**Malaria Genetics Section**

**Thomas E. Wellems, M.D., Ph.D.**

**Principal Investigator**

**FELLOWS/STUDENTS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location**  **of Current Employment** |
| Jason Chong, Ph.D. | 2009–2012 | Postdoctoral IRTA | Booz Allen Hamilton, Bethesda, MD |
| Georgeta Crivat, Ph.D. | 2007–2010 | NRC Post-Doctoral  Research Fellow | University of Maryland, College Park |
| Janni Papakrivos, Ph.D. | 2004–2009 | Visiting Fellow | Novartis Pharmaceuticals, Frankfurt am Main, Germany |
| Karen Hayton, Ph.D. | 2001–2010 | Research Fellow (VP) | at home mom |
| Sarah Kaslow, B.A. | 2010–2012 | Post-baccalaureate  IRTA | University of Maryland  School of Medicine |
| Justine Cummins- Oman, B.S. | 2010-2012 | Post-baccalaureate  IRTA | University of Maryland  School of Medicine |
| Michael Han, B.A. | 2010–2012 | Post-baccalaureate  IRTA | Merck Sharp & Dohme  Corp., Durham, NC |
| Gloria Tavera, B.S. | 2010–2011 | Post-baccalaureate  IRTA | Case Western University  School of Medicine |
| Evan Kessler, B.S. | 2009-2010 | Post-baccalaureate  IRTA | Sackler School of  Medicine, Tel Aviv, Israel |
| Kritika Kumar, B.A. | 2009-2010 | Post-baccalaureate  IRTA | Univ. of Pennsylvania, Philadelphia, PA |

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| Peter Dumoulin, B.S. | 2008–2009 | Post-baccalaureate  IRTA | Johns Hopkins Bloomberg  School of Public Health |
| Sarnia Laurent, B.A. | 2008–2009 | Post-baccalaureate  IRTA | Albert Einstein Graduate  Program, Bronx, NY |
| Shivang Shah, B.A. | 2007-2011 | NIH Oxford- Cambridge MD/PhD | Mt. Sinai School of  Medicine, NY, NY |
| Sahily Reyes, B.S. | 2009 | INRO Student | Univ. of Texas-MD Anderson MD/PhD Program, Houston, TX |
| Kwasi Adu-Berchie | 2012 | NIH-African Leadership Summer Internship | Michigan State University, East Lansing, MI |

**Vector Molecular Biology Section**

**Jesus G. Valenzuela, Ph.D.**

**Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Ryan Jochim, Ph.D. | 6/5/2008-  6/4/2012 | Postdoctoral  IRTA | Senior Scientist Entomology Section WRAIR |
| Dia-Eldin Elnaiem, Ph.D. | 6/26/2007-  6/5/2010 | Research  Specialist | Associate Professor  Eastern Shore Univ. |
| Ekaterina Giorgobani | 4/1/2009-  7/31/2010 | Fulbright  Scholar | Investigator, Center for Disease Control Tbilisi, Georgia |
| Jennifer Anderson, Ph.D. | 8/15/2005-  6/15/2010 | Postdoctoral  IRTA | Staff Scientist  LMVR/ NIAID |
| Clarissa Teixeira, Ph.D. | 6/5/2006-  5/2/2012 | Visiting Fellow  IRTA | Scientist  CNPq  Salvador, Brazil |
| Regis Gomes, Ph.D. | 6/5/2006-  5/2/2012 | Visiting Fellow IRTA and Research fellow | Scientist  CNPq  Salvador, Brazil |
| Alexandre B. Reis | 8/9/2010-  8/3/2011 | Guest  Researcher | Principal Investigator, UFMG, Brasil |
| Mariel Figueroa | 9/1/2008-  5/31/2012 | Ph.D. Student | Postdoctoral Fellow  Washington State U |

Nirav Joshi 5/15/2009-

8/20/2009

Summer Student University of Miami

Medical School

Thomas Holman 6/16/2011-

8/15/2011

Summer Student University of Maryland at College Park

Katherine Leave 2/15/2010-

8/16/2010

Student

Volunteer

George Washington

University

Dana Gilmore 9/13/2010-

8/12/2012

Post- baccalaureate IRTA

PhD. Student

Univ. of Chicago

Giovanna Jaramillo-Gutierrez 7/12/2008-

1/07/2009

Post- baccalaureate IRTA

Pan American

Health Organization

Nathanael Smith 8/2/2009-

12/31/2010

Student Aid University of

Maryland

Anika T. Haque 1/30/2011-

2/10/2012

Student Aid University of

Maryland

Jacob Z. Love 12/27/2010-

1/7/2011

Student

Volunteer

University of

Maryland

**MINORITY STUDENTS MENTORED IN THE LABORATORY SINCE LAST REVIEW**

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| --- | --- | --- | --- |
| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Blanca Paccha | 07/10/2009  05/15/2010 | NIH UGSP Scholar | MPH Program, Yale University |
| David Hereida Sierra | 9/14/2009-  9/11/2010 | NIH UGSP Scholar | Medical School, Puerto Rico |
| Mariel Figueroa | 9/1/2008-  5/31/2012 | Ph.D. student  NIH/GPP/GWU | Postdoctoral Fellow Washington State University |
| Jacqueline Flores | 9/6/2011-  6/9/2012 | Student  Volunteer | MSc. Program  George Washington |
| Yenia Cardozo | 12/21/2008-  8/20/2009 | Student Aid | University of  Maryland |
| Christopher Robles | 06/18/2012-  08/20/2012 | Summer Student | Frederick County  High school |
| Jennifer Duran | 06/18/2012-  08/20/2012 | Summer Student | Montgomery  County High School |

**INTERNATIONAL FELLOWS MENTORED IN THE LABORATORY OR IN MALI SINCE LAST BSC REVIEW**

**Fellow’s Name Period at NIH Accomplishment From This Training**

**Current Institution & Location**

Maha Abdeladhim 1/11-05/11 Part of Ph.D./ Publication

LMVR, NIAID

Natalia Caballero 5/11- 8/11 Part of Ph.D./ Publication

FioCruz, Rio de

Janeiro, Brazil

Iva Rohoušová 11/09-5/10 Publication in Charles University,

PLOS NTD Czech Republic

Carlos Zarate 5/10-8/10 Part of Ph.D NEI, NIH

Vanessa Carregaro 9/10- 1/11 Part of Ph.D./ Publication

School of Medicine, RP, Brazil

Ana Dostálová 7/09/-10/09 Part of Ph.D./ Publication

Charles University, Czech Republic

Mischaela Vlkova 3/11-5/11 Part of Ph.D./ Publication

Charles University, Czech Republic

Melissa Moura 4/12- 5/12 Experience in vaccine trial

FIOCRUZ, S Bahia, Brazil

Vladimir Cruz 10/11- 1/12 Part of Ph.D. UADY

Yucatan, Mexico

Silvia Pasos 9/11-12/11 Part of Ph.D. UNAM, Mexico

Laura Sanchez 9/11-12/11 Part of Ph.D. UNAM, Mexico

Souleymane S. Diarra 2/09-6/11 Medical Doctor MRTC, Bamako, Mali

Daouda O. Diallo 5/09-10/11 Medical Doctor MRTC, Bamako, Mali

Bourama Traoré 6/09- 12/10 Pharm. D. MRTC, Bamako, Mali

**Malaria Functional Genomics Section**

**Xinzhuan Su, Ph.D. Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Dr. Dipak K. Raj | 03/05–02/10 | Visiting Fellow | Scientist, University of Rhode Island |
| Dr. Pedro Moura | 01/10–06/10 | IRTA Fellow | Senior Scientist, Merck |
| Dr. López Barragán | 07/06–07/11 | Visiting Fellow | Principle Scientist, GSK |
| Dr. Hongying Jiang | 12/04–10/11 | Visiting Fellow | FDA Fellow |
| Dr. S. Pattaradilokrat | 09/08–03/12 | Visiting Fellow | Asst. Prof., Chulalongkorn Univ. Bangkok, Thailand |
| Dr. Jing Yuan | 10/07–10/12 | Visiting Fellow | Professor and Chair, Department of Biology, Xiamen Univ., China |
| Dr. Jianbing Mu | 04/00–11/12 | Staff Scientist | Staff Scientist, LMVR  Under Lab Chief |
| Dr. Jian Li | 02/09–02/11 | Ph.D. Student | Asst. Prof. Department of Biology,  Xiamen University, |

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| --- | --- | --- | --- |
| China | | | |
| Dr. Jacob Lemieux | 10/10–09/12 | NIH/  Oxford Student | M.D. Student, Harvard Univ., MA |
| Ms. Pwint Khine | 12/11–12/12 | INRO Student | M.D. student, Medical School, NJ |

**Section of Vector biology**

**José M.C. Ribeiro, M.D., Ph.D.**

**Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location**  **of Current Employment** |
| Michalis Kotsyfakis | 03/01/2005 -  10/24/2009 | Visiting Fellow | Principal Investigator Biology Center, National Academy of Sciences, Budweis, Czech Republic |
| Patricia Alvarenga | 09/15/2008 -  05/16/2010 | Visiting Fellow | Associate Professor Department of Medical Biochemistry, Federal University of Rio de Janeiro. |
| Nicholas Manoukis | 01/17/2007 -  09/11/2010 | Postdoctoral IRTA | Research Biologist  USDA-ARS, U.S. Pacific Basin Agricultural Research Center, Hilo, Hawaii |
| Xu Xueqing | 10/01/2009 -  08/22/2012 | Visiting Fellow | Research Scientist Southern Medical University, Guangzhou, China |
| **CAPES (Brazil) Doctoral Sandwich Fellows** | | | |
| Carlo Oliveira | 1/26/2009 –  11/30/2009 | Ph.D. Student | Associate Professor Department of Parasitology, Federal University of Triangulo Mineiro, Brazil |

Andrezza Campos

Chagas

08/15/2010 -

02/28/2011

Ph.D. Student Post-doctoral Fellow Vector Biology Section, NIAID

**Board of Scientific Counselors Review**

**June 2013**

**Laboratory of Malaria and Vector Research**

**Mosquito Immunity and Vector Competence Section**

**Carolina Barillas-Mury, M.D., Ph.D.**

**Senior Investigator**

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| **FELLOWS DEPARTING SINCE LAST BSC REVIEW** | | | |
| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of**  **Curr. Employment** |
| Rajnikant Dixit | 6/12/2007 -  6/11/2010 | Visiting  Fellow | National Institute of  Malaria Research (NIMR), Delhi, India |
| Janneth Rodrigues | 8/1/2006 -  7/31/2011 | Visiting  Fellow | GlaxoSmithKlein (GSK), Tres Cantos, Madrid |
| Giselle Oliveira | 1/5/2009 -  5/3/2012 | Visiting  Fellow | Rene Rachou Institute, Fiocruz-BH, Brazil |
| Dr. Fábio Brayner dos  Santos | 3/25/2009 –  4/30/2010 | Visiting  Fellow | Aggeu Magalhães Institute, Fiocruz Recife, Brazil |
| Luiz Carlos Alves | 5/1/2009 –  4/30/2010 | Visiting  Fellow | Aggeu Magalhães Institute, Fiocruz Recife, Brazil |
| Jared Winikor | 8/1/2008 to  7/20/2009 | Post-Bac  INRO | Univ. of Vermont, Medical  School, Burlington, VT |
| Amy Alabaster | 8/9/2010 –  8/8/2011 | Post-Bac  IRTA | Sabin Vaccine Institute, Washington, DC |
| Lois Bangiolo | 9/15/2011 –  7/27/2012 | Post-Bac  IRTA | Columbia University,  Medical School, New York |
| Jose Henrique de  Oliveira | 5/18/2009 –  10/30/2009 | Visiting  Student | Stanford University, Stanford, CA |
| Renata Sales Gonçalves | 5/18/2009 –  10/30/2009 | Visiting  Student | Buck Institute for Age  Research, Novato, CA |

**Apicomplexan Molecular Physiology Section (AMPS)**

**Sanjay A. Desai, M.D., Ph.D.**

**Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW:**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current**  **Employment** |
| Rachel Addo | 6/16/08-6/15/09 | Post- baccalaureate | Research Associate, Macrogenics, Rockville MD |
| Praveen  Balabaskaran Nina | 4/11/11-  11/25/12 | Visiting Fellow | Jr. Faculty, PSG Inst. of Medical  Sci. & Research, Coimbatore, India |
| Abdullah Bokhari | 8/23/06-8/6/09 | Post- baccalaureate | College of Osteopatic Medicine, Michigan State Univ., Lansing MI |
| Keithlee Dolinta | 8/22/11-6/22/12 | Post- baccalaureate | Research technician, MD Anderson  Cancer Center, Houston TX |
| Kristen Earle | 8/23/06-8/6/09 | Post- baccalaureate | Graduate Student, Stanford Univ. School of Medicine, Stanford CA |
| Yasmin El-Sayed | 7/3/08-5/8/09 | Post- baccalaureate | Sales Representative, Eli Lilly  Pharmaceuticals, Manhattan NY |
| Elizabeth  Hammershaimb | 9/8/09-8/24/10 | Post- baccalaureate | Drexel Univ. Medical School, Philadelphia PA |
| Godfrey Lisk | 5/5/02-5/5/10 | Visiting Fellow | Scientific Writer, PAREXEL International, London, UK |
| Brian Lyko | 12/1/10-  11/30/11 | Post- baccalaureate | Master's in Forensic Science, Towson University, Towson MD |
| Wang Nguitragool | 3/10/08-3/31/12 | Visiting Fellow | Jr. Faculty, Mahidol University, Bangkok, Thailand |
| Ajay Pillai | 10/3/06-8/31/10 | Visiting Fellow | Scientific Grants Adviser, Wellcome  Trust/DBT India, Hyderabad India |

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| Lauren Pischel | 6/27/11-6/26/12 | Post- baccalaureate | Stanford School of Medicine, Stanford CA |
| Paresh Sharma | 8/11/10-1/3/13 | Visiting Fellow | Jr. Faculty, Nat. Inst. of Animal  Biotech., Hyderabad India |
| Tara Slick Stevens | 12/1/08-7/7/09 | IRTA fellow | Self-employed, Madison WI |

**International Studies of Malaria and Entomology Section**

**Robert Gwadz, Ph.D. Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellows’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Instition & Location**  **of Current Employment** |
| Guha  Dharmarajan, Ph.D. | 01/01/11-7/3/12 | Visiting Fellow | Ramanujan Faculty Fellow Indian Institute of Science Education and Research- Kolkata  Mohanpur, West Bengal |
| Jennifer Hume, Ph.D | . 05/01/06-7/31/10 | Visiting Fellow | Seattle Biomedical  Research Institute |
| Juliette Nwagbara | 09/27/10-9/26/11 | Post-baccalaureate  IRTA INRO | Industry |
| Kathryn Dieter | 06/01/10-5/31/12 | Technical IRTA | Applying to Medical  School |
| Howard Hamilton | 11/24/08-12/04/09 | Post-baccalaureate  IRTA INRO | Howard U. Medical |
|  |  |  | School |

**Board of Scientific Counselors Review**

**June, 2013**

**Laboratory of Malaria and Vector Research**

**Malaria Cell Biology Section**

**Louis Miller, Ph.D. Principal Investigator**

**FELLOWS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Deepak Gaur, Ph.D. | 2004 - 2009 | Postdoctoral  IRTA | Principal Investigator, International Centre for Genetic Engineering and Biotechnology, Delhi, India |
| Lu-bin Jiang, Ph.D. | 2002 - 2010 | IRTA | Professor at the Institute Pasteur, Shanghai, China |
| Ipsita Pal-Bhowmich | 2007 - 2012 | IRTA | Faculty, PHFI, Delhi, India |

**STUDENTS MENTORED IN THE LABORATORY SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Katherine Montelione | 9/2011 –  6/2012 | Post- baccalaureate | PhD student, Cornell Medical School |

**MINORITY STUDENTS MENTORED IN THE LABORATORY None**

**Board of Scientific Counselors Review**

**June 2013**

**Laboratory of Malaria and Vector Research**

**Malaria Immunology Section**

**Carole Long, Ph.D. Principal Investigator**

**Fellow’s Name Period of NIH Employment**

**Appointment**

**Type**

**Institution & Location of Current Employment**

Cecilia Huaman 09/2004-09/2009 Visiting Fellow Biotechnology

Company Debargh Dutta 04/2009-1/2012 Visiting Fellow US FDA Debargh Dutta 04/2009-1/2012 Visiting Fellow US FDA

Yechiel Mor 03/2009-6/2011 Post- Medical Student baccalaureate Dartmouth School

of Medicine

Alison Case 5/2010-6/2011 Post- Medical Student baccalaureate Michigan State

University

Lester Lambert 12/2010-12/2012 Post- Working at baccalaureate Columbia University INRO

Sharma Cook 08/2010-11/2012 Post- Technician at baccalaureate NIAID/RTB INRO

Jeanee Bullock 01/2011-3/2013 Post- Georgetown University baccalaureate Graduate School

INRO

**Board of Scientific Counselors Review**

**June 2013**

**Laboratory of Malaria and Vector Research**

**Malaria Pathogenesis and Human Immunity Unit**

**Rick M. Fairhurst, MD, PhD Principal Investigator (Clinical Tenure-track)**

**FELLOWS/STUDENTS DEPARTING SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of NIH Employment** | **Appointment**  **Type** | **Institution & Location of Current Employment** |
| Steven Beaudry, DO  Mary Sedegah, BS (US Minority)  Jordan Zuspann, BA  Erika Phelps, BS  Serena Chiang, BS  Neida Mita-Mendoza, PhD (Bolivia)  Cameron Bess, PhD | 07/01/2008 –  06/30/2009  06/08/2009 –  06/07/2010  10/19/2009 –  06/17/2011  06/07/2010 –  06/06/2011  06/14/2010 –  06/13/2012  10/27/2008 –  10/26/2012  11/07/2008 – | Howard Hughes Medical Institute Scholar  Post-  baccalaureate  Post-  baccalaureate  Post-  baccalaureate  Post-  baccalaureate  Pre-Doc IRTA  Postdoctoral | Anesthesiologist Johns Hopkins Medical Center Baltimore, MD  Masters Student Univ. of Maryland Baltimore, MD  Medical Student Tufts Univ. School of Medicine Boston, MA  Medical Student Michigan State University School of Medicine  Cedar Rapids, MI  MSTP Student Albert Einstein College of Medicine Bronx, NY  Postdoctoral Fellow LMVR/NIAID/NIH Bethesda, MD  AAAS Fellow |

(US Minority) Michael Krause, BS

John Cheng, BS, MSc

Gaurvika Nayyar, BS (India)

Ana Maria Vasquez, BS (Colombia)

Jose Bustos-Arriaga, BS (Mexico)

Eunjae Lee

09/04/2012

01/01/2008 –

07/01/2009

06/01/2009 –

05/31/2010

06/01/2010 –

05/30/2011

06/01/2010 –

08/31/2010

01/01/2011 –

06/30/2011

06/01/2012 –

08/31/2012

IRTA

Post-

baccalaureate

Student

Volunteer

Post-

baccalaureate

PhD Student (Universidad de Antioquia)

PhD Student

(CINVESTAV)

Summer Student

USAID Washington, DC

MSTP Student Case Western Reserve Univ. Cleveland, OH NIH-OxCam Scholars Program Univ. of Oxford Oxford, UK

Medical Student Univ. of Maryland School of Medicine Baltimore, MD

Masters Student Johns Hopkins Bloomberg School of Public Health Baltimore, MD

Postdoctoral Fellow Univ. de Antioquia Medellin, Colombia

Postdoctoral Fellow NIAID/NIH Bethesda, MD

Undergraduate Washington Univ. St. Louis, MO

**INTERNATIONAL FELLOWS/STUDENTS MENTORED IN MALI OR CAMBODIA SINCE LAST BSC REVIEW**

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| **Fellow’s Name** | **Period of**  **Employment** | **Appointment**  **Type** | **Accomplishment from this training** |
| Seidina Diakite, PharmD (Mali)  Saibou Doumbia, MD | 06/01/2009 –  present  06/01/2009 – | PhD Student  (Paris VI Univ.)  Study Clinician | PhD Research, Publications  Clinical Research, |

(Mali)

Drissa Konate, MD (Mali)

Karim Traore, PharmD (Mali)

Mory Doumbouya, PharmD (Mali)

Abdoul Keita, PharmD (Mali)

Seila Suon, MD (Cambodia)

Sokunthea Sreng

(Cambodia)

Dalin Dek, BS (Cambodia)

Vorleak Try

(Cambodia)

Sivanna Mao, MD (Cambodia)

Chantha Sopha, MD (Cambodia)

Baramey Sam, MD (Cambodia)

present

06/01/2009 –

present

06/01/2009 –

present

06/01/2009 –

present

06/01/2009 –

present

06/01/2009 –

present

06/01/2009 –

present

06/01/2011 –

present

06/01/2011 –

present

06/01/2009 –

present

06/01/2011 –

present

06/01/2011 –

present

(Univ. Bamako)

Study Clinician

(Univ. Bamako)

Staff Researcher

(Univ. Bamako)

Staff Researcher

(Univ. Bamako)

Staff Researcher

(Univ. Bamako)

Study Clinician (National Malaria Center)

Staff Researcher (National Malaria Center)

Staff Researcher (National Malaria Center)

Staff Researcher (National Malaria Center)

Study Clinician (Pursat Referral Hosp.)

Study Clinician (Preah Vihear Referral Hosp.)

Study Clinician (Ratanakiri Referral Hosp.)

Publications

Clinical Research, Publications

Laboratory Research, Publications

Laboratory Research, Publications

Laboratory Research, Publications

Clinical Research, Publications

Laboratory Research, Publications

Laboratory

Research

Laboratory

Research

Clinical Research, Publications

Clinical Research

Clinical Research

**Laboratory of Malaria and Vector Research**

**Mentoring Activities**

**Malaria Genetics Section, Thomas E. Wellems, M.D., Ph.D.**

The Malaria Genetics Section (MGS) strives for excellence in training and advancing the careers of postdoctoral fellows, post-baccalaureate fellows and students working toward degrees in science and public health. Postdoctoral fellows generally work for 3–5 years on research projects under Visiting Program (VP) support or an Intramural Research Training Award (IRTA) in preparation for positions in academia, government or private industry. MGS also sponsors visiting postdoctoral fellows under supplemental initiatives of international partnerships such as the Brazilian Science Without Frontiers Program (NIH-CNPq). Pre-doctoral students and pre- baccalaureate students participate in MGS projects under a variety of arrangements, including

the NIH Oxford Cambridge MD PhD program and other university degree partnerships. Post- baccalaureate fellows receive research training for 1–2 years under IRTA or other award mechanisms including the Intramural NIAID Research Opportunities (INRO) program, usually before entering medical or graduate school.

Summer interns are sponsored in MGS through arrangements including the African Leadership Academy Program in the NIH Director’s Office and the NIH Comparative Biomedical Scientist Training Program.

Mentoring in the MGS takes place in frequent individual discussions as well as structured group meetings. At the first level is the MGS open-door policy: all members have a standing invitation to meet with the PI, if not immediately, at a time as soon as possible, and discuss any issues relating to their research program, career or other professional or personal matters. The PI and members of the Section work closely together to write scientific reports, with frequent discussions and exchanges of manuscript drafts. Weekly MGS all-hands meetings (Monday morning) provide a venue for members to present updates from their experiments and openly discuss and receive feedback on their data, interpretations and plans for further research. MGS members are expected to attend the LMVR-wide seminars on Fridays and to present at these seminars at least once a year. In addition to these weekly LMVR seminars, members are encouraged to attend other seminars and events including the Twinbrook Campus Tuesday Series which hosts talks from leading national and international scientists, the NIAID Fellows retreat, the NIH Research Festival, and campus-wide NIH and NIAID lectures.

Additional training opportunities include NIH and FAES courses and Office of Intramural Training and Education workshops that teach in a wide range of scientific and medical areas, address the challenges of grant and manuscript writing, and improve skills in specific areas such as bioinformatics and statistical analysis. Fellows and students are encouraged to participate in malaria, entomology and tropical medicine meetings in the Washington DC and Baltimore area, and to present their research findings at more distant scientific society meetings when these discoveries are high impact and the travel costs can be supported. For postdoctoral fellows, an evaluation of progress and consideration of career decisions is included in an annual written review, typically at the time of re-appointment.

**Vector Molecular Biology Section, Jesus G. Valenzuela, Ph.D.**

Dr. Valenzuela conducts weekly, mandatory, two-hour group meetings to discuss the different projects of the laboratory. Dr. Valenzuela has established a mentoring/training method named “focus group” in which the fellow (staff scientist, post-doctoral fellow or post-bac fellow) presents the project in detail, writes the minutes after the meeting, send e-mails to all participants to follow up the results and objectives of the meeting. This approach permits the fellow to be involved in all aspects of research including the conception of the study, planning, technical aspects, trouble shooting, making publication quality figures for presentations and the writing of the manuscript.

After the focus group the PI meets with the fellow to provide guidance and to answer any questions the fellow may have. Dr. Valenzuela recently started another training approach named “topic group” where all members of the laboratory are required to read a series of papers (or

book chapters) related to a particular topic (for example T memory cells) and to discuss from the basic knowledge all the way to the current aspects of the topic. This approach permits the fellow to read the literature, to discuss it in depth with other fellows and to learn how to connect information from the literature to their current projects.

All fellows from Valenzuela’s section have the opportunity to present their work in a weekly seminar series at the department. Furthermore, the section has a lab retreat every six months where every member of the laboratory makes a short presentation of their data and discusses future plans. Trainees are encouraged to present their data in all scientific forums including national and international meetings, fellow seminar series, NIH Research Festival, and invited seminars. Trainees are encouraged to take advantage of training opportunities available at NIH via the Office of Training and Education (OITE), including classes on science writing and oral presentation and graduate level coursework at FAES. Finally, Dr. Valenzuela’s office is literally always open, and he often conducts additional informal meetings with lab members throughout the week.

**Malaria Functional Genomics Section, Xinzhuan Su, Ph.D**

When a fellow arrive on the first day, I generally provide a lab-specific instructions to help them know the lab and some general policies on publication policy, authorship, salary, internet, working schedule, and how to get help. In summary, I encourage and support postdocs to have and work on their own ideas, to attend and present at national meetings and internal seminars, to attend classes offered at NIH, to exchange ideas and reagents between fellows, and to write manuscripts. My door is always open when I am not traveling. Postdocs can drop in any time and I always stop my work to attend their issues. We also have a lab meeting every other Thursday

for postdoc to report and discuss problems and advances from their experiments. I list a few of the guidelines here:

**Brief guidelines for new postdocs/students joining Malaria Functional Genomics Section**

**Welcome on board**. You are at a well-supported research institute. Sky is the limit for hardworking talent people. You have to love what you are about to do, or you may not be successful. A good idea requires good hands and hard work to become a good paper!

**Help from PI:** As a PI, one of my top missions is to help you have a successful career. My office door is always open and you can drop in any time. The bottom line for your success is your work, the papers you publish, and the position you are hired to after you finish your fellowship. Let’s work together for the goal.

**Your Projects:** Each postdoc will have his/her own independent projects. It is a good idea to keep at least two projects, including one that is less ‘risky’. I also value good ideas from postdocs for new directions.

**Lab meeting:** We have regular lab meetings every other Thursday (9:30 AM). Lab members are required to prepare 5-10 simple slides to present progress, data, discoveries, and any problems in the preceding weeks. This meeting serves two purposes: One is early detection and resolution of problems in experiments. The second purpose is to keep lab mates informed on each other’s projects. Please be prepared to present and discuss for 20-30 minutes. Please be there 2-3

minutes before start.

**Seminars:** LMVR runs a weekly seminar on Friday morning (9:30 AM). Each postdoc is required to present at the LMVR seminar typically about once a year. Prepare ~40 slides for a 45 min presentation. Please send me your slides **one (1) week before** your date of presentation for review and comments. We also have seminar series with Laboratory of Immunogenetics at Twinbrook II. It is on each Tuesday (11 AM). Please make an effort to attend because the speakers are leaders in their fields.

**National and international meetings:** Each postdoc is generally entitled to attend a national meeting a year (Woods Hole meeting can be extra). At least a poster presentation is usually expected. International meetings are not supported by our lab unless they are invitations to sponsored meetings with outside support. In all cases your travel request must be submitted on time (at least 2 months and preferably 3 months ahead for outside supported meetings or international meetings) and must be approved in the LMVR Office of the Chief before you can count on going.

**Manuscripts:** It is the postdocs’ responsibility to write a draft of manuscript. I am happy and always ready to help, but you need to keep this in mind. Writing drafts of manuscript will give you chances to improve your writing skills.

**Collaboration:** We value teamwork and team spirit. Some projects will require more than one person. A person who cannot work well with others will not be successful in science and in life. Helping your lab mates in technical issues is appreciated although that may not lead to authorship. Generosity is always rewarded! If you are collaborating with other labs that may require good amount of time, which may lead to co-authorship, I need to know. You are hired to work on projects in our section. Too many distractions can be problematic for your career.

**Published guidelines for Fellows:** You should read and be familiar with NIH publications on the resources and guidelines for the conduct of research in our Intramural Research Program. Among these are two publications in particular: “NIH Handbook for Postdoctoral Fellows” and “Guidelines for Conduct of Research in DIR, NIH”. You can download copies of these publications and other information through the LMVR Office of the Chief webpage. <http://www3.niaid.nih.gov/labs/aboutlabs/lmvr/officeOfTheChief/officeOfChief.htm>

**Other Helps:** If you are not happy, have complaints or encounter some ‘un-ethical’ practices in the lab, there are many offices at NIH that can help you. The LMVR Laboratory Chief is open to you as a first step above your PI. In addition, NIH has expert and helpful Ombudsman and EEO Offices you are welcome to contact if you feel your questions have not been fairly or adequately addressed in LMVR.

**Vector Biology Section, José M.C. Ribeiro, M.D., Ph.D.**

Post-doctoral fellows in the VBS section meet for several hours a week with their co-advisors (Staff scientists John Andersen, Ivo Francischetti and Eric Calvo), and also with Dr. Ribeiro on a informal basis. Dr. Ribeiro has also an open door policy to facilitate on the spot trouble shooting or other discussions that are needed. Lab members also attend weekly LMVR meetings on Fridays, as well as the Twinbrook II seminar on Tuesdays. Twice a year post-docs present their results on the Friday meeting. Preparation for these presentations is attended by Dr. Ribeiro for polishing up the final product. Participation in national and international meetings are encouraged. Dr. Ribeiro has also taught bioinformatics courses annually in different places in Brazil (Federal University of Rio de Janeiro, Federal University of Minas Gerais in Belo Horizonte and State University of São Paulo in Ribeirão Preto.

**Mosquito Immunity and Vector Competence Section, Carolina Barillas-Mury, M.D., Ph.D.**

Lab members of MIVCS participate in a weekly lab meeting and journal club, and once a year they prepare a formal seminar describing their work for the LMVR fellows seminar series. Dr. Barillas-Mury holds informal one-to-one meetings with her fellows at least once a week and keeps an open-door policy, so that fellows can discuss research, publications, career choices or family issues affecting their work. Fellows contribute not only to the design and execution of their research project, but also to the writing of the manuscripts describing their work. They are also encouraged to apply for NIH FARE travel awards and to enrich their training by taking courses and workshops in specific laboratory techniques, scientific topics or career development programs that are offered at NIH. Dr. Barillas-Mury is an active participant in the NIH- Academy and the Intramural NIAID Research Opportunities (INRO) Programs and has demonstrated a strong commitment to mentoring minority students and post-doctoral fellows from this program. She is a strong believer in diversity and teamwork.

The MIVCS research in vector biology and malaria transmission attracts students and post-docs from many different countries. The post-doctoral fellows trained at MIVCS have obtained

faculty positions and established independent research programs, or are working in industry. Besides research and academic training, Dr. Barillas-Mury also provides guidance and advice to students applying to Graduate School and/or Medical School. After completing their training at MIVCS all students have been accepted into excellent programs. Dr. Barillas-Mury keeps contact with her mentees and follows their progress. She is one of the few female minority senior investigators at NIH and provides a strong role model for students from underrepresented groups that want to pursue a career in biomedical research. In 2013 Dr. Barillas-Mury was awarded the NIAID Outstanding Mentor Award.

**Apicomplexan Molecular Physiology Section, Sanjay A. Desai, M.D., Ph.D.**

Within the AMPS group, Dr. Desai uses multiple levels of interaction and mentoring with all his trainees, regardless of their appointment levels. Dr. Desai meets with each trainee on a one-on- one basis at a regularly scheduled time each week. These meetings involve detailed discussion of the prior week’s experimental results and possible interpretations, negotiated plans for the upcoming week, and a dialogue of long-term research strategies and trainee career goals. Dr. Desai also requires all members of his group to participate in a weekly lab meeting. Here, each trainee is asked to present their research aims, experimental results, and plans to the full team on a monthly basis. Critical and detailed feedback is encouraged at these meetings. Dr. Desai also maintains a general open-door policy allowing fellows and students to drop by and discuss research, publications, career choices, and other professional or personal matters at any time; he also often performs experiments together with trainees as necessary. Dr. Desai has encouraged participation in journal clubs; his group has run their own private journal clubs to get all lab members up to speed on new technologies to advance the Section’s mission. Dr. Desai encourages his fellows to present their research at one national meeting each year; participation at local meetings is also encouraged. Finally, Dr. Desai organizes and runs the weekly LMVR/LMIV/LIG meetings for trainees to present their research and receive feedback from the

whole Twinbrook community. Each trainee who is in the LMVR for at least one year is expected to present their work on an annual basis at these seminars.

**International Studies of Malaria of Entomology Section, Robert Gwadz, Ph.D.**

The Section Head (P.I.) or his deputy, Dr. Tovi Lehmann meet regularly with fellows. Informal meetings are almost daily with formal meetings at times of performance ratings and renewals. Individual fellows present an annual seminar to the whole of the LMVR as part of the LMVR seminar series.

**Malaria Cell Biology Section, Louis Miller, M.D., Ph.D.**

1. Frequent individual discussions of research.

2. Encourage independence as fellows mature

3. Weekly laboratory meetings

4. Encourage attendance at meetings that will help their development

5. Work closely with each on writing scientific papers

**Malaria Immunology Section, Carole Long, Ph.D.**

1. I am a mentor for Dr. Kazutoyo Miura, M.D./Ph.D., who serves as a Staff Scientist in my laboratory. Dr. Miura is involved in all the laboratory work and provides a great resource for technicians, students and post-doctoral fellows, particularly in terms of data analysis and statistics.

2. I am a co-mentor with Dr. Rick Fairhurst for Dr. Mahamadou Diakite, who is leading our efforts in Mali. We work with Dr. Diakite on publications, grant applications, and enhancement of field and laboratory research capability. We also support activities of other staff and technicians in the Mali laboratories.

3. I am also a co-mentor with Dr. Dyann Wirth for Dr. Amy Bei, who is a post-doctoral fellow at the Harvard University School of Public Health. Amy is a talented young scientist, originally trained in the molecular biology of malaria parasites, and now the leader of the Harvard malaria efforts in Senegal. We are in regular communication, she visits my laboratory, and I have agreed to co-mentor her as part of her International Research Scientist Development Award application, etc.

4. During this period I have had three IRTA post-doctoral fellows in the laboratory. Drs. Amir Zeituni and James Alaro are currently in the laboratory. Dr. Zeituni is working on antibodies in Malian children and adults which recognize the surface of infected red cells (manuscript submitted). Dr. Alaro is an INRO post-doctoral fellow who is characterizing antibodies to malaria blood stage antigens, focusing on affinity and ability to bind to Fcγ receptors on phagocytic cells.

5. In this period I have had two pre-doctoral MD/PhD students in my laboratory, both of whom are part of the NIH/Oxford/Cambridge program. Mr. Eugene Oteng is completing his project on DNA aptamers recognizing the surface of malaria infected red cells and he will be returning to medical school at the University of Cincinnati this year. Ms. Daria Nikolaeva is a student at Johns Hopkins University and is working on a project on malaria transmission.

6. My laboratory has also hosted three post-baccalaureate IRTA students for a one-year period, two of whom are now in medical school (Dartmouth and Michigan State University) and one is in a Ph.D. program at the University of Washington. My laboratory has also taken three post- baccalaureate students from the NIH INRO program designed for minority students; these students have spent 1-2 years in our program. I have also hosted five summer students.

7. There are 4 technicians in the laboratory supported by the PATH/Malaria Vaccine Initiative.

8. I meet with Dr. Kazutoyo Miura and the technicians in the laboratory at the beginning of each week to organize our work. The entire laboratory meets every two weeks to discuss general

issues and at that time one person presents their data on a rotating basis. I also meet with students

and post-docs on a one-on-one basis as needed. Periodically we either have a journal club in the laboratory or we join another larger journal club in Twinbrook II for papers of particular interest. **Clinical Protocols**

During this period (2008-2012), I have been Co-PI with Dr. Rick Fairhurst of a clinical protocol in Mali titled **“**Studies of Innate and Acquired Resistance to *P. falciparum* Malaria in Mali” (08- I-N120). The purpose of this study is to determine whether erythrocyte polymorphisms protect against uncomplicated and severe falciparum malaria and to identify the mechanisms of protection; to identify specific innate and acquired immune responses that correlate with protection against malaria; to identify age-associated, acquired immune responses that accelerate the *P. falciparum* clearance rate in response to artemisinins.

Drs. Fairhurst, Anderson, and I have now initiated a new protocol (13-I- N107) in Mali titled

‘Epidemiologic Studies of *Plasmodium falciparum* Gametocytemia and Transmission-blocking Immunity in Kenieroba, Mali. Its goal is to determine the effects of age-associated acquired immunity, asexual parasite prevalence, and erythrocyte polymorphisms on gametocyte prevalence; compare transmission-blocking activity of purified plasma IgG by age.

**Malaria Pathogenesis and Human Immunity Unit, Rick M. Fairhurst, M.D, Ph.D**

Dr. Fairhurst holds weekly group meetings with all MPHIU fellows to discuss progress with laboratory research and clinical protocol activities. Fellows present their research findings and ideas in an informal round-table discussion format. Each MPHIU fellow presents a mandatory annual seminar at LMVR’s Work-In-Progress series attended by all LMVR staff, and many Laboratory of Malaria Immunology and Vaccinology (LMIV) and Laboratory of Immunogenetics (LIG) staff as well. In these semi-formal seminars, fellows elicit valuable criticism of their projects and receive anonymous critiques of their presentations (through an on- line Survey Monkey) from Laboratory staff. All fellows are encouraged to attend weekly immunology lectures and journal clubs hosted by LIG, and to participate actively in local, regional, national, and international meetings. Virtually all unit fellows attend, present data, and compete for travel and young investigator awards at the annual meeting of the American Society of Tropical Medicine and Hygiene. On almost a weekly basis, Dr. Fairhurst holds individual meetings with trainees to review their progress with laboratory experiments, data analysis, and manuscript writing, and to ensure that they are meeting their overall training goals and actively seeking next-level training or career opportunities. These include quarterly meetings at the University of Oxford and the University of Cambridge in the UK, where Dr. Fairhurst travels to meet with his four NIH-Oxford-Cambridge Scholars and their four faculty co-mentors. He also

travels to Mali and Cambodia, where he provides scientific mentoring to his LMVR trainees who work there during the annual malaria transmission season, and to the in-country physicians, students, and technicians who work in his clinical research program. For his mentoring efforts

and dedication to the training of women and minorities, Dr. Fairhurst received NIAID’s Annual

Mentor of the Year Award in 2011.