

What it's like to be a pediatrician-scientist: Shadowing Dr. Hotez

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As a medical student, do you ever wonder what it's like to be a pediatrician-scientist? Meet Peter Hotez, MD, PhD, an academic pediatrician-scientist, vaccinologist and a featured physician in the AMA's "Shadow Me" Specialty Series, which offers advice directly from physicians about life in their specialties. Check out his insights to help determine whether a career in pediatrics might be a good fit for you.

The AMA's Specialty Guide simplifies medical students' specialty selection process, highlight major specialties, detail training information and provide access to related association information. It is produced by FREIDA™, the AMA Residency & Fellowship Database®.

"Shadowing" Dr. Hotez

Specialty: Pediatrics

Practice setting: Medical school

Employment type: Research laboratory

Years in practice: More than two decades

A typical day and week in my practice: As an academic pediatrician-scientist I don't really have a typical work week. When I'm in Houston, my time is spent in lab meetings and individual meetings with scientists of our Texas Children's Hospital Center for Vaccine Development.

Also, I'm always working on grants and papers. In addition, I'm the dean of our National School of Tropical Medicine at Baylor College of Medicine, where I lead a new school devoted to poverty-related diseases. I also have a foot firmly planted in public engagement and spend a lot of time raising awareness about poverty-related neglected diseases, and also defending vaccines against a growing anti-vaccine movement.

The most challenging and rewarding aspects of pediatrics: I've stopped seeing patients in order to devote more time to our vaccine-development program and public engagement. But for me, the most rewarding aspect of practice was my time spent with house officers and rotating medical students.

Three adjectives to describe the typical pediatrician: Tenacious. Resolute. Passionate.

How my lifestyle matches, or differs from, what I had envisioned: I've always wanted to be a physician scientist focused on vaccines, and now more than 30 years after completing my MD-PhD I still run a large laboratory developing neglected-disease vaccines. We have two vaccines moving into phase 2 clinical trials, and a third one about to enter the clinic.

The big change for me is over the last 15 years I've added a large component of public engagement and advocacy to raise awareness about poverty-related neglected diseases, especially those affecting global child health—and defending vaccines. As a result, more than one billion people now receive essential medicines annually for neglected tropical diseases, while in parallel we are changing the public dialogue to promote vaccine access in the U.S. and globally.

Skills every physician in training should have for pediatrics but won't be tested for on the board exam: Health and public communication skills. We need a new generation of physicians who know how to engage the public and communicate effectively. There's a vacuum on this front. Also, management skills to head an organization.

One question physicians in training should ask themselves before pursuing pediatrics: What big health problem do I want to solve over the next decade?

Books every medical student interested in pediatrics should be reading:

- | “Letters to a Young Scientist” by Edward O. Wilson, PhD
- | “Smallpox: The Death of a Disease” by Donald Henderson, MD
- | “Polio: An American Story” by David Oshinsky, PhD

I’d also humbly suggest that medical students consider reading my books: “Forgotten People Forgotten Diseases,” “Blue Marble Health” and “Vaccines Did Not Cause Rachel’s Autism.”

The online resource students interested in pediatrics should follow: I often consult the Centers for Disease Control and Prevention, and World Health Organization websites. Feel free to follow me on Twitter (@PeterHotez) too.

Quick insights I would give students who are considering pediatrics: Too many young physicians and scientists are too focused on their next immediate steps, and not giving sufficient thought to the big picture. Ask yourself, “What problem do I want to solve 10 or 15 years from now? What does success look like a decade for now?”

In this way, you can construct a roadmap to get from here to there. It also makes getting into a prestigious residency, fellowship or academic appointment less important by focusing on the area in which you want to achieve. To be provocative I often say: Where you go to medical school or residency or fellowship ranks among the least important decisions you will make. What you choose to study ranks among the most important.

Mantra or song to describe my life in pediatrics: Quote from Mahatma Gandhi: “My experience has taught me that no movement ever stops or languishes for want of funds. This does not mean that any temporal movement can go on without money, but it does mean that wherever it has good men and true at its helm, it is bound to attract to itself the requisite funds.”