

AAMC Presentation: [Pathology: Applying Science to Diagnostics in Medicine](#)

Physician Scientist Training Program Updates to [AAMC Website](#)

## Training the Physician Scientist in Pathology

A diverse array of options for research-intensive residency/fellowship training has been developed to enable physician scientists to develop the specific skillsets required to become future leaders in academic medicine. These programs combine clinical training in anatomic pathology and/or clinical pathology (and related subspecialties) with rigorous research training. While many trainees acquire scientific skills during their predoctoral MD or MD/PhD training, most require additional dedicated research training during their residency/fellowship period to successfully develop their research program and integrate it with their developing clinical focus. The need for this complex level of training has led to development of models that can be generally categorized as physician scientist training programs (PSTPs) or physician scientist pathways or tracts (PSPs/PSTs) in Pathology.

Applicants for these programs are MD, DO, DO/PhD or MD/PhD graduates with extensive prior research training, experience, a strong record of research accomplishments, and a commitment to academic pathology.

**The Pathology PSTP/PSP/PST model** integrates research training with clinical residency training in anatomic and/or clinical pathology. While most Pathology residents train in both anatomic and clinical pathology (a 4-year residency), research track residents often focus their clinical training on anatomic pathology only or clinical pathology only (3-year residency programs), which can enable focused intensive training in a clinical area combined with earlier and more intensive research training. Up to 6 months of research training can be accomplished within this residency period, and one or more years of research training are added during the residency period, plus additional years of research training that may be added, sometimes coordinated with fellowship training. These training pathways provide the clinical training required by the American Board of Pathology (ABPath) for board eligibility in anatomic and/or clinical pathology. Fellowship training is available in a broad set of specialties (most fellowships add one year of clinical training, which may be combined with additional years of research training). Over the entire course of residency/fellowship training, programs may offer up to three years of protected time for research training. Mentorship and career development continue throughout the entire training process.

Most PSTPs are designed to allow the trainee to complete the American Board of Pathology-approved [ABPath Physician-Scientist Research Pathway](#), which is intended for physicians who are committed to contributing to new scientific knowledge in basic, translational or clinical science through careers that will involve funded research. Residents may enter the Physician-Scientist Research Pathway while training in any of the board-approved pathology training pathways, including anatomic pathology, clinical pathology, anatomic and clinical pathology or anatomic pathology/neuropathology.

Trainees in the PSRP must complete at least one additional year of research, in addition to the 6 months of research that is already available within the core residency.

In some cases, “Umbrella” PSTPs coordinate physician scientist training in multiple clinical fields, including Pathology. **Umbrella PSTPs** are broad programs that nurture physician scientist career development and integrate support across departments. Some Pathology PSTPs are part of their institution’s umbrella program.

Listed below are the organized Pathology PSTPs, as reported to the Association of Pathology Chairs through April 2021. **Details about these programs are available at <https://www.apcprods.org/PSTP-Pathology>**. For more information or to talk with a mentor from the Association of Pathology Chairs, email us at [PathologyPSTP@apcprods.org](mailto:PathologyPSTP@apcprods.org).

Montefiore Medical Center  
University Hospitals Cleveland Medical Center  
Cedars-Sinai  
New York Presbyterian Hospital - CUIMC  
Massachusetts General Hospital  
McGaw-Northwestern University  
Stony Brook Medicine Department of Pathology  
University of Texas Medical Branch  
University of California, San Francisco  
University of Chicago  
University of Iowa  
University of Michigan  
Hospital of the University of Pennsylvania  
University of Pittsburgh School of Medicine  
University of Utah, School of Medicine  
Barnes Jewish Hospital/Washington University in St. Louis  
Weill Cornell Medicine  
Yale University  
University of Washington

There are many programs that support residents training in the ABPath Physician-Scientist Research Pathway. General information about pathology residency programs can be found on the Intersociety Council for Pathology Information [website at https://www.pathologytraining.org](https://www.pathologytraining.org).

Additional resources:

[\*The Road to Becoming a Biomedical Physician-Scientist in Pathology & Laboratory Medicine\*](#), by A. Gotlieb

[\*Physician Scientist Research Pathway Leading to Certification by the American Board of Pathology\*](#), by S. Weiss and R. Johnson