

# ***Schistosoma* spp. Life Cycle Training Course**

**April 13-15, 2016**

**Schistosomiasis Resource Center  
Biomedical Research Institute  
12111 Parklawn Drive Rockville, MD 20852**

**Wednesday, April 13** (Lectures held in Room 103, lab procedures in Room 213)

9:00-9:15AM	<b>Meet and Greet</b> SRC Staff Life Cycle Course Attendees	Room 103
9:15-9:20AM	<b>Welcome to BRI</b> Paul Nisson, PhD Executive Director	Room 103
9:30-10:00AM	<b>Schistosomiasis pathology in the field and in the lab</b> Michael Hsieh, MD, PhD Principal Investigator, BRI	Room 103
10:00-10:30AM	<b><i>Biomphalaria glabrata</i> maintenance</b> André Miller	Room 103
10:30-11:00AM	<b><i>Bulinus truncatus</i> and <i>Oncomelania hupensis</i> maintenance</b> Sarah Li	Room 103
11:00-11:30AM	<b>Maintaining <i>S.mansoni</i> in the laboratory</b> Kenia Villatoro-Benitez	Room 103
11:30-11:50AM	<b>Perfusions: collecting adult worms from <i>S.mansoni</i>-infected mice</b> André Miller	Room 103
11:50-12:30PM	<b>LUNCH</b>	
12:30-1:00PM	<b>Tour of <i>B.glabrata</i>, <i>O. hupensis</i> and <i>B.truncatus</i> colonies</b> Kenia Villatoro Benitez Sarah Li	Room 213 SRC
1:-3:30PM	<b>Perfusions of <i>S.mansoni</i>-infected mice to collect adult schistosomes</b> André Miller Kenia Villatoro Benitez	Room 213 SRC Student participation
3:30PM	<b>DISMISSAL</b>	

# ***Schistosoma* spp. Life Cycle Training Course**

Thursday, April 14

9:00-9:30AM	<b>NIH Grants and Research Resources</b> Glen C. McGugan, Jr, PhD Program Officer Parasitology and International Programs Branch National Institute of Allergy and Infectious Diseases, NIH Rockville, MD	Room 103
9:30-10:00AM	<b>Maintaining <i>S.haematobium</i> in the laboratory: from snail to hamster and back again</b> Taiwo Ogunbayo	Room 103
10:00-10:30AM	<b>Collecting <i>S. haematobium</i> cercariae from patent <i>Bulinus</i></b> Sarah Li Taiwo Ogunbayo	Room 213 SRC
10:30-11:00AM	<b>Collecting <i>S. japonicum</i> cercariae from patent <i>O.hupensis</i></b> Sarah Li	Room 213 SRC
11:00--12:30PM	<b>Collecting <i>S.mansoni</i> cercariae from patent <i>B.glabrata</i></b> Kenia Villatoro Benitez André Miller	Room 213 SRC Lab Student participation
12:30-1:30PM	<b>LUNCH</b>	
1:30-1:45PM	<b>Percutaneous exposure of hamsters for <i>S.haematobium</i> infection</b> Demonstration Taiwo Ogunbayo	Room 208 SRC
1:45-2:15PM	<b>Percutaneous exposure of mice for <i>S.mansoni</i> infection</b> Demonstration Kenia Villatoro Benitez	Room 208 SRC
2:15-3:00PM	<b>Perfusion of <i>S.haematobium</i>-infected hamster to collect adult worms</b> Demonstration Sarah Li and Taiwo Ogunbayo	Room 213 SRC
3:00-4:00PM	<b>Preparation of <i>in vitro</i> schistosomules of <i>S.mansoni</i></b> Demonstration André Miller	Room 213 SRC
4:00PM	<b>DISMISSAL</b>	

# ***Schistosoma* spp. Life Cycle Training Course**

Friday, April 15

9:00-10:00AM	<b>Isolation of viable <i>S.mansoni</i> eggs from liver tissue</b> Kenia Villatoro Benitez André Miller	Room 213 SRC Student participation
10:00-11:30AM	<b>Hatching <i>S.mansoni</i> eggs for miracidia collection</b> <b>Exposing snails to miracidia</b> Kenia Villatoro Benitez André Miller	Room 213 SRC Student participation
11:30-12:30PM	<b>LUNCH /DISMISSAL</b> BRI staff available for questions	Room 103



BIOMEDICAL RESEARCH INSTITUTE

## 2015 SCHISTOSOMIASIS MOLECULAR TRAINING COURSE

### Evaluation of DNA methylation of *Biomphalaria glabrata* in normal vs. thermal stress conditions

Schistosomiasis Resource Center  
Biomedical Research Institute  
Rockville, MD

July 13-15, 2015

MONDAY JULY 13

9:00-9:15 AM	Welcome to BRI	<b>Paul Nisson, PhD</b> Executive Director BRI
9:15-9:30 AM	Introduction to BRI to SRC	<b>Michael Hsieh, MD, PhD</b> / <b>MMK</b> overview of SRC Principal Investigator, BRI  Welcome and introduction, BRI mission, SRC staff resources
9:30-10:30 AM	Lecture	<b>Michael Hsieh, MD, PhD</b> (BRI) “Host DNA methylation induced by experimental urogenital Schistosomiasis”
10:30-10:45 AM	Break	
10:45-11:30 AM	Lecture	<b>Wannaporn Ittiprasert, PhD</b> (SRC) “Current epigenetic study methods focusing on invertebrates”  Experiment workflow
11:30 AM-12.30 PM	Lunch	
12:30-2:45 PM	Lab	Dual DNA and RNA extraction (Ittiprasert and Miller)
2:45-3:00 PM	Break	
3:00-3:30 PM	Lab	DNA and RNA qualification and quantification (Ittiprasert and Miller)

## TUESDAY JULY 14

9:00-10:15 AM	Lab	Determining percent quantification of DNA methylation (Ittiprasert and Miller)
10:15-10:45 AM	Break	
10:45-11:15AM	Lecture	<b>John Satterlee, Ph.D.</b> Program Coordinator, NIH Roadmap Epigenomics Program National Institute on Drug Abuse, NIH
11:15-11:45 AM	Lecture	<b>Ankit Gupta, Ph.D.</b> Laboratory of Malaria and Vector Research National Institute of Allergy and Infectious Diseases, NIH Rockville, MD “Conditional knockdown suggests <i>P.falciparum</i> CLAG3 oligomers contribute to PSAC function”
11:45AM-12: 45PM	Lunch	
12:45-1:45 PM	Lecture	<b>Jeffrey Bethony, Ph.D.</b> Department of Microbiology, Immunology and Tropical Medicine George Washington University Washington D.C. “microRNA and gene regulation in helminthes”
1:30-2.45 P.M.	Lab	Data analysis of methylation level (Ittiprasert and Miller)  Experiment for gene expression by real time PCR (Ittiprasert and Miller)

## WEDNESDAY JULY 15

9:00-9:30AM	Lecture	<b>Glen Mcgugan, Ph.D.</b> Program Officer, Parasitology and International Programs DMID/NIAID/NIH Rockville, MD “NIH Grants and Research Resources”
9:30-11:00 A.M.	Lab	Gene expression and correlation analysis between DNA methylation and gene expression in <i>B. glabrata</i> snail (Ittiprasert and Miller)
		Conclusion