

A P R I L - J U N E 2 0 1 5

NPGH Fogarty Global Health Fellows Newsletter

www.fogartyfellows.org



Mentor Spotlight: David Boulware, MD, MPH, CTropMed

David R Boulware is a Fogarty mentor and a Lois & Richard King Distinguished Associate Professor in the Division of Infectious Disease and International Medicine at the University of Minnesota. He works on the epidemiology, disease pathogenesis, and clinical research of cryptococcal meningitis.



My first trip to Uganda was in December 2005 during my second year as an infectious disease fellow. At the time, ~25% of the beds on the infectious disease hospital ward at Mulago Hospital were occupied with patients with cryptococcal meningitis.

Outcomes were dismal with >50% in-hospital mortality, despite using amphotericin. Patients often presented late with high burdens of infection and altered mental status. Even those who survived hospitalization and started antiretroviral therapy often clinically deteriorated thereafter with recurrence of their meningitis symptoms yet had sterile cultures. This phenomena has become known as paradoxical immune reconstitution inflammatory syndrome (IRIS) and is a relatively common occurrence among persons with advanced AIDS and opportunistic infections, such as *Cryptococcus* or *Tuberculosis*. Although IRIS had been described before, the pathogenesis was completely unknown. We were encouraged by Drs. Allan Ronald and Merle Sande to investigate why IRIS was occurring. Our nascent Minnesota-Makerere meningitis collaboration was born.

Continued on page 2...

In This Edition

Upcoming Events	2
In Case You Missed It	4
Alumni Spotlight-Henry Ddungu	5
Elevator Speech Tips	6
Funding Opportunities/Toolkit	7
Manuscript Tips-Cheryl Moyer	8
Stata Tip/Ask Globie	9
Year 4 Trainee Introductions	10

Continued from page 1...

With initial leadership from Drs. Andrew Kambugu and Paul Bohjanen, we sought to enroll a prospective cohort of cryptococcal meningitis survivors to follow them on HIV therapy to determine the incidence of paradoxical IRIS and describe the pathophysiology of what was occurring. At the time, a bright young Minnesota medical student, Josh Rhein had taken a year out of medical school to “do research in Uganda.” In working with Dr. David Meya, a Ugandan infectious disease fellow, we developed our first prospective cohort study.

As international clinical research was new for all of us, we slowly, slowly navigated our way through all the startup and regulatory issues common to clinical research. We enrolled our first research participant on June 21, 2006, ironically on the day Josh Rhein left Kampala after having worked for 9 months to get the project started. Our research team on the ground in Kampala consisted of Dr. David Meya and a part time lab technician.

Our data entry system consisted of stacks of case report forms piling up until I would intermittently return to Kampala, and manually enter them into a MS Access Database. Specimens were shipped in batch to Minnesota, where I would sort through frozen samples to run various gene expression and immunologic assays. Our team was small, but we published a series of papers describing the incidence and pathogenesis of IRIS. Along the way, we realized there were many problems with the medical care of patients with meningitis (and opportunities to improve their care).

Continued on page 3...

Upcoming Events

JUNE 24

Core Competency Call
“How to Influence Public Policy
Through Research”
via Adobe Connect

JULY 5-10

New Fellows Orientation
Bethesda, MD

JULY 19-22

AIDS Society Conference on HIV
Pathogenesis, Treatment, and
Prevention
Vancouver, Canada
<http://www.ias2015.org/>

JULY 26-31

Training Institute for Dissemination and
Implementation Research in Health
Pasadena, CA
bit.ly/tidirh

JULY 29

Rwandan Health Minister
Dr. Agnes Binagwaho Barmes
Lecture at National Institutes of Health
bit.ly/agnesbarmes
<http://videocast.nih.gov/>

AUGUST 1

Fogarty Fellows Application Released
for the 2016-2017 cohort
www.fogartyfellows.org

Continued from page 2...

Fast forwarding a decade later, some things have and have not changed in 2015. The core group of physician-scientist investigators in Kampala remains Dr. David Meya, Dr. Josh Rhein, and myself. The three of us are all now faculty members in infectious diseases. Survival to hospital discharge after cryptococcal meningitis is now 80% with a one-year survival of 60%. Our research team has grown both numerically and geographically with now >30 people working together in Uganda, South Africa, Tanzania, and the United States, comprised of physicians, nurses, biostatisticians, microbiologists, immunologists, lab scientists and technicians, phlebotomists, HIV counsellors, pharmacists, and one spectacular project manager – Ms. Darlisha Williams, MPH. We've been able to build collaborations with other investigators interested in improving the outcomes of cryptococcal and TB meningitis such as Conrad Muzoora and Kabanda Taseera at Mbarara University in Uganda; Graeme Meintjes, Charlotte Schutz, and Suzaan Marais at the University of Cape Town; and Emili Letang and Diana Faini at the Ifakara Health Institute in Tanzania.

We have broadened the scope of our research to involve meningitis diagnostics, prevention, treatment, cost-effectiveness, and public policy, as well as translational research into immunological and microbial pathogenesis. These research endeavors are often nested into clinical trials. Our first randomized clinical trial, whose planning started in February 2009, was published in June 2014. The COAT trial demonstrated that deferred HIV therapy is the preferred strategy in cryptococcal meningitis. Our second clinical trial will be completed in June 2015, testing whether cryptococcal antigen screening before starting HIV therapy improves all-cause survival in HIV-infected persons with CD4 counts <100 cells/mcL. In March 2016, we started our third multisite randomized trial regarding cryptococcal meningitis, testing whether adjunctive sertraline (Zoloft) has antifungal efficacy to improve survival in cryptococcal meningitis.

One of the most successful aspects of our research partnership is indeed the collaborative partnership which has developed over the years with our African friends and colleagues, several of whom now serve as the principal investigator on their own international research grant. Much progress has been made over the past decade in improving the outcomes of persons infected with meningitis, yet much work is still to be done.

IN CASE YOU MISSED IT

MARCH 2015

The 2015 Consortium of Universities for Global Health (CUGH) Conference was held in a snowy Boston from March 25-28. 12 Fogarty alumni, including **Devora Aharon** and **Sumidtra Prathep**, presented their research and capacity building efforts to an audience of over 75 people. NPGH also hosted a luncheon with Fogarty alumni and collaborators to discuss ways to optimize the fellowship and provide career development support for

APRIL 2015

The Lancet Commission on Global Surgery released their initial findings in the “**Global Surgery 2030**” report. Fogarty mentor, **Charlie Mock** and mentee, **Barclay Stewart**, co-authored portions of the report. Surgeons from across the globe gathered in London, UK at the **Royal Society of Medicine Global Surgery & Anesthesia Conference** to discuss shifting paradigms and challenging generations to care about global surgery.

Prior to the conference, **Barclay** proposed to his girlfriend in Lisbon, Portugal. **Congratulations Barclay and Melissa!**

Jennifer Mark returned recently from Kenya and presented to the **Kenya Research Group** at the University of Washington. “We had wonderfully active discussion about preliminary findings, anticipated analyses, and lessons learned in research implementation,” writes Jennifer. Her research project was with the HOme-based Partner Education and Testing Study (HOPE) in Kisumu.



MAY 2015

Alumna **Anna Babkhanyan** was recently featured in the **Global Health Matters newsletter**. She speaks about her research on the vertical transmission of malarial antigens, how her Fogarty Fellowship impacted her, and her on-going research in Cameroon.



NPGH was invited to participate in the May 20th NIH Fogarty Director’s call by **Roger Glass**. The call featured research presentations by **Barclay Stewart**, **Marilyn Kioko**, and **Valerie Cortez** as well as a program overview by **Joe Zunt**. The session connected NIH Institute Directors and staff with Fogarty trainees in an effort to build future collaborations.

Fogarty alumnus **Henry Ddungu** and incoming trainee **Daniel Low** now have a nice new office! The **UCI-Fred Hutch Cancer Centre in Kampala, Uganda** opened its doors to the public on May 21. Mentor, **Corey Casper**, noted that the state of the art facility was a product of almost 10 years of collaboration to better understand the burden and biology of cancer.

JUNE 2015

Segundo Leon, a Peruvian alumnus just accepted a new job at Partners in Health in Lima where he’ll be Deputy Research Director. Congratulations!

Looking for ways to stay connected after your fellowship? The [private Facebook group](#) is a good way to share personal and professional announcements with NPGH Fogarty alumni, and the support team is always looking for articles and tidbits to share in this newsletter!



Henry Ddungu, MBCHb, MMed was a Fogarty Fellow in Uganda from 2013 to 2014. A native Ugandan, Henry has taught palliative care in 14 different countries in Africa, and has worked as both a clinician and Advocacy Manager. A longer summary of his life and career can be found here: <http://bit.ly/ddungu>

ALUMNI SPOTLIGHT: HENRY DDUNGU

What are you currently working on?

I am currently working on my PhD studies. I am also working as a consultant (Hematology/Oncology) at the Uganda Cancer Institute in Kampala, Uganda.

Many view palliative care as a bleak and depressing branch of medicine, yet it inspired you in ways other fields didn't; could you speak to that?

Indeed many view palliative care that way. However, as a doctor who trained in Africa and has witnessed the suffering that patients go through, it gives me great pleasure to see a patient happy when their suffering is controlled.

Many clinicians are actually practicing what is worse than those in palliative care because they are losing patients all the time and yet these patients die in super agony. To me I feel you cannot practice good medicine unless you are able to understand that palliative care is part of care. My patients live a better quality life and even when they have to die, they die with dignity and free of suffering. This is my inspiration.

What are some of the biggest challenges for palliative care in low-resource settings?

- Palliative care is not known and this lack of understanding by both the clinicians and the general public leaves patients to suffer in pain.
- Government policies that support and embrace palliative care are missing in most countries in Africa. This therefore implies that there is no obligation for anyone to provide care to the patients in need.
- Medical education curricula do not include palliative care and as a result health workers don't get a chance to learn about it.
- Lack of availability and access to essential palliative care medicines, particularly opioids e.g. oral morphine. Many countries are still having old legislations that are restrictive to opioids use and hence limiting access by patients in need.
- Lack of mechanisms to integrate palliative care in the different tiers of health care delivery and not having palliative care included in the minimum health care package.

Continued on page 6...

You've taught palliative care in many countries across Africa; what are some of the similarities or differences you've encountered in these different environments?

Similarities:

- Similar disease burden – infections and non-communicable diseases including cancer.
- Most of the cancers are infection-related and probably preventable.
- Limited government funding towards health care.
- Scarcity of health workers and very poor pay for those working in the health facilities.
- Very limited availability of radiotherapy services as well as other modalities of cancer care.
- Limited availability and access to palliative care services for those with life-threatening illnesses.

Differences:

- South Africa is economically better than most of the other countries in Africa.
- High burden of HIV in East and Southern countries of the continent but low prevalence in countries from North Africa.
- Different levels of understanding of palliative care.

You have successfully influenced policies surrounding access to pain medication; can you share any tips for other Fogarty trainees who hope to make a difference?

- Having the facts right and packaged nicely for the cause you would wish to address.
- Identifying the right targets able to influence change – e.g. clinicians and policy personnel at health ministries.
- Use of mass media to discuss palliative care and help the general public to understand.
- Speaking with members of parliament as well as other policy makers and making them join the cause.
- Coming up with a strategy that will be followed to influence policy and keeping in mind that policy change is a process that takes time and requires perseverance.

BUILD YOUR ELEVATOR SPEECH

Your “elevator speech” is a 60-second explanation of who you are, what you do, and why it is important. Being able to quickly and effectively share about your research and career is essential for networking.

This video is a reminder of what a good elevator speech should (and shouldn't) look like:

<https://www.youtube.com/watch?v=O6U9OGpvV78>

Want to practice? Film a 1-minute video that explains your research project and why it is important. Send it to ellern@uw.edu and we'll give you feedback.



FUNDING OPPORTUNITIES AND TOOLKIT

Wondering where to find post-fellowship funding?
These are some of the sites where we look for funding opportunities!

LINKS

American Society of Tropical Medicine & Hygiene
<http://bit.ly/astmhfellowships>

Consortium of Universities for Global Health
<https://www.cugh.org/opportunities/paid>
<https://www.cugh.org/opportunities/funding>
<https://www.cugh.org/opportunities/fellowships>

Emory Rollins School of Public Health
<http://bit.ly/emoryfellowships>

Harvard Global Health Institute
<http://bit.ly/harvardfellowships>

American Association of University Women (AAUW)
<http://bit.ly/AAUWfellowships>

National Postdoctoral Association
bit.ly/intlpostdoc

And of course, the National Institutes of Health
Fogarty International Center
<http://bit.ly/NIHfellowships>
<http://bit.ly/nonNIHfellowships>

TOOLS

Applying for funding from the NIH?
They recently released **annotated forms** to help you write those grant applications!
<http://bit.ly/nihcheatsheet>

In January, the NIH started requiring a **new biosketch** format for grant submissions. They suggest using NCBI's SciENcv tool to build it:
<http://www.ncbi.nlm.nih.gov/sciencv/>
and provide a short introductory video on how to do so:
<http://bit.ly/NewBioSketch>

Creating a budget for your grant proposal? The **UW Global Operations Support** page has templates and other information helpful for international projects.





Cheryl Moyer is a mentor and offers program support for the Fogarty Fellows. She earned an undergraduate degree in journalism before getting her PhD in Health Services, Organization, and Policy. Her research interests include maternal and neonatal health, and she works on several training grants and initiatives in Ghana.

Manuscript Preparation Tips: Cheryl Moyer, PhD, MPH

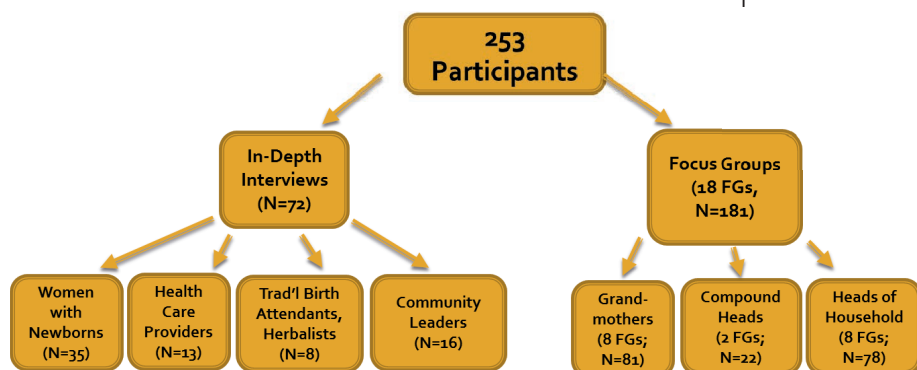
Dr. Cheryl Moyer recently presented to the NPGH Year 3 Cohort on strategies for manuscript preparation. We've summarized the main points below, and also have a recording of the entire session available at bit.ly/manuscripttips

12 TIPS FOR MANUSCRIPT PREPARATION

1. Write the methods as you go.
2. Identify a target journal—and some back-ups.
3. Follow the journal's requirements exactly.
4. Divide up the work: writing, data analysis, submissions, revisions.
5. Answer your research questions!
6. Report only relevant data.
7. Anchor your results with clear tables.
8. Start with a good outline, circulate for feedback, revise, THEN begin writing.
9. Address your main points in the same order in each section.
10. Stop. Review. Ponder.
11. Write the abstract last, and put extra time into it.
12. Proofread! Edit ruthlessly.

Example of a Clear Table

Text-to-visual example: "We conducted 18 focus groups and 72 in-depth interviews spanning a total of 253 participants. We conducted focus groups among grandmothers (N=81), compound heads (N=22), and household heads (N=78), and we conducted in-depth interviews with new mothers (N=35), health care providers (N=13), traditional birth attendants (N=5) and healers(N=3), and community leaders (N=16)."



Example of "Ruthless Editing"

~~The purpose of this proposed project i~~aims to **identify and enumerate the action steps required for** ~~evaluate the readiness of the educational systems in~~Rwanda, Kenya, and Ethiopia to scale-up **their educational systems** to address ~~critical~~gaps in maternal and child health (MCH) pursuant to Millenium Development Goal 4: **reducing** child mortality, and Goal 5: **improving** maternal health, ~~and to develop an action plan for scale-up.~~

STATA TIP

Tip provided by NPGH alum

Frankline Onchiri, Kenya

Searching for variables in a large datasets and/or across several datasets

Suppose you're looking for certain variables in a large dataset with several hundred variables or across several data files. The `lookfor_all` command searches through all Stata data files in a current directory and subdirectories for variable names and variable labels that may contain the specified phrase/string. The phrase could be a part or a whole variable name and/or word or part of the word in the variable label. Because `lookfor_all` is a user written command, you have to install it by typing: "`ssc install lookfor_all`". For example, you may want to find the variable containing "income", so you try searching for the string "income".

```
lookfor_all income, subdir
```

`lookfor_all` will list the name of each file containing that string along with the names of all the variables containing that string in their name or label. It also gives you a clickable link to each file with a match. Clicking on the file loads that data file into Stata memory. `lookfor_all` has lots of nice features such as the following options: **directory(path)** to specify the directory where to search, **subdir** to specify that the search should include subdirectories, **describe** to format the output or **codebook-** another option to format the output.

ASK GLOBIE

Dear Globie,

What are you going to do to celebrate your birthday? I hear that it's on July 10th...

This year I will be celebrating my birthday at the NIH Orientation in Bethesda, MD.

I'm still trying to decide if I'll be taking the Stata course, or learning more about qualitative research methods!

Hopefully in the evening I can sneak out to celebrate with some of the current and former Global Health Fellows.



HAVE SOMETHING TO SHARE?

Email your submissions to Nikki Eller

ellern@uw.edu

WELCOME TO THE 2015-2016 COHORT OF SCHOLARS AND FELLOWS

20 new trainees will be attending the NIH Orientation in July, then beginning their Fogarty Fellowships. Get to know the trainees and their projects by viewing their profiles below.



CAMEROON

Gabriel EKALI, MD, MPH
LMIC Fellow

Dr. Ekali will spend his fellowship year at University of Yaounde I in Cameroon under the mentorship of Diane Taylor, PhD. His research will focus on how in utero HIV exposure effects infant humoral immune response to *Plasmodium falciparum* in a high malaria transmission area.



CHINA

Roman XU, MPP, PhD
LMIC Fellow

Dr. Xu will spend his fellowship year at Sun Yat-Sen University in Guangzhou under the mentorship of Judith Wasserheit MD, MPH. His research will focus on lay care supporters aided by mobile text messaging to improve villagers with schizophrenia in Liuyang, China (the LEAN Trial).



GHANA

April BELL, PhD, MPH
U.S. Fellow

Dr. Bell will spend her fellowship year at the University of Ghana in Legon under the mentorship of Cheryl Moyer, PhD, MPH and Richard Adanu, MBChB, MPH, FWACS. Her research will focus on identifying factors with the greatest influence on family planning decision-making of HIV-infected women in Ghana.



PERU

Elizabeth ABBS
U.S. Scholar

Ms. Abbs will spend her fellowship year at Universidad Nacional Mayor de San Marcos (UNMSM) in Lima under the mentorship of Joe Zunt, MD, MPH. Her research will focus on mitigating obesity and hypertension leading to cardiovascular morbidity and mortality in Lomas de Zapallal, Peru.



KENYA

Odessa MARKS
LACSINA, PhD
U.S. Fellow

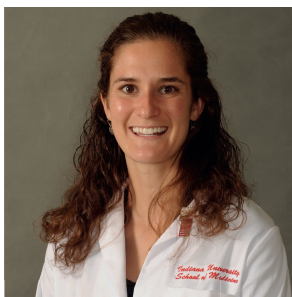
Dr. Marks Lacsina will spend her fellowship year at University of Nairobi in Nairobi under the mentorship of Carey Farquhar, MD, MPH. Her research will investigate the immunologic correlates of sustained responsiveness to measles revaccination in a cohort of HIV positive Kenya children.



PERU

Viviana PINEDO CANCINO, PhD, MCs
LMIC Fellow

Dr. Pinedo will spend her fellowship year at the U.S. Navy Medical Research Unit-6 (NAMRU-6) in Lima under the mentorship of Willy Lescano, PhD, MHS. Her research will focus on natural acquired immune response against Plasmodium falciparum and Plasmodium Vivax infection in a region of low endemicity.



PERU

Amy FUHS
U.S. Scholar

Ms. Fuhs will spend her fellowship year at the Instituto Nacional de Ciencias Neurólogas (INCEN) in Lima under the mentorship of Angela Carbone, MD and Cody McDonald, PhD. Her research will focus on post stroke rehabilitation in Lima,



PERU

Lacey LAGRONE, MD, MA
U.S. Fellow

Dr. LaGrone will spend her fellowship year at the Universidad Nacional Mayor de San Marcos (UNMSM) in Lima under the mentorship of Charles Mock, MD, PhD, MPH. Her research will focus on trauma quality improvement in Peru.



PERU

Neha LIMAYE
U.S. Scholar

Ms. Limaye will spend her fellowship year at Universidad Peruana Cayetano Heredia (UPCH) in Lima under the mentorship of Magaly Blas, MD, PhD, MPH. Her research will focus on understanding health determinants and training traditional birth attendants for improved outcomes in prenatal and perinatal health in the Peruvian Amazon.



PERU

Anastasia VISHNEVETSKY
U.S. Scholar

Ms. Vishnevetsky will spend her fellowship year at the U.S. Navy Medical Research Unit-6 (NAMRU-6) in Lima under the mentorship of Claire Creutzfeldt, MD and Carlos Abanto, MD. Her research will focus on palliative care and quality of life in patients with neurologic diseases in Lima, Peru.



PERU

Hilary ZETLEN, MPH
U.S. Scholar

Ms. Zetlen will spend her fellowship year at Universidad Peruana Cayetano Heredia (UPCH) in Lima under the mentorship of Virginia Gonzales, EdD, MSW, MPH and Armando Valdes, PhD. Her research will focus on identifying and addressing determinants of educational attainment and early pregnancy among adolescent girls in the rural Peruvian Amazon.



THAILAND

Thidarat JUPIMAI, MSc

LMIC Scholar

Ms. Jupimai will spend her fellowship year at Thai Red Cross/SEARCH in Bangkok under the mentorship of Nittaya Phanuphak, MD PhD. Her research will focus on challenges in initiating early antiretroviral therapy and maintain adherence among HIV-infected infants.

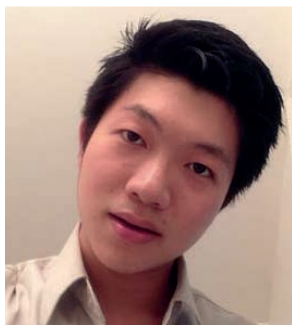


THAILAND

Megan PECK, MPH

U.S. Scholar

Ms. Peck will spend her fellowship year at Chulalongkorn University in Bangkok under the mentorship of Ratana Somrongtong, PhD MA and Bruce Alexander, PhD. Her research will focus on Brucellosis among smallhold goat farmers in Thailand.



THAILAND

Vorapot SAPSIRISAVAT, MD

LMIC Fellow

Dr. Sapsirisavat will spend his fellowship year at Thai Red Cross/SEARCH in Bangkok under the mentorship of Nittaya Phanuphak, MD PhD. His research will focus on co-occurrence of HIV, HCV and syphilis and the association and risk of emerging STD syndemic among Thai MSM (CHARM).



THAILAND

Shama VIRANI, PhD

U.S. Fellow

Dr. Virani will spend her fellowship year at Prince of Songkla University in Hat Yai under the mentorship of Hucha Sriplung, MD and Laura Rozek, PhD, MS, MA. Her research will focus on identifying high-risk populations for targeted prevention and screening strategies for breast cancer.



UGANDA

Paul BANGIRANA, PhD, MSc

LMIC Fellow

Dr. Bangirana will spend his fellowship year at Makerere University in Kampala under the mentorship of Chandy John, MD, MS. His research will focus on developing long-term neuropsychological interventions for survivors of traumatic brain injury (TBI) in urban hospitals in Uganda.



UGANDA

Daniel LOW

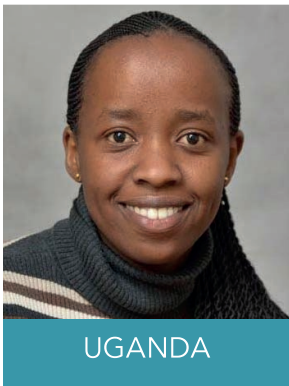
U.S. Scholar

Mr. Low will spend his fellowship year at Uganda Cancer Institute in Kampala under the mentorship of Corey Casper, MD MPH. His research will focus on the barriers HIV-positive cancer patients in Uganda face in receiving clinical care.



Bozena MORAWSKI , PhD, MPH
U.S. Fellow

Dr. Morawski will spend her fellowship year at Makerere University in Kampala under the mentorship of David Boulware, MD MPH. Her research will focus on determining if HIV and helminth co-infection alters the host immune response to cryptococcal meningitis and worsens disease severity.



Liliane MUKAREMERA , PhD, MSc
LMIC Fellow

Dr. Mukaremera will spend her fellowship year at Infectious Disease Institute (IDI) at Makerere University in Kampala under the mentorship of David Boulware, MD MPH. Her research will focus on alteration of the innate immune response by different cryptococcal morphologies in HIV infected individuals.



Jennifer ROSS , MD, MPH
U.S. Fellow

Dr. Ross will spend her fellowship year at Makerere University in Kampala under the mentorship of Judith Wasserheit, MD, MPH and Judd Walson, MD, MPH. Her research will focus on assessing the relationship between increasing use of co-trimoxazole prophylaxis among people living with HIV in Kenya and Uganda and observed population-level decreases in malaria incidence in the same regions.