

## Previous BWH PGY-2 Cardiology Residents



Ju Hee Kim, PharmD  
Current Practice Site: Brigham and  
Women's Hospital, Boston, MA



Liriany Pimentel, PharmD  
Current Practice Site: Brigham and  
Women's Hospital, Boston, MA



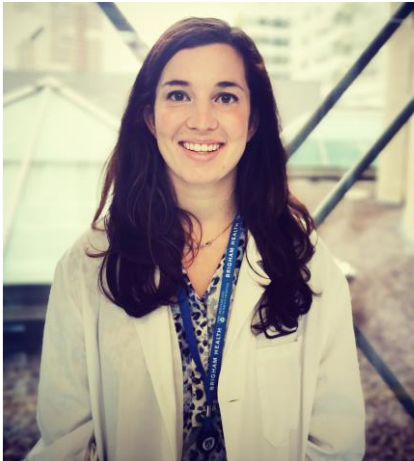
Mohsen Alzaria, PharmD  
Current Practice Site: Clinical Research  
Fellow, Brigham and Women's Hospital,  
Boston, MA



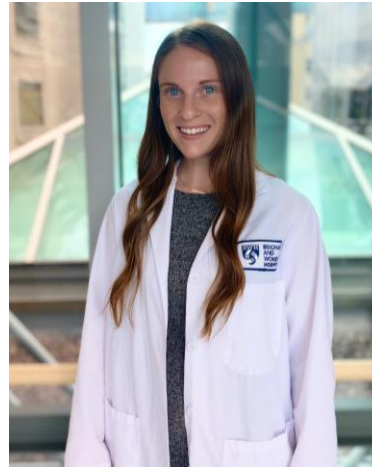
Omar Alkhezi, PharmD  
Current Practice Site: Faculty, Qassim  
University, Saudi Arabia



## 2021-2022



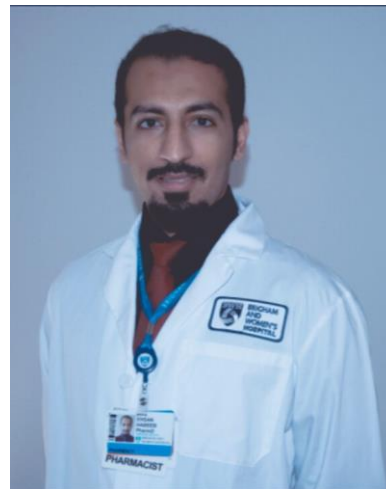
Anna Crider,  
PharmD, BCCP  
Current Practice  
Site: Emory  
University Hospital,  
Atlanta, GA



Delaney Corcoran,  
PharmD, BCCP  
Current Practice  
Site: Brigham and  
Women's Hospital,  
Boston, MA

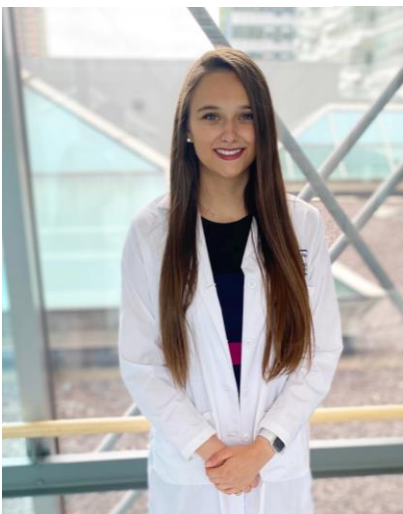


Abdullah  
Alahmed, PharmD  
Current Practice Site:  
Assistant Professor,  
Qassim University,  
Saudi Arabia



Ehsan Habeeb,  
PharmD, BCPS,  
BCCP  
Current Practice  
Site: Faculty Taibah  
University, Saudi  
Arabia

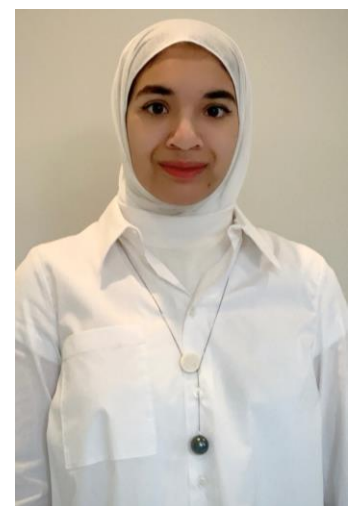
## 2020-2021



Daren Kanaan, PharmD,  
MPH, BCCP  
Current Practice Site:  
Brigham and Women's  
Hospital, Boston, MA

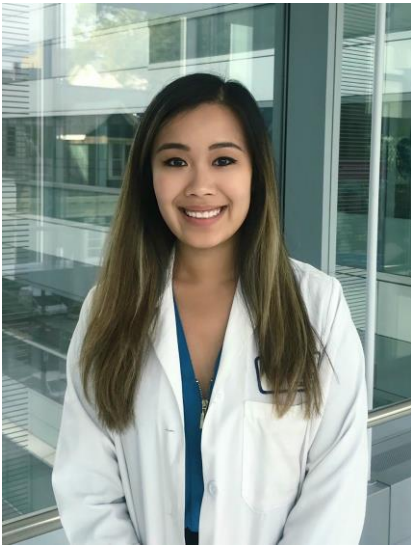


Brandon Beers, PharmD,  
BCCP  
Current Practice Site:  
Alamance Regional  
Medical Center, Chapel  
Hill, NC



Asmaa Alboushi, PharmD  
Current Practice Site:  
Assistant Professor, Kuwait  
University, Kuwait City

## 2019-2020



Clara Ting, PharmD  
BCCP  
Current Practice Site:  
University of Chicago  
Medical Center, Chicago, IL



Tom Bernier, PharmD  
BCCP  
Current Practice Site: Rush  
University Medical Center,  
Chicago, IL



Nayyra Fatani, PharmD  
Current Practice Site: King  
Abdulaziz University

## 2018-2019



Sana'a Alsulami, PharmD  
Current Practice Site:  
National Guard Health  
Affairs - King Abdulaziz  
Medical City



Awatif Hafiz, PharmD BCCP  
Current Practice Site: King  
Abdulaziz Medical City and  
Assistant Professor, King Saud  
University



Julie Kelly, PharmD  
BCPS BCCP  
Current Practice Site: Beth  
Israel Deaconess Medical  
Center, Boston, MA



**2017-2018**

Megan Marsh, PharmD  
Current Practice Site: Ruby Memorial  
Hospital, Muncie, IN



**2016 – 2017**

Megan Rhoten, PharmD BCPS BCCP  
Current Practice Site: Carilion Clinic,  
Roanoke, VA

Hisham Badreldin, PharmD BCPS  
Current Practice Site: Associate Professor,  
King Saud Bin Abdulaziz University for  
Health Sciences, Riyadh, Saudi Arabia

