



Vanderbilt Careers in Medicine
Explore. Decide. Succeed.

Newsletter

Winter 2013, Issue II



*The Careers in Medicine program at Vanderbilt University supports students as they **Explore** career options in the health care field, provides structured advising as they **Decide** among various specialty choices, and paves the path for graduates to **Succeed** as they begin to embark upon their professional journey. We accomplish these goals by creating the foundation necessary to cultivate leadership and professionalism, by facilitating early and sustained exposure to various career options, and by fostering an atmosphere of dedicated mentorship by faculty and alumni.*

Happy New Year!

Dear Medical Student,

Welcome to the second issue of the Careers in Medicine official newsletter.

This issue's faculty spotlight is Dr. Schaffner, a hospital epidemiologist and Chairman of the Department of Preventive Medicine. The interesting residency highlighted is Preventive Medicine. We are exploring Part 2 of taking a year off, this time to do research during medical school. Included is a table highlighting a variety of programs. We complete the issue with CiM Event Recap of Specialty Speed Dating.

Next issue will include articles on the unique residency of Medical Genetics, the MSTP program, another faculty spotlight, and more. If you would like to request a specific faculty member or interesting specialty to be explored in an upcoming issue, feel free to e-mail us at ariana.k.tabing@vanderbilt.edu or n.arinze@vanderbilt.edu.

Check out our bulletin board in Light Hall and our website, www.medschool.vanderbilt.edu/cim, for additional news and information. We hope to keep you updated on ways to explore, decide, and succeed in whatever career you choose. Thanks for reading!

Sincerely,
Niki Arinze and Ariana Tabing
Careers in Medicine
News and Marketing Chairs

Table of Contents

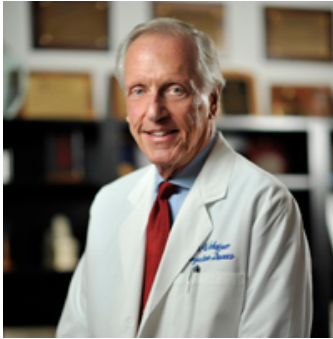
- Page 1. Welcome Letter
- Page 2. Faculty Spotlight: Dr. Schaffner
- Page 3. Unique Residency- Preventive Medicine
- Page 4. Taking a year off during medical school (Part 2): Research
- Page 7: CiM Event Recap- Specialty Speed Dating

Upcoming CiM Events

- January 20: Pediatrics Interest Group- Case Conference
- January 21: Anesthesiology Interest Group- Subspecialties
- January 21: Pathology Interest Group
- February 20: Orthopedics Interest Group- Foot & Ankle
- March 21: Match Day!!!**

Check the Medical School Calendar to RSVP and for more information:

<https://medschool.vanderbilt.edu/calendar/>



Faculty Spotlight: William Schaffner, MD

What is your given role and title?

Professor of Preventive Medicine, Department of Health Policy

Professor of Medicine, Division of Infectious Diseases

What is your chosen (board certified) specialty?

I am board-certified in Internal Medicine, the specialty of Infectious Diseases, as well as in Public Health and General Preventive Medicine

How are you applying your specialty training to what you're doing now?

I was for many years a clinical consultant in infectious diseases for adult patients at Vanderbilt. I also have been a long-time consultant to the Tennessee Department of Health in matters related principally to communicable disease control and, similarly, to the federal agency, the Centers for Disease Control and Prevention. In recent years I have devoted substantial attention to the use of vaccines in the United States – evaluating their impact and working to maximize their potential for prevention.

One can combine clinical infectious diseases and public health in the practice of infection control activities in the healthcare environment. I have been involved in that for many years also.

What drew you to it?/How'd you pick it?

Infectious diseases always have fascinated me, so I was instinctively drawn to them. As I learned more about them during medical school and residency, I became aware that molecular events in the pathogens were closely related to clinical events in patients as well as to changes in the epidemiology of disease locally and globally. I found this fascinating and did not think there was another specialty that tied together events across the spectrum the way communicable diseases did.

Furthermore, infectious diseases were not static: there were constantly emerging and re-emerging infectious

agents – this provided constant excitement. And, of course, antibiotics were capable of actually curing patients – very rewarding. And vaccines were being developed that had the capacity not only to prevent disease in individuals (medicine's highest goal), but also to eliminate certain diseases from entire communities – indeed, from entire nations or even an entire hemisphere, if not the entire world.

Wow, what could be more challenging and exciting than that?

Were you deciding between it and other fields?

Not really. I was hooked early on to infectious diseases and public health.

What advice do you have for the 4th years that are getting ready for a career in Preventive Medicine? What should they do this year to prepare?

Not an easy question. Preventive Medicine is a diffuse specialty, in that it can take a variety of different forms. Some physicians emphasize preventive services in their clinical practices. Occupational Medicine is a specific example. In the public health arena, preventive medicine can encompass maternal and child health; environmental medicine; prevention of cardiovascular disease and diabetes; managing issues related to older persons, etc.

If our new curriculum still provides this option, the CDC offers a 6-week elective for medical students.

What is it like to be an epidemiologist?

An epidemiologist is analytical, studying large populations to determine risk factors for disease or injury and evaluating the impact of therapies. Communicable disease epidemiologists often investigate outbreaks of disease in the community (so-called "disease detectives"). That can be tumultuous and exciting, often working under time pressure and in the glare of being observed by the media.

What is the best thing about your job?

The best thing might be working on data that come to have a direct influence on shaping public policy, thereby positively affecting the lives of many people.

What is the worst or most challenging thing?

There always are frustrations, of course: not having enough money to support research projects, not having sufficient data to perform certain investigations. These are not unique to epidemiology, however.

What's the big stereotype about your specialty? Is it true?

Not sure there is a stereotype. Perhaps I'm being blissfully unaware – do y'all have a stereotype of epidemiologists, public health or prevention?

If you could change something about your specialty, what would you change?

Not sure...still thinking...

Do you have any extra-clinical duties (i.e. teaching, research, administration)?

Of course! Have done much teaching at the bedside, in lectures and as a mentor on research projects to medical students and Fellows. As to administration, I have at times been the medical director of the Clinical Microbiology Laboratory, Director of the hospital's infection control program, Chief of the Infectious Diseases Division in the Department of Medicine and Chair of the Department of Preventive Medicine (recently renamed the Department of Health Policy).

Research is part of the DNA of an academician – one of our central roles is to push the frontier of knowledge. As such, research has been part of my professional life at every stage.

How do you balance your time in those realms?

A challenge for us all! It helps to really like your work.



Centers for Disease Control: <http://www.cdc.gov/rabies/Epidemiology.html>

Unique Residency: Preventative Medicine

Information from American College of Preventive Medicine
(<http://www.acpm.org>)

The field of Preventive Medicine focuses on the health of individuals, communities, and defined populations in order to maintain health and prevent disease, disability, and premature death. Preventive Medicine has three specialty areas that share the same core competencies, but emphasize different populations, environments or practice settings:

Public Health/General Preventive Medicine (PH/GPM)

Public health and general preventive medicine focuses on promoting health, preventing disease, and managing the health of communities and defined populations. These practitioners combine population-based public health skills with knowledge of primary, secondary, and tertiary prevention-oriented clinical practice in a wide variety of settings.

Occupational and Environmental Medicine (OEM)

Occupational medicine focuses on the health of workers, including the ability to perform work; the physical, chemical, biological, and social environments of the workplace; and the health outcomes of environmental exposures. Practitioners in this field address the promotion of health in the work place, and the prevention and management of occupational and environmental injury, illness, and disability.

Aerospace Medicine (AM)

Aerospace medicine focuses on the clinical care, research, and operational support of the health, safety, and performance of crewmembers and passengers of air and space vehicles, together with the support personnel who assist operation of such vehicles. This population often works and lives in remote, isolated, extreme, or enclosed environments under conditions of physical and psychological stress. Practitioners strive for an optimal human-machine match in occupational settings rich with environmental hazards and engineering countermeasures.

A General Preventive Medicine/Public Health residency requires two years – PGY2 and PGY3 – after PGY1 internship in a primary care specialty for board eligibility.



CiM officers at the Specialty Fair

Taking a Year Off: Research

-Nkiruka Arinze VMS '15

When I told my mother that I was thinking of taking a year off between 3rd and 4th year to do research, she had a lot of questions. I know that I was not the only person fielding such questions last year since there were 14

Vanderbilt medical students who took this year to pursue various year-long research opportunities, and I know that there are some of you that are considering taking a year off, so I will share with you some answers to my mother's questions as well as some you or your parents may be asking right now.

Again? Why?

Arguably, the best reason to do a research year is to be able to devote a significant amount of time to work on a project and gain more research experience. While it is possible to do research on the side throughout the years in medical school or even devote 2-3 months to research during immersions or electives in the 3rd and 4th year, it is very difficult to see a project to fruition in such a short period of time.

A full year without other responsibilities allows you to see what full time research is like. This added experience can give you confidence in your research skills since with a full year you are likely to be given more autonomy and independence than you would on short-term projects. This type of experience is invaluable for people considering future careers in academic medicine as physician scientists. In addition to testing the waters of academic medicine, a research year can be a good way to gain some research experience in a given field to help your chances of matching into a competitive specialty.

That being said, there are other reasons for going on the 5 year plan for medical school and adding a research year. The change of pace of a research year compared to the clinical curriculum can be a welcome breath of fresh air for students who are worried about burn out. The five-year plan is also helpful for those who must navigate changes in family life, such as a new baby or illness in the family or for those who are navigating the logistics of having a significant other who's on a different career timeline.

Do they pay you?

There are several funding opportunities for year-long research that provide stipends that will cover your living expenses during your year off. Vanderbilt students are currently being funded by the Vanderbilt Medical Scholars Program,

The two years consist of course work leading to an MPH degree or its equivalent and a supervised series of experiences in preventive medicine and public health.

Successful completion of this training allows residents to apply for certification by the American Board of Preventive Medicine. Physicians trained in preventive medicine pursue a variety of career opportunities such as work within federal, state or local public health agencies, academic positions in schools of public health or medicine, or research careers in other settings where public health research skills are of value. Academic work can be in the following departments:

- General Epidemiology
- Environmental Health Sciences
- Health Behavior and Health Education
- Health Management and Policy

The following is a list of ACGME accredited Preventive Medicine residencies:

https://services.aamc.org/eras/erasstats/par/display8.cfm?NAV_ROW=PAR&SPEC_CD=380

Howard Hughes Medical Institute Medical Research Fellows Program and the Sarnoff Fellowship in Cardiovascular Research. Information about these projects and others follow in the table. You can find more information about stipends and other benefits such as insurance, housing, and travel funds available for conference attendance on their respective websites.

There are some students who elect to take time off without secure funding and work with their mentors to find grants once the year starts. This option may of course be difficult if you don't have financial support from family or other sources to cover your living expenses for the year, so it will be important for you to consider if the financial strain to do a non-funded research year is worth it.

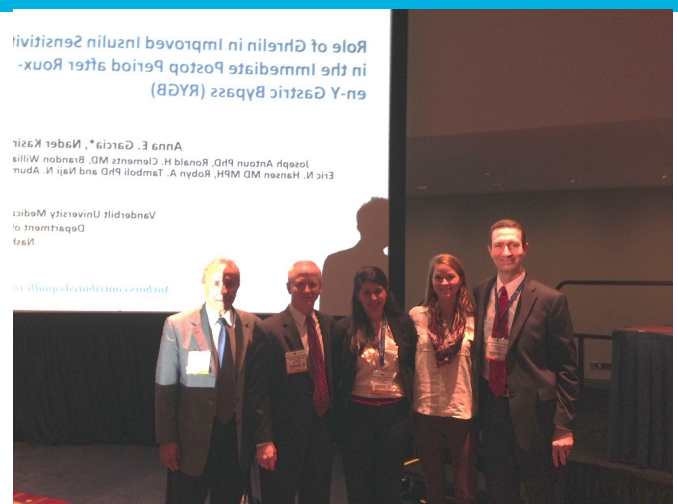
How will this affect graduation? (What will your student status be?)

Vanderbilt is very generous in allowing its students time to pursue myriad year-long opportunities. Having a conversation with the Office of the Registrar and the Office of Student Affairs is vital to help you with planning the steps you will need to take before the year begins and what happens when you return to coursework. Since the expectation with these research fellowships is that you will be engaged in full-time research, many of them do not allow for you to simultaneously be enrolled in any courses where you will receive course credit towards graduation. Here at Vanderbilt, this includes the year-long fourth year electives like the Shade Tree elective, Students as Teachers and the Quality Improvement elective.

Additionally, it is important to figure out what your student status will be during the year off. This is of course important for access to the gym and tickets to sporting events, but it is of the most importance of loan deferment and repayment.



NIH Clinic Research Center. Photo: NPR



Anna Garcia, VMS '15, had the opportunity to present work from her research year (between her 2nd and 3rd year) at national conferences.

How's this going to affect your scholarship/loans?

Most loans, including federal loans allow you to defer your loans if you remain a student at least half time. If you withdraw from school or drop below half-time, you're given a 6 month grace period before you have to start paying all that money back. Most established research fellowships help to keep you in loan deferment by either designating you as a full time student or by enrolling you in some sort of service program. If you are not doing research through an established research program, you will need to work closely with the Financial Aid Office and the Office of Student Affairs to see how to best navigate these loan issues. Even if you don't have to start payment on your loans, remember that your loans are still accruing interest during this year off.

Different scholarships have different requirements for their awards, so it is important to communicate directly with the institution or scholarship agency who is giving you your award and the financial aid office about how this year will affect your scholarship. Some institutions may hold your award for you until you return to coursework, but other scholarships require continuous enrollment or completion of a program by a certain deadline. This is important, so make sure you ask before you lose a scholarship.

Won't taking a year off hurt your chances of getting into residency?

No. Taking the time to have a productive research year can actually help your application. In fact as I mentioned earlier, some students do a research year to help their chances of matching. Even if you don't work on a project in the specialty that you're planning to go into, research is

generally a good thing as the skills of designing a project, searching the literature and writing a manuscript are generalizable to all fields of medicine. Also, an added bonus is that you'll have an extra year to contemplate what specialty you really want to go into.



Kathleen Doherty, VMS '15 is currently doing a Howard Hughes Medical Institute research year at the Kwazulu Natal Research Institute for Tuberculosis and HIV in Durban, South Africa.

How do I find a mentor?

Some programs give you a select group of possible mentors from which to choose, but many of them require you to select one on your own and work with him to submit a project proposal. In choosing a mentor, look to people whom you've already worked with in clinical or research settings. Since Vanderbilt is an academic center, most of the attendings you work with are already invested in research projects of their own or can point you to a colleague who's working on a project you may be interested in. Other good sources are upperclassmen and your college mentors. Since many of the funding opportunities do not require you to remain at your home institution, you can also look to people you've worked with before starting medical school.

Next Issue we will go in depth about the MSTP program. Below are some of the most common year long- research programs. Note: many deadlines have passed, but this information may be used for planning purposes for future years.

Program	Description	Application Deadlines
Medical Scholars Program	One year-in-depth research experience available to Vanderbilt Medical students. The goal of the program is to foster an interest in research among medical students that may eventually lead to the pursuit of a career in academic medicine.	2/1/2014
Stanley J. Sarnoff Fellowship in Cardiovascular Research	The Sarnoff Fellowship Program offers medical students enrolled in accredited U.S. medical schools the opportunity to spend a year conducting intensive work in a U.S. biomedical research facility, other than the medical school in which they are enrolled.	1/8/2014
Paul Calabresi Medical Student Research Fellowship	This \$18,000 fellowship offers support to medical/dental students who have substantial interests in research and teaching careers in pharmacology/clinical pharmacology and who are willing to work full time in a specific research effort. The principle aim of this program is to generate interest in research careers in pharmacology, including clinical pharmacology, among medical and dental students.	2/1/2014
The National Institutes of Health (NIH) Medical Research Scholars Program (MRSP)	The National Institutes of Health (NIH) Medical Research Scholars Program (MRSP) is a comprehensive, year-long research enrichment program designed to attract the most creative, research-oriented medical, dental, and veterinary students to the intramural campus of the NIH in Bethesda, MD	1/15/2014
Howard Hughes Medical Institute Medical Research Fellows Program	A year-long program in which fellows conduct research at an academic or nonprofit institution in the United States, at HHMI's Janelia Farm Research Campus, or at the KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH) in Durban, South Africa.	1/11/2014
American Heart Association Pre-Doctoral Fellowship	To help students initiate careers in cardiovascular and stroke research by providing research assistance and training to allow them to engage in research broadly related to cardiovascular function and disease and stroke, or to related clinical, basic science, bioengineering or biotechnology, and public health problems, including multidisciplinary efforts.	1/14-17/2014

CiM Event Recap: Specialty Speed Dating

Careers in Medicine hosted their annual Specialty Speed Dating event on December 4, 2013. This event exposes first-year medical students to the wide range of medical and surgical specialties. Nineteen specialties were represented, and about 75% of VMS1 were in attendance. Ten medical student volunteers as well as Sarah Woodall and Dean Rodgers all helped to make the event a success. Thank you to everyone that attended!



Residents such as Mark Snoddy (Orthopedics, pictured on the right) explained to medical students how and why they chose their specialties.



Urology



Pediatrics



Neurosurgery



Internal Medicine



Students listen and ask questions about each specialty



Erin Nichols (Events Chair), Dean Rodgers, Paul Cohen (Events Chair), Pooyan Rohani (VP), Emily Zern (Programming Chair), and Niki Arinze (News and Marketing)