

Career Opportunities in **PATHOLOGY**



**The Intersociety Council for
Pathology Information, Inc.**

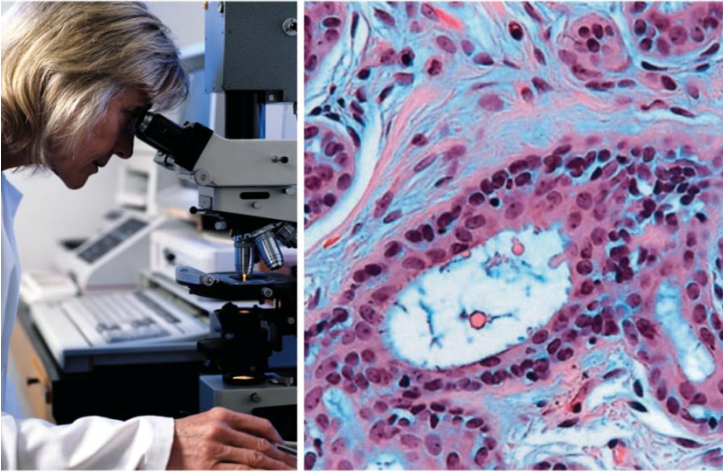
www.pathologytraining.org

ICPI is the Publisher of the *Directory of Pathology Training Programs* www.pathologytraining.org


46th
EDITION

Directory of
PATHOLOGY
TRAINING PROGRAMS
in the United States and Canada

2014-2015



Faculty List Included

 THE INTERSOCIETY COUNCIL
FOR PATHOLOGY INFORMATION, INC
www.pathologytraining.org

Acknowledgments

The following members of ICPI provided critical resources to develop this presentation:

- American Society for Clinical Pathology
 - *ASCP Fellowship & Job Market Survey - 2012*
- American Society for Investigative Pathology
- Association of Pathology Chairs
- College of American Pathologists
 - *Practice Characteristics Survey Report – 2011*

Information was also retrieved from the AMA FREIDA
Online Specialty Training Website

<https://freida.ama-assn.org>

Member Societies of ICPI

CHARTER MEMBERS

- American Society for Clinical Pathology (ASCP)
- American Society for Investigative Pathology (ASIP)
- Association of Pathology Chairs (APC)
- College of American Pathologists (CAP)
- United States and Canadian Academy of Pathology (USCAP)

Member Societies of ICPI

ASSOCIATE MEMBERS

- Academy of Clinical Laboratory Physicians and Scientists (ACLPS)
- American Association of Neuropathologists (AANP)
- American Board of Pathology (ABP)
- American College of Veterinary Pathologists (ACVP)
- American Society of Cytopathology (ASC)
- Arthur Purdy Stout Society of Surgical Pathologists
- Association for Molecular Pathology (AMP)
- Canadian Association of Pathologists
- National Association of Medical Examiners (NAME)
- Papanicolaou Society of Cytopathology
- Society for Pediatric Pathology (SPP)

What is Pathology?



- Diagnostic Medicine
- Teaching
 - Medical Students
 - Residents
 - Graduate Students
 - Fellow Physicians
 - Other Health Care Providers
- Basic and Clinical Research into Mechanisms of Disease

What are the Career Options for Pathologists?



- Community Practice (80%)
- Academic Practice & Medical School Administration (15%)
- Industry (3%)
- Government, Public Health & Regulatory Positions, e.g., FDA, NIH, CDC (1%)

The Job Market for Pathologists is Excellent



There will be a shortage of pathologists in the next two decades, starting in 2015*:

- Beginning in 2014, the number of retiring pathologists will increase, peaking by 2021.
 - The number of graduating pathology residents will be less than the number of retiring pathologists per year.
- Anticipated population growth and increases in disease incidence will lead to a net deficit of more than 5,700 pathologists by 2030.

*Robboy SJ et al. Arch Pathol Lab Med. 2013; in press.

Demographics



Active Pathologists in the US*

- Nearly 18,000 actively practicing pathologists
 - 93% are ABP-Board Certified
 - 5.8 pathologists per 100,000 population
 - Projected retirement age at 71 years
- Based on the current number of pathology residents in-training, pathologist strength will fall by 2030 to 14,800 (3.9 per 100,000)

*Robboy SJ et al. Arch Pathol Lab Med. 2013; in press.

* CAP Member Survey 2011

Pathology Practice Demographics



Type of Practice

- Solo 7%
- Pathology Group 67%
- Multispecialty Group 7%
- Medical School 10%
- Hospital 10%
- Independent Laboratory 9%
- Locum Tenens 1%

College of American Pathologists Survey, 2006

Pathology Practice Demographics

Practice Size

- 1-5 40.9%
- 6-10 21.9%
- 11-15 12.5%
- 16-20 7.6%
- >20 17.1%

Compensation



The average (mean) base salary is \$257,850



The average base salary for pathologists with 1-10 years of experience is \$201,775



Pathologists with 11-20 years of experience earned an average base salary of \$260,119

Pathologists with more than 30 years of professional experience earned a base salary of \$279,011.

Compensation



59% of respondents receive additional compensation other than base salaries

- Incentive compensation ~\$94,000
- Deferred income ~\$34,000
- Other income ~\$56,000

Benefits



•Paid vacation	90%
•Health Insurance	83%
•Malpractice premiums	82%
•Retirement plan	83%
•Paid CME	72%
•Paid sick leave	57%
•Bonus % of protection	21%
•Tuition reimbursement	13%
•Other	23%

What is the Lifestyle for Pathologists?

- 49.2 hour work week vs. 55 hour average work week for all specialties
- Above average professional satisfaction (70%)
- Above average family satisfaction
- Average professional respect
- Below average stress

Pathology Residency Training Programs



- Number of accredited programs in 2011 145
- Number of active residents/fellows 2,327
- Percent female 53.9%
- Percent international medical graduate 37.4%
- Average resident compensation \$48,524
- Resident work hours (PGY-1)
 - Average hours on duty per week 51.4
 - Average max consecutive hours on duty 13.7
 - Average days off per week 1.8
 - Average number weeks vacation 3.3

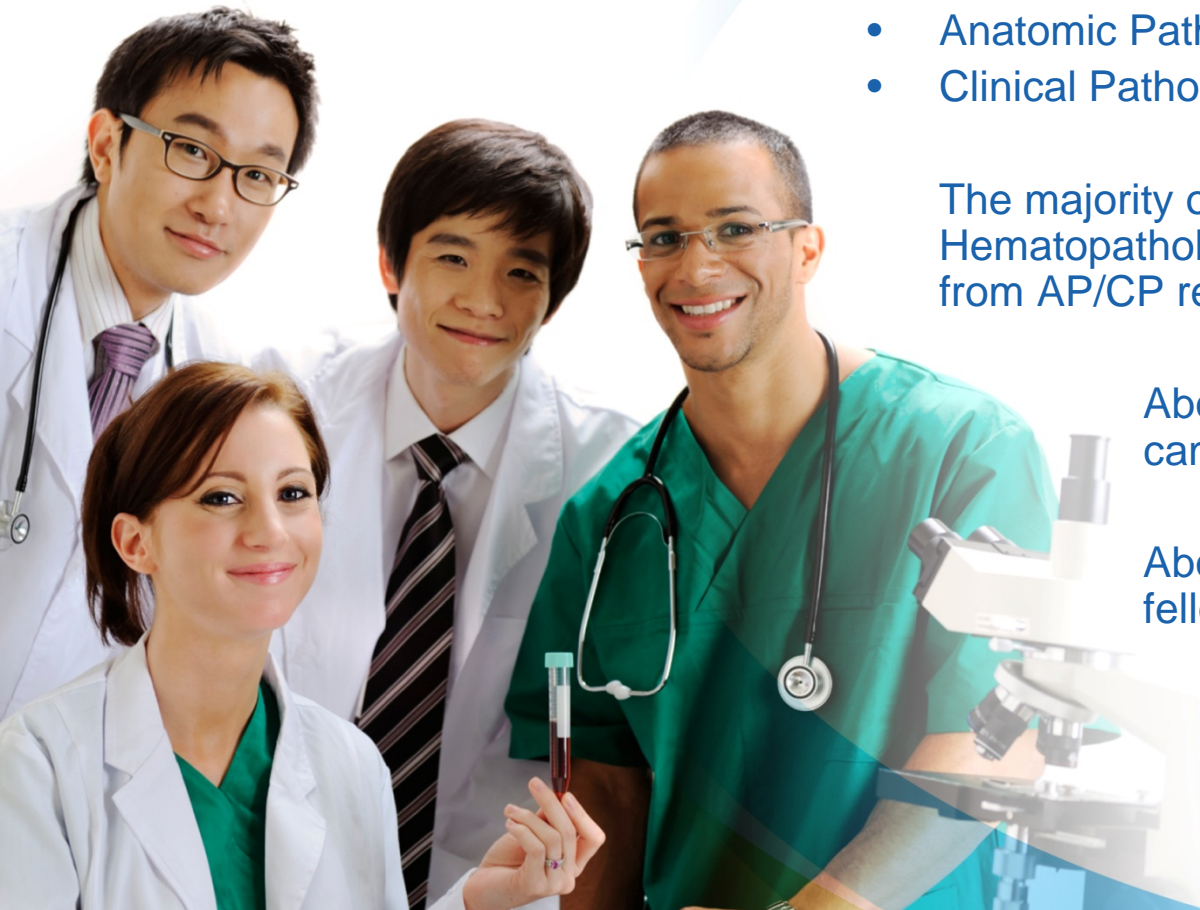
Pathology Residency Training Programs

- Anatomic & Clinical Pathology (4y) 85%
- Anatomic Pathology (3y) 10%
- Clinical Pathology (3y) 5%

The majority of fellows in Forensics, Hematopathology, and Pediatric Pathology came from AP/CP residency training.

About half of Neuropathology fellows came from AP-only.

About half of Transfusion Medicine fellows came from CP-only



Pathology Resident Career Plans



Since 2006, the number of residents who pursue more training (apply for fellowships) immediately after residency has increased.

•Pursue More Training	86.3%
•Academic Medicine	5.6%
•Military	2.3%
•Non-clinical Research	2.0%
•Practice in the US	3.8%
•Group practice	61.9%
•In same state as training program	47.6%
•In underserved area	4.8%

Fellowship Experience After Residency



Why do residents pursue a fellowship?

- Enhancement of pathology skills
- Plan a career based on a fellowship specialty
- Enhance employability

Most residents finalize their fellowship plans during PGY-3

- Less than 10% decide on fellowship pathways in PGY-4.

Fellowship Experience After Residency

Over the past decade, there has been a trend towards multiple fellowships.

Number of Fellowships per resident

- 0 – 5%
- 1 – 60%
- 2 – 34%
- 3 – 1%

Fellowship Experience After Residency



Over the last five years, there has been an increase in both the number of applications submitted and the number of interview offers received.

How many Applications Submitted?

- 0 7%
- 1 to 3 41%
- 4 to 6 17%
- 7 to 10 14%
- > 10 21%

How many Interviews?

- None 8%
- 1 to 3 60%
- 4 to 6 24%
- 7-10 6%
- >10 2%

Applying for Jobs Immediately After Residency

Only 139 PGY-3 and PGY-4 residents applied for a specific job in 2012.

Number of Jobs Applied for

- 1-3 68%
- 4-6 14%
- 7-10 6%
- > 10 12%

Perception of where jobs are available

- Community group practice 44%
- Academic institutions 36%
- Reference laboratories 4%
- Government/military 4%
- Other 10%



Applying for Jobs Immediately After Residency



42% of residents restricted their search for a job due to geography in 2012

Major factors:

- Spouse's job 38%
- Other lifestyle/family issues 39%
- Native to the area 20%
- Professional contacts in area 3%

ASCP Fellowship & Job Market Survey 2012

ASCP Fellowship & Job Market Survey 2012

Job-Hunting Experience Immediately After Residency



How many Offers?

• 0	43%
• 1	39%
• 2	12%
• 3	4%
• >3	2%

Salary Offered:

• >\$100,000	8%
• \$100-150,000	28%
• \$150-200,000	28%
• \$200-250,000	2%
• >\$250,000	17%
• Not discussed	17%

Job-Hunting Experience After Fellowship



The amount of time it took to find a job varied by specialty.

Nearly one-half of all fellows found a job within 2 months.

The vast majority of fellows found a job within 6 months.

Except for rare cases, all fellows found a job within 1 year.

Job-Hunting Experience After Fellowship

Job-hunting patterns vary depending on the training background and perceived competition by specialty

FORENSICS

Number of jobs formally applied for:

- 0 6%
- 1-3 72%
- 4-6 11%
- 7-10 6%
- >10 6%

Number of job offers:

- 0 11%
- 1 50%
- 2 31%
- 3 or more 9%

Job-Hunting Experience After Fellowship

Starting annual salaries vary depending on the specialty

FORENSICS

<\$100,000	0%
•\$100-150,000	28%
•\$150-200,000	56%
•\$200-250	9%
•>\$250,000	6%

Job-Hunting Experience After Fellowship

Job-hunting patterns vary depending on the training background and perceived competition by specialty

HEMATOPATHOLOGY

Number of jobs formally applied for:

- 0 15%
- 1-3 27%
- 4-6 15%
- 7-10 12%
- >10 31%

Number of job offers:

- 0 31%
- 1 37%
- 2 20%
- 3 or more 12%

Job-Hunting Experience After Fellowship

Starting annual salaries vary depending on the specialty

HEMATOPATHOLOGY

<\$100,000	2%
•\$100-150,000	5%
•\$150-200,000	43%
•\$200-250	30%
•>\$250,000	16%

Job-Hunting Experience After Fellowship

Job-hunting patterns vary depending on the training background and perceived competition by specialty

NEUROPATHOLOGY

Number of jobs formally applied for:

- 0 39%
- 1-3 45%
- 4-6 0%
- 7-10 3%
- >10 12%

Number of job offers:

- 0 48%
- 1 39%
- 2 12%
- 3 or more 0%

Job-Hunting Experience After Fellowship

Starting annual salaries vary depending on the specialty

NEUROPATHOLOGY

<\$100,000	0%
•\$100-150,000	24%
•\$150-200,000	24%
•\$200-250	12%
•>\$250,000	12%

Job-Hunting Experience After Fellowship

Job-hunting patterns vary depending on the training background and perceived competition by specialty

TRANSFUSION MEDICINE

Number of jobs formally applied for:

- 0 24%
- 1-3 19%
- 4-6 27%
- 7-10 5%
- >10 24%

Number of job offers:

- 0 30%
- 1 38%
- 2 14%
- 3 or more 19%

Job-Hunting Experience After Fellowship

Starting annual salaries vary depending on the specialty

TRANSFUSION MEDICINE

<\$100,000	0%
•\$100-150,000	19%
•\$150-200,000	69%
•\$200-250	8%
•>\$250,000	0%

Job-Hunting Experience After Fellowship

Job-hunting patterns vary depending on the training background and perceived competition by specialty

PEDIATRIC PATHOLOGY

Number of jobs formally applied for:

- 0 29%
- 1-3 29%
- 4-6 12%
- 7-10 12%
- >10 18%

Number of jobs formally applied for:

- 0 47%
- 1 35%
- 2 18%
- 3 or more 0%

Job-Hunting Experience After Fellowship

Starting annual salaries vary depending on the specialty

PEDIATRIC PATHOLOGY

<\$100,000	0%
•\$100-150,000	22%
•\$150-200,000	33%
•\$200-250	44%
•>\$250,000	0%

Pathology Specialties (Fellowship Training)



Subspecialty Certification in the US:

- Blood Banking/Transfusion Medicine
- Chemical Pathology
- Clinical Informatics
- Cytopathology
- Dermatopathology
- Forensic Pathology
- Hematology
- Medical Microbiology
- Molecular Genetic Pathology
- Neuropathology
- Pediatric Pathology

Pathology Specialties (Fellowship Training)



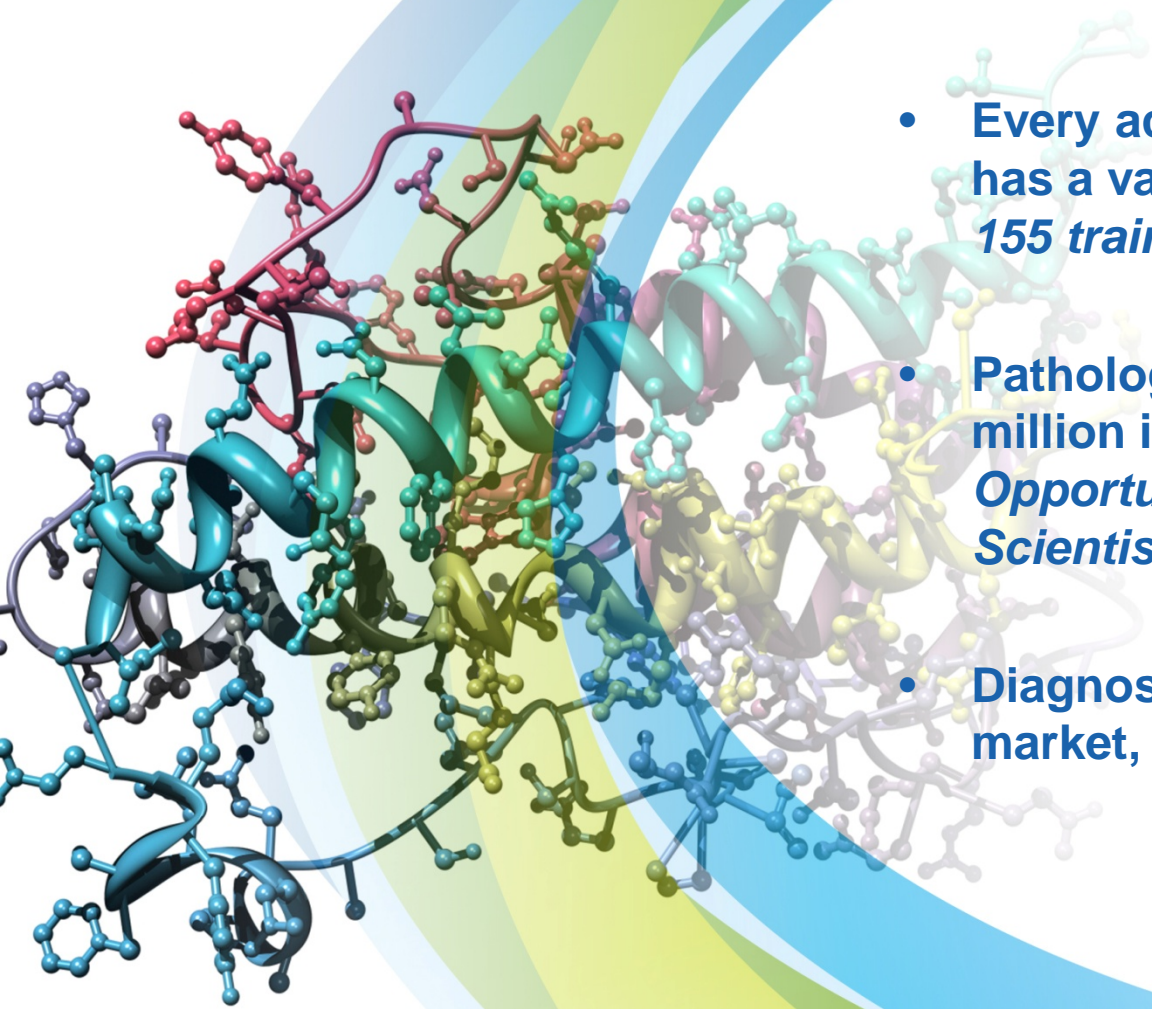
Other Subspecialties

- Cytogenetics
- Molecular Pathology
- Nuclear Medicine

Anatomic/Surgical Pathology Subspecialties

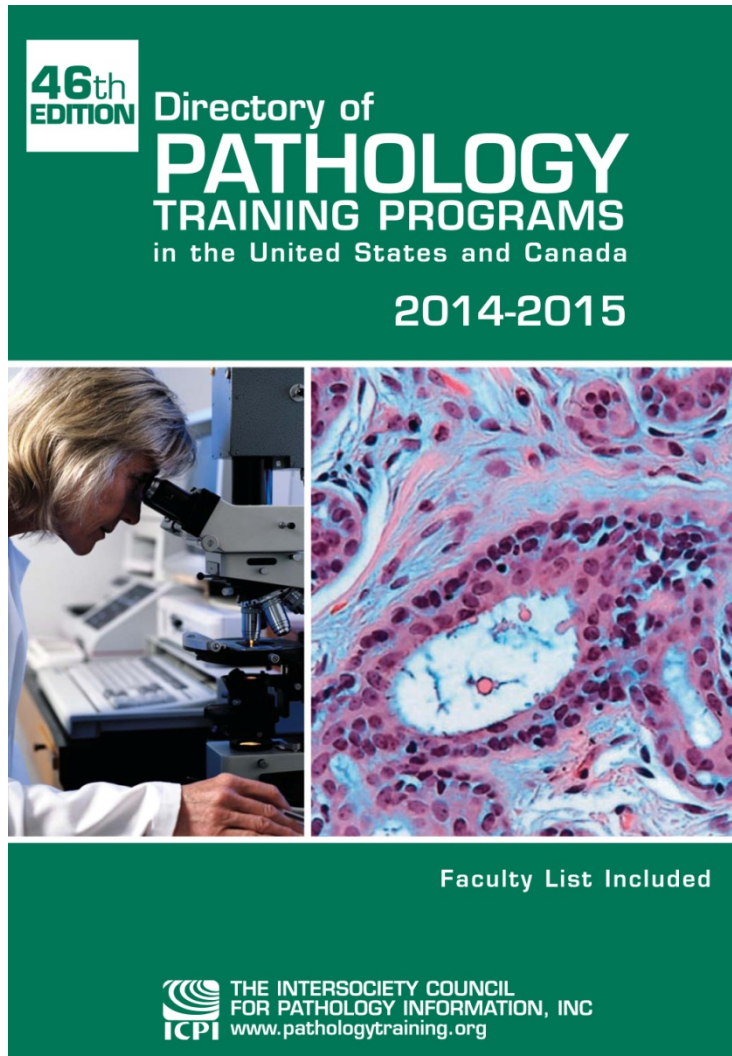
- Bone & Soft Tissue
- Cardiac
- Gastrointestinal/Hepatic
- Gynecologic
- Head & Neck
- Pulmonary

Current and Future Career Opportunities



- Every academic department in U.S. has a vacancy (*130 medical schools; 155 training programs*)
- Pathology Departments have \$400 million in NIH research grants (*Special Opportunities for Physician Scientists*)
- Diagnostic Medicine: \$40 billion market, growth 5-7% yearly

Directory of Pathology Training Programs is available in print and online at www.pathologytraining.org



Where to go & what to do next?

For information about pathology training and fellowships:

ICPI and its charter member societies

- www.pathologytraining.org
- www.apcprods.org
- www.ascp.org
- www.asip.org
- www.cap.org
- www.uscap.org
- www.abpath.org
- www.acgme.org
- www.ama-assn.org/Freida/

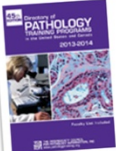


Intersociety Council for Pathology Information, Inc.
Training Resources for Pathology and Laboratory Medicine



Medical Student Interest Group
Matching Grant Program
[More Information](#)

Directory of Pathology Training Programs



- Search by:
- Institution, State, Province
 - Geographic Region
 - Residency & Fellowship Training Programs
 - Post-Sophomore Training Programs
 - Faculty Member

Order a Hard Copy of the Directory

[45th Edition of the Directory of Pathology Training Programs](#)

Order Your Department's Listing in the Directory

[How to List Your Institution's Residency/Fellowship Program in the Directory of Pathology Training Programs](#)

[FAQs](#)

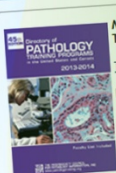
News

What's New?

• Training Residents in Genomics (TRIG) Working Group Lecture Materials now available!
[Click here to download](#)

• We have recently revamped the "Search the Directory of Pathology Training Programs" search engine. If you run into any problems, please let us know. icpi@asip.org

• We have also added a new feature that allows you to search for faculty members and determine their institution.
[Click here to search faculty](#)



New Print-on-Demand: 45th Edition of the Directory of Pathology Training Programs

The Directory is now available by print-on-demand.

[More Information](#)

ICPI Trainee Travel Awards

Check out the [ICPI Trainee Travel Award](#) to support trainee participation in scientific meetings organized by its sponsoring and associate member societies. A limited number of ICPI Trainee Travel Awards are available in 2013. There are 2 types of Travel Awards:

- 1) Travel Award: \$500.00 for trainees who do not submit an abstract.
- 2) Travel Award with Abstract: \$750.00 for trainees who submit an abstract to the meeting they are attending.

The award is intended to offset the travel costs for attending a meeting of one of ICPI's member societies. Awardees must currently be a trainee (medical student, graduate student, resident, fellow) member of one of the member societies of ICPI.

Award Recipients

What is ICPI?

The Intersociety Council for Pathology Information (ICPI) is a nonprofit educational organization sponsored by national pathology societies to serve as a central source of information about pathology in the practice of medicine and in medical research and education. Each year, ICPI publishes the [Directory of Pathology Training Programs](#) listing pathology residency and fellowship programs in the United States and Canada. ICPI also publishes the brochure [Pathology as a Career in Medicine](#).

Intersociety (IPC) Pathology Council

Directory of Pathology Training Programs

Charter Members

American Society for Clinical Pathology (ASCP)

American Society for Investigative Pathology (ASIP)

Association of Pathology Chairs (APC)

College of American Pathologists (CAP)

United States and Canadian Association of Pathology (USCAP)

Associate Members

Academy of Clinical Laboratory Physicians and Scientists (ACLP)

American Association for Neuroanatomists (AANAP)

American Board of Oral and Maxillofacial Pathology (ABOMP)

American Board of Pathology (ABP)

American College of Veterinary Pathologists (ACVP)

American Society of Cytopathology (ASCP)

Arthur Purdy Stout Society of Quality Pathologists (ASQP)

Association for Molecular Pathology (AMP)

Canadian Association of Pathologists (CAP-ACP)

National Association of Medical Technicians (NAMT)

Pathology Society of Cytopathology (PSC)