RESIDENCY YEARS

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MONTANA FAMILY MEDICINE RESIDENCY AT RIVERSTONE HEALTH, BILLINGS, MT

SEPT. 25, 2021
PRESENTATION STRUCTURE

• Residency and Fellowship opportunities in the United States
  • We will speed through many of these slides, but you will have them in the PDF for future reference
• Residency and Fellowship opportunities in Montana
• The Match
• Life in residency
• Q&A
WHAT KIND OF DOCTOR DO YOU WANT TO BE WHEN YOU GROW UP?
ALLOPATHIC VS. OSTEOPATHIC MEDICINE

• **Allopathic Medicine**: Traditional medical training, though this term is not used frequently.
  - Allopathic = opposite treatment (as opposed to homeopathic)
  - Now, “allopathic” is really only used in contrast with “osteopathic”
  - Degree is **Doctor of Medicine (MD)**, U.S. accreditation through **LCME**
  - **University of Washington** is Montana’s “allopathic” medical school through the WWAMI program

• **Osteopathic medicine**: “A distinct branch of medicine in the U.S., osteopathic medicine emphasizes the interrelated unity of all systems in the body, each working with the other to heal in times of illness.”
  - Developed by A.T. Still in late 19th century
  - There are now 37 colleges of osteopathic medicine in the U.S., which matriculate more than 26% of U.S. medical students
  - Degree is **Doctor of Osteopathy (DO)**, U.S. accreditation through **COCA**
  - **Pacific Northwest University** in Yakima, Washington has a Montana track, and **Rocky Vista University** has broken ground in Billings for an osteopathic medical school
FOR-PROFIT MEDICAL SCHOOLS EXIST, MOSTLY IN THE CARIBBEAN…AND THEY ARE EXPENSIVE
ADTALEM GLOBAL EDUCATION ANNOUNCES BARBADOS AS NEW LOCATION FOR ROSS UNIVERSITY SCHOOL OF MEDICINE

Adtalem Global Education (NYSE: ATGE), a leading global education provider, today announced it is relocating Ross University School of Medicine (RUSM)’s medical sciences campus to Barbados.

Adtalem Global Education (NYSE: ATGE), a leading global education provider, today announced it is relocating Ross University School of Medicine (RUSM)’s medical sciences campus to Barbados. The academic center will be in Bridgetown, leveraging existing facilities centrally located in the vibrant capital city. Student housing will be located in the parish of Christ Church at an existing housing community that includes access to a community center, shopping, day care, student services and transportation to campus. Students will begin the January 2019 semester at the new location, pending final regulatory approval from the U.S. Department of Education.
<table>
<thead>
<tr>
<th>DOCTOR OF OSTEOPATHIC MEDICINE</th>
<th>SIMILARITIES</th>
<th>DOCTOR OF MEDICINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic approach to practicing medicine, treating the patient as a whole— not just the symptoms or injuries</td>
<td>Premedical pathway: premedical coursework, the MCAT and a bachelor’s degree</td>
<td>Practice allopathic medicine, focused on the diagnosis and treatment of human diseases</td>
</tr>
<tr>
<td>Trained to correct structural problems to assist your body’s natural tendency toward health</td>
<td>Educational requirements: 4 years of medical school and a residency program</td>
<td>Most popular practice of medicine</td>
</tr>
<tr>
<td>Take an extra 300 to 500 hours of classes with emphasis on musculoskeletal system</td>
<td>Requirements for licensing</td>
<td>Majority practice in specializations</td>
</tr>
<tr>
<td>Majority practice in primary care</td>
<td>Can practice medicine and surgery in all 50 states</td>
<td>Take the U.S. Medical Licensing Exam for certification</td>
</tr>
<tr>
<td>Take the Comprehensive Osteopathic Medical Licensing Examination for certification</td>
<td>Found in every speciality of medicine</td>
<td></td>
</tr>
</tbody>
</table>

Medical School = Undergraduate Medical Education
Residency & Fellowship = Graduate Medical Education

THE “POST-GRADUATE” YEARS (AFTER MED SCHOOL)

Medical School

PGY-1

Emergency Medicine (some), Family Medicine, Internal Medicine, Osteopathic Neuromusculoskeletal Medicine, Pediatrics, Physical Medicine & Rehabilitation (some), Preventive Medicine (some)

Independent Practice or Fellowship

PGY-2

Emergency Medicine (some), Obstetrics & Gynecology, Pathology, Physical Medicine & Rehabilitation (some), Psychiatry

Independent Practice or Fellowship

PGY-3

Surgery, Otolaryngology – Head and Neck Surgery (ENT)

Independent Practice or Fellowship

PGY-4

Plastic Surgery

Independent Practice or Fellowship

PGY-5

Neurosurgery

Independent Practice or Fellowship

PGY-6

PGY-7

PGY-8

PGY-9

PGY-10

These are “categorial” residencies, meaning the entire residency experience is in one single program
THE “POST-GRADUATE” YEARS (AFTER MED SCHOOL)

Medical School

PGY-1

Medical Genetics & Genomics, Preventive Medicine (some)

PGY-2

Anesthesiology, Dermatology, Neurology, Ophthalmology, Nuclear Medicine

PGY-3

Radiology, Radiation Oncology

PGY-4

Independent Practice or Fellowship

PGY-5

Independent Practice or Fellowship

PGY-6

Independent Practice or Fellowship

PGY-7

Independent Practice or Fellowship

PGY-8

Independent Practice or Fellowship

PGY-9

Independent Practice or Fellowship

PGY-10

Orthopaedic Surgery, Urology

Preliminary or Transitional Year (Internship)

General Surgery (Internship)
COMBINED SPECIALTY RESIDENCY PROGRAMS

- Internal Medicine-Pediatrics ("Med-Peds")—by far the most common combination
- Internal Medicine-Emergency Medicine
- Internal Medicine-Psychiatry
- Pediatrics-Psychiatry-Child Psychiatry
- Family Medicine-Psychiatry
- Family Medicine-Emergency Medicine
  - There are also non-accredited emergency fellowships available to family medicine graduates
- Family Medicine-Preventive Medicine
Primary care physicians handle a wide range of patient care needs, from routine and preventive care, to unexpected or acute conditions.

Primary care physicians are the first point of contact for the patients with whom they have a longitudinal relationship (often called their "panel").

There are five primary care specialties, but not every physician in each specialty practices primary care:

- Family Medicine
- General Internal Medicine
- General Obstetrics/Gynecology
- General Pediatrics
- Med/Peds

Some geriatricians practice as primary care physicians.
RESIDENCY & FELLOWSHIP ACCREDITATION

- All residency programs in the U.S. are now accredited by the Accreditation Council for Graduate Medical Education (ACGME), including training programs providing ongoing osteopathic medicine training (“Osteopathic Recognition”)

- ACGME also accredits most fellowship programs in the U.S., but non-accredited fellowships are available as well
  - For example, there are OB and emergency fellowships available after completion of family medicine residencies
  - Billings Clinic and Montana Family Medicine Residency have collaborated to create a new Rural Critical Care Fellowship
ANESTHESIOLOGY SUBSPECIALTIES

- Addiction Medicine
- Adult Cardiothoracic
- Anesthesiology Critical Care Medicine
- Clinical Informatics
- Hospice and Palliative Medicine
- Obstetric Anesthesiology
- Pain Medicine
- Pediatric Anesthesiology
- Regional Anesthesiology and Acute Pain Medicine
DERMATOLOGY SUBSPECIALTIES

- Dermatopathology
- Micrographic Surgery and Dermatologic Oncology
- Pediatric Dermatology
EMERGENCY MEDICINE SUBSPECIALTIES

• Addiction Medicine
• Clinical Informatics
• Emergency Medical Services
• Medical Toxicology
• Pediatric Emergency Medicine
• Sports Medicine
• Undersea and Hyperbaric Medicine
FAMILY MEDICINE SUBSPECIALTIES

- Addiction Medicine
- Clinical Informatics
- Geriatric Medicine
- Hospice and Palliative Medicine
- Sports Medicine
<table>
<thead>
<tr>
<th>Internal Medicine Subspecialties</th>
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<tbody>
<tr>
<td>Addiction Medicine</td>
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<tr>
<td>Adult Congenital Heart Disease</td>
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<tr>
<td>Advanced Heart Failure and</td>
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<tr>
<td>Transplant Cardiology</td>
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<tr>
<td>Cardiovascular Disease</td>
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<tr>
<td>Clinical Cardiac Electrophysiology</td>
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<tr>
<td>Clinical Informatics</td>
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<tr>
<td>Critical Care Medicine</td>
</tr>
<tr>
<td>Endocrinology, Diabetes, and</td>
</tr>
<tr>
<td>Metabolism</td>
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<tr>
<td>Gastroenterology</td>
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<tr>
<td>Geriatric Medicine</td>
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<tr>
<td>Hematology</td>
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<tr>
<td>Hematology and Medical Oncology</td>
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<tr>
<td>Hospice and Palliative Medicine</td>
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<tr>
<td>Infectious Disease</td>
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<tr>
<td>Internal Medicine-Pediatrics</td>
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<tr>
<td>Interventional Cardiology</td>
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<tr>
<td>Medical Oncology</td>
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<tr>
<td>Nephrology</td>
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<tr>
<td>Pulmonary Critical Care</td>
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<tr>
<td>Pulmonary Disease</td>
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<tr>
<td>Rheumatology</td>
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<tr>
<td>Sleep Medicine</td>
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<tr>
<td>Transplant Hepatology</td>
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MEDICAL GENETICS AND GENOMICS
SUBSPECIALTIES

• Clinical Informatics
• Medical Biochemical Genetics
• Molecular Genetic Pathology
NEUROLOGICAL SURGERY SUBSPECIALTIES

• Endovascular Surgical Neuroradiology
OBSTETRICS AND GYNECOLOGY SUBSPECIALTIES

- Addiction Medicine
- Complex Family Planning
- Female Pelvic Medicine and Reconstructive Surgery
- Gynecologic Oncology
- Maternal-Fetal Medicine
- Reproductive Endocrinology and Infertility
OPHTHALMOLOGY SUBSPECIALTIES

• Ophthalmic Plastic and Reconstructive Surgery
ORTHOPAEDIC SURGERY SUBSPECIALTIES

• Adult Reconstructive Orthopaedic Surgery
• Foot and Ankle Orthopaedic Surgery
• Hand Surgery
• Musculoskeletal Oncology
• Orthopaedic Sports Medicine
• Orthopaedic Surgery of the Spine
• Orthopaedic Trauma
• Pediatric Orthopaedic Surgery
OTORHINOLARYNGOLOGY – HEAD AND NECK SURGERY SUBSPECIALTIES

• Neurotology
• Pediatric Otolaryngology
PATHOLOGY SUBSPECIALTIES

- Blood Banking/Transfusion Medicine
- Chemical Pathology
- Clinical Informatics
- Cytopathology
- Dermatopathology
- Forensic Pathology
- Hematopathology
- Medical Microbiology
- Molecular Genetic Pathology
- Neuropathology
- Pediatric Pathology
- Selective Pathology
PEDIATRICS SUBSPECIALTIES

- Addiction Medicine
- Adolescent Medicine
- Child Abuse Pediatrics
- Clinical Informatics
- Developmental-Behavioral Pediatrics
- Hospice and Palliative Medicine
- Internal Medicine-Pediatrics
- Neonatal-Perinatal Medicine
- Pediatric Cardiology
- Pediatric Critical Care Medicine
- Pediatric Emergency Medicine
- Pediatric Endocrinology
- Pediatric Gastroenterology
- Pediatric Hematology Oncology
- Pediatric Hospital Medicine
- Pediatric Infectious Diseases
- Pediatric Nephrology
- Pediatric Pulmonology
- Pediatric Rheumatology
- Pediatric Transplant Hepatology
- Sleep Medicine
- Sports Medicine
PHYSICAL MEDICINE AND REHABILITATION SUBSPECIALTIES

• Brain Injury Medicine
• Neuromuscular Medicine
• Pain Medicine
• Pediatric Rehabilitation Medicine
• Spinal Cord Injury Medicine
• Sports Medicine
PLASTIC SURGERY SUBSPECIALTIES

• Hand Surgery
• Craniofacial Surgery
PREVENTIVE MEDICINE

• Preventive Medicine Residency Programs focus on one of three areas:
  • Aerospace Medicine
  • Occupational Medicine
  • Public Health and General Preventive Medicine

• There are also Preventive Medicine Subspecialty Fellowships:
  • Addiction Medicine
  • Clinical Informatics
  • Medical Toxicology
  • Undersea and Hyperbaric Medicine
PSYCHIATRY SUBSPECIALTIES

- Addiction Medicine
- Addiction Psychiatry
- Brain Injury Medicine
- Child and Adolescent Psychiatry
- Consultation-Liaison Psychiatry
- Forensic Psychiatry
- Geriatric Psychiatry
- Hospice and Palliative Medicine
- Sleep Medicine
RADIATION ONCOLOGY SUBSPECIALTIES

• Hospice and Palliative Medicine
RADIOLOGY

- Radiology has **residency programs** in two specialties:
  - Diagnostic Radiology
  - Interventional Radiology-Integrated

- Radiology also has **subspecialty fellowship programs**
  - Abdominal Radiology
  - Clinical Informatics

- Endovascular Surgical Neuroradiology
- Interventional Radiology
- Musculoskeletal Radiology
- Neuroradiology
- Nuclear Radiology
- Pediatric Radiology
SURGERY SUBSPECIALTIES

- Colon & Rectal Surgery
- Complex General Surgical Oncology
- Hand Surgery
- Pediatric Surgery
- Surgical Critical Care
- Thoracic Surgery
  - Congenital Cardiac Surgery
- Vascular Surgery
UROLOGY SUBSPECIALTIES

• Female Pelvic Medicine and Reconstructive Surgery
• Pediatric Urology
MULTI-SPECIALTY FELLOWSHIPS

- **Allergy and Immunology**
  - Can follow residency in internal medicine, pediatrics, or combination (“med-peds”)

- **Health Care Administration, Leadership, and Management (HALM)**
  - Will be the newest fellowship accredited by ACGME, eligible to any graduate of any core residency program
## Residency Programs in Montana

<table>
<thead>
<tr>
<th>Residency Program</th>
<th>Location</th>
<th>Established</th>
<th>Number of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montana Family Medicine Residency</td>
<td>Billings</td>
<td>1995</td>
<td>24 residents / 8 per class</td>
</tr>
<tr>
<td>Family Medicine Residency of Western Montana</td>
<td>Missoula &amp; Kalispell</td>
<td>2013</td>
<td>30 residents / 10 per class</td>
</tr>
<tr>
<td>Billings Clinic Internal Medicine Residency</td>
<td>Billings</td>
<td>2014</td>
<td>24 residents / 8 per class</td>
</tr>
<tr>
<td>University of Washington Psychiatry Residency Program, Montana Track at Billings Clinic</td>
<td>Billings</td>
<td>2019</td>
<td>12 residents / 3 per class</td>
</tr>
</tbody>
</table>
MONTANA FAMILY MEDICINE RESIDENCY, BILLINGS

- Part of University of Washington’s WWAMI Family Medicine Residency Network
- One of the first U.S. residencies to be housed at a community health center, and one of the inaugural eleven Teaching Health Centers under the ACA
- Partnership of RiverStone Health, St. Vincent Healthcare and Billings Clinic
  - RiverStone Health Clinic is where residents see their clinic patients
- Sponsors an accredited Sports Medicine Fellowship and co-sponsors a new Rural Critical Care Fellowship with Billings Clinic
- Special tracks: Public Health & Advocacy, Wilderness Medicine, Osteopathic Family Medicine (ACGME Osteopathic Recognition)
- https://riverstonehealth.org/education-resources/montana-family-residency/directors-welcome/
FAMILY MEDICINE RESIDENCY OF WESTERN MONTANA, MISSOULA & KALISPELL

• Part of University of Washington’s WWAMI Family Medicine Residency Network

• Sponsored by University of Montana
  • Partnership Health Center is where residents see their clinic patients in Missoula
  • Greater Valley Health Center is where residents see their clinic patients in Kalispell

• Rural training track in Kalispell for 3 residents per class (PGY-2 and PGY-3 years)
  • Special recognition in August of 2019 by The Rural Training Track Collaborative (RTTC) for graduating more family physicians that go into rural practice than any other program surveyed in the country

• Area of Concentration: Reproductive Health, Osteopathic Medicine (ACGME Osteopathic Recognition)

• http://health.umt.edu/fmrwm/
BILLINGS CLINIC INTERNAL MEDICINE RESIDENCY,
BILLINGS

- Sponsored by Billings Clinic
  - Largest healthcare organization in Montana
  - Member of the Mayo Clinic Care Network
  - Rural rotations throughout the Billings Clinic system
  - Residents see clinic patients at the outpatient center adjacent to Billings Clinic Hospital
- Supports 4 preliminary PGY-1 positions and 8 categorical (3-year) positions
- Areas of Concentration: Research (Helmsley Scholars Program)
  - Research opportunities at the Billings Clinic Center for Clinical Translational Research, the Clinical Research Center, the Cancer Research Center, and the Nursing Research Council
- [https://billingsclinicimr.org/the-program/program-overview/](https://billingsclinicimr.org/the-program/program-overview/)
Sponsored by University of Washington and Billings Clinic
   - UW also has regional tracks in Spokane, WA and Boise, ID

Three residents per year
   - PGY-1 and PGY-2 years in Seattle at UW
   - PGY-3 and PGY-4 years in Billings at Billings Clinic

Track focus is on providing psychiatry care in under-resourced and rural settings
   - Project ECHO Billings Clinic, Eastern Montana Telemedicine Network, Early Psychosis Intervention Clinic (EPIC Montana)

https://www.uwmtpsychtrack.org/
THE MATCH

• The National Resident Match Program ("The Match") has placed medical school graduates into residency positions since 1952
  • The NRMP’s Specialties Matching Service also places residency graduates into fellowship positions

• Medical students apply to the programs they would like to interview for through the Electronic Residency Application Service (ERAS)

• After interviews have taken place, each student creates a ranklist of the interviewed programs they would willing to train in, and each program creates a ranklist of the interviewed students they would be willing to train

• A computerized algorithm matches students with programs to “maximize” satisfaction

• On Match Day, the Match results are announced, usually accompanied by ceremonies at the medical schools
Guide to the Doctor Hierarchy

Medical Student
(Physician pursuing 2-7 years of specialized training)

Intern

Resident
(Physician pursuing post-residency training)

Fellow
(Trained physician practicing in their specialty)

Attending

LIFE IN RESIDENCY

- Residency training is mostly in the **apprentice model**: learning by doing, under the supervision of an attending physician
  - There are some lectures, but this is usually no more than one half-day per week
  - Residents are supervised throughout training, but experience **progressive independence based on demonstrated competency**
  - Much of the learning is **independent study** about the patients/topics you are experiencing “on the job”
  - **Exams** are limited to annual “in-training” standardized exams administered by the program’s specialty board, to help you understand how you are doing compared to residents nationwide
- Most residency programs use a **rotation schedule** for the curriculum; some residency programs have **longitudinal** curricular structures
  - Most specialties have a requirement for **continuity clinic**, where residents see their own patients in clinic; this is usually 1-4 half days each week
LIFE IN RESIDENCY

- Residents and fellows receive salaries and benefits, like employees
  - Residents currently start at around $60,000/year, depending on local cost of living, with increasing salary during residency and fellowship
  - Residents do get vacation time, but ACGME limits days away from the educational program (generally 28 days combined of vacation and sick leave)

- In general, residents and fellows work 5-6 days per week (on average)
  - In most cases, you are not allowed to work more than 80 hours per week (work = clinical + scheduled educational time)
  - In most cases, you must have at least 8 hours off between work shifts
  - In most cases, you cannot work more than 24 hours, and you must have at least 14 hours off before the next work shift if you work 24 hours
  - In general, you must have 1 day off every 7 days (not counted as vacation or sick)
  - Residencies must teach fatigue and wellness management
Ensuring a **healthy work-life balance** while also ensuring **adequate training** in a **reasonable amount of time** is an area of active study and innovation in medical education.
BEWARE

“The Caffeine-Ethanol Cycle”


“The Caffeine-Ethanol Cycle” refers to a cycle involving caffeine intake and alcohol consumption. The cycle is described as follows:

- **Wake**: Caffeine consumption typically increases energy and alertness.
- **Caffeine**: Consumption of caffeine can lead to increased sleep deprivation and subsequently more alcohol consumption.
- **Alcohol**: Alcohol intake is associated with decreased sleep quality.
- **Sleep (Little)**: Limited sleep results in feelings of fatigue and increased desire for caffeine.
- **Work/Study**: The cycle continues as caffeine consumption leads to increased productivity or continued study, which leads to more alcohol intake, and so on.

Chemical structures of caffeine and ethanol are shown on the left and right sides of the diagram, respectively.
Medical Student Well-Being

Student service providers, faculty, staff, and current medical students share personal stories of resilience, resources for maintaining well-being, and programs, practices, and strategies they have found to be effective in building student well-being.

The views and opinions expressed in this collection are those of the author(s) and do not necessarily reflect the positions of the Association of American Medical Colleges.

Reclaiming Your Identity

Understanding your mental health

Caring for Yourself Before You Care for Others
RESOURCES: MEDICAL RESIDENCIES & FELLOWSHIPS

• https://freida.ama-assn.org/
  • FREIDA: AMA’s Residency & Fellowship Database

• https://www.aafp.org/students-residents/medical-students.html
  • AAFP has excellent resources to help students prepare for medical school and residency, even if family medicine is not your ultimate career choice

• https://residency.wustl.edu/
  • Washington University’s Residency Roadmap—excellent guide to choosing a specialty, applying to residency, etc.
RESOURCES: MEDICAL RESIDENCIES & FELLOWSHIPS

• Many specialty organizations have directories/references for interested students:
  • Osteopathic Medicine: [https://www.academyofosteopathy.org/residency-training](https://www.academyofosteopathy.org/residency-training)
  • Family Medicine: [https://www.aafp.org/students-residents/medical-students/become-a-resident/find-residency-programs.html](https://www.aafp.org/students-residents/medical-students/become-a-resident/find-residency-programs.html)
  • Internal Medicine: [https://www.acponline.org/membership/medical-students/residency](https://www.acponline.org/membership/medical-students/residency)
  • OB/GYN: [https://www.acog.org/career-support/medical-students](https://www.acog.org/career-support/medical-students)
  • Pediatrics: [https://www.aap.org/en/career-resources/medical-students/](https://www.aap.org/en/career-resources/medical-students/)
  • Psychiatry: [https://www.psychiatry.org/residents-medical-students/medical-students](https://www.psychiatry.org/residents-medical-students/medical-students)
  • Surgery: [https://www.facs.org/medical-students](https://www.facs.org/medical-students)
THANK YOU AND ALL THE BEST!