

2021

MD-PhD: Is it Right for me?

Communications Committee of the MD-PhD
Section of the Group of Research, Education,
and Training (GREAT) AAMC

- Application Process
- Training
- Careers



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Why an MD-PhD?



Biomedical scientists
use the power of
research
to understand and
cure human disease

Students interested in careers as MD-PhDs are...

- **fascinated** by human biology and disease
- **creative**
- **persist** in seeing a project to completion



*MD-PhD graduates sit at the
intersection of science and medicine*



Science

Medicine

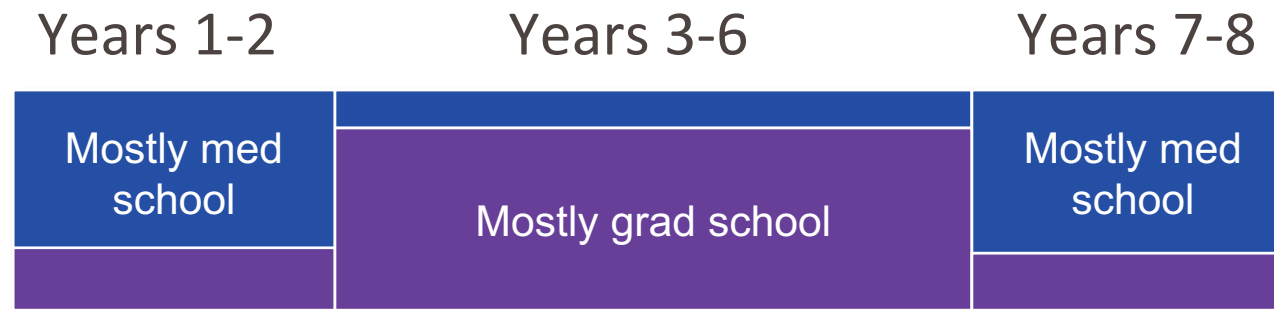
Where is MD-PhD training done?

- There are ~ **100 MD-PhD** programs affiliated with medical schools:
 - 50 programs (with ~40-190 trainees) are supported by NIGMS training grants known as **Medical Scientist Training Programs (MSTPs)**
 - Most MD-PhD programs offer **financial support**: stipends, tuition waivers and health insurance



MD-PhD Program Overview

Goal: Prepare trainees for a career that combines research and clinical care, emphasizing research



- Curriculum integrates MD and PhD training
 - complete both in 7 or 8 years
- Many PhD fields are possible
 - Non-traditional PhD training opportunities

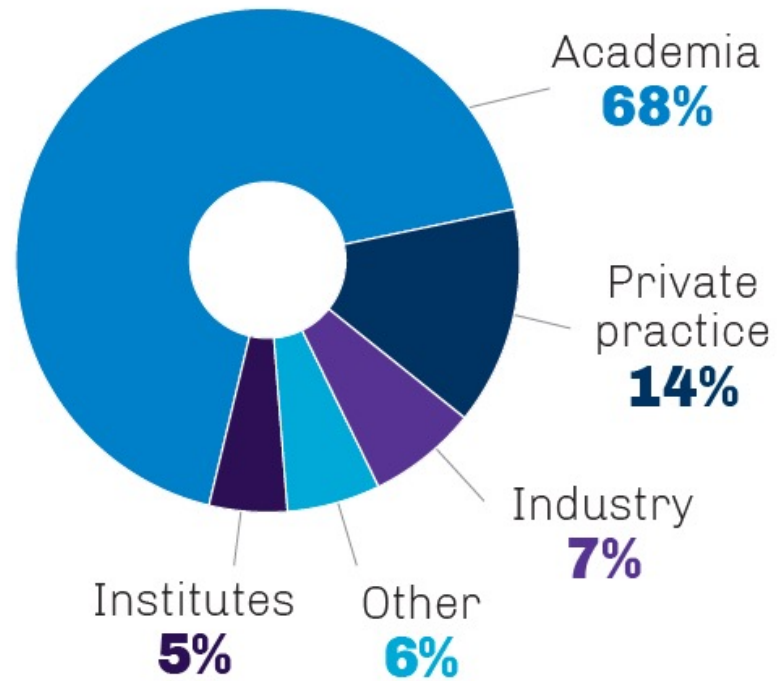
MD-PhD Alumni.....

- Choose a variety of **residency training** specialties
- Do **research** more than 50% of the time
- **Enjoy their careers**; more than 80% would choose their career again

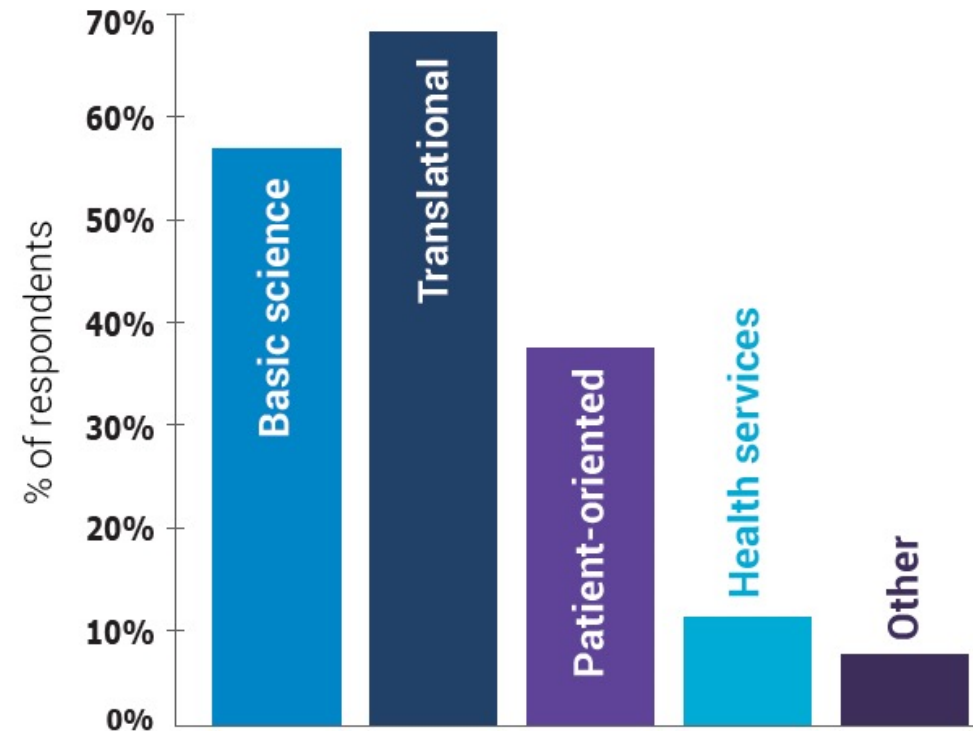


MD-PhD Careers: long term outcomes

Most MD-PhDs work in academia.



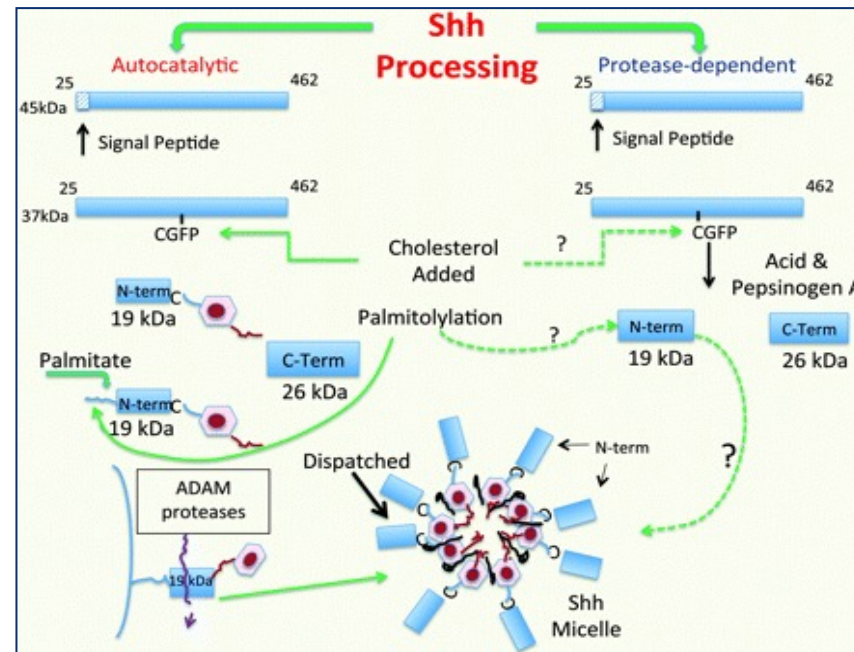
MD-PhDs conduct various types of research.



A Career as a Physician Scientist



Juanita Merchant, MD, PhD
Professor of Medicine
Chief, Division of Gastroenterology



...studies transcriptional control of gastrointestinal peptides that regulate cell growth and cancer



Preparing for and Applying to MD-PhD Programs



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Elements of a successful MD-PhD application



What constitutes a substantive research experience?

- **Enough research experience to understand what you are getting into:**
 - Multiple summer projects
 - Undergraduate research, Senior research thesis
 - One or more years pursuing research after undergraduate degree (Post-bac)



Become familiar with testing a hypothesis

MD-PhD Statistics (2020-21)

- **5,563 MD-PhD trainees nationally**
- **2019-2020 Application cycle (matriculated Summer/Fall 2020):**
 - 1825 MD-PhD applicants (>50K straight MD)
 - 14 applications submitted/applicant (avg)
 - 701 matriculants: ~1/3 of MD-PhD applicants entered an MD-PhD Program in 2020
 - 51% women
 - 13.6% racial/ethnic URM
 - 12.4% multi racial/ethnicity



MD-PhD Applicant Statistics (Class entering 2020)

	Mean	Range
Total applicant pool (n = 1,858)		
MCAT	511	474-528
GPA	3.67	1.9 – 4.0
Matriculants (n = 701), 38%		
MCAT	516	495 – 528
GPA	3.8	2.87 – 4.0

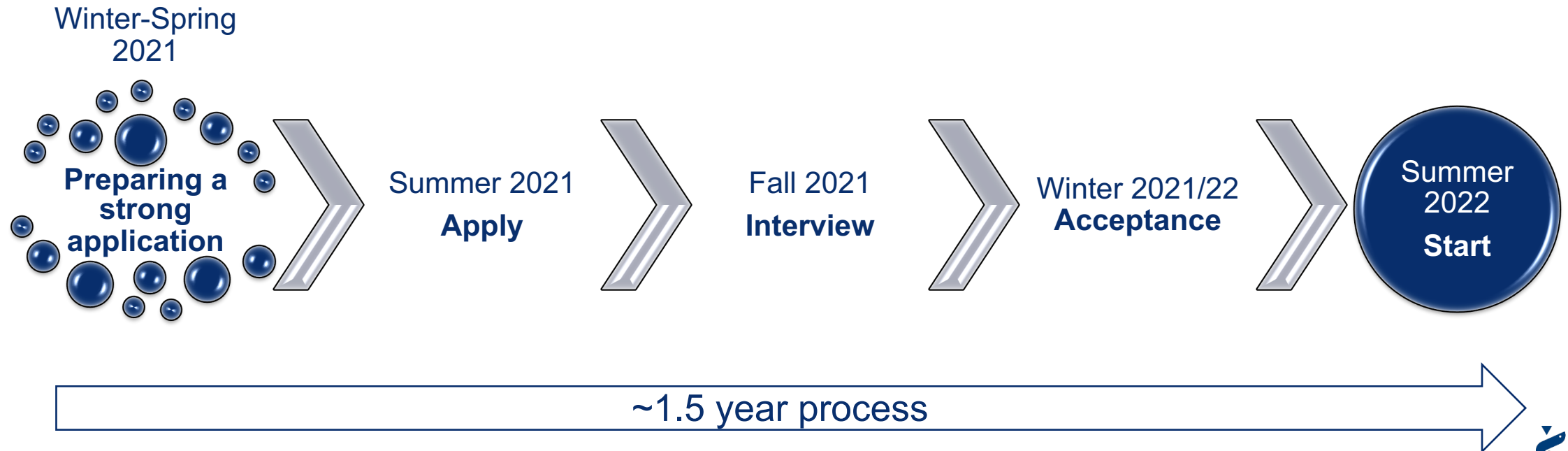
Table B-10: MCAT® Scores and GPAs for MD-PhD Applicants and Matriculants to U.S. Medical Schools, 2019-2020

Application Timeline

Candidates Matriculating in the Summer of 2022

Pre-application (2-3 years)

- Courses
- Research
- Clinical exposures
- Activities and life experiences



What should you look for in a MD-PhD program?

- Environment (research and academic)
- Students, program activities & professional development, community involvement
- Alumni achievement
- Location
- A sense of inclusion



For more information:

- <https://www.aamc.org/mdphd>
- [NIH.gov/training](https://www.nih.gov/training)
- Role models
- Knowledgeable people who care about you:
 - Directors and Mentors (Summer Program and Post-Bac)
 - Professors, Lab Heads and Department Chairs
 - MD-PhD Students, Graduate Students and Post-Docs
 - Career Advising Offices
 - PhD and MD-PhD Program Directors



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