

# Focused Advanced Specialty Track

## *Emergency Ultrasound*

Director: Tiffany Fong, MD  
Assistant Professor and Director of Emergency Ultrasound  
Department of Emergency Medicine  
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Number of residents you can accommodate: 3

Available faculty mentors:  
Tiffany Fong, MD  
Randall Rhyne, MD

Are you willing to have your track combined with another one? Yes

- Research
- Education
- International
- EMS
- Pediatric EM
- others based on need

Sponsoring Institution: Johns Hopkins Hospital

### **Program Curriculum**

#### Goal

To provide fellowship-level training in Emergency Ultrasound, developing leaders with advanced knowledge and skill in point-of-care ultrasound, and experience in ultrasound education, research, and administration.

#### Objectives

1. Develop expertise in a range of emergency ultrasound applications, inclusive of and extending beyond the ACEP core applications. Training will take place with core ultrasound faculty in the ED, with opportunities for rotations with regional anesthesia, cardiac anesthesia, echocardiography lab, vascular lab, ophthalmology, and OB/GYN.
2. Gain significant experience in Emergency Ultrasound education, including ultrasound course design, development of didactic material (lectures and curation of personal image bank), organization of resident ultrasound conferences, bedside instruction of ultrasound trainees (residents, medical students, physician assistants and faculty), and participation in journal club and weekly ultrasound QA meetings
3. Become actively integrated in Emergency Ultrasound administration and develop knowledge and skills to lead a successful Emergency Ultrasound program, including credentialing, quality assurance, and billing

4. Completion of a scholarly project suitable for presentation and/or publication, under the mentorship of Hopkins faculty
5. Opportunity for completion of a Master's Degree (MPH or Masters in Education), which will extend fellowship by 1 year

### Opportunities available to residents

1. Teaching:
  - Resident didactics, including US bootcamp and Friday conferences
  - Bedside scanning sessions with EM interns and non-EM residents and fellows
  - Medical student lectures and hands-on scanning sessions
  - Planning and implementation of large scale ultrasound courses
  - Development of content for asynchronous online teaching modules
2. Primary Research:
  - Development and implementation of one primary research project
3. Writing/Publications:
  - Manuscript submission to peer-reviewed journal
  - Develop and publish content to a point-of-care ultrasound FOAMEd platform

### Ongoing Projects

1. Structured review of ACGME POCUS milestones in residency training
2. Utility of the RUSH protocol in the evaluation of ED patients with shock
3. Ultrasound training in ACGME and AOA EM residencies and implication for the merge
4. Implementation of an US guided peripheral IV training program for pediatric ED nurses
5. Development and implementation of a interdepartmental point-of-care ultrasound curriculum, and assessment of outcomes
6. Assessment of POCUS program implementation at Al Rahba Hospital in the UAE
7. Ultrasound identification of satisfactory fracture reduction in a pig model

### Possible Future Projects

1. Time-motion analysis of POCUS use
2. Performance of point-of-care echocardiography in quantitative EF measurement
3. Development of tools for ultrasound competency assessment (including simulation and SDOT)
4. Standardized feedback to US educators – making great teaching even better
5. Creation of modular asynchronous education for medical students, residents, and faculty
6. Development of an interdepartmental POCUS division at JHH