BIOGRAPHICAL SKETCH				
NAME	POSITION TITLE			
Jessica Tingsan Lin	Assistant Professor of Medicine			
eRA COMMONS USER NAME				
Jessica_Lin				

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Yale University, New Haven, CT	BS	1997-2001	Molecular Biophysics & Biochemistry
Baylor College of Medicine, Houston, TX	MD	2001-2005	International Health Track Underserved Care Pathway
University of California, San Diego Medical Center	n/a	2005-2008	Internal Medicine (Intern/Resident)
University of North Carolina, Chapel Hill	n/a	2009-2012	Infectious Diseases (Clinical Fellow/Postdoc)
Gillings School of Global Public Health, University of North Carolina, Chapel Hill	MSCR	2012-	Clinical Research (Translational Track)

#### A. Personal Statement

I am an infectious disease clinician-scientist with a primary research interest in malaria. I study the molecular epidemiology of malaria in Southeast Asia, especially with regards to drug resistant-parasites, relapsing vivax infections, and the parasite transmission stages in human and mosquitoes. These studies use sophisticated genotyping and sequencing methods to better understand how drug resistant malaria develops and spreads and how we can better identify and target relapsing parasites. My long-term goal is to work at the interface of clinical and molecular studies to help achieve malaria elimination. I am developing skills that will help me build a translational genomics research program for infectious diseases in Asia.

#### **B.** Positions and Honors

## **Employment**

2008 Moonlighting Physician, UCSD Thornton Hospital, La Jolla, CA

2008-2009 Medical Research Scientist, Armed Forces Research Institute of Medical Sciences,

Bangkok, Thailand

2008/2009 Volunteer Physician, Kwai River Christian Hospital, Sangklaburi, Thailand

2009-2011 Clinical Fellow, Division of Infectious Diseases, University of North Carolina, Chapel Hill

2011-2012 Clinical Instructor, Division of Infectious Diseases, University of North Carolina, Chapel Hill

2011- Clinical Research Coordinator, Experimental Gonococcal Infection Study, Southeastern

STI Cooperative Research Center

2012- Assistant Professor, Division of Infectious Diseases, Univ of North Carolina, Chapel Hill

## Memberships

2006- American Society of Tropical Medicine and Hygiene, Member

2007- American College of Physicians, Member

2009- Infectious Disease Society of America, Member

#### **Honors**

- 2000 Richard U. Light Fellowship for study abroad in China, Yale University
- 2001 East Asia Study Grant, Yale University
- 2001 Charles Kao Fellowship, Yale University
- 2004 IDSA Summer Research Scholarship, Infectious Disease Society of America
- 2005 O.C. Hubert Fellowship in International Health, Centers for Disease Control and Prevention
- 2005 Baylor Department of International Medicine Fellowship, TX
- 2006 Intern Full Service Award, UCSD Internal Medicine Residency Program
- 2008 ASTMH/Pfizer Centennial Travel Award in Basic Science Tropical Disease Research
- 2009 Certificate of Knowledge in Clinical Tropical Medicine and Traveler's Health (ASTMH)
- 2012 Burroughs Wellcome Fund-ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases
- 2013 UNC Explorations in Global Health Grant Malaria Relapses in India

Ad hoc Reviewer: PLoS ONE, The American Journal Tropical Medicine & Hygiene, Tropical Medicine and International Health, Experimental Parasitology

#### C. Peer-reviewed Publications

- Hobbs MM, Anderson JE, Balthazar JT, Kandler JL, Carlson RW, Ganguly J, Begum AA, Duncan JA, Lin JT, Sparling PF, Jerse AE, Shafer WM (2013). Lipid A's Structure Mediates Neisseria gonorrhoeae Fitness during Experimental Infection of Mice and Men. MBio. 4(6): doi:pii: e00892-13.
- Givens MB, Lin JT, Lon C, Gosi P, Char MC, Lanteri CA, Saunders DL, Juliano JJ (2013).
   Development of a capillary electrophoresis-based heteroduplex tracking assay to measure in-host genetic diversity of initial and recurrent Plasmodium vivax infections in Cambodia. J Clin Microbiol. E-pub Oct 16.
- Andrianaranjaka V, Lin JT, Golden C, Juliano JJ, Randrianarivelojosia M (2013). Activation of minorityvariant Plasmodium vivax hypnozoites following artesunate + amodiaquine treatment in a 23-year old man with relapsing malaria in Antananarivo, Madagascar. *Malar J*. 12(1):177.
- 4. Lin JT, Patel JC, Kharabora O, Sattabongkot J, Muth S, Ubalee R, Schuster AL, Rogers WO, Wongsrichanalai C, Juliano JJ (2013). *Plasmodium vivax* isolates from Cambodia and Thailand show high genetic complexity and distinct patterns of *P. vivax* multidrug resistance gene 1 (pvmdr1) polymorphisms. *Am J Trop Med Hyg.* 88(6):116-23.
- 5. **Lin JT**, Mbewe B, Taylor SM, Luntamo M, Meshnick SR, Ashorn P (2013). Increased prevalence of *dhfr* and *dhps* mutants at delivery in Malawian pregnant women receiving intermittent preventive treatment for malaria. *Trop Med Int Health*. 18(2):175-8.
- 6. Saunders D, Khemawoot P, Vanachayangkul P, Siripokasupkul R, Bethell D, Tyner S, Se Y, Rutvisuttinunt W, Sriwichai S, Chanthap L, **Lin J**, Timmermans A, Socheat D, Ringwald P, Noedl H, Smith B, Fukuda M, Teja-Isavadharm P (2012). Pharmacokinetics and pharmacodynamics of oral artesunate monotherapy in patients with uncomplicated P. falciparum malaria in western Cambodia. *Antimicrob. Agents Chemother.* 56(11):5494-93.
- Lin JT, Juliano JJ, Kharabora O, Sem R, Lin F, Muth S, Ménard D, Wongsrichanalai C, Rogers WO, Meshnick SR (2012). Individual *Pvmsp1* variants within polyclonal *Plasmodium vivax* infections display different propensities for relapse. *J Clin Microbiol*. 50(4):1449-51.
- 8. Bethell D, Se Y, Lon C, Tyner S, Saunders D, Sriwichai S, Darapiseth S, Teja-Isavadharm P, Khemawoot P, Schaecher K, Ruttvisutinunt W, Lin J, Kuntawungin W, Gosi P, Timmermans A, Smith B, Socheat D, Fukuda MM (2011). Artesunate dose escalation for the treatment of uncomplicated malaria in a region of reported artemisinin resistance: a randomized clinical trial. PLoS One. 6(5):e19283.
- Lin JT, Bethell D, Tyner ST, Lon C, Shah NK, Saunders DL, Sriwichai S, Khemawoot P, Kuntawunggin W, Smith BL, Noedl H, Schaecher K, Socheat D, Se Y, Meshnick SR, Fukuda MM (2011). *Plasmodium* falciparum gametocyte carriage is associated with subsequent *Plasmodium vivax* relapse after treatment. PLoS One. 6(4):e18716.
- 10. **Lin JT**, Juliano JJ, Wongsrichanalai C (2010). Drug-Resistant Malaria: The Era of ACT. *Curr Infect Dis Rep*. 12:165-73.

- 11. Bethell DB, Se Y, Lon C, Socheat D, Saunders D, Teja-Isavadharm P, Khemawoot P, Darapiseth S, **Lin J**, Sriwichai S, Kntawungin W, Surasri S, Lee SJ, Sarim S, Tyner S, Smith B, Fukuda M (2010). Dosedependant risk of neutropenia after 7-day Courses of artesunate monotherapy in Cambodian patients with acute *P. falciparum* malaria. *Clin Infect Dis*. 51:e105-14.
- 12. Bharti AR, Chuquiyauri R, Brouwer KC, Stancil J, **Lin J**, Lopez V, Llanos-Cuentas A, Vinetz JM (2006). Experimental Infection of the Neotropical Vector *Anopheles Darlingi* by Human Patient-Derived *Plasmodium vivax* in the Peruvian Amazon. *Am J Trop Med Hyg*. 75(4), 610-616.

# C. Research Support

# **Ongoing Research Support**

2012 Burroughs Wellcome Fund/ASTMH

7/01/12 - 6/30/14

Postdoctoral Fellowship in Tropical Infectious Diseases

"The Evolution of Drug Resistant Malaria from Humans to Mosquitoes"

To study the genetic diversity and selection of drug-resistant mutants in mosquito-stage parasites obtained from malaria patients in a transmission-blocking field study in Cambodia

Role: PI

University Research Council Grant/UNC Chapel Hill 12/01/12-11/30/14

"Genetic origins and geospatial distribution of drug resistant vivax malaria in Southeast Asia"

To use population genetic approaches to understand the genetic origins of drug resistant *P. vivax* malaria in Southeast Asia and to evaluate how far and fast this resistance is spreading

Role: PI

Loan Repayment Award/NIH

7/01/12-6/30/14

National Institutes of Health Loan Repayment Program

"The Evolution of Drug Resistant Malaria from Humans to Mosquitoes"

Role: PI

5 U19 Al31496-21

Sparling (PI)

9/25/09 - 8/31/14

Southeastern Sexually Transmitted Infections Cooperative Research Center, Microbiology Core B (NIAID) "Experimental Gonococcal Infection Study"

To conduct experimental human gonococcal infection studies and to provide specimen collection, transport and storage facilities, STD pathogen detection and assay development for projects in the UNC STD CRC and wider research community.

Role: Research coordinator

# **Completed Research Support**

5 T32 AI 07151-32

Margolis (PI)

8/15/09-7/14/11

Infectious Disease Pathogenesis Research Training Grant (DHHS/NIH/NIAID)

"Plasmodium vivax clinical infections"

To develop and apply new molecular tools, such as heteroduplex tracking assays, to better understand *P. vivax* clinical infections.

Role: Postdoctoral Trainee

2008 ASTMH Pfizer Centennial Research Award

9/01/08-8/31/09

"Cryptic Vivax Infection in Southeast Asia"

To examine risk factors and mechanisms of malaria relapse in *P.falciparum/P.vivax* coinfections.

Role: PI