



# Allergy & Immunology Bootcamp – Boston Ed.

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## Disclosures

No relevant disclosures or conflicts



## Learning Objectives

Describe effective curriculum development for a start-of-the-year "bootcamp" for FITs



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## History & Background (The What)

The Brigham and Women's Hospital (BWH) Allergy & Immunology Intro Course started as a 1 day collection of didactic presentations

- For 1<sup>st</sup> year BWH fellows in the 1990s
- Faculty from BWH and HMS (where BWH Allergy labs and offices were located)

Evolved into the present-day format of lectures over 5 days in early July

- Covers both basic and clinical Immunology topics
- Faculty come from HMS, BWH, MGH, Boston Children's (BCH), DFCI, Mass Eye & Ear, and Dartmouth
- Attendees include
  - fellows from BWH, MGH, BCH, and Boston Medical Center (all years)
  - Medical students, residents, post-docs, and fellows from other specialty programs



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## The Who, Where, and Why

Held off-campus at a central location in the Longwood Medical Area

- HMS, BWH, Children's, DFCI, Beth Israel
- Only ~ 0.33 sq. mi in area

Intro Course serves two main purposes:

### 1. Education

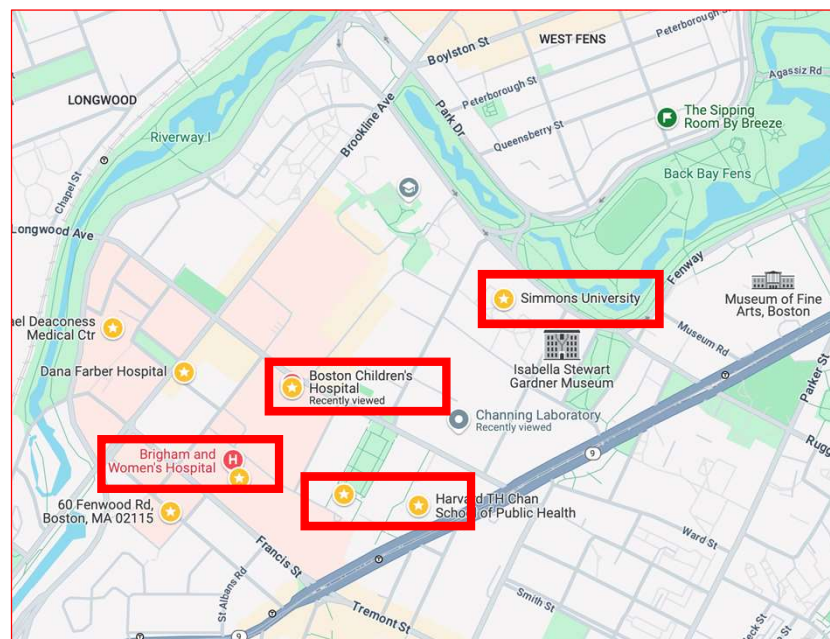
- Cover key topics relevant to A&I trainees. Relevance for other trainees too.
  - ABAI Exam Blueprint: <https://www.abai.org/blueprint.asp>
- Meant to be iterative and self-reinforcing for fellows each year they attend
  - Subject matter also likely to be covered again in regular didactic programs

### 2. Networking

- Built in breaks for meals: Boston A&I fellows meet each other and faculty from other institutions
- While primary audience is A&I fellows, audience also includes residents, post-docs, med students and trainees from non-A&I specialties



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## Educational Value of Bootcamp Courses

Desirable Difficulties (Bjork & Bjork, 2011)

- Introducing learners to a large amount of material early—even if they struggle with it—creates a foundation for better retention and comprehension later. The initial challenge forces them to engage in retrieval practice and deeper processing when they revisit the material.

Pre-exposure effect (McNamara, D. S., & Kintsch, W. (1996).

- Even if learners do not fully understand complex information during an initial exposure, it helps build mental frameworks that facilitate deeper learning later.

Cognitive Load Theory (Sweller, 1988)

- While too much information at once can overwhelm learners, some exposure to a wide range of topics helps them build mental schemas. This prepares them to integrate and organize knowledge more efficiently when they revisit it in greater depth.



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## The How and When

Introductory Course is organized by Drs. Mariana Castells, Patrick Brennan, and Ayobami Akenroye

- Syllabus organization, inviting faculty, moderating sessions
- Faculty expertise matched to topic
- Each speaker is asked to define specific learning objectives and write several board-style questions for their session(s).

Scheduled 2<sup>nd</sup> week of July, M-F 8am-3pm, after hospital orientation and onboarding have finished.

- Each training program makes arrangements to promote 1<sup>st</sup> year fellow attendance.
- At BWH, 2<sup>nd</sup> year fellows take turns covering consult pager until 3pm
- Fellows in 2<sup>nd</sup> & 3rd years are invited to attend



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## Role of Industry

Fully underwritten by 5-6 industry sponsors

Overhead: Space rental @ Simmons U., parking for faculty, food (breakfast, lunch, coffee breaks)

Industry reps set up booths to meet with MDs

- One of the few opportunities reps have to meet with Allergy MDs in Boston (reps not allowed on MGB hospital property without invitation)
- Any excess of funds raised goes to a training program fund
  - Breakfast at morning conference, funds for meeting travel, books, board review prep, etc.



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## Intrinsic Advantages for Boston Bootcamp

Geography

- Four A&I training programs in Boston, 8-9 new fellows every year
- Small footprint city; Longwood Medical Area

Resources

- Faculty with deep expertise in many areas within HMS community
- Dedicated faculty organizers

Tradition

- 25+ year history of curriculum improvement



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## General Requirements for a Bootcamp Course

Ideally a collection of training programs	Provide audience and participating faculty
	Geographic proximity helps but is not essential
Administration	Need dedicated faculty to organize and maximize engaged learning (preferably in-person)
Resource Development w/ Industry Sponsorship	Underwriting overhead – venue costs, meals, parking, etc.
	Fundraising possibilities



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## Summary and Takeaways

Introductory "bootcamp" courses have great intrinsic value for fellow education

- Large volume of introductory material early on can help facilitate later learning

Bootcamps require significant time and administrative resources but create great opportunity for engagement

- With your faculty and faculty from other institutions (academic community building)
- Provides opportunities to interact with industry in a constructive way
- Provides a setting for different training programs to work and engage one another at the fellow and faculty levels.



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## References

McNamara, D. S., & Kintsch, W. (1996). Learning from text: Effects of prior knowledge and text coherence. *Discourse Processes*, 22(3), 247–288.

Bjork, R. A., & Bjork, E. L. (2011). *Making things hard on yourself, but in a good way: Creating desirable difficulties to enhance learning*. In M. A. Gernsbacher, R. W. Pew, L. M. Hough, & J. R. Pomerantz (Eds.), *Psychology and the real world: Essays illustrating fundamental contributions to society* (pp. 55–64).

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257–285.



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Mass General Brigham

### Monday, July 8, 2024

Time	Session Title	Faculty	
08:00am - 08:15am	<b>BREAKFAST</b>		
08:15am - 08:30am	Opening Remarks / Images in Allergy	Mariana Castells, M.D., Ph.D.	BWH
08:35am - 08:50am	Immunological Foundations	Patrick Brennan, M.D., Ph.D.	BWH
08:55am - 09:30am	B Cells and Immunoglobulin Production	Sarita Patil, M.D.	MGH
09:35am - 10:10am	T cells and Innate Lymphoid Cells	Patrick Brennan, M.D., Ph.D.	BWH
10:15am - 10:30am	<b>COFFEE BREAK / EXHIBIT BOOTH TIME</b>		
10:35am - 11:10am	Neutrophils	Peter Nigrovic, M.D.	BCH
11:15am - 11:50am	Biologics for Asthma	Ayobami Akenroye, M.B.Ch. B, M.P.H., Ph.D	BWH
11:55am - 12:30pm	Mastocytosis and MCAS	Matthew Giannetti, M.D.	BWH
12:35pm	<b>LUNCH / EXHIBIT BOOTH TIME</b>		
01:15pm - 01:50pm	CVID and Autoimmunity in PID	Jocelyn Farmer, M.D., Ph.D.	LHMC
01:55pm - 02:30pm	The Epithelium in Allergic Disease	Lora Bankova, M.D.	BWH
02:35pm - 03:10pm	Quality Improvement and Safety	Paige Wickner, M.D., M.P.H	BWH



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### Tuesday, July 9, 2024

Time	Session Title	Faculty	
08:00am - 08:15am	<b>BREAKFAST</b>		
08:15am - 08:50am	Primary Immunodeficiencies – T Cells	Craig Platt, M.D., Ph.D.	BCH
08:55am - 09:30am	Primary Immunodeficiencies – B Cells	Carolyn Baloh, M.D.	BWH
09:35am - 10:10am	IgE and Immunoglobulin Sialylation	Robert Anthony, Ph.D.	MGH
10:15am - 10:30am	<b>COFFEE BREAK / EXHIBIT BOOTH TIME</b>		
10:35am - 11:10am	Lung Physiology, PFT's, and Cases	Rebecca Sternschein, M.D.	BWH
11:15am - 11:50am	Mast Cell Biology	Daniel Dwyer, Ph.D.	BWH
11:55am - 12:30pm	Food Allergy	Joyce Hsu, M.D.	BWH
12:35pm	<b>LUNCH / EXHIBIT BOOTH TIME</b>		
01:15pm - 01:50pm	The Microbiome in Allergic Disease	Kathy Lee Sarwar, M.D., M.S.	BWH
01:55pm - 02:45 pm	Complement and Cryoproteins	Mandakolathur Murali, M.D.	MGH



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### Wednesday, July 10, 2024

Time	Session Title	Faculty	
08:00am - 08:15am	<b>BREAKFAST</b>		
08:15am - 08:50am	Eosinophilic GI Disorders	Wayne Shreffler, M.D., Ph.D.	MGH
08:55am - 09:30am	Pathobiology of Asthma	Nora Barrett, M.D.	BWH
09:35am - 10:10am	Diagnosis and Management of Asthma in Children	Bernard Kinane, M.D.	MGH
10:15am - 10:30am	<b>COFFEE BREAK / EXHIBIT BOOTH TIME</b>		
10:35am - 11:10am	Urticaria	Karen Hsu Blatman, M.D.	DHMC
11:15am - 11:50am	Aspirin Exacerbated Respiratory Disease	Kathleen Buchheit, M.D.	BWH
11:55am - 12:30pm	Eosinophilia	Camellia Hernandez, M.D.	BWH
12:35pm	<b>LUNCH / EXHIBIT BOOTH TIME</b>		
01:15pm - 01:50pm	Evaluating the Evidence in Allergy	Anna Feldweg, M.D.	BWH
01:55pm - 02:30pm	Rhinitis and Sinusitis	Rachel Roditi, M.D.	BWH
02:35pm - 03:10pm	Anti-Racism in Allergy and Immunology	Margee Louisias, M.D.	BWH



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### Thursday, July 11, 2024

Time	Session Title	Faculty	
08:00am - 08:15am	<b>BREAKFAST</b>		
08:15am - 08:50am	Autoinflammatory Diseases	Fatma Dedeoglu, M.D.	BCH
08:55am - 09:30am	In Vivo and In Vitro Testing for Hypersensitivity	Morris Ling, M.D.	MGH
09:35am - 10:10am	Medication Therapy of Asthma and Allergic Diseases	John Costa, M.D.	BWH
10:15am - 10:30am	<b>COFFEE BREAK / EXHIBIT BOOTH TIME</b>		
10:35am - 11:10am	Immunotherapy	David Hong, M.D.	BWH
11:15am - 11:50am	Desensitizations for Drug HSR	Mariana Castells, M.D., Ph.D.	BWH
11:55am - 12:30pm	Lipid Mediators in Allergic Disease	Joshua Boyce, M.D.	BWH
12:35pm	<b>LUNCH / EXHIBIT BOOTH TIME</b>		
01:15pm - 01:50pm	Atopic Dermatitis	Elsa Treffeisen, M.D.	BCH
01:55pm - 02:30pm	Don't Be Too Rash	Evelyn Lilly, M.D.	MGH
02:35pm - 03:10pm	Contact Dermatitis and Patch Testing	Ari Goldminz, M.D.	BWH



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**Friday, July 12, 202•**

Time	Session Title	Faculty	
08:00am - 08:15am	<b>BREAKFAST</b>		
08:15am – 08:50am	Ocular Allergies	Stephen Anesi, M.D, F.A.C.S.	MERSI
08:55am – 09:30am	Drug Allergy Across the Care Continuum	Jamie Waldron, M.D.	MGH
09:35am – 10:10am	Drug Allergy Classification and Guidelines	Anna Wolfson, M.D.	MGH
10:15am – 10:30am	<b>COFFEE BREAK / EXHIBIT BOOTH TIME</b>		
10:35am – 11:10am	Angioedema	Aleena Banerji, M.D.	MGH
11:15am – 11:50am	Anaphylaxis	Mariana Castells, M.D. PhD	BWH
11:55am – 12:55pm	<b>Lunch/ CAREER PANEL</b>	Aleena Banerji, M.D. Nora Barrett, M.D. Duane Wesemann, M.D., Ph.D. Katie Buchheit, M.D. Craig Platt, M.D., Ph.D.	
1:00pm – 02:00pm	<b>ICE CREAM SOCIAL</b>		

