## LOOKING TO THE FUTURE OF D

## **ANNUAL REPORT** 2015



Sonali Advani, MD, MPH IDSA Member 2015 **ID**Week Mentorship Program Mentee

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## Infectious Diseases Society of America

Education & Research Foundation



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Stephen B. Calderwood, MD, FIDSA Foundation Chair and IDSA Immediate Past President

#### Dear Colleagues,

There is no doubt that the field of infectious disease is at a critical juncture. Our work is more important than ever given threats from emerging and reemerging infectious diseases like Zika or many others, and of course antibiotic resistance. Yet, we continue to face challenges in recruiting young clinicians and researchers into careers in infectious diseases.

The IDSA Education and Research Foundation's 2015 Annual Report has as its theme Looking to the Future of ID, and we hope it will serve as a clarion call to ID leaders across the country. We need to redouble our recruitment efforts to increase the number of young people who choose the field, and increase our programs that focus on retention of those individuals, to launch them on fulfilling careers.

To accomplish this goal, the Foundation, through its donors and sponsors, supports a wide range of awards, mentorship experiences, fellowships and scholarships. Each of these is designed with the specific intent of attracting the best and brightest medical students to ID and enhancing the career development of fellows and young people choosing the field of infectious diseases.

In the pages that follow, you will hear from ID specialists like you who are helping advance the field and change the lives of men and women they may never know. You will be introduced to young doctors and early-career researchers who have participated in the Foundation's programs. You'll meet dynamic young medical students and residents who have chosen to make ID their career, including our cover subject, Sonali Advani, MD, MPH.

We hope these profiles and stories will inspire you to do more to move our profession forward. We ask you to promote ID activities in your own medical schools and hospitals, and in the broader community. In particular, we encourage you to donate generously to support the important programs of the IDSA Education and Research Foundation outlined here, to make a concrete difference for our specialty and the wonderful career opportunities it offers.

Most importantly, we hope this report will embolden you to speak more passionately about the opportunities, satisfactions and impact of a career in ID to your students, residents and colleagues. We all have the opportunity and the responsibility to talk about the importance of our profession and the fulfilling nature of our work, to attract the next generation to ID.

Sincerely,

Stephen B Calderwood

Stephen B. Calderwood, MD, FIDSA Foundation Chair and IDSA Immediate Past President

# 65%

of medical school grads choose their medical field before residency.



- The Foundation has awarded 550 medical students a chance to work with ID mentors and pursue independent clinical or research activities since 2002.
- 51 medical students from 24 states and the District of Columbia were IDSA Foundation Medical Scholars in 2015.

# 280%

of residents who planned to apply/applied for an ID fellowship identified an ID mentor as key compared with only 43% of residents who were interested in ID but did not apply. \*



The IDWeek Mentorship Program gives medical students, residents, and fellows a chance to interact with ID leaders.



of ID residents attended an ID-themed conference vs. 18% of those interested in ID but who did not apply for a fellowship.



- The Robert Moellering Trainee Travel Award supports attendance at IDWeek for fellowsin-training who submit excellent research in the field of antibiotic resistance.
- 26 2015 IDWeek Mentorship Program participants received travel awards.
- 15 current and past IDSA Foundation Medical Scholars presented abstracts at IDWeek 2015.



## BUILDING THE HIV WORKFORCE

The new HIVMA Medical Students Program awards grants for up to three years to medical students to support a longitudinal HIV-related research project and mentor relationship.

Now in its tenth year, the HIVMA Clinical Fellowship supports newly trained physicians with one year of HIV clinical training to meet the workforce needs in communities most affected by HIV. Seventeen physicians have completed the program.



In a study of medical residents, those pursuing an ID fellowship selected

## GLOBAL HEALTH

as one of the top fields of interest.\*



The Center for Global Health Policy highlights the role of ID physicians in global health response and research.

#### Sources:

\*The Bonura et al. national cross-sectional study was based on a sample size of 590 graduating U.S. internal medicine residents, formed from a two-stage sampling strategy from two graduating resident cohorts in the spring and fall of 2014.

Erin M. Bonura, Eun Sul Lee, Katrina Ramsey, and Wendy S. Armstrong, "Factors Influencing Internal Medicine Resident Choice of Infectious Diseases or Other Specialties: A National Cross-sectional Study" Clin Infect Dis., first published online April 28, 2016, doi:10.1093/cid/ciw263

## INTRODUCTION

#### LOOKING TO THE FUTURE OF ID

The infectious disease field has always been known for the strength and passion of its people, whether managing disease outbreaks, addressing antibiotic resistance in hospitals and communities, or researching cures for HIV/AIDS. ID specialists are often the tip of the spear in the medical community.

The future will be no different. In fact, it may be even more critical to have ID specialists on the front lines. The growth of antibiotic resistance and the spread of emerging and reemerging infectious diseases point to the importance of ID professionals in maintaining and protecting global health going forward.

The IDSA Education and Research Foundation's 2015 Annual Report invites readers to meet the next generation of ID, and shares the profiles of young physicians and early-career researchers, as well as stories of veteran ID leaders who are working closely with young ID specialists. It is a talented, diverse, and admirable group.

But the trends that have long driven ID are giving way to global dynamics, and the speed of that change is quickening with newer and more virulent infectious diseases appearing daily. In the middle of these changes is an equally vexing concern: How to attract the most gifted young physicians and scientists to the field of ID.

Growing the number of young ID specialists is a central goal of the Foundation. To accomplish that challenge, the Foundation offers an array of mentorships, scholarships, and fellowships that deepen the knowledge of the specialty for young physicians and open up new scientific avenues for early-career researchers. Some ID specialists have suggested that students and residents have not been exposed to the exciting elements of the profession, or to positive role models who might inspire young people to join the field. Too often today, the perception of lower reimbursement and changes in medical education divert interest from students and residents.

The perceived decreasing interest in the field of ID bears out the troubles facing the profession. The number of applications to ID fellowship programs has continually decreased over the past few years. The ratio of applicants per ID fellowship position decreased from 1.2 in 2008 to 0.7 in 2015.

Armed with these sobering statistics, the Foundation is hoping that its programs and fellowships will attract new clinicians and researchers to the field, support research by promising young scientists, and enhance the educational development of ID and HIV professionals.

Additionally, the Foundation is encouraging veteran ID specialists to tell the story of ID to the next generation of young medical students and doctors, sharing with them the excitement and rewards of the field, as well as the satisfaction and impact that a career in ID can have. The Foundation is determined to attract the most talented and committed individuals to ID, ensuring the future workforce brings the clinical expertise and new knowledge needed to address the many problems society faces. Preparing for the future resonates strongly with the Foundation and the ID community, which believes that recruiting the next generation of ID specialists will profoundly influence the direction—and the future—of the profession.

"I think the career has an incredibly high job satisfaction, especially as compared to other subspecialties. I do think as a profession we can do a better job of outreach to medical students and residents saying, 'This is great and I'm really happy."

> William Hahn, MD 2008 Medical Scholars Program Awardee

## MEDICAL SCHOLARS PROGRAM

## **Medical Scholars Program**

#### **A DEFINING MOMENT**

When William Hahn, MD, was a thirdyear medical student at Upstate Medical University, SUNY, he hadn't decided his career interests or found his professional path. And though his undergraduate degree in anthropology and biology gave him an interest in public health, it was his good fortune to begin a clinical rotation with the ID division chief, Timothy Endy, MD, MPH, that ignited his interest in infectious disease research.

"It was one of those things where you meet somebody who has a really great job and is doing great work, and you say, 'that is what I want to be doing,'" says Dr. Hahn. "I had gone straight from undergrad to medical school and had not spent any time in the laboratory."

Dr. Endy, the university's ID fellowship training director, encouraged Dr. Hahn to apply for the IDSA Medical Scholars Program award, which would allow him time in the lab. He worked with Dr. Endy on a project investigating the replication kinetics of the dengue virus in a cell culture system, cementing his desire to stay in academics and pursue a career with a research focus.

"The Medical Scholars award was critical for me because it allowed me to take some extra time during medical school to actually do research and go into a lab, he says. "And I liked it, and it directed me toward ID."

Today, Dr. Hahn is a senior ID fellow in the immunology lab of Dr. Marion Pepper at the University of Washington in Seattle. There, he and his colleagues are studying the host response to blood-stage malaria in order to better understand the immunologic mechanisms that lead to protective immunity in order to improve the rational design of vaccines.

Dr. Hahn admits that he didn't appreciate the breadth of the ID field when he was a medical student, noting that it's typical for medical students and residents to see only a narrow slice of ID.

"Most people tend to think of it in terms of antibiotics and bacteriology in the hospital," he says. "That's a major component, of course, but there are many, many interesting components of ID. You find people who go into NGO work, public policy, hospital administration, quality improvement, and industry."

Dr. Hahn says that many internal medicine residents look at the longer training with lower reimbursement and decide not to pursue ID. And at the end of the day, the financial consideration

#### William Hahn, MD 2008 Medical Scholars Program Awardee

matters. The prospect of not being appropriately compensated for an ID physician's intellectual capital caused some soul-searching among Dr. Hahn and his fellowship cohort. But, he noted, when compared globally, across countries where physician salaries are more standard, ID is one of the most competitive specialties. And, in fact, new research from IDSA shows that even in the U.S., a career in ID can be financially competitive with other specialties.

"I think the career has an incredibly high job satisfaction, especially as compared to other subspecialties," remarks Dr. Hahn. "I do think as a profession we can do a better job of outreach to medical students and residents saying, 'This is great and I'm really happy.'"

To help that along, Dr. Hahn believes programs such as the IDSA Medical Scholars Program are an essential way to reach medical students. It combines mentorship and good programmatic support with time and financial support, a scarce construct not built into most medical curricula.

"You meet someone who has a really neat career and you say, 'I want to do that.' And the Medical Scholars program really helps with that."

#### **ABOUT THE MEDICAL SCHOLARS PROGRAM**

One of the responsibilities of the IDSA Education and Research Foundation is to attract the best and brightest medical students to the field of infectious disease by giving medical students a first-hand look at the challenges and opportunities of working in infectious disease. By offering scholarships to medical students in U.S. and Canadian medical schools, the Foundation is able to give students the much-needed opportunity to explore their interests in the ID subspecialty as they consider next steps in their careers.

Established in 2002, the Medical Scholars Program has provided awards to more than 550 medical students interested in the subspecialty of infectious diseases to pursue independent clinical or research activities outside their institutional programs and explore the field of infectious diseases. Students can submit a wide range of projects for consideration, including clinical research, international health, laboratory research, prevention, and epidemiology. Each Medical Scholars Program scholarship recipient receives \$2,000 and the opportunity to join IDSA at no cost. The Medical Scholars Program is supported by member donations to the Foundation.

#### **2015 PROGRAM PARTICIPANTS:**

#### Britt Anderson, Washington University School of Medicine,

**St. Louis, MO** "Differential Gene Expression in Individuals with Lymphatic Filariasis after Treatment, and the Development of Adverse Events."

Mentor: Gary Weil, MD, FIDSA

#### Brandon Berger, University of Chicago Pritzker School of Medicine, Chicago, IL

"Cost-Effectiveness Analysis of Cutaneous Leishmaniasis Treatment with Meglumine Antimoniate and Miltefosine in the Pediatric Population in Colombia."

Mentor: Allison Bartlett, MD

#### Sushma Boppana, University of Alabama School of Medicine, Birmingham, AL

"The Impact of HIV Adaptation on Vaccine Induced CD8T Cell Responses." Mentor: Paul Goepfert, MD

#### Paul Bourdillon, Yale School of Medicine, New Haven, CT

"A Five-Year Retrospective Cohort Study of Delays in Diagnosis and Treatment of Tuberculosis in Three High-Burden Prisons in Mato Grosso do Sul, Brazil."

Mentor: Albert Ko, MD, FIDSA

#### Nicholas Brazeau, University of North Carolina School of Medicine, Chapel Hill, NC "Mapping Cholorquine Resistant in

*Plasmodium Vivax."* Mentor: Jonathan Juliano, MD, MSPH, DTM&H

#### Kayla Briggs, University of Missouri - Kansas City School of Medicine, Kansas City, MO "Enterovirus D68 Illness in Hospitalized Children under 2 Years of Age."

Mentor: Jennifer Schuster, MD, MSCI

#### Ignacio Cerdena, Yale School of Medicine, New Haven, CT

"Developing a Community Health Worker TB Screening Intervention and Testing its Effectiveness in a Latin American Prison: A Quasi-Experimental Trial."

Mentor: Frederick Altice, MD, MA

#### Cody Cichowitz, Johns Hopkins University School of Medicine, Baltimore, MD

*"Understanding the Patient Experience in HIV Care After Hospital Discharge in South Africa."* Mentor: Chris Hoffmann, MD, MPH

#### Emily Coleman, Yale School of Medicine, New Haven, CT

"Effectiveness of Human Papillomavirus Vaccine in Clinical Practice: A Case-Control Study." Mentor: Eugene Shapiro, MD, FIDSA

#### Chanelle Diaz, University of Miami Miller School of Medicine, Miami, FL

"Cardiovascular Morbidity and Mortality and the Association with Antiretroviral Exposure in a Cohort of HIV-Infected Patients from Rio de Janeiro, Brazil, 2000-2010." Mentor: Jesse Clark, MD, MSc

#### Carey Downey, University of Utah, Salt Lake City, UT

"Gonorrhea Outbreak in Northern Utah - Associated Social Factors Contributing to the Epidemic." Mentor: Claudia Goulston, MD

#### Robert Flick, University of Colorado School of Medicine, Aurora, CO

"Evaluating the Feasibility and Impact of Community Health Worker-Driven Intensified Case Finding on Tuberculosis Case Finding and Treatment among HIV-Infected Pregnant Women Enrolled in Option B+ in Central Malawi." Mentor: Michael Herce, MD, MPH

#### Hilary Flippo, University of Alabama School of Medicine, Birmingham, AL

"A Comparison of HSV-2 Viral Shedding in African Americans vs. Caucasians." Mentor: Nicholas Van Wagoner, MD, PhD

#### Andrew Flynn, University of Colorado School of Medicine, Aurora, CO

"Barriers to Care among Ugandan Patients Presenting with an AIDS-Defining Illness."

Mentor: David Boulware, MD, MPH, CTropMed

#### Ayako Wendy Fujita, Emory University School of Medicine, Atlanta, GA

"Antimicrobial Resistance in Blood Isolates at a Tertiary Hospital in Uganda and the Urgent Need for Standardized Reporting and a National Surveillance Program." Mentor: Joshua Rhein, MD

#### Paul George, Washington University in St. Louis School of Medicine, St. Louis, MO

"Intimate Partner Violence, High Risk Sexual Behaviors, and HIV among Male Sex Workers in Lima, Peru." Mentor: Jesse Clark, MD, MSc

#### Jeremy Gold, Albert Einstein College of Medicine, Bronx, NY

"Bacterial Vaginosis and Mucosal Immunity in the Context of HIV & HSV- 2 Infection."

Mentor: Marla Keller, MD, FIDSA

#### Bryna Harrington, University of North Carolina - School of Medicine, Chapel Hill, NC

"Safety, Suppression, Second-line and Survival among HIV+ Pregnant Women in Malawi." Mentor:

Mina Hosseinipour, MD, MPH

#### **2015 PROGRAM PARTICIPANTS:**

#### John Haydek, Emory University

School of Medicine, Atlanta, GA "The Importance of Gut Flora Diversity in Treatment of Clostridium Difficile Infection via Fecal Microbiota Transplant." Mentor: Colleen Kraft, MD, MSc

#### Danielle Hron, University of Minnesota Medical School, Minneapolis, MN

"Effectiveness of Screening and Decolonization of Stapylococcus Aureus in Surgery Outpatients." Mentor: Susan Kline, MD, MPH

#### Monika Jelic, University of Washington School of Medicine, Spokane, WA

"The Use of Antibiotics with Activity Against Gram Negative Bacteria in Pediatric Populations." Mentor: Danielle Zerr, MD, MPH

#### Nikeshan Jeyakumar, University of Miami Miller School of Medicine, Miami, FL

"Prevalence of Coccidioidomycosis in a Population of Organ Donors at a Single Organ Procurement Organization." Mentor: Peter Chin-Hong, MD

#### Nona Jiang, University of Virginia School of Medicine, Charlottesville, VA

"Geohelminth Infection, Systemic Cytokine Production and Neurocognitive Development in Bangladeshi Children." Mentor: William Petri, MD, PhD, FIDSA

#### Wallace Jones, University of Colorado School of Medicine, Denver, CO

"UTIDecide: Mobile Decision Support to Reduce Overtreatment of Bacteriuria in Long-Term Care Residents." Mentor: Barbara Trautner, MD, PhD, FIDSA

#### Noah Kojima, David Geffen School of Medicine at UCLA Los Angeles, CA

"Investigating Bacterial Vaginosis and Bacteriophage in Mysore, India." Mentor: Jeffrey Klausner, MD, MPH

#### Anna Kress, Columbia University College of Physicians and Surgeons New York, NY

"The Role of Bile Acids on Colonization with Carbapenam-Resistant Enterobacteriaceae (CRE) After Liver Transplantation." Mentor: Anne-Catrin Uhlemann,

#### Leila Kutob, University of South Carolina School of Medicine,

#### Columbia, SC

MD, PhD

"Effectiveness of Oral Antimicrobial Agents for Definitive Therapy of Gram-Negative Bloodstream Infections." Mentor: Majdi Al-Hasan, MD

#### Nathan Lo, Stanford University

School of Medicine, Stanford, CA "Cost-Effectiveness of Urine Pooling Methodology for Diagnosis of Schistosomiasis." Mentor: Jason Andrews, MD, SM, DMT&H

#### Matthew Marcott, University of Pittsburgh - School of Medicine, Pittsburgh, PA

"Epidemiology and Outcomes of Intra-Abdominal Candidiasis." Mentor: Paschalis Vergidis, MD

#### Alyssa Mezochow, Drexel University College of Medicine, Philadelphia, PA

"Pharmacokinetic Modeling and Simulation of Rifampicin Dosing Strategies in the Treatment of Tuberculosis Meningitis." Mentor: Christopher Vinnard, MD, MPH&TM, MSCE

#### Lea Monday, Wayne State University School of Medicine, Detroit, MI

"Recognition of Clinically Significant Drug Interactions among HIV Positive Outpatients on Antiretroviral Therapy." Mentor: Jennifer Veltman, MD

#### Jeremy Mudd, Warren Alpert Medical School of Brown University, Providence, RI

"Variance in Clinical Outcomes for Patients with Smear-Negative Tuberculosis at a Teaching Hospital in Ghana."

Mentor: Awewura Kwara, MD, MPH&TM

#### Brittney Mull, Howard University College of Medicine, Washington, DC

"Linkage to Care and Retention of HIV-Infected Patients Aged 50 and Older." Mentor: Celia Maxwell, MD

#### Cameron Myers, University of Missouri School of Medicine, Kansas City, MO

"A Quality Improvement Initiative to Decrease Unnecessary Streptococcal Antigen Testing in an Urban Pediatric Emergency Department." Mentor: Angela Myers, MD, MPH

#### William Perry, Wayne State University, Detroit, MI

"Assessing Nephrotoxicity of Concomitant Vancomycin and Piperacillin/Tazobactam Therapy." Mentor: Keith Kaye, MD, MPH, FIDSA

#### Gianmarco Raddi, David Geffen School of Medicine at UCLA, Los Angeles, CA

"Cost-Benefit Evaluation and Uptake Rate Analysis of Homeless Influenza Immunization in the 2015/ 2016 Season." Mentor: Judith Currier, MD, FIDSA

#### **2015 PROGRAM PARTICIPANTS:**

Anu Ramachandran, Johns Hopkins University School of Medicine, Baltimore, MD "Evaluating the Cost-Effectiveness of CRAG-LFA Screening to Reduce Cryprococcal Mortality among People Living with HIV in Uganda." Mentor: Maunank Shah, MD, PhD

#### Pranav Reddy, The Warren Alpert Medical School at Brown University, Providence, Rl

"Evaluating a Practice-Based Approach for Improving Engagement with HIV Care in Rhode Island." Mentor: Aadia Rana, MD

#### David Schaffer, University of North Carolina School of Medicine, Chapel Hill, NC

"Clinical Management of Syphilis Serofast Individuals in South China." Mentor: Joseph Tucker, MD, PhD, MA

#### Nathan Scheiner, University of Minnesota Medical School, Minneapolis, MN

"Correlating HIV Knowledge and Risk Behaviors among Adolescent Males in Minneapolis-Saint Paul." Mentor: Meghan Rothenberger, MD

#### Emily Martin Scott, University of Washington, Seattle, WA "Molecular Epidemiology and

Spatial Analysis of RSV and HMPV Transmission in Rural Nepal." Mentor: Janet Englund, MD, FIDSA

#### Aaron Shapiro, Alpert Medical School of Brown University, Providence, RI

"Developing a Model Hepatitis C Program Embedded within a Non-Profit Methadone Maintenance Program." Mentor: Lynn Taylor, MD

#### R. Gina Silverstein, University of Pittsburgh School of Medicine, Pittsburgh, PA

"Factors Affecting Utilization of Medical Teleparasitology among Trained Medical Technologists in Cordillera Administrative Region, Philippines." Mentor: Peter Veldkamp, MD, MSc

David Smyth, University of Utah School of Medicine, Salt Lake City, UT "Targeting HIV-1 Cellular Reservoirs." Mentor: Adam Spivak, MD

#### Allison Stickles, Oregon Health &

Science University, Portland, OR "Efficacy of Whole-Cell Plasmodium Falciparum Vaccines in a Malaria Human Challenge Model." Mentor: M. Juliana McElrath, MD, PhD, FIDSA

#### Akanksha Vaidya, Weill Cornell

Medical College, New York, NY "Predictive Value of a TB-Symptom Screen in HIV-Infected and HIV-Uninfected Pregnant Women in Pune, India." Mentor: Jyoti Mathad, MD, MSc

#### Adam Verhoef, University of Iowa Carver College of Medicine, Iowa City, IA

"Molecular Methods for Diagnosing Asymptomatic Leishmaniasis." Mentor: Mary Wilson, MD

#### Christina Warner, University of Minnesota Medical School, Minneapolis, MN "Effectiveness of Screening and

Decolonization of S. Aureus in Surgery Outpatients." Mentor: Susan Kline, MD, MPH

#### Jason Ya, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Cleveland, OH

"Impact of Iron Transplant on HIV-Associated Immune Activation and Neurocognitive Impairment: a CNS HIV Antiretroviral Therapy Effects (CHARTER) Study."

Mentor: Asha Kallianpur, MD, MPH

#### William Yang, Duke University, Durham, NC

"Biomakers in the Host Response to Enterotoxigenic E. Coli (ETEC) Infection." Mentor: Ephraim Tsalik, MD, MHS, PhD

#### Sophie Zhao, Vanderbilt University School of Medicine, Nashville, TN

"Use of Antibiotics and Antivirals in Community Dwelling Children with Acute Respiratory Illness." Mentor: Helen Talbot, MD, MPH "What I loved about the HIVMA Clinical Fellowship is that it allowed me to do just HIV in the realm of primary care, and I'm very committed to primary care."

Stella Safo, MD, MPH 2014 HIVMA Clinical Fellow

port 2015

## HIVMA CLINICAL FELLOWSHIP

## **HIVMA Clinical Fellowship**

#### TIME AND SPACE TO LEARN

Stella Safo, MD, MPH, had just finished her freshman year at Harvard University when she developed an interest in HIV medicine. As a volunteer at a summer camp for inner-city families living with HIV, Dr. Safo felt a strong connection to the participants' life stories and experiences. Her aspiration to become an HIV primary care physician began there.

Dr. Safo continued her post-graduate education at Harvard, receiving her degree in medicine from Harvard Medical School and a master of public health degree from the Harvard School of Public Health. In 2014, after completing her internal medicine residency in primary care and social medicine at Montefiore Medical Center in the Bronx, Dr. Safo was awarded the HIVMA Clinical Fellowship.

"I had a great education at Harvard but I didn't work with HIV patients, so I went to the Bronx and hoped to do it during my residency," says Dr. Safo. "Unfortunately, I wasn't able to do as much as I wanted. What I loved about the HIVMA Clinical Fellowship is that it allowed me to do just HIV in the realm of primary care, and I'm very committed to primary care."

Dr. Safo participated in a program at Montefiore designed specifically for internal medicine residency program graduates interested in studying urban health issues such as substance abuse, HIV, incarceration, obesity, food security, and violence. Under the tutelage of her mentor, Peter Selwyn, MD, Chair, Department of Family and Social Medicine, Dr. Safo was given the handson clinical training she sought.

"I knew that I wanted to do more outpatient HIV medicine," says Dr. Safo. "I really liked the flexibility of the fellowship. They were able to help me think about what I wanted to do, but they allowed me to figure out what it would look like."

Dr. Safo designed her program to follow her interest in ambulatory HIV care. She worked in four clinics, which allowed her to see different HIV/AIDS patient populations, including adolescents and those with issues specific to transgender heath. The access allowed her time to think about how medicine could be better tailored to minority populations that tend to be affected by HIV.

"I worked at a clinic that just had HIV patients," Dr. Safo says. "Because of the fellowship, I didn't have to work as a fulltime clinician. I only saw three or four patients at the sessions so I was able to read up on my patients. I had a mentor at the site. That almost never happens."

Dr. Safo believes it is the program and her extraordinary mentorship experience with Dr. Selwyn that trained her for a full-time position in HIV care. She notes that, as the person being mentored, she didn't know what she needed, so Dr. Selwyn set up monthly meetings and provided the structure. "He would say, 'you're a little weaker in Stella Safo, MD, MPH 2014 HIVMA Clinical Fellow

this area, here are these materials and bring them back and we can work on them together,' says Dr. Safo.

"The fellowship gives a physician who is a non-specialist and thinks about these topics that are specialty topics the time to study and feel confident about the work," Dr. Safo says. "Bringing the specialty focus to the primary care world is a really unique aspect of HIV medicine."

Dr. Safo is now the clinical lead and program manager for systems design at the Arnhold Institute for Global Health at Mount Sinai Hospital, where she leads the design and development of effective population health care models.

She credits Dr. Selwyn, the Montefiore Medical Center Division of General Internal Medicine, and the HIVMA Clinical Fellowship for giving her the time and space to learn about the best and most useful resources for the treatment of patients with HIV/AIDS, knowledge that she applies today to her work at the Samuels Clinic, one of three clinics affiliated with the Spencer Cox Center for Health in New York City.

"No one ever funds you as a doctor to just learn," says Dr. Safo. "To be funded to learn is a real responsibility, and you have to take it as seriously as you can. Part of that charge for me, in addition to working with Peter [Selwyn], was to maximize what I was learning."

#### **ABOUT THE HIVMA CLINICAL FELLOWSHIP**

The HIVMA Clinical Fellowship program helps newly trained physicians gain HIV clinical experience with a year of dedicated training under the supervision of a mentor. HIVMA created the Clinical Fellowship program to increase the number of physicians practicing HIV medicine with underserved patient populations.

Each fellowship supports one year of HIV clinical training at an institution that provides HIV clinical education and mentorship to the fellow. The institution receives funding to support a stipend of \$60,000 plus fringe benefits, as well as \$10,000 to offset administrative costs and to provide for additional educational opportunities.

Applicants identify an HIV clinical program associated with an academic institution and a mentor who is an HIVMA/IDSA member to oversee their clinical experiences. Applicants also submit a training curriculum developed with their mentor that describes in detail their proposed clinical and educational schedule for the year. In addition, applicants must demonstrate their intent to practice in the U.S. and provide HIV care to underserved populations. During the fellowship year, fellows work in a clinical setting with a large minority patient population in the U.S. managing at least 30 HIV patients over the course of their clinical training experience, in both inpatient and outpatient settings. Fellows also engage in didactic and clinical experience that provides them with expertise in the longitudinal care of HIV-infected patients and treatment of common co-morbidities and co-infections, such as hepatitis C, substance use, and mental illness.

#### 2015 HIVMA CLINICAL FELLOW



**Danielle Tate, MD** University of Tennessee Health Sciences Center, Memphis, TN

Mentor: Luis Gomez, MD Dr. Tate earned her medical degree from Howard University College of Medicine in Washington, DC and completed her residency at the University of Tennessee Health Sciences Center in Memphis, where she serves as a clinical instructor in obstetrics and gynecology. Dr. Tate's goals are to facilitate partnerships with adult HIV specialists, obstetrician-gynecologists, maternal-fetal medicine specialists, and pediatric HIV specialists in the Ryan White program at St. Jude Children's Research Hospital in Memphis to build a strong continuum of care for patients in the community and to train future generations of physicians who share her passion for this patient population. She also seeks to develop programs to enhance resources for patients through networking with government programs, pediatric care providers and social services, and through further research.

"I used the award to marry the two hings that I was so passionate about because I had lived in two worlds, the clinical world and the diagnostic world.

Cathy Petti, MD 2004 ASP-IDSA T. Franklin Williams Young Investigator Award in Geriatrics

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## JOINT RESEARCH AWARDS

## **Joint Research Awards**

#### **DIAGNOSTICS AND ID**

For Cathy Petti, MD, a lack of funding had thwarted her early-career efforts to research the intersection of clinical infectious diseases and DNA target sequencing, which was just emerging as a tool in clinical diagnosis at the time.

Being awarded the ASP-IDSA T. Franklin Williams Young Investigator Award in Geriatrics in 2004 changed all that. It allowed her to explore the application of gene sequencing to diagnose prosthetic joint infections in older adults.

"Rounding on the wards and in the outpatient clinic, I was struck by the large numbers of older adults with prosthetic joint infections without an etiologic pathogen," says Dr. Petti. "At the same time, I was working in the laboratory to improve techniques to detect and diagnose infections using culture independent methods, particularly DNA target sequencing."

It was a turning point. The research award from the IDSA Education and Research Foundation allowed her to merge her interest in clinical infectious diseases with her enthusiasm for culture-independent methods for diagnosis using gene amplification and sequencing from clinical material to improve our understanding of microbial pathogenesis and better predict responses to therapy and outcome. "I used the award to marry the two things that I was so passionate about because I had lived in two worlds, the clinical world and the diagnostic world, early in my career," says Dr. Petti, who now serves as chief health officer for AncestryHealth. "That really helped me advance the field of diagnostics and ID."

The Foundation's investigator awards are critical, says Dr. Petti, because they support scholarly research at a pivotal time for scientific exploration and discovery in a young clinician and researcher's career, a period where it is often hard to find the funding and the time to support research.

Dr. Petti says her career in ID exemplifies the diverse opportunities that are available to ID clinicians and researchers. At her current job, Dr. Petti works alongside the genomics, bioinformatics, privacy, and security teams to lead a health-focused strategy for healthcare consumers, starting with the site's family health history offering. Dr. Petti also leads medical and regulatory affairs.

"With my diagnostic background and my broad training in ID, it was a natural extension to be part of the movement to provide direct-to-consumer testing in genetics," says Dr. Petti. "A lot of diseases are genetically based. There are a lot of possibilities out there. Most **Cathy Petti, MD** 2004 ASP-IDSA T. Franklin Williams Young Investigator Award in Geriatrics

importantly to me, I want to make access to those diagnostics available to everyone."

It's a common refrain for Dr. Petti, who believes that ID professionals need to recognize that outstanding research activity does not reside solely in academia. Patient advocacy groups, such as the Cystic Fibrosis Foundation, community disaster response teams, innovation incubators and mom-andpop DIY engineers are stakeholders in increasing public awareness about ID issues.

"We need to point the next generation to all the different paths that are available today, and you can do research through these foundations," she says. "There are vaccine foundations and diagnostics—you could go on and on in regard to all the opportunities that are available today."

Dr. Petti believes the best way to advance the ID profession is by engaging communities about the importance of science and innovation in promoting global health and wellbeing. "I think young ID clinicians and scientists need to leave their comfort zone to focus more on population health, which is an increasingly important aspect of medicine today," says Dr. Petti.

#### **ABOUT THE JOINT RESEARCH AWARDS**

The Joint Research Awards are offered by the IDSA Education and Research Foundation and the National Foundation for Infectious Diseases (NFID) to support needed research by promising young researchers who may not otherwise find funding as federal and other institutional research support becomes more difficult to obtain.

#### **2015 AWARD WINNERS**

#### **ASP-IDSA Young Investigator Award in Geriatrics**

This award, sponsored by The Atlantic Philanthropies (USA) Inc. and the John A. Hartford Foundation, provides support to infectious diseases faculty who are interested in pursuing a career in geriatric medicine aspects of the subspecialty. Recipients of this award must develop and implement a basic, clinical, or health services research project encompassing the geriatric aspects of infectious diseases.

The two-year award of \$200,000 consists of a \$150,000 research grant from the National Institute of Aging and a \$50,000 career development award from IDSA and the Alliance for Academic Internal Medicine (AAIM)/Association of Specialty Professors (ASP).

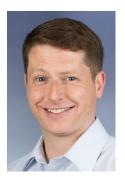


Joanna M. Schaenman, MD, PhD

Dr. Schaenman is assistant professor in the Division of Infectious Diseases at the David Geffen School of Medicine at University of California, Los Angeles. She earned her MD and PhD degrees in microbiology from the University of Virginia and completed her internal medicine residency and fellowship in infectious diseases at Stanford University, where she also received a master's degree in epidemiology. Dr. Schaenman has focused on the study of the increased rate of infections observed in the elderly transplant patient, as compared with younger patients. By analyzing T cells from peripheral blood of older kidney transplant recipients for markers of immune senescence, exhaustion and terminal differentiation, she hopes to develop a model of T cell dysfunction in the elderly transplant patient to better understand the mechanism of increased vulnerability to infection.

#### **Pfizer Young Investigator Award in Vaccine Development**

This award, sponsored by Pfizer, Inc., provides funding for research in vaccine development, either through clinical or laboratory investigation, to a candidate who demonstrates a commitment to a career in vaccinology. The two-year award is for \$60,000 or \$30,000 per year



Thomas D. Norton, MD

Dr. Norton is assistant professor in the Division of Infectious Diseases at the New York University School of Medicine. He received his MD from Georgetown University and completed his residency in internal medicine at Georgetown University Hospital. While clinic physician at the National Institutes of Health's National Institutes of Allergy and Infectious Diseases HIV clinic, he developed an interest in the molecular biology and immunology of HIV. Dr. Norton has proposed to develop a dendritic cell vaccine that stimulates T cell responses to the virus in patients on antiretroviral drugs, thereby stimulating responses that have waned during treatment with antiretroviral drugs. The vaccine will, in addition, induce the activation of latent provirus expression, causing the virus to be detected by the cellular immune system. "I would like to encourage more people to do this and remain engaged with their mentees. It's so appreciated by the trainees and it's so important to the future of our specialty."

> Carlos del Rio, MD, FIDSA 2015 IDWeek Mentorship Program Mentor

## IDWEEK MENTORSHIP PROGRAM

## **ID**Week Mentorship Program

#### THE POWERFUL INFLUENCE OF MENTORSHIP

An expert on the impact of HIV in the United States and globally, Carlos del Rio, MD, FIDSA, has been at the forefront of national and international leadership efforts to stem the AIDS epidemic. Yet as a young resident in the early 1980s, Dr. del Rio wasn't particularly interested in this emerging disease. Then he met John Bartlett, MD, FIDSA.

Dr. Bartlett had just started the AIDS program at Johns Hopkins Hospital in 1983. Dr. del Rio was a junior resident and worked in the medicine wards and the infectious diseases consult service under the mentorship of the senior scientist. Dr. del Rio, who now chairs the HIVMA Board of Directors and leads the **Emory AIDS International Training and** Research Program, credits an ensuing string of significant mentors for his current passion for infectious diseases - including Emory University School of Medicine Drs. Sam Thompson and Jack Shulman, with whom he did clinical rounds during his fellowship, and Dr. David Rimland, under whom Dr. del Rio developed an interest in HIV clinical research.

"Mentors are such a critical component of how we make decisions in our career," says Dr. del Rio. "They're such an important part of who we are and what we do. Most of us have become successful and have done something meaningful because we've had the right mentorship in our career. And it's a powerful message to give."

Dr. del Rio says he's a big fan of successful mentoring as a way to move

forward. As one who thought very strongly about cardiology as his career path, he says it was his remarkable mentors who led him to the field of infectious diseases. "Mentoring not only changes who we are and what we do, but how we do it," he says. "It seems medical research is built on that."

The recipient of Emory University's 2011 Department of Medicine Silver Pear Research Mentoring Award, Dr. del Rio was gratified to be part of the **ID**Week Mentorship Program since it began in 2014. "This is my second year," says Dr. del Rio. "I enjoyed it so much I wanted to do it again. I continue to be in touch with the mentees, both last year and this year."

Dr. del Rio, who chairs the Hubert Department of Global Health at the Rollins School of Public Health and professor of medicine at Emory University School of Medicine, appreciates the care that goes into making the matches. In 2015, he was matched with two mentees interested in global health: Jessica Briggs, MD, an ID resident at Johns Hopkins University and John Humphrey, MD, an ID fellow at Weill Cornell Medical College.

Dr. del Rio praises the **ID**Week Mentorship Program, citing it as a great opportunity to talk with trainees and help them become successful disease specialists. He stresses the important responsibility the mentors have to maximize their mentees' experience at the annual meeting. "This only happens," he says, "by listening to the mentees, their concerns and what they'd like to Carlos del Rio MD, FIDSA 2015 Mentor

see done. It's not just telling people what to do, it's listening to them about their dreams and aspirations and their anxieties about starting a career in infectious diseases."

"I want to make sure that they feel comfortable and that they know they can reach out to me after the meeting if they need to," he adds. "That's also very important to me. This mentoring event is not just a one-time kind of thing. Hopefully, it lasts for their careers. I hope they see it as ongoing mentorship."

Dr. del Rio would like to see the nascent IDWeek Mentorship Program continue to grow, to ensure that the next generation of trainees is provided the necessary mentorship.

"As we try to attract the best and brightest into ID, clearly this is one of the most important things we can do."

His commitment to the power of mentorship is borne of his appreciation for those who helped shape – and continue to influence – his satisfying career. For Dr. del Rio, the right mentors are critical components in a successful and rewarding career, able to effect and inspire every stage of one's professional development.

"I would like to encourage more people to do this and remain engaged with their mentees. My hope is that we have as many people as possible involved in the mentorship program. It's so appreciated by the trainees, and it's so important to the future of our specialty."



Natasha Chida, MD, interviews IDWeek Mentoring Program mentor Helen Boucher, MD, FIDSA, and her mentee, Sonali Advani, MD, PhD, at the 2015 IDWeek.

#### **ABOUT IDWEEK MENTORSHIP PROGRAM**

The IDSA Education and Research Foundation launched the **ID**Week Mentorship Program in 2014 to create an opportunity for medical students, residents, and fellows to closely interact with leaders in their respective areas of investigation or career interest. While the program's ultimate goal is to foster careers in ID, it also allows mentors and mentees to attend **ID**Week sessions together, facilitating opportunities for networking and collaboration. Both mentors and mentees describe the informal nature of the week's design as the highlight of the program. Networking began the first day of **ID**Week with a meet-and-greet lunch, after which the mentors and mentees got together for events such as symposia, named lectures, Posters in the Park, and other networking events. Many mentor-mentee pairings have kept in contact and initiated collaborative activities and projects. "When you meet with leaders in the field of ID, they tell you abou their career path, and they talk about how they started off, their struggles or their accomplishments, and it makes you think that you can achieve what they have achieved."

Sonali Advani, MD, MPH 2015 IDWeek Mentorship Program Mentee

## **ID**Week Mentorship Program

#### **A PERFECT MATCH**

If the future of ID is Sonali Advani, MD, MPH, then the future looks exceptionally bright. A first-year ID fellow at the University of Alabama at Birmingham School of Medicine, Dr. Advani brings a passion, focus, and clarity of purpose to the field of infectious disease.

Already, she is a member of the new IDSA Fellows Subcommittee, providing valuable input from a young ID professional's perspective to inform IDSA initiatives. As a rising leader in ID, Dr. Advani speaks enthusiastically about the future of the field and what's she's gained from meeting so many trailblazers.

"When you meet with leaders in the field of ID, they tell you about their career path, and they talk about how they started off, their struggles or their accomplishments," says Dr. Advani, "and it makes you think that you can achieve what they have achieved. They're all so humble and approachable. It's just so nice to have them in the same room with you."

Dr. Advani credits much of her professional advancement to her influential mentors. She knew early on that she was interested in clinical research—a native of India, she entered medical school at 17 years old—but it was while earning her MPH at Johns Hopkins Bloomberg School of Public Health that she met her first mentor, Aaron Milstone, MD, MHS, FIDSA, who inspired her to pursue ID. And it was during her residency in Alabama that her clinical mentors exposed her to the breadth of exploration and discovery that is found in the field of infectious diseases.

For Dr. Advani, her participation in the 2015 **ID**Week Mentorship Program built upon what she sees as a strong tradition of mentorship within the ID field. Especially important to her experience was the program's careful content curation, offering mentees such as herself a different perspective. "It's even more important to seek mentors who aren't from your own program, geographic area or network," she says. "They help you in various ways, including research and networking possibilities and career advice. It gives you a lot of opportunities that you wouldn't get from your own bubble, your own institution."

Dr. Advani, who wants a career in hospital epidemiology and infection control in an academic setting with a focus on improving patient safety and health outcomes, was well matched with Helen Boucher, MD, FIDSA, director of the Infectious Diseases Fellowship Program and associate professor at Tufts University School of Medicine.

"Dr. Boucher is someone who's very well-known in ID circles and has done a lot of research in the arena that I'm interested in," says Dr. Advani. "She published a lot of papers, and I don't think I would ever have had the opportunity to sit down and talk with her, or be mentored by her, if it wasn't for this program."

Dr. Advani met Dr. Boucher, an attending physician at Tufts Medical Center and Treasurer of the IDSA Education and Research Foundation, at the program's Meet-and-Greet Lunch, where mentees are seated with several other mentors in the same field. They discussed other people's work at the Posters in the Park, and attended several oral sessions together.

And while the basis of their match was their research interests, Dr. Advani feels it was an added plus to be matched with a female mentor, allowing for discussions and advice about her career, balancing a family, and how to negotiate with prospective employers.

"The one thing I benefited from the most was just getting life advice from Dr. Boucher. It was helpful more than anything else," she says. "She reinforced

#### Sonali Advani, MD, MPH 2015 Program Mentee

what my own program director tells me all the time, 'It's OK if your research takes a back seat as a first year ID fellow. This is your year to learn ID as a clinician.' So, you're able to receive a lot of good life advice from someone that you form a strong relationship with in a short amount of time."

During IDWeek, the Fellows Subcommittee—which addresses issues such as recruitment, career development, help with student loan repayment and ID Interest Groups created an IDWeek YouTube Channel mini-series to target awareness about ID to the general public and to medical students. As one of the hosts of the mini-series, Dr. Advani participated in an interview with Dr. Boucher, to discuss the IDWeek Mentorship Program and the importance of networking and mentorship.

"You get yourself connected to so many people that one opportunity begets the next," said Dr. Boucher. "Whatever area that you focus on, whether it's for research or your administrative work, you have such a good connection of people that the phone rings, it's, 'Can you join this committee? Do you want to do that? Do you want to write this paper?"

Dr. Advani believes ID is an underrecognized field, and she and her other fellows are working to improve recruitment to medical students and residents. "It's not the same as most other fields. It's not like shift work where you go in for a couple of days. You really think about your patients. It's an investigative discovery. When you're working on an ID case, sometimes you have to go back and find out: where did they grow up? Where have they traveled? What's in their backyard? What kinds of pets do they have. Every day is a very exciting experience."

"I think the Center is one of the most important things IDSA is doing. It is based in Washington. It's good at congressional outreach. It's strategic at figuring out who is calling the shots. It's bipartisan. It's not ideological. It has legitimacy when it hos congressional study tours like this. It does what the rest of us cannot."

Sten Vermund, MD, PhD, FIDSA Center Scientific Advisory Committee Member

## CENTER FOR GLOBAL HEALTH POLICY

## **Center for Global Health Policy**

#### ABOUT THE CENTER FOR GLOBAL HEALTH POLICY

Nearly 37 million people globally were living with HIV at the end of 2014, including two million people who became infected that year. Worldwide, an estimated 9.6 million people fell ill with TB in 2014, and 1.5 million people globally died of TB in 2014.

The Center for Global Health Policy (the Center) is a forward-looking initiative of physicians and scientists promoting the effective use of U.S. funding to address the global HIV/AIDS and tuberculosis (TB) epidemics and other emerging diseases.

The IDSA Education and Research Foundation and the HIV Medicine Association (HIVMA) established the Center in October 2008 with funding from the Bill and Melinda Gates Foundation. Since 2012 the Center has received funding from Capital for Good.

Overseen by a Scientific Advisory Committee composed of leading physicians and scientists with expertise on global HIV and TB, the Center's multi-dimensional mission is to serve as a critical clearinghouse of information for policymakers, federal agencies, nongovernmental organizations, and the media.

Access to reliable, evidence-based input and guidance from IDSA/ HIVMA physician scientists and other professionals allows the Center to advocate for the best use of U.S. funding to combat TB and HIV/AIDS.

Outbreaks of Ebola and Zika in the last several years, as well as a growing population of people at high risk for HIV in vulnerable countries have expanded and added new impetus to the Center's mission.

#### **CONGRESSIONAL STUDY TOURS**

The Center has served an important convening role, organizing visits by U.S. legislative staff members to federally funded HIV and tuberculosis research and program sites in resource-limited countries, to educate policymakers about the value of the U.S. investment in global HIV and TB programming and research and development. These trips have included comprehensive tours of IDSA member-led programs in Mozambique, Tanzania, Zambia, Kenya, and South Africa.

"It was helpful to learn that programs aren't solely focused on one disease but instead that they help treat and prevent HIV, TB and other diseases together," responded one of the congressional staff members. "So often I only read about these programs on paper....[I]n the next appropriations season, this trip and the experiences I had will serve as a talking point for the importance of continuing aid," another wrote.

The Center's 2015 trip to Mozambique included visits to organizations and clinics in the capital city of Maputo and the central province of Zambezia, where they visited health service programs run by Friends in Global Health, a program founded by IDSA and Scientific Advisory Committee member Dr. Sten Vermund and by ICAP at Columbia University, a program led by IDSA and Scientific Advisory Committee member Wafaa El-Sadr.

#### **SCIENCE SPEAKS**

One of the Center's chief avenues for sharing information is through its widely read Science Speaks blog, which provides IDSA physician members, global health advocates, policymakers, and other readers with relevant and timely coverage of global infectious disease developments, including from important international meetings.

With global readership, and more than 6,000 social media followers, the blog includes among its subscribers staff members from the National Institute of Allergy and Infectious Diseases, the President's Emergency Plan for AIDS Relief, the World Health Organization, the World Bank, and the Global Fund to Fight AIDS, Tuberculosis and Malaria.

#### **PUBLIC OUTREACH**

The Center's mission extends into policy-making and strategy, and it works closely with members of Congress and their staffs as well as federal agencies, non-governmental organizations, and foundations. It provides guidance and responses to requests for draft legislation, fact sheets, and other information.

Additionally, Center staff members play important roles in key health coalitions—the Global AIDS Policy Partnership, the TB Roundtable and the Global Health Technologies Coalition. Through these coalitions, the Center staff provide counsel to campaign partners and participate in a number of HIV and TB educational meetings with staff from relevant organizations.

For more on the Center for Global Health Policy's Mozambique visit, see: www.idsaglobalhealth.org

#### PARTNERING FOR GLOBAL HEALTH

Sten Vermund, MD, PhD, FIDSA, director of the Institute for Global Health at the Vanderbilt University School of Medicine, is pragmatic about the challenges in global health, and there are many. He also is hopeful about what can be done if the United States and other countries provide the seed money to grow the capacity of low-income nations to combat the world's most pernicious health threats.

That's why the IDSA Education and Research Foundation and its Center for Global Health Policy are so critical today, Dr. Vermund says. Through the Center's briefings and analyses, as well as its congressional study tours, policymakers are able to develop a deeper understanding of the complexities of global health and the social problems that often accompany them.

Dr. Vermund believes the Center's highly regarded study tours give congressional staff members a chance to see up close the hurdles of fulfilling global health policy mandates — and the reality of trying to root them in countries that are severely burdened with capacity issues and health problems, that include HIV and tuberculosis. "The reality is that Ebola happened in three of the poorest, least-capacitated countries in the world [Guinea, Liberia and Sierra Leone]," says Dr. Vermund, a professor of pediatrics, obstetrics and gynecology, medicine, and health policy at Vanderbilt. "As a direct consequence, it spread like wildfire when it could have been contained if they had had the health infrastructure and community outreach to do so."

"In countries where the donorsupported health infrastructure is not going to be maintained with local resources, the day we [foreigners] leave is the day the programs begin to fall part," adds Dr. Vermund, who is a member of the Center's Scientific Advisory Committee. "Happily, the U.S. Government has invested in shortand long-term capacity building for developing countries as part of its foreign aid agenda. It has been aimed at human resources and health systems strengthening."

Friends in Global Health, an organization affiliated with the Vanderbilt Institute for Global Health and founded by Dr. Vermund, works in partnership with local governments and civil society groups to support health program development and to provide support, training and coordination of services in Mozambique. Congressional delegates

#### Sten Vermund, MD, PhD, FIDSA Center Scientific Advisory Committee Member

saw outcomes of some FGH efforts when they visited the Namacurra district of Zambezia province, where the program contributes to on-the-job training and builds health capacities by introducing technology for electronic records, supply chain management, and lab activities that include HIV viral load monitoring.

"It's in our long-term self-interest to do what we can in these countries," adds Dr. Vermund. "There are many enlightened members of Congress who get that. You're going to fuel the 'angry young man' syndrome if you don't have international development and economic opportunity. You're going to fuel global disease dissemination, if you don't have capacitated health systems that can intervene when new diseases arise."

Inspired by the books of U.S. Navy physician Thomas A. Dooley III, who established jungle hospitals in Southeast Asia, Dr. Vermund's passion for public health is rooted in service and practice. "I think the Center is one of the most important things IDSA is doing," Dr. Vermund says. "It is based in Washington. It's good at congressional outreach. It's strategic at figuring out who is calling the shots. It's bipartisan. It's not ideological. It has legitimacy when it hosts congressional study tours like this. It does what the rest of us cannot."

"The Center staff is able to distill knowledge, evidence and data, and articulate it. The Center has been stellar in translating the science into relevant information, truly a unique skill."

> Wafaa El-Sadr, MD, MPH, FIDSA Center Scientific Advisory Committee Member

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#### **A VISION FOR GLOBAL HEALTH**

As a young ID physician at the VA Medical Center at New York University in 1982, Wafaa El-Sadr, MD, MPH, FIDSA found herself on the front lines of the HIV/AIDS epidemic as she worked to care for people in its earliest days. It was a profound, life-shaping experience.

"It was the most compelling and important thing to do at the time," says Dr. El-Sadr, the founder and director of ICAP, at Columbia University that has a special emphasis on family-focused care and using multidisciplinary teams to address the needs of people living with HIV/AIDS. "In the early years in Harlem, we were trying to understand what we were seeing, and what we were seeing was the epidemic of our generation."

That's why the IDSA Education and Research Foundation's Center for Global Health Policy is so significant for Dr. El-Sadr. The Center ensures that political decision-makers understand the realities of fighting infectious diseases such as HIV and TB, as well as what sufficient U.S. funding can do to address and, hopefully, eliminate such threats globally.

"The U.S. investments in HIV have strengthened the health systems in many countries through the renovation of laboratories and the training of health care workers that have benefited everyone," says Dr. El-Sadr, who went on from her early experiences in NYC to lead large-scale HIV programming in some of the most severely affected countries in Africa and Asia.

"All of that has been critically important to not only advancing the HIV agenda but also to respond to other infectious diseases," says Dr. El-Sadr, University Professor of Epidemiology and Medicine and Mathilde Krim-amfAR Professor of Global Health at Columbia. "Many people utilize the same health facilities that have benefited from the HIV investments. There's a huge spillover effect from these investments."

In 2015 congressional staff delegates had the opportunity to see some of the benefits, when they visited the Nicoadala Health Center in Zambezia Province with staff from the Center for Global Health Policy. There ICAP supports the health center in providing general health care as well as comprehensive HIV and TB services to families and individuals and in building the skills of community based and health center workers. The focus on the family and community experience of HIV has motivated much of Dr. El-Sadr's work, and ICAP's efforts in Mozambique.

"Even though the tour is a short period of time, the congressional staffers come back with a deeper level of knowledge and an appreciation of the concrete achievements and the remaining challenges," says Dr. El-Sadr, who sits on the Center's Scientific Advisory Committee. "They're able to articulate the role of U.S. investment in global health. They're able to effectively influence policy and future resource allocations. I think the Center's organization of these trips fills a critically important need."

The Center is also able to play another important role, according to Dr. El-Sadr. "The Center staff are able to distill knowledge, evidence and data, and articulate it in such a manner that is appropriate and relevant to policymakers, enabling them to use this information to act," adds Dr. El-Sadr. "The Center has been stellar in translating the science into relevant information, truly a unique skill." The appeal of the infectious disease discipline is that it requires clinicians

#### Wafaa El-Sadr, MD, MPH, FIDSA Center Scientific Advisory Committee Member

to think beyond the individuals they are managing to their communities, El-Sadr says. When taking care of a child with HIV, for example, it is necessary to think comprehensively about his or her mother and family. It is hard to affect a meaningful positive change for one person and not address all the other factors in the community that affect the health of populations.

One of the ongoing challenges in American public health is convincing budget-conscious U.S. policymakers that federal financial support for global health programs is not only advantageous, it's essential, she notes, adding that the Center's research and analysis makes a valuable contribution to this vital public debate.

"It's fundamentally important for the world that people who are actually involved in the policy and funding for foreign assistance and funding for global health have the right information," she says. "They need to make their decisions based on accurate data and information. What a unique service for public health and for society."

Dr. El-Sadr worries that advances in the treatment of HIV have lulled the public into a level of complacency about the epidemic, forgetting about its continued impact on the lives of people in the United States and beyond. "It's really important to continue to remind people that there actually are urgent unmet needs, there are millions of people who need treatment today and millions who are still acquiring HIV infection," she says. "Our commitment needs to be ongoing and durable in order to ultimately conquer this epidemic."

## **Awards** IDSA EDUCATION AND RESEARCH FOUNDATION AWARDS

#### The Watanakunakorn Clinician Award

Named to honor the memory of Dr. Chatrchai Watanakunakorn, this award is presented by the IDSA Education and Research Foundation to recognize an IDSA member or fellow for outstanding achievement in the clinical practice of infectious diseases.

#### James M. Horton, MD, FIDSA



Widely recognized as a first-rate clinician-educator, Dr. James M. Horton is the chief of the Division of Infectious Diseases at the Carolinas Medical Center in Charlotte, NC, and a clinical professor of medicine at the University of North Carolina at Chapel Hill, where he was awarded the 2015 Excellence in Teaching Award.

The HIV clinic that Dr. Horton founded is a model of "one-stop" HIV care in the community. It now serves more than 1,400 patients, including the homeless and the uninsured, with a multidisciplinary staff. A model clinician-investigator, Dr. Horton has conducted numerous phase II and III clinical trials of several important HIV antiretroviral drugs, inpatient treatment studies of candidemia, and Centers for Disease Control and Preventionsponsored studies of rifapentine for the treatment of tuberculosis. He and his colleagues also conducted some of the early trials evaluating goal-directed

therapy for sepsis beginning in the emergency department. Most recently, his research has examined the skin microbiome in the setting of MRSA skin abscesses.

Dr. Horton was in private practice from 1984 until 1991 and is the past chair of the IDSA's Standards and Practice Guidelines Committee.

#### Robert Moellering Trainee Travel Award

The Robert C. Moellering Trainee Travel Grant launched in 2015, supports attendance at **ID**Week for fellowsin-training who submit exceptional research in the field of antibiotic resistance. Applicants must be IDSA members-in-training for the current year and have an accepted abstract to **ID**Week. Awardees receive a \$1,250 travel grant.

#### 2015 Recipients:

William Miller, MD University of Texas Medical School at Houston Houston, TX

#### **Roberto Viau, MD**

Case Western Reserve University/ MetroHealth Medical Center Cleveland, OH

#### **IDSA CID Top Article Award**

The CID Top Article Award (formerly the Emanuel Wolinsky Award) is funded by the IDSA Education and Research Foundation. The selection is made by the editors of Clinical Infectious Diseases in recognition of the most outstanding clinical study published in the journal each year.

"A Breath Fungal Secondary Metabolite Signature to Diagnose Invasive Aspergillosis," by Sophia Koo, et al., *Clin Infect Dis*. (2014) 59(12): 1733-1740 (doi:10/1093/cid/ciu725).

Invasive aspergillosis remains a leading cause of mortality in immunocompromised patients, in part, due to the difficulty of diagnosing this infection. Definitive diagnosis often requires a lung biopsy, an invasive test that may be challenging for organ transplant recipients, patients on chemotherapy or others who have weakened immune systems. In this study, researchers tested whether they could find a unique "chemical signature" in the breath of patients being evaluated for fungal pneumonia. They identified several metabolites normally produced by Aspergillus fumigatus and related fungal species. The researchers then analyzed breath samples from 64 patients with suspected cases of invasive aspergillosis and assessed whether it was possible to distinguish patients with proven or probable Aspergillus infection from patients who did not have that illness. Based on the presence of the compounds in the breath samples, they identified patients with the fungal infection with high accuracy (94 percent sensitivity and 93 percent specificity).

Author Sophia Koo, MD, of Brigham and Women's Hospital in Boston, says each *Aspergillus* species she and her colleagues assessed had a distinct profile, and these were consistent within biological replicates of each species but distinct between species. These results provide proof-of-concept that direct detection of exogenous fungal metabolites in breath can be used as a novel, noninvasive pathogenspecific approach to identifying the precise microbial cause of pneumonia.

Authors Koo and Horatio R. Thomas contributed equally to this work. Additional authors were David Daniels, Robert C. Lynch, Sean M. Fortier, Margaret M. Shea, Preshious Rearden, James C. Comolli, Lindsey R. Baden and Francisco M. Marty.

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The IDSA Foundation thanks all those who made contributions during IDSA membership renewal.

"The Foundation has a mission that can touch so many more people than we can as individuals. If you work through this organization, you can touch so many more in our profession."

tions Disease

### **Donor's Corner** ENCOURAGING OTHERS TO GIVE

For Carol Baker, MD, FIDSA, donating time and money to worthy causes, especially giving back generously to the ID community, is just part of her DNA. After all, her parents—physician Jack Baker and philanthropist Jane Baker—rooted it early in her childhood, and it grew into a life philosophy as she watched them give generously.

"My parents were poor when I was young, but by the time I was a teenager, we were living the middle-class life," recalls Dr. Baker. "My mother then created a charity in southern California to help disadvantaged children. This whole idea of giving back to the less fortunate was role modeled by and through my mom. My father was the breadwinner. He allowed it. He supported it, and she did it."

Today that passion for giving back fortifies Dr. Baker's efforts both as a professor of pediatrics and an infectious diseases specialist at Baylor College of Medicine in Houston and as a donor to the IDSA Education and Research Foundation, which was founded when she served as IDSA president in 2001.

At the time, Dr. Baker asked that the money set aside for the traditional gift awarded the outgoing president be given instead as the first donation to the Foundation's account. "That was a symbol," she says. "My heart believed that IDSA needed a foundation to extend its mission, and 15 years later, people are donating and the Foundation is growing."

Today she sees the Foundation's success as exemplifying the work of all those ID specialists through the years who saw the importance of creating an organization that could be dedicated to building the next generation of ID clinicians and researchers.

"The Foundation has a mission that can touch so many more people than we can as individuals. If you only do "oneon-one" with students or residents, you have little impact beyond them. If you work through this organization, you can touch so many more in our profession."

Dr. Baker knows well the importance of mentorship, both to spark an interest and to help young medical students stay the course. She was 6 years old when she announced her decision to become a doctor, a proclamation that met with complete parental approval. Yet as an undergraduate pre-med student, there were professors and physicians who told her that women shouldn't go to medical school. "I had never been exposed to that kind of thinking," she says. "And when it came time to go to medical school, I chose the only place that didn't tell me I was taking a man's place in the class."

"I thought I would do some kind of adult medicine and then I fell in love with kids," continues Dr. Baker, who earned her medical degree and completed her pediatric residency at Baylor. "I couldn't get a private practice job – they didn't offer it to women in my community – so I had noticed during my training that there was a new bacterial infection in babies the first two or three months of life. My professors weren't interested, so I started reading on my own."

Determined to understand these infections that harmed pregnant woman and babies, Dr. Baker decided to train in ID. The chief at Baylor, who had an NIH training grant, welcomed her interest and she began collecting details on all the cases and saving the strains.

The bacteria that puzzled Dr. Baker in the 1970s had been known to Rebecca Lancefield, PhD, and others since the 1930s. Dr. Lancefield, who was the world expert on group A streptococcal infection and a professor emeritus at the Rockefeller Institute, was contacted by Dr. Baker, learned about her cases and invited Dr. Baker to study in her Rockefeller University lab. Carol Baker, MD, FIDSA Founding Donor

This extraordinary mentorship opportunity led the way to Dr. Baker's career focus on all aspects of group B streptococcal (GBS) infections, including her successful push for routine culture screening in pregnant women and her research to develop a vaccine for pregnant women.

"Everything in medicine that turns people on is the experience with one or two people. It could be one intense experience with a patient or with a mentor and it takes you in a new direction, "says Dr. Baker. "For me, it was my time with Dr. Lancefield and Dr. Maxwell Finland a few years later."

While the importance of mentorship remains as powerful as it ever was, Dr. Baker believes medicine was a calling to her generation of physicians. She notes many students today are looking for a more flexible blend of work-life balance. She is sympathetic to the changes that have occurred in the profession – the additional training, the medical school debt – and she knows ID isn't for everyone.

"ID demands commitment. It demands your intellectual zeal," Dr. Baker says. "For many new physicians today, lifestyle is No. 1, medicine is No. 2. I think it's a huge challenge to find the next generation of ID physicians, but we need to try."

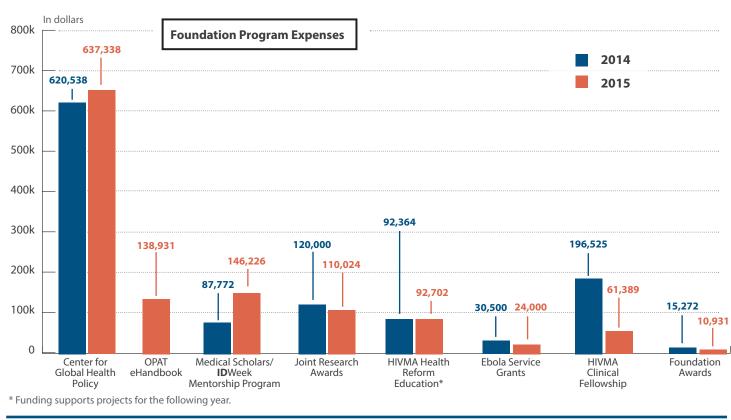
For Dr. Baker, that is the mission of the Foundation. With its broad impact, the Foundation's initiatives can take up the slack and shine a klieg light on the satisfaction and career diversity to be found in the field of ID. That's why she believes it's important for ID professionals to give generously to the Foundation to support its effort to seed the next generation of ID. "We need to demonstrate our commitment to the field and the promise we see in our students and residents," she says.

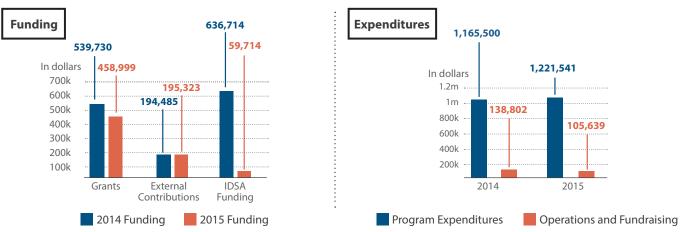
## **Financial Summary**

The IDSA Education and Research Foundation provides numerous fellowships, scholarships and awards to students, residents, fellows and infectious diseases specialists with the intention of attracting the best and brightest to the field of infectious disease, and supporting those in the field.

The Center for Global Health Policy is the Foundation's largest program, focusing on ensuring key decision-makers are wellinformed about the world's leading infectious disease killers: HIV/AIDS and tuberculosis. The Center receives the majority of its funding through a grant from Capital for Good. In recent years the Foundation has added educational programming for members and mentoring programs for medical students, residents and fellows. The Foundation relies on support from members, non-members and organizations to offer such scholarships and programming.

The financial overview of the Foundation for 2014 and 2015 is presented below. The tables present expenditures incurred and funding received for specific years of presentation, and may not be consistent with financial statements, which must be based on generally accepted accounting principles (GAAP). The charts present expenditures for programming and operational support and revenues from grant proposals, donations and funding from IDSA. The Foundation is dedicated to effectively and efficiently using its resources, striving to spend very little on operational support with an emphasis on programming. The Foundation will continue to build on generous support from both members and non-members in order to continue providing for infectious diseases research and education.





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