

CURRICULUM VITAE

NAME: ALLEN L. RICHARDS, PhD

BUSINESS ADDRESS & TELEPHONE NUMBERS:

Rickettsial Diseases Research Program
Viral & Rickettsial Diseases Department
Naval Medical Research Center
503 Robert Grant Avenue
Silver Spring, MD 20910-7500
Allen.L.Richards.civ@mail.mil
Voice (301) 319-7668
Mobile (240) 479-0762
FAX (301) 319-7451

HOME ADDRESS & TELEPHONE:

25209 Chimney House Court,
Damascus, MD 20872
(301) 253-9797

DATE OF BIRTH:

July 9, 1955

MILITARY STATUS:

Lieutenant Commander, Medical Service Corps, U.S. Navy Retired

EDUCATION:

- **B.A.** Degree in Microbiology (1977) University of South Florida, Tampa, FL
- **A.S.** Degree in Medical Laboratory Technique (1980) George Washington University
- Graduate courses in Microbiology (1980-1983) San Diego State University, San Diego, CA
- **M.S.** Degree in Medical Microbiology/Immunology (1987) University of South Florida, College of Medicine, Tampa, FL
- **Ph.D.** Degrees in Medical Microbiology/Immunology (1989), University of South Florida, College of Medicine, Tampa, FL

PROFESSIONAL/HONORARY SOCIETIES:

- American Association of Immunologists
- American Society for Microbiology
- American Society for Rickettsiology
- American Society of Tropical Medicine and Hygiene
- Phi Kappa Phi Honor Society
- The Helminthological Society of Washington

PROFESSIONAL EXPERIENCE:

United States Navy

- 1978-1980 Hospital Corpsman/Medical Technologist, Balboa Naval Hospital, San Diego, CA
- 1980-1983 Instructor, Medical Laboratory Technician School, Naval School of Health Sciences, San Diego, CA
- 1983-1985 Medical Technologist, Operation Deep Freeze, Port Hueneme, CA/McMurdo Station, Antarctica
- 1985-1989 Chief Hospital Corpsman, Naval Reserve Center, Tampa, FL
- 1989-1992 Research Microbiologist/Immunologist, Infectious Diseases Department, Naval Medical Research Institute (NMRI), Bethesda, MD
- 1990-1991 Research and Clinical Microbiologist/Immunologist, Operation Desert Shield/Storm, The Navy Forward Laboratory, Al Jubail, Saudi Arabia
- 1992-1997 Research Microbiologist/Immunologist, Head, Department of Immunology and Rickettsial Diseases Program, Naval Medical Research Unit No. 2 (NAMRU-2), Jakarta, Indonesia.
- 1997-2001 Laboratory Director of Military Tropical Medicine Course, Naval School of Health Sciences and Associate Professor, Department of Preventive Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD. Research Coordinator, Department of Defense's Rickettsial Diseases Research Program.
- 2001-2003 Research Coordinator, Department of Defense's Rickettsial Diseases Research Program; Research Microbiologist/Immunologist, Director, Department of Rickettsial Diseases, Infectious Diseases Directorate, Naval Medical Research Center, Silver Spring; Associate Professor, Department of Preventive Medicine and Emerging Infectious Diseases, Uniformed Services University of the Health Sciences, Bethesda, MD.

Part-time Work as a Medical Technologist:

- 1982 Gyn-Ob Laboratories, San Diego, CA
- 1982-1983 Rees-Stealy Medical Group, San Diego, CA
- 1986-1989 Damon Clinical Laboratories, Tampa, FL

Part-time Work as an Instructor:

- 1994-1995 California State University Northridge for CSU Program - Jakarta, Indonesia

Intergovernmental Personnel Appointment (IPA) with the Henry M. Jackson Foundation

- 2003-2007 Research Coordinator, Department of Defense's Rickettsial Diseases Research Program. Research Microbiologist/Immunologist, Rickettsial Diseases Research Program, Naval Medical Research Center, Silver Spring, MD.
Adjunct Associate Professor of Preventive Medicine/Biometrics and Associate Professor of Emerging Infectious Diseases (Secondary), Department of Preventive Medicine/Biometrics, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD.

Federal Employee: Research Microbiologist GS14

- 2007-present Research Coordinator, Department of Defense's Rickettsial Diseases Research Program. Research Microbiologist/Immunologist, Rickettsial Diseases Research Program, Naval Medical Research Center, Silver Spring, MD.
- 2007-2013 Adjunct Associate Professor of Preventive Medicine/Biometrics and Associate Professor of Emerging Infectious Diseases (Secondary), Department of Preventive

Medicine/Biometrics, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD.

2013-present Adjunct Professor of Preventive Medicine/Biometrics and Professor of Emerging Infectious Diseases (Secondary), Department of Preventive Medicine/Biometrics, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD.

HONORS:

Military Honors:

Navy Meritorious Service Medal, Navy Commendation Medal (two gold stars), Navy Achievement Medal, Navy Unit Commendation ribbon (one bronze star), Navy Good Conduct Medal, National Defense Service Medal (one bronze star), Antarctica Service Medal, Southwest Asia Service Medal (three bronze stars), Sea Service Deployment Ribbon (one bronze star), Navy Overseas Service Ribbon (three bronze stars), Kuwait Liberation Medal (Saudi Arabia), Kuwait Liberation Medal (Kuwait), Navy Expert Riflemen Medal, Navy Sharpshooter Pistol Ribbon.

Civilian Honors:

R.G. Thompson/American Cancer Society Fellowship recipient, 1976. Graduate Registration Fellowship recipient, 1985. Faculty/Staff Fund for Student Scholarships recipient, 1987. Sigma Xi Student Grants-in-Aid recipient, 1988. Review Article of the Year (1996) Award from the journal Medika, Jakarta, Indonesia, 1997. Naval Medical Research Center Senior Civilian of the Year for Scientific Achievement, 2010.

TEACHING EXPERIENCE:

Instructor for the Naval School of Health Sciences, San Diego and the George Washington University: Medical Laboratory Technique School (1980-1983). Primary instructor for "Clinical Chemistry" (six months) and "Medical Microbiology" (three years). Both semester-long courses that included lecture and laboratory instruction.

Instructor for California State University Northridge (CSUN) for the CSU Program – Jakarta, Indonesia. Primary instructor for "Introduction to Biology" - a semester long lecture course. (1994-1995).

Instructor for the Naval School of Health Sciences, Bethesda. Associate course director and laboratory director for Military Tropical Medicine course (1997 to 2001). Instructor for the laboratory portion of the Global Medicine course, USAF School of Aerospace Medicine, Brooks Air Force Base, TX (1998-2002).

Associate Professor (1997-2013) and Professor (2013-present) for the Department of Preventive Medicine & Biometrics, Uniformed Services University of Health Sciences. Instructor for Diagnostic Parasitology and Medical Zoology for medical students, and Medical Parasitology, Tropical Medicine Rounds and Medical Zoology Seminar for graduate students.

GRANTS/FUNDING:

1998

Principal Investigator for the Military Infectious Diseases Research Program STEP J project entitled: "Develop a fluorogenic 5' nuclease assay (TaqMan) for detection and identification of *Orientia* DNA for early diagnosis of scrub typhus." October 1, 1998 - September 30, 1999.

1999

Principal Investigator for "An Epidemiological Investigation of Tick-borne Infections in the USA," Grant # MDA905—99-1-0030. Project Period was 26JUL99 to 31AUG03; Funding Source was the U.S. Army Center for Health Promotion & Preventive Medicine.

2000

Principal Investigator for the Military Infectious Diseases Research Program STEP J study entitled: "Vaccine for scrub typhus: Optimizing presentation of a multivalent *Orientia* vaccine." October 1, 2000 – September 30, 2001.

2001

Principal Investigator for the Military Infectious Diseases Research Program STEP J project entitled: "Initial development of a scrub typhus non-human primate animal model." October 1, 2001- September 30, 2002. \$145K

Co-investigator for the Military Infectious Diseases Research Program STEP J proposals entitled:

1. Vaccine for scrub typhus: production and delivery approaches for a polyvalent vaccine using genetically engineered 56 kDa antigen. October 1, 2001- September 30, 2002.
2. Assessment of homologous protection induced by recombinant 56 kDa protein from *Orientia tsutsugamushi* in combination with other scrub typhus antigens. October 1, 2001- September 30, 2002.

2002

Principal Investigator for Global Emerging Infections System proposal entitled: "Surveillance for Rickettsial Diseases." 8477058200025GBA0074 Richards (PI) GEIS October 1, 2002 – September 30, 2005.

2003

Principal Investigator for the Military Infectious Diseases Research Program STEP L protocol entitled: "Optimization and validation of real-time PCR assays for rickettsial pathogens."

61102A810LN2075 Richards (PI) MIDRP October 1, 2003 – September 30, 2004.

Associate Investigator for the Military Infectious Diseases Research Program PA AJ proposal, entitled: "Scrub typhus vaccine: Development of multivalent vaccine for broad protection."

61102A870JA0310 Ching October 1, 2003 – September 30, 2006.

2004

Principal Investigator for the Military Infectious Diseases Research Program PA AJ study entitled: "Efficacy of multivalent scrub typhus vaccine candidates utilizing recombinant virus vectors in a lethal challenge mouse model." 6000.RAD1.J.A0310.AJ0009 Richards (PI) MIDRP October 1, 2004 - September 30, 2006.

2005

Principal Investigator for the Military Infectious Diseases Research Program PA L project entitled: "Rickettsial real-time PCR diagnostic assay: development of a data package for submission of a 510(k) application to the FDA." 6000.RAD1.L.A0310.L0066 Richards (PI) MIDRP October 1, 2005 - September 30, 2006.

Principal Investigator for Department of Homeland Defense-NBACC project entitled: "Establishment of a bioforensic capability for rickettsial diseases." DHS-NBFAC RSCB-07-00180. May 1, 2005 - September 30, 2006.

Principal Investigator for Global Emerging Infections System proposal entitled: "Surveillance for Rickettsial Diseases." 8477058200025GBA0074 Richards (PI) GEIS October 1, 2005 – September 30, 2006.

2006

Principal Investigator for Department of Homeland Defense-NBACC project entitled: "Establishment of a bioforensic capability for rickettsial diseases." DHS-NBFAC RSCB-07-00180. May 1, 2006 - September 30, 2010.

Principal Investigator for the Military Infectious Diseases Research Program PA AJ study entitled: "Safety, immunogenicity, and efficacy of an *O. tsutsugamushi* 47 kDa DNA vaccine in a non-human primate animal model." 6000.RAD1.J.A0310.AJ0030 Richards (PI) MIDRP October 1, 2006 - September 30, 2007.

Principal Investigator for the Military Infectious Diseases Research Program PA L project entitled: "Rickettsial real-time PCR diagnostic assay: development of a data package for submission of a 510(k) application to the FDA." 6000.RAD1.L.A0310.L0066 Richards (PI) MIDRP October 1, 2005 - September 30, 2008.

Principal Investigator for the Military Infectious Diseases Research Program PA L project entitled: "Development of a Critical Reagents Repository to Support the Development of Diagnostic Devices for Infectious Diseases." 6000.RAD1.L.A0310.L0066 Richards (PI) MIDRP October 1, 2006 - September 30, 2007.

Principal Investigator for Global Emerging Infections System proposal entitled: "Surveillance for Rickettsial Diseases." 8477058200025GBA0074 Richards (PI) GEIS October 1, 2006 – September 30, 2007.

Associate Investigator for the Military Infectious Diseases Research Program PA AJ project, entitled: "Development of a broadly protective scrub typhus vaccine candidate in a mouse model." 6000.RAD1.J.A0310.AJ0019 Ching (PI) October 1, 2006 – September 30, 2007.

2007

Principal Investigator for the Military Infectious Diseases Research Program PA J protocol entitled: "Evaluation of the down selected scrub typhus VRP vaccine candidate in a heterologous prime-boost regimen." 6000.RAD1.J.A0310.J0025 Richards (PI) MIDRP October 1, 2007 – September 30, 2008.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Support for surveillance of rickettsial and rickettsial-like diseases.” 8477058200025GBA0074 Richards (PI) GEIS October 1, 2007 – September 30, 2008.

2008

Principal Investigator for the Military Infectious Diseases Research Program PA J project entitled: “Current Assessment of the Risk of Arthropod-Borne Rickettsioses in the Former Soviet Union (FSU) Republics. Richards (PI) DTRA August 1, 2008 – December 31, 2008.

Principal Investigator for the Military Infectious Diseases Research Program PA J protocol entitled: “Assessment of new genetic adjuvants for optimizing the efficacy of a scrub typhus DNA vaccine candidate encoding the 47 kDa antigen gene, pKarp47.” 6000.RAD1.J.A0310.J0031 Richards (PI) MIDRP October 1, 2008 – September 30, 2009.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Support for surveillance of rickettsial and rickettsial-like diseases.” C0117_09_NM_OC 8477058200025GBA0074 Richards (PI) GEIS October 1, 2008 – September 30, 2009.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Detection and prevalence of *Rickettsia parkeri* a newly emerging pathogen on CONUS bases.” C0144_09_NM_OC 8477058200025GBA0074 Richards (PI) GEIS October 1, 2008 – September 30, 2009.

2009

Principal Investigator for the Military Infectious Diseases Research Program PA WJ project entitled: “Characterization of mechanisms of protective immunity against scrub typhus including cellular and humoral adaptive immune responses to *Orientia tsutsugamushi*: Identification of surrogate markers of protective immunity.” 6000.RAD1.J.A0310.WJ0009 Richards (PI) MIDRP October 1, 2009 – September 30, 2011.

Principal Investigator for the Military Infectious Diseases Research Program PA WJ project entitled: “Characterization of the host innate immune response to *O. tsutsugamushi* at the site of initial infection.” 6000.RAD1.J.A0310.WJ0010 Richards (PI) MIDRP October 1, 2009 – September 30, 2010.

Associate Investigator for the Military Infectious Diseases Research Program PA AJ project, entitled: “Characterization and comparison of host immune response in an in vitro infection model with *O. tsutsugamushi* with a view to identifying possible differential responses in resistant and susceptible mouse strains.” 6000.RAD1.J.A0310.WJ0013 Chattopadhyay (PI) MIDRP October 1, 2009 – September 30, 2010.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces protocol entitled: “Worldwide support for surveillance of rickettsial and rickettsial-like diseases and the development of associated assays for surveillance.” C0175_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2009 – September 30, 2010.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Investigate high incidence of flea-borne spotted fever in northeastern Kenya.” C0284_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2009 – September 30, 2010.

2010

Principal Investigator for the Military Infectious Diseases Research Program PA WJ project entitled: “Evaluation of host innate immune response components for immunoprotection to *Orientia tsutsugamushi* infection.” 6000.RAD1.J.A0310.WJ0026 Richards (PI) MIDRP October 1, 2009 – September 30, 2010.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces protocol entitled: “Worldwide support for surveillance of rickettsial and rickettsial-like diseases and the development of associated assays for surveillance.” C0485_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2010 – September 30, 2011.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Investigate high incidence of flea-borne spotted fever in northeastern Kenya.” C0491_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2010 – September 30, 2011.

2011

Principal Investigator for the Military Infectious Diseases Research Program PA WJ project entitled: “Importance of the 47 kDa HtrA antigen B and T cell epitope amino acid sequences in providing broad immunoprotection from *Orientia tsutsugamushi* infection.” 6000.RAD1.J.A0310.WJ0034 Richards (PI) MIDRP October 1, 2011 – September 30, 2012.

Associate Investigator for the Military Infectious Diseases Research Program PA WJ project, entitled: “Characterization and comparison of host immune response in an in vitro infection model with *O. tsutsugamushi* with a view to identifying possible differential responses in resistant and susceptible mouse strains.” 6000.RAD1.J.A0310.WJ0036 Chattopadhyay (PI) MIDRP October 1, 2011 – September 30, 2012.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces protocol entitled: “Worldwide support for surveillance of rickettsial and rickettsial-like diseases and the development of associated assays for surveillance.” C0713_12_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2011 – September 30, 2012.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Investigation of Rickettsiae and Rickettsial Diseases in Kenya.” C0644_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2011 – September 30, 2012.

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System protocol entitled: “Survey for the arthropod-borne pathogens: rickettsia, ehrlichia, anaplasma, coxiella, borrelia in Thailand and development of a GIS model to predict endemic areas.”

C0701_10_NM 8477058200025GBA0074 Richards (PI) GEIS October 1, 2011 – September 30, 2013.

2012

Principal Investigator for the Military Infectious Diseases Research Program PA WJ protocol entitled: Importance of the 47 kDa HtrA antigen B and T cell epitope amino acid sequence in providing broad immunoprotection from *Orientia tsutsugamushi* infection.

6000.RAD1.J.A0310.WJ0034 Richards (PI) MIDRP October 1, 2012 - September 30, 2013. 25%

Associate Investigator for the Military Infectious Diseases Research Program PA WJ protocol entitled: Susceptibility and immune response of humanized mice to *Orientia tsutsugamushi* infection. 6000.RAD1.J.A0310. WJ0039_13_NM Fedrow (PI) MIDRP October 1, 2012 - September 30, 2014. 10%

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces Health Surveillance protocol entitled: “Development, production and supply of rickettsial assays and reagents.” P0088_13_NM 8477058200025GBA0074 Richards (PI) October 1, 2012 – September 30, 2013. 10%

2013

Co-investigator for the Military Infectious Diseases Research Program PA WJ protocol entitled: Characterizing the innate signaling response to *Orientia tsutsugamushi*. 6000.RAD1.J.A0310. WJ0057_14_NM Farris (PI) MIDRP October 1, 2013 – September 30, 2014. 10%

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces Health Surveillance protocol entitled: “Development, production and supply of rickettsial assays and reagents.” P0413_14_NM 8477058200025GBA0074 Richards (PI) October 1, 2013 – September 30, 2014. 10%

2014

Co-investigator for the Military Infectious Diseases Research Program PA WJ protocol entitled: Development and characterization of an intradermal challenge mouse model for evaluation of scrub typhus vaccine candidates. 6000.RAD1.J.A0310. WJ0075_15_NM Chaddopadhyay (PI) MIDRP October 1, 2014 – September 30, 2015. 10%

Co-investigator for the Military Infectious Diseases Research Program PA WJ protocol entitled: Evaluation of the role of the outer membrane autotransporter protein ScaC of *O. tsutsugamushi* in inducing heterologous protection in a scrub typhus mouse model. 6000.RAD1.J.A0310. WJ0086_15_NM Chattopadhyay (PI) MIDRP October 1, 2014 – September 30, 2015. 10%

Principal Investigator for the DoD Global Emerging Infections Surveillance and Response System of the Armed Forces Health Surveillance protocol entitled: “Development, production and supply of rickettsial assays and reagents.” P0000_15_NM 8477058200025GBA0074 Richards (PI) October 1, 2014 – September 30, 2015. 10%

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE EXPERIENCE

Naval Medical Research Institute, Bethesda, MD (1989 - 1992):

- Division Equipment Officer (1989 - 1992).
- Division Computer Officer (1990 - 1992).
- Program Area Hazardous Materials, MSDS and Chemical Inventory Officer (1992).

Naval Medical Research Unit No. 2, Jakarta, Indonesia (1992 - 1997):

- Head, Department of Immunology and Rickettsial Diseases Program (1992 - 1997).
- Radiation Safety Officer, (1992 - 1997).
- Safety Officer, (1993 - 1997).
- Drug Screening Program Officer (1993 - 1997).
- Member, Facilities Planning Committee, (1993 - 1997).
- Member, Incentive Awards Committee, (1993 - 1997).
- Member, Moral, Welfare and Recreation Committee (1996 - 1997).
- Member, Environment Action Committee U.S. Embassy (1996-1997), Jakarta, Indonesia.

Naval School of Health Sciences, Bethesda, MD (1997 - 2001):

- Assistant Director Military Tropical Medicine course.
- Assistant Command Physical Readiness Training Coordinator (1997-2001).
- Member, Multi-culture Events Committee (1999-2001).

Uniformed Services University, Bethesda, MD (1997 - present):

- Member, Uniformed Services University Radiation Safety Committee (1998 - 2001).
- Member, Preventive Medicine & Biometrics Department, Uniformed Services University, Doctorate Program Review and Evaluation Committee, (2000 – 2001).

DoD Military Infectious Diseases Research Program (1999 – present):

- Program Area WJ: Rickettsial Diseases Research Program and Task Area Development Program: Development of a Scrub Typhus Vaccine.
 - o Research Coordinator (1999 – present).
 - o Chairman, Scientific Steering Committee (1999 – present).
- Program Area L, Diagnostic Systems for Infectious Diseases Research Program.
 - o Steering Committee Member: Diagnostic Systems (2007 - present)

The Helminthological Society of Washington (1999 - present):

- Member, Executive Committee, (1999 – 2013).
- Chairman, Membership Committee, (2000 – 2002).
- Correspondence Secretary and Treasurer, (2002 – 2004).
- Member of Audit Committee (2005 - 2013).
- Member of Business Advisory Committee (2005 - 2008).
- Chairman of Business Advisory Committee (2006).
- President (2008 – 2011).
- Immediate Past President (2011 – 2013).

Naval Medical Research Center, Silver Spring, MD (2001 - present):

- Director, Rickettsial Diseases Department (2001 - 2006).
- Member, Committee for the Protection of Human Subjects (1999 - 2001).
- Command Legal Officer (2001 – 2002).

- Member, Real-time PCR IPT (2008 – 2011)

Defense Threat Reduction Agency (DoD)

- Scientific Review Panel (2005-2007).

Armed Forces Health Surveillance Center (AFHSC): Division of Global Emerging Infections Surveillance and Response System (GEIS) Operations

- Chair of Febrile and Vector-borne Illnesses Surveillance Steering Committee 2009 – 2013.

- Member of Febrile and Vector-borne Illnesses Surveillance Steering Committee 2009 – present.

Small Business Innovation Research (DoD)

- Topic Manager: Development and Commercialization of Analyte Specific Reagents (ASRs) for the Diagnosis of Rickettsial Diseases on FDA-cleared Real-time PCR Platforms (2009 – 2013).

- Topic Manager: Development of a Molecular Assay to Identify Ticks that Vector Rickettsial Diseases (2011 – 2014).

Armed Forces Pest Management Board (AFPMB)

- Member, Vector & Pathogen Detection Committee, NMRC Research represent. (2012 – present)

AD HOC REVIEWER FOR THE FOLLOWING JOURNALS

American Journal of Tropical Medicine and Hygiene, Vector-Borne and Zoonotic Diseases, Clinical Infectious Diseases, Emerging Infectious Diseases, Journal of Veterinarian Medicine, Nature Medicine, Applied Environmental Microbiology, Journal of American Medical Association, Journal of Antimicrobial and Chemotherapy, PLoS ONE, The Royal Society of Tropical Medicine and Hygiene, PLoS NTD, International J Infect Diseases, J Med Entomology, Rev Microbiol, Memorias do Instituto Oswaldo Cruz, North American J Medical Sciences, Lancet Global Health.

PUBLICATIONS:

1. **Richards AL**, Okuno T, Takagaki Y, Djeu JY. Natural cytotoxic cell-specific cytotoxic factor produced by IL-3-dependent basophilic/mast cells. Relationship to TNF. *J Immunol* 1988;141:3061-6.
2. Djeu JY, Blanchard DK, **Richards AL**, Friedman H. Tumor necrosis factor induction by *Candida albicans* from human natural killer cells and monocytes. *J Immunol* 1988;141:4047-52.
3. **Richards AL**, Dennert G, Pluznik DH, Takagaki Y, Djeu JY. Natural cytotoxic (NC) activity in a cloned natural killer (NK) cell line is mediated by tumor necrosis factor (TNF). *Nat Immun Cell Growth Regul* 1989;8:76-88.
4. **Richards AL**, Djeu JY. Calcium dependent natural killer and calcium independent natural cytotoxic activities in an IL-2 dependent killer cell line. *J Immunol* 1990;145:3144-9.
5. Wang M, **Richards AL**, Friedman H, Djeu JY. Selective inhibition of natural killer but not natural cytotoxic activity in a cloned cell line by delta-9-tetrahydrocannabinol. *J Leukoc Biol* 1991;50:192-7.
6. **Richards AL**, Hyams KC, Merrell BR, Dasch GA, Woody JN, Ksiazek TG, LeDuc JW, Watts DM. Letter to the Editor: Medical aspects of Operation Desert Storm. *N Engl J Med* 1991;325:970.
7. **Richards AL**, Hyams KC, Watts DM, Rozmajzl PJ, Woody JN, Merrell BR. Respiratory disease among military personnel in Saudi Arabia during Operation Desert Shield. *Am J Public Health* 1993;83:1326-9.
8. Olson PE, **Richards AL**, Dasch GA, Kennedy CA. Failure to identify *Borrelia burgdorferi* in Southern California ticks by DNA amplification. *J Infect Dis* 1993;168:257-8.
9. **Richards AL**, Malone JD, Sheris S, Weddle JR, Rossi CA, Ksiazek TG, LeDuc JW, Dasch GA, Hyams KC. Arboviral and rickettsial infections among combat troops during Operation Desert Shield/Storm. *J Infect Dis* 1993;168:1080-1.
10. Koshy A, **Richards AL**, Al-Mufti S, Grover S, Shabrawy MA, Pacsa A, Al-Anezi A-AH, Al-Nakib B, Burans J, Carl M, Hyams KC. Acute sporadic hepatitis E in Kuwait. *J Med Virol* 1994;42:405-8.
11. Coleman RE, **Richards AL**, Magnon GJ, Maxwell CS, Debboun M, Klein TA, Wirtz RA. Laboratory and field trials of four repellents with *Culex pipiens* (Diptera: Culicidae). *J Med Entomol* 1994;31:17-22.
12. Fryauff DJ, Baird JK, Basri H, Sumawinata I, Purnomo Richie TL, Ohrt CK, Mouzin E, Church CJ, **Richards AL**, Subianto B, Sandjaja B, Wignall FS, Hoffman SL. Randomized, placebo-controlled trial of primaquine for prophylaxis of falciparum and vivax malaria in Indonesia. *Lancet* 1995;346:1190-3.
13. **Richards AL**, Rahardjo E, Soeatmadji DW. Rickettsial Diseases: Risk for Indonesia. *Bul Pen Kesehatan* 1995;23:78-89.
14. Fryauff DJ, Baird JK, **Richards AL**, Richie TL, Tjitra E, Mouzin E, Sutamihardja MA, Ratiwayanto S, Hadiputranto H, Larasati RP, Pudjoprawoto N, Subianto, Sandjaja B, Wignall FS, Hoffman SL. Clinical laboratory parameters among adult males during a primaquine chemoprophylaxis trial in Irian Jaya, Indonesia. *Bul Pen Kesehatan* 1995;23:35-48.
15. Cope SE, Schultz GW, **Richards AL**, Savage HM, Smith GC, Mitchell CJ, Fryauff DJ, Conlon JM, Corneil JA, Hyams KC. Assessment of arthropod vectors of infectious diseases in areas of U.S. troop deployment in the Persian Gulf. *Am J Trop Med Hygiene* 1996;54:49-53.
16. **Richards AL**, Perrault JG, Caringal LT, Manatoto CR, Sie A, Graham R, Ramos RM, Leonardo JB, Hyams KC. A non-invasive assessment of hepatitis B virus carrier status using saliva samples. *Southeast Asia J Trop Med Publ Health* 1996;27:80-4.
17. Koshy A, Grover S, Hyams KC, Shabrawy MA, Al-Nakib B, Pacsa A, Al-Nakib B, Zaidi SA, Al-Anezi A-AH, Al-Mufti S, Burans J, Carl M, **Richards AL**. Short-term IgM and IgG antibody responses to hepatitis E virus infection. *Scand J Infect Dis* 1996;28:439-41.

18. **Richards AL**. Peranan Sitokin Dalam Reaksi Kekebalan Terhadap Malaria [The role of cytokines in the immune response to malaria]. *Medika* 1996;22:953-62.
19. Fryauff DJ, **Richards AL**, Baird JK, Richie TL, Mouzin E, Tjitra E, Sutamihardja MA, Ratiwayanto S, Hadiputranto H, Larasati RP, Pudjoprawoto N, Subianto B, Hoffman SL. Lymphocyte proliferative response and subset profiles during extended periods of chloroquine or primaquine prophylaxis. *Antimicrob Agents Chemother* 1996;40:2737-42.
20. Karyadi E, Gross R, Sastroamidjojo S, Dillon D, **Richards AL**, Sutanto I. Anthelmintic treatment raises plasma iron levels but does not decrease the acute-phase response in Jakarta school children. *Southeast Asia J Trop Med Publ Health* 1996;27:742-53.
21. Giri A, Slattery JP, Heneine W, Gessain A, Rivadeneira E, Desrosiers RC, Rosen L, Anthony R, Pamungkas J, Iskandriati D, **Richards AL**, Herve V, McClure H, O'Brien SJ, Franchini G. *Tax* gene sequences form two divergent monophyletic lineages corresponding to types I and II of simian and human T-cell leukemia/lymphotropic viruses. *Virology* 1997;231:96-104.
22. **Richards AL**, Teik OC, Lockman JL, Rahardjo E, Wignall FS. Scrub typhus in an American living in Jakarta, Indonesia. *Infect Dis Clin Pract* 1997;6:268-73.
23. **Richards AL**, Renny Bagus R, Baso SM, Follows GA, Tan R, Graham RR, Sandjaja B, Corwin AL, Punjabi NH. The first reported outbreak of dengue hemorrhagic fever in Irian Jaya, Indonesia. *Am J Trop Med Hyg* 1997;57:49-55.
24. **Richards AL**, Soeatmandji DW, Widodo MA, Sardjono TW, Yanuwiadi B, Hernowati TE, Baskoro AD, Roebiyoso, Hakim L, Soendoro M, Rahardjo E, Putri MP, Saragih JM, Strickman D, Kelly DJ, Dasch GA, Olson JG, Church CJ, Corwin AL. Seroepidemiological evidence for murine and scrub typhus in Malang, Indonesia. *Am J Trop Med Hyg* 1997;57:91-5.
25. Pegelow K, Gross R, Pietrzik K, Lukito W, **Richards AL**, Fryauff DJ. Parasitological and nutritional situation of school children in the Sukaraja district, West Java, Indonesia. *Southeast Asia J Trop Med Publ Hlth* 1997;28:173-90.
26. **Richards AL**. Tumor necrosis factor and associated cytokines involvement in the host's response to malaria. *Int J Parasitol* 1997;27:1251-1263.
27. Corwin AL, Soepranto W, Widodo PS, Rahardjo E, Kelly DJ, Dasch GA, Olson JG, Sie A, **Richards AL**. Surveillance of rickettsial infections in Indonesian military personnel during peace keeping operations in Cambodia. *Am J Trop Med Hyg* 1997; 57:569-70.
28. Fryauff DJ, Church PJ, **Richards AL**, Widjaja H, Mouzin E, Ratiwayanto S, Hadiputranto H, Sutamihardja MA, Richie TL, Subianto B, Tjitra E, Hoffman SL. Lymphocyte response to tetanus among Indonesian men immunized with tetanus-diphtheria during extended chloroquine or primaquine prophylaxis. *J Infect Dis* 1997;176:1644-8.
29. Zakaria FR, Meilasanti MA, Sanjaja, Pramudya SM, **Richards AL**. Blood peripheral lymphocyte proliferation activities of street food consumers in Bogor, West Java. *Buletin Teknol dan Industri Pangan* 1997;VIII(2):57-65.
30. Fryauff DJ, Cryz SJ, Widjaja H, Mouzin E, Church PJ, Sutamihardia MA, **Richards AL**, Subianto B, Hoffman SL. Humoral immune response to tetanus-diphtheria vaccine given during extended use of chloroquine or primaquine malaria chemoprophylaxis. *J Infect Dis* 1998;177:1762-5.
31. Porter KR, Aguiar J, **Richards A**, Sandjaja B, Ignatias H, Hadiputranto H, Ridley RG, Takacs B, Wignall FS, Hoffman SL, Hayes CG. Immune response against the EXP-1 protein of *Plasmodium falciparum* results in antibodies that cross-react with Human T-Cell Lymphotropic virus 1 proteins. *Clin Diagn Lab Immunology* 1998;5:721-4.
32. **Richards AL**, Giri A, Iskandriati D, Pamungkas J, Sie A, Rosen L, Anthony RL, Franchini G. Simian T-lymphotropic virus type I infection among wild-caught Indonesian pig-tailed macaques (*Macaca nemestrina*). *J Acquir Immune Defic Syndr Hum Retrovirology* 1998;19:542-532.

33. Doolan DL, Southwood S, Chesnut R, Appella E, Gomez E, **Richards A**, Higashimoto YI, Maewal A, Sidney J, Gramzinski RA, Mason C, Koech D, Hoffman SL, Sette A. HLA-DR-promiscuous T cell epitopes from *Plasmodium falciparum* pre-erythrocytic-stage antigens restricted by multiple HLA class II alleles. *J Immunol* 2000;165:1123-37.
34. **Richards AL**. DoD's Rickettsial Diseases Research Program. *Navy Medicine* 2001;92 website supplement:25-31.
35. Barker TL, **Richards AL**, Laksono E, Sanchez JL, Feighner BH, McBride WZ, Rubertone MV, Hyams KC. Serosurvey of *Borrelia burgdorferi* infection among U.S. military personnel: a low risk of infection. *Am J Trop Med Hyg* 2001;65:804-9.
36. Kelly DJ, **Richards AL**, Temenak JJ, Strickman D, Dasch GA. The past and present threat of rickettsial diseases to military medicine and international public health. *Clin Infect Dis* 2002;34(suppl 4):s145-s169.
37. **Richards AL**. Parasitology Research in the United States Department of Defense. *Comp Parasitol* 2002;69:135-6.
38. **Richards AL**, Rahardjo E, Rusjdy AF, Kelly DJ, Dasch GA, Bangs MJ. Evidence of *Rickettsia typhi* and the potential for murine typhus in Jayapura, Irian Jaya, Indonesia. *Am J Trop Med Hyg* 2002;66:431-4.
39. Coleman RE, Sangkasuwan V, Suwanabun N, Ching W-M, Sattabongkot J, Eamsila C, **Richards AL**, Rowland D, Devine P, Lerdthusnee K. Comparative evaluation of selected diagnostic assays for the detection of IgG and IgM antibody to *Orientia tsutsugamushi* in Thailand. *Am J Trop Med Hyg* 2002;67:497-503.
40. **Richards AL**, Ratiwayanto S, Rahardjo E, Kelly DJ, Dasch GA, Fryauff DJ, Bangs MJ. Evidence of infection with ehrlichiae and spotted fever group rickettsiae among residents of Gag Island, Indonesia. *Am J Trop Med Hyg* 2003;68:480-4.
41. Jiang J, Temenak JJ, **Richards AL**. Real-time PCR duplex assay for *Rickettsia prowazekii* and *Borrelia recurrentis*. *Ann NY Acad Sci* 2003;990:302-10.
42. Yang Q, Ching W-M, Jiang J, Lousteau L, **Richards A**. An improved method for the purification and refolding of r56 kDa proteins from Gilliam and Kato strains of *Orientia tsutsugamushi*. *Ann NY Acad Sci* 2003;990:375-85.
43. Sutanto I, Pribadi W, **Richards AL**, Purnomo, Freisleben H-J, Atmoesoedjono S, Bandi R, Deloron P. Efficacy of permethrin-impregnated bed nets on malaria control in a hyperendemic area in Irian Jaya, Indonesia. III: antibodies to circumsporozoite protein and ring-infected erythrocyte surface antigen. *Southeast Asia J Trop Med Publ Hlth* 2003;34:62-71.
44. Jiang J, Marienau KJ, May LA, Beecham HJ, Wilkinson R, Ching W-M, **Richards AL**. Laboratory diagnosis of two scrub typhus outbreaks at Camp Fuji, Japan in 2000 and 2001 by enzyme-linked immunosorbent assay, rapid flow assay, and Western blot assay using outer membrane 56 kDa recombinant proteins. *Am J Trop Med Hyg* 2003;69:60-6.
45. Chan TC, Jiang J, Temenak JJ, **Richards AL**. Development of a rapid method for determining the infectious dose (ID)₅₀ of *Orientia tsutsugamushi* in a scrub typhus mouse model for the evaluation of vaccine candidates. *Vaccine* 2003;21:4550-4.
46. Ge H, Chuang Y-Y, Zhao S, Tong M, Tsai M-H, Temenak JJ, **Richards AL**, Ching W-M. Comparative genomics of *Rickettsial prowazekii* Madrid E and Breinl strains. *J Bacteriol* 2004;186:556-65.
47. Jiang J, Chan T-C, Temenak JJ, Dasch GA, Ching W-M, **Richards AL**. Development of a quantitative real-time polymerase chain reaction assay specific for *Orientia tsutsugamushi*. *Am J Trop Med Hyg* 2004;70:351-6.
48. Blair PJ, Schoeler GB, Moron C, Anaya E, Caceda R, Cespedes M, Cruz C, Felices V, Guevara C, Huaman A, Luckett R, Mendoza L, **Richards AL**, Rios Z, Sumner J, Villaseca P, Olson JG. Evidence

- of rickettsial and leptospira infections in Andean Northern Peru. *Am J Trop Med Hyg* 2004;70:357-63.
49. **Richards AL**. Real-time polymerase chain reaction assays for rickettsial diseases. *NATO Res Technol Org Meeting Proceed HFM-108*. 2004;1:25-1--25-12.
 50. **Richards AL**. Rickettsial vaccines: the old and the new. *Exp Rev Vaccines* 2004;3:89-102.
 51. Blair PJ, Jiang J, Schoeler GB, Moron C, Anaya E, Cespedes M, Cruz C, Felices V, Guevara C, Mendoza L, Villaseca P, Sumner JW, **Richards AL**, Olson JG. Characterization of spotted fever group rickettsiae in flea and tick specimens from northern Peru. *J Clin Microbiol* 2004;42:4961-7.
 52. Schoeler GB, Morón C, **Richards A**, Blair PJ, Olson JG. Evidence of human spotted fever rickettsial infections in Peru. *Emerg Infect Dis* 2005;11:622-4.
 53. Singhsilarak T, Leowattana W, Looareesuwan S, Wongchotigul V, Jiang J, **Richards AL**, Watt G. Short report: detection of *Orientia tsutsugamushi* in clinical samples by a quantitative real-time polymerase chain reaction. *Am J Trop Med Hyg* 2005;72:640-1.
 54. Chattopadhyay S, Jiang J, Chan T-C, Chao CC, Ching W-M, **Richards AL**. Successful induction of humoral and cellular immune responses in cynomolgus monkeys to the scrub typhus vaccine candidate, Kp r56. *Infect Immun* 2005;73:5039-47.
 55. Jiang J, Sangkasuwan V, Lerthusnee K, Sukwit S, Chuenchitra T, Rozmajzl PJ, Eamsila C, Jones JW, **Richards AL**. Molecular evidence of human infection with TT-118, *Rickettsia honei*, from Thailand. *Emerg Infect Dis* 2005;11:1475-7.
 56. Jiang J, Blair PJ, Olson JG, Stromdahl E, **Richards AL**. Development of a duplex quantitative real-time PCR assay for the detection of tick-borne spotted fever group rickettsiae and *Rickettsia rickettsii*. *Int Rev Armed Forces Med Serv* 2005;78:174-9.
 57. Ni Y-S, Chan T-C, Chao C-C, **Richards AL**, Dasch GA, Ching W-M. Protection against scrub typhus by a plasmid vaccine encoding the 56-kD outer membrane protein antigen gene. *Am J Trop Med Hyg* 2005;73:936-41.
 58. Xu G, Chattopadhyay S, Jiang J, Chan T-C, Chao C-C, Ching W-C, **Richards AL**. Short and long-term immune responses of CD-1 outbred mice to the scrub typhus DNA vaccine candidate: p47Kp. *Ann NY Acad Sci* 2005;1063:266-9.
 59. Jiang J, Blair PJ, Felices V, Moron C, Cespedes M, Anaya E, Schoeler GB, Sumner JW, Olson JG, **Richards AL**. Phylogenetic analysis of a novel molecular isolate of spotted fever group rickettsiae from northern Peru: *Candidatus Rickettsia andeanae*. *Ann NY Acad Sci* 2005;1063:337-42.
 60. Jiang J, Soeatmadji DW, Henry K, Ratiwayanto S, Bangs MJ, **Richards AL**. *Rickettsia felis* in *Xenopsylla cheopis*, Java, Indonesia. *Emerg Infect Dis* 2006;12:1281-3.
 61. Rozmajzl PJ, Houhamdi L, Jiang J, Raoult D, **Richards AL**. Rapid detection of *Rickettsia prowazekii* from infected lice by qPCR. *Ann NY Acad Sci* 2006;1078:617-9.
 62. Henry KM, Jiang J, Rozmajzl PJ, Azad AF, Macaluso KR, **Richards AL**. Development of quantitative real-time PCR assays to detect *Rickettsia typhi* and *Rickettsia felis*, the causative agents of murine and flea-borne spotted fever. *Mol Cell Probes* 2007;21:17-23.
 63. Whitman TJ, **Richards AL**, Paddock CD, Tamminga CL, Sniezek PJ, Jiang J, Byers DK, Sanders JW. *Rickettsia parkeri* infection after tick bite, Virginia. *Emerg Infect Dis* 2007;13(2):334-6.
 64. Rentas F, Harman R, Gomez C, Salata J, Childs J, Silva T, Lippert L, Montgomery J, **Richards A**, Jiang J, Chan C, Reddy H, Li J, Goodrich R. Inactivation of *Orientia tsutsugamushi* in RBCs, plasma, and platelets using riboflavin and light, as demonstrated in an animal model. *Transfusion* 2007;47:240-7.
 65. Ge H, Tong M, Jiang J, Dasch GA, **Richards AL**. Genotypic comparison of five isolates of *Rickettsia prowazekii* by multilocus sequencing. *FEMS Microbiol Letters* 2007;271:112-7.
 66. Chattopadhyay S, **Richards AL**. Scrub typhus vaccines: past history and recent developments. *Hu Vacc* 2007;3:73-80.

67. Parker TM, Murray CK, **Richards AL**, Samir A, Ismail T, Fadeel MA, Jiang J, Wasfy MO, Pimentel G. Concurrent infections in acute febrile illness patients in Egypt. *Am J Trop Med Hyg* 2007;77:390-2.
68. Sangkasuwan V, Chatyingmongkol T, Sukwit S, Eamsila C, Chuenchitra T, Rodkvamtook W, Jiang J, **Richards AL**, Lerdthusanee K, Jones JW. Description of the first reported human case of spotted fever group rickettsiosis in urban Bangkok. *Am J Trop Med Hyg* 2007;77:891-2.
69. Walsh DS, Delacruz EC, Abalos RM, Tan EV, Jiang J, **Richards AL**, Eamsila C, Rodkvamtook W, Myint KS. Clinical and histological features of inoculation site skin lesions in cynomolgus monkeys experimentally infected with *Orientia tsutsugamushi*. *Vector Borne Zoonotic Dis* 2007;7:547-54.
70. Graf PCF, Chretien JP, Ung L, Gaydos JC, **Richards AL**. Prevalence of seropositivity to spotted fever group rickettsiae and *Anaplasma phagocytophilum* in a large, demographically diverse US sample. *Clin Infect Dis* 2008;46:70-7.
71. Fournier PE, Belghazi L, Robert C, Elkarkouri K, **Richards AL**, Greub G, Collyn F, Ogawa M, Portillo A, Oteo JA, Psaroulaki A, Bitam I, Raoult D. Variations of plasmid content in *Rickettsia felis*. *PLoS ONE* 2008;3:e2289.
72. Zimmerman MD, Murdoch DR, Rozmajzl PJ, Basnyat B, Woods CW, **Richards AL**, Belbase RH, Hammer DA, Anderson TP, Reller LB. Murine typhus and febrile illness, Nepal. *Emerg Infect Dis* 2008;14:1656-9.
73. Kelly DJ, Fuerst PA, Ching WM, **Richards AL**. Scrub typhus: the geographical distribution of phenotypic and genotypic variants of *Orientia tsutsugamushi*. *Clin Infect Dis* 2009;48:S203-30.
74. Sames WJ, Klein TA, Kim HC, Gu SH, Kang HJ, Shim SH, Ha SJ, Chong ST, Lee IY, **Richards AL**, Yi SH, Song JW. Serological surveillance of scrub typhus, murine typhus, and leptospirosis in small mammals captured at Twin Bridges training area, Gyeonggi Province, Republic of Korea, 2005-2007. *Military Med* 2010;175:48-54.
75. O'Guinn, ML, Klein TA, Lee JS, **Richards AL**, Kim HC, Ha SJ, Shim SH, Baek LJ, Song KJ, Chong ST, Turell MJ, Burkett DA, Schuster A, Lee IY, Yi SH, Sames WJ, Song JW. Serological surveillance of scrub typhus, murine typhus, and leptospirosis in small mammals captured at Firing Points 10 and 60, Gyeonggi Province, Republic of Korea, 2001-2005. *Vector Borne Zoonotic Dis* 2010;10:125-33.
76. Nagarajan N, Cook C, Di Bonaventura M, Ge H, **Richards A**, Bishop-Lilly KA, DeSalle R, Read TD, Pop M. Finishing genomes with limited resources: lessons from an ensemble of microbial genomes. *BMC Genomics* 2010;11:242.
77. Jiang J, Yarina T, Miller MK, Stromdahl EY, **Richards AL**. Molecular detection of *Rickettsia amblyommii* in *Amblyomma americanum* parasitizing humans. *Vector Borne Zoonotic Dis* 2010;19:329-40.
78. **Richards AL**, Jiang J, Omulo S, Dare R, Abdirahman K, Ali A, Sharif S, Feikin DR, Breiman R, Njenga MK. Human infections with *Rickettsia felis*, Kenya. *Emerg Infect Dis* 2010;16:1081-6.
79. Kim HC, Lee IY, Chong ST, **Richards AL**, Gu SH, Song JW, Lee JS, Klein TA. Serosurveillance of scrub typhus in small mammals collected from military training sites near the DMZ, Northern Gyeonggi-do, Korea, and analysis of the relative abundance of chiggers from mammals examined. *Korean J Parasitol* 2010;48:237-43.
80. Barbara KA, Farzeli A, Ibrahim IN, Antonjaya U, Yuniato A, Winoto I, Ester, Perwitasari D, Widjaja S, **Richards AL**, Williams M, Blair PJ. Rickettsial infections of fleas collected from small mammals on four islands in Indonesia. *J Med Entomol* 2010;47:1173-8.
81. Izzard L, Fuller A, Blacksell SD, Paris DH, **Richards AL**, Aukkanit N, Nguyen C, Jiang J, Fenwick S, Day NPJ, Graves S, Stenos J. Isolation of a novel *Orientia* species (*O. chuto* sp. nov.) from a patient infected in Dubai. *J Clin Microbiol* 2010;48:4404-9.

82. Smith MP, Ponnusamy L, Jiang J, Ayyash LA, **Richards AL**, Apperson CS. Bacterial pathogens in ixodid ticks from a Piedmont County in North Carolina: prevalence of rickettsial organisms. *Vector Borne Zoonotic Dis* 2010;10:939-52.
83. Vallée J, Thaojaikong T, Fournet F, Moore CE, Phetsouvanh R, **Richards AL**, Gonzalez JP, Newton PN. Contrasting spatial distribution and risk factors for past infection with scrub typhus and murine typhus in Vientiane City, Lao PDR. *PLoS Neglected Trop Dis* 2010;4:e909.
84. Fukuda MM, Klein TA, Kochel T, Quandelacy TM, Smith BL, Villinski J, Bethell D, Tyner S, Se Y, Lon C, Saunders D, Johnson J, Wagar E, Walsh D, Kasper M, Sanchez JL, Witt CJ, Cheng Q, Waters N, Shrestha SK, Pavlin JA, Lescano AG, Graf PCF, Richardson JH, Salomon D, Rogers WO, Blazes DL, Russell KL; AFHSC-GEIS Malaria and Vector Borne Infections Writing Group, Akala H, Gaydos JC, DeFraités RF, Gosi P, Timmermans A, Yasuda C, Brice G, Eyase F, Kronmann K, Sebeny P, Gibbons R, Jarman R, Waitumbi J, Schnabel D, **Richards A**, Shanks D. Malaria and other vector-borne infection surveillance in the U.S. Department of Defense Armed Forces Health Surveillance Center-Global Emerging Infections Surveillance program: review of 2009 accomplishments. *BMC Public Health* 2011;11(suppl2):S9.
85. Witt CJ, **Richards AL**, Masuoka PM, Folley DH, Buczak AL, Musila LA, Richardson JH, Colacicco-Mayhugh MG, Rueda LM, Klein TA, Anyamba A, Small J, Pavlin JA, Fakuda MM, Gaydos J, Russell KL. The AFHSC-Division of GEIS Operations Predictive Surveillance Program: a multidisciplinary approach for the early detection and response to disease outbreaks. *BMC Public Health* 2011;11(suppl 2):S10
86. Rodkvamtook W, Ruang-areerate T, Gaywee J, **Richards AL**, Jeamwattanalert P, Bodhidatta D, Sangjun N, Prasartvit A, Jatisatienr A, Jatisatienr C. Isolation and characterization of *Orientia tsutsugamushi* from rodents captured following a scrub typhus outbreak at a military training base, Bothong District, Chonburi Province, central Thailand. *Am J Trop Med Hyg* 2011;84:599-607.
87. Wright CL, Nadolny R, Jiang J, **Richards AL**, Sonenshine DE, Gaff HD, Hynes WL. Tidewater Spotted Fever: Detection of *Rickettsia parkeri* in Gulf Coast ticks, southeastern Virginia. *Emerg Infect Dis* 2011;17:896-8.
88. Ruang-areerate T, Jeamwattanalert P, Rodkvamtook W, **Richards AL**, Sunyakumthorn P, Gaywee J. Genotype diversity and distribution of *Orientia tsutsugamushi* causing scrub typhus in Thailand. *J Clin Microbiol* 2011;49:2584-9.
89. Stromdahl EY, Vince M, Jiang J, **Richards AL**. Infrequency of *Rickettsia rickettsii* in *Dermacentor variabilis* removed from humans, with comments on the role of other human-biting ticks associated with spotted fever group rickettsiae in the United States. *Vector Borne Zoonotic Dis* 2011;11:969-77.
90. Ko S, Kim HC, Yang YC, Chong ST, **Richards AL**, Sames WJ, Klein TA, Kang JG, Chae JS. Detection of *Rickettsia felis* and *Rickettsia typhi* and seasonal prevalence of fleas collected from small mammals at Gyeonggi Province in the Republic of Korea. *Vector Borne Zoonotic Dis* 2011;11:1243-51.
91. Balcells ME, Rabagliati R, García P, Poggi H, Oddó D, Concha M, Abarca K, Jiang J, Kelly DJ, **Richards AL**, Fuerst PA. Endemic scrub typhus-like illness, Chile. *Emerging Infect Dis* 2011;17:1659-63.
92. Kasper MR, Blair PJ, Touch S, Sokhal B, Yasuda CY, Williams M, **Richards AL**, Burgess TH, Wierzba TF, Putnam SD. Infectious etiologies of acute febrile illness among patients seeking health care in south-central Cambodia. *Am J Trop Med Hyg* 2012;86:246-53.
93. Maina A, Knobel D, Jiang J, Holliday JEB, Feikin DR, Cleveland S, Ng'ang'a Z, Junghae M, Breiman R, **Richards AL**, Njenga MK. *Rickettsia felis* infection in febrile patients, western Kenya, 2007-2010. *Emerg Infect Dis* 2012;18:328-31.

94. Luce-Fedrow A, Wright C, Gaff HD, Sonenshine DE, Hynes WL, **Richards AL**. *In vitro* propagation of *Candidatus Rickettsia andeanae* isolated from *Amblyomma maculatum*. FEMS Immunol Med Microbiol 2012;64:74-81.
95. **Richards AL**. Worldwide detection and identification of new and old rickettsiae. FEMS Immunol Med Microbiol 2012;64:107-10.
96. Jiang J, Stromdahl EY, Miller M, **Richards AL**. Detection of *Rickettsia parkeri* and *Rickettsia andeanae* in *Amblyomma maculatum* Gulf Coast ticks collected from humans, USA. Vector Borne Zoonotic Dis 2012;12:175-82.
97. Lurchachaiwong W, Monkanna T, Leepitakrat S, Ponlawat A, Sattabongkot J, Schuster AL, McCardle PW, **Richards AL**. Variable clinical responses of a scrub typhus outbreak mouse model to feeding by *Orientia tsutsugamushi* infected mites. Exp Appl Acarol 2012;58:23-34.
98. Speck S, Derschum H, Damdindorj T, Dashdavaa O, Jiang J, Kaysser P, Jigjav B, Nyamdorj E, Baatar U, Munkhbat E, Chojilsuren O, Gerelchuluun O, Römer A, **Richards AL**, Kiefer D, Scholz H, Wölfel R, Zöller L, Dobler G, Essbauer S. *Rickettsia raoultii*, the predominant *Rickettsia* found in Mongolian *Dermacentor nuttalli*. Ticks Tick Borne Dis 2012;3:227-31.
99. Jiang J, You BJ, Liu E, Apte A, Yarina TR, Myers TE, Lee JS, Francesconi SC, O'Guinn ML, Tsertsvadze N, Vepkhvadze N, Babuadze G, Sidamonidze K, Kokhraidze M, Donduashvili M, Onashvili T, Ismayilov A, Agayev N, Ailyev M, Muttalibov N, **Richards AL**. Development of three quantitative real-time PCR assays for the detection of *Rickettsia raoultii*, *Rickettsia slovaca* and *Rickettsia aeschlimannii* and their validation with ticks collected from the country of Georgia and the Republic of Azerbaijan. Ticks Tick Borne Dis 2012;3:327-31.
100. Sunyakumthorn P, Paris DH, Chan TC, Jones M, Luce-Fedrow A, Chattopadhyay S, Jiang J, Anantatit T, Turner GDH, Day NPJ, **Richards AL**. An intradermal inoculation model of scrub typhus in Swiss CD-1 mice demonstrates more rapid dissemination of virulent strains of *Orientia tsutsugamushi*. PLoS ONE 2013; 8(1):e54570.
101. Knobel DL, Maina AN, Cutler SJ, Ogola E, Feikin DR, Junghae M, Halliday JEB, **Richards AL**, Breiman RF, Cleaveland S, Njenga MK. *Coxiella burnetii* in humans, domestic ruminants and ticks in rural western Kenya. Am J Trop Med Hyg 2013;88:513-8.
102. Florin DA, Jiang J, Robbins RG, **Richards AL**. Infection of the Gulf Coast tick, *Amblyomma maculatum* (Acari: Ixodidae) with *Rickettsia parkeri*: first report from the state of Delaware. Syst Appl Acarol 2013;18:27-29.
103. Rodkvamtook W, Gaywee J, Kanjanavanit S, Ruangareerate T, **Richards AL**, Sangjun N, Jeamwattanalert P, Sirisopana N. Scrub typhus in Ban Pongyaeng, Thailand. Emerg Infect Dis 2013;19:774-7.19:774-7.
104. Myers TE, Lalani T, Dent M, Jiang J, Daly PL, Maguire JD, **Richards AL**. Detecting *Rickettsia parkeri* infection from eschar swab specimens: a novel diagnostic approach for a rare condition. Emerg Infect Dis 2013;19:778-80.
105. Mutai BK, Wainaina JR, Magiri CG, Nganga JK, Ithondeka PM, Njagi ON, Jiang J, **Richards AL**, Waitumbi JN. Zoonotic surveillance for rickettsiae in domestic animals in Kenya. Vector Borne Zoonotic Dis 2013;13:360-6.
106. Jiang J, Paris DH, Blacksell SD, Aukkanit N, Newton PN, Phetsouvanh R, Izzard L, Stenos J, Graves SR, Day NPJ, **Richards AL**. Diversity of the 47 kDa HtrA nucleic acid and translated amino acid sequences from 17 recent human isolates of *Orientia*. Vector Borne Zoonotic Dis 2013;13:367-75.
107. Blazes DL, Mullins K, Smoak BL, Jiang J, Canal E, Solorzano N, Hall E, Meza R, Maguina C, Myers T, **Richards AL**, Laughlin L. Novel *Bartonella* agent cause of verruga Peruana. Emerg Infect Dis 2013;19:1111-4.

108. Bishop-Lilly KA, Ge H, Butani A, Osborne B, Verratti K, Nagarajan N, Pop M, Read TD, **Richards AL**. Genome sequencing of four strains of *Rickettsia prowazekii*, the causative agent of epidemic typhus, including one flying squirrel isolate. *Genome Announcements* 2013;1:e00399-13.
109. Flores-Mendoza C, Florin D, Felices V, Pozo EJ, Graf PCF, Burrus RG, **Richards AL**. Detection of *Rickettsia parkeri* from within Piura, Peru and the first reported presence of *Candidatus Rickettsia andeanae* in the tick *Rhipicephalus sanguineus*. *Vector Borne Zoonotic Dis* 2013;13:505-8.
110. Lee KM, Choi YJ, Shin SH, Choi MK, Song HJ, Kim HC, Klein TA, **Richards AL**, Park KH, Jang WJ. Spotted fever group rickettsiae closely related to *Rickettsia monacensis* isolated from ticks in South Jeolla Province, Republic of Korea. *Microbiol Immunol* 2013;57:487-95.
111. Jiang J, Maina AN, Knobel DL, Cleaveland S, Laudisoit A, Wamburu K, Ogola E, Parola P, Breiman RF, Njenga MK, **Richards AL**. Molecular detection of *Rickettsia felis* and *Candidatus Rickettsia asemboensis* in fleas from human habitats, Asembo, Kenya. *Vector Borne Zoonotic Dis* 2013;13:550-8.
112. Watthanaworawit W, Turner P, Turner C, Tanganuchitcharnchai A, **Richards AL**, Bourzac KM, Blacksell SD, Nosten F. A prospective evaluation of real-time PCR assays for the detection *Orientia tsutsugamushi* and *Rickettsia* spp. for early diagnosis of rickettsial infections during the acute phase of undifferentiated febrile illness. *Am J Trop Med Hyg* 2013;89:308-10.
113. Shin SH, Seo HJ, Choi YJ, Choi MK, Kim HC, Klein TA, Chong ST, **Richards AL**, Park KH, Jang WJ. Detection of *Rickettsia monacensis* from *Ixodes nipponensis* collected from rodents in Gyeonggi and Gangwon Provinces, Republic of Korea. *Exp Appl Acarol* 2013;61:337-47.
114. Mullins K, Hang J, Jiang J, Leguia M, Kasper MR, Maguina C, Jarman RG, Blazes D, **Richards AL**. Molecular typing of *Candidatus Bartonella ancashi*, a new human pathogen causing verruga Peruana. *J Clin Microbiol* 2013;51:3865-8.
115. Takhampunya R, Tippayachai B, Promsathaporn S, Leepitakrat S, Monkanna T, Schuster AL, Melendrez MC, Paris DH, **Richards AL**, Richardson JH. Characterization based on the 56-kDa type-specific antigen gene of *Orientia tsutsugamushi* genotypes isolated from *Leptotrombidium* mites and the rodent host post-infection. *Am J Trop Med Hyg* 2014;90:139-46.
116. Luce-Fedrow A, Macaluso KR, **Richards AL**. Growth of *Rickettsia felis* in *Drosophila melanogaster* S2 cells. *Vector Borne Zoonotic Dis* 2014;14:101-10.
117. Lurchachaiwong W, Chan TC, **Richards AL**, McCardle W, Schuster AL. Establishment of *Orientia tsutsugamushi* Lc-1 (Rickettsiales: Rickettsiaceae) infection in ICR outbred mice (Rodentia: Muridae) by needle challenge. *J Med Entomol* 2014;51:658-60.
118. Odhiambo A, Maina AN, Taylor ML, Jiang J, **Richards AL**. Development and validation of a quantitative real-time polymerase chain reaction (qPCR) assay specific for the detection of *Rickettsia felis* but not *Rickettsia felis*-like organisms. *Vector Borne Zoonotic Dis* 2014;14:476-81.
119. Florin DA, Brinkerhoff RJ, Gaff H, Jiang J, Robbins RG, Eickmeyer W, Butler J, Nielson D, Wright C, White A, Gimpel ME, **Richards AL**. Additional collections of the Gulf Coast tick, *Amblyomma maculatum* (Acari: Ixodidae), from the State of Delaware, the first reported field collections of adult specimens from the State of Maryland, and data regarding the tick species from surveillance of migratory songbirds in Maryland. *Syst Appl Acarol* 2014;19:257-62.
120. Pagac BB, Miller MK, Mazzei MC, Nielsen DH, Jiang J, **Richards AL**. *Rickettsia parkeri* and *Rickettsia montanensis*, Kentucky and Tennessee. *Emerg Infect Dis* 2014;20:1750-2.
121. Fitak R, Kelly DJ, Daniels MK, Jiang J, **Richards AL**, Fuerst PA. A longitudinal study of the prevalence of rickettsial and ehrlichial organisms in *Amblyomma americanum* ticks collected from Ohio and surrounding areas. *Ticks Tick Borne Dis* 2014;5:797-800.
122. Maina AN, Jiang J, Omulo SA, Cutler SJ, Ade F, Ogola E, Feikin DR, Njenga MK, Cleaveland S, Mpoke S, Ng'ang'a Z, Breiman RF, Knobel DL, **Richards AL**. High prevalence of *Rickettsia africae*

variants in *Amblyomma variegatum* ticks from domestic mammals in rural western Kenya: implications for human health. *Vector Borne Zoonotic Dis* 2014;14:693-702.

123. VieBrock L, Sean M. Evans SM, Beyer AR, Larson CL, Beare PA, Ge H, Singh S, Rodino K, Heinzen RA, **Richards AL**, Carlyon JA. *Orientia tsutsugamushi* ankyrin repeat-containing protein family members are type 1 secretion system substrates that traffic to the host cell endoplasmic reticulum. *Frontiers Cell Infect Microbiol* 2014; in press.
124. Luce-Fedrow A, Mullins K, Jiang J, **Richards AL**. Strategies for detecting rickettsiae and diagnosing rickettsial diseases. *Future Microbiol* 2014; accepted.
125. Thiga JW, Mutai B, Eyako W, Ng'ang'a Z, Jiang J, **Richards AL**, Waitumbi JN. High seroprevalence and IgG titers for spotted fever and scrub typhus in patients with febrile illness in Kenya. *Emerg Infect Dis* 2014; accepted.
126. Paris DH, Chattopadhyay S, Jiang J, Nawtaisong P, Weiss W, Lee J, Tan E, Lim G, dela Cruz E, Burgos J, Abalos R, Blacksell S, Turner G, Day N, **Richards AL**. Characterization of a NHP scrub typhus model: protective immune responses induced by pKarp47 DNA vaccination. *J Immunol* 2015; accepted.
127. Nadolny R, Feldman K, Armolt M, Pagac B, **Richards AL**, Rutz H, Smith J, Wee SB, Stromdahl E, Gaff H. Meeting report: Mid-Atlantic Tick Summit III. *Ticks Tick Borne Dis* 2015; revision submitted.
128. Jiang J, Myers TE, Rozmajzl PJ, Graf PCF, Chretien JP, Gaydos JC, **Richards AL**. Infections with typhus group and spotted fever group rickettsiae and scrub typhus group orientiae among US military personnel deployed to the Republic of Korea. *Emerg Infect Dis* 2015; revision submitted.
129. Luce-Fedrow A, Maina AN, Otiang E, Ade F, Omulo S, Ogola E, Ochieng L, Njenga MK, **Richards AL**. Isolation of *Candidatus Rickettsia asemboensis* from *Ctenocephalides* fleas. *Vector-borne Zoonotic Dis* 2015; submitted.
130. Takhampunya R, Tippayachai B, Promsathaporn S, Leepitakrat S, Sinwat W, Schuster AL, **Richards AL**. Transovarial transmission of co-existing *Orientia tsutsugamushi* genotypes in laboratory-reared *Leptotrombidium imphalum*. *Vector-borne Zoonotic Dis* 2015; submitted.
131. Jima DD, Luce-Fedrow A, Yang Y, Maina AN, Snesrud EC, Otiang E, Njenga K, Jarman RG, **Richards AL**, Hang J. Whole genome sequence of *Candidatus Rickettsia asemboensis* strain NMRCii isolated from fleas of western Kenya. *Genome Announcement* 2015; submitted.
132. Lurchachaiwong W, McCardle W, Chan TC, Schuster AL, **Richards AL**. Development of an *Orientia tsutsugamushi* LC-1 murine intraperitoneal challenge model for scrub typhus: determination of murine lethal dose (LD50), tissue bacterial loads, and clinical outcomes. *Vector Borne Zoonotic Dis* 2015; submitted.
133. Park KH, Jiang J, Kim YS, Kim DM, Choi YJ, Shin SH, Choi MK, Lee KM, Kwon SH, Ahn KJ, Kim KC, Klein TA, **Richards AL**, Jang WJ. Human infection with *Rickettsia monacensis*, South Korea. *Emerg Infect Dis* 2015; in revision.
134. Hang J, Mullins KE, Clifford RJ, Onmus-Leone F, Yang Y, Jiang J, Leguia M, Kasper MR, Maguina C, Lesho EP, Jarman RG, **Richards AL**, Blazes D. Isolation and analysis of human pathogens causing verruga peruana in rural Ancash region of Peru revealed a novel *Bartonella* phylogenetic lineage. 2015; in preparation.
135. Mullins K, Hang J, Jiang J, Leguia M, Kasper MR, Maguina C, Jarman RG, Blazes D, **Richards AL**. Description of *Bartonella ancashi* sp. nov. *Int J Syst Evol Microbiol* 2015; in preparation.
136. Horton KC, Jiang J, Maina A, Dueger E, Pimentel G, **Richards AL**. Evidence of rickettsial and orientia infection among abattoir workers, Djibouti. *Emerg Infect Dis* 2015; in preparation.
137. Blacksell SD, Kantipong P, Watthanaworawit W, Turner P, Tanganuchitcharnchai A, Nosten FH, Day NPJ, Paris DH **Richards AL**. Sero-epidemiology of arthropod-borne diseases in northern and northwestern Thailand. 2015; in preparation.

138. Widjaja S, et al, Williams M, Blair P, **Richards AL**. Geographical assessment of rickettsiosis in the Indonesian Archipelago. *Emerg Infect Dis* 2015; in preparation.
139. St. John H, Masuoka PM, Jiang J, Taylor ML, Flyer JG, Rozmajzl PJ, Stromdahl EY, **Richards AL**. Distribution and ecological niche model of *Dermacentor variabilis* ticks containing *Rickettsia montanensis*, USA. *Emerg Infect Dis* 2015; in preparation.
140. Paris DH, Kelly DJ, Fuerst PA, **Richards AL**. Typhus in Asia-Australia-Pacific Region. 2015; in preparation
141. Paris DH, et al. Rhesus macaques as a model for scrub typhus. 2015; in preparation.

BOOK CHAPTERS:

Paris DH, **Richards AL**, Day NPJ. *Orientia*. Molecular Medical Microbiology Chapter 112. Elsevier Ltd. 2014.

ABSTRACTS:

1. Djeu JY, Jodus MR, **Richards A**, Okuno, T. Release of natural cytotoxic cell-specific cytolytic factor (NCCF) from interleukin-3 NC cells by IgE: identity of NCCF with tumor necrosis factor (TNF). Fourth International Workshop on Natural Killer Cells, Kingston, Ontario, Canada, July 3-6, 1986.p 34
2. **Richards AL**, Blanchard DK, Djeu JY. Human large granular lymphocytes produce tumor necrosis factor in response to *Candida albicans*. 87th Annual Meeting of American Society Microbiology, Atlanta, GA, 1987. Abst E47, p 110.
3. **Richards AL**, Djeu JY. NC specific cytotoxic factor released from interleukin-3 dependent natural cytotoxic cells is identical to tumor necrosis factor. 71st Annual Mtg. FASEB, Washington, D.C., Fed. Proc. 1987;46:1512.
4. **Richards AL**, Dennert G, Pluznik DH, Djeu JY. Natural cytotoxic (NC) activity in a natural killer (NK) cloned cell line. 72nd Annual Mtg., FASEB, Las Vegas, Abst 947. FASEB J. 1988;2:459.
5. **Richards AL**, Djeu JY. Tumor necrosis factor (TNF) activity by the murine mast/basophil cell line, PT18-A17, and a cloned cell line with natural killer activity, NKB61A2, is associated with both free and membrane bound TNF. 73rd Annual Mtg., FASEB, New Orleans, LA, Abst 1541. FASEB J. 1989;3:A491.
6. **Richards AL**, Serbousek D, Djeu JY. Identification of a membrane-bound tumor necrosis factor associated with the natural cytotoxic activity of the IL-3 dependent mast/basophil cell line, PT18-A17. 12th Annual Cancer Research Seminar. American Cancer Society, Florida Division, Orlando, FL, 1989. Abst 46, p 55.
7. **Richards AL**, Djeu JY. Mediation of natural cytotoxic (NC) activity by an IL-3 dependent mast/basophil cell line by both receptor bound and secreted TNF. 7th International Congress of Immunology. Berlin, Germany. 1989.
8. Djeu JY, **Richards AL**, Dennert G. Evidence of natural cytotoxic activity in a natural killer cell line. Seventh International Workshop on Natural Killer Cells. Heidelberg, Germany. 1989.
9. **Richards AL**, Djeu JY. Calcium is required for some but not all forms of natural cell mediated cytotoxicity. American Society for Biochemistry and Molecular Biology, The American Society of Immunologists Joint Meeting, New Orleans, LA, Abst 1193. FASEB J. 1990;4:A1898.
10. Merrell BR, **Richards AL**. The Navy Forward Laboratory: Naval medical research goes to war. The Pittsburgh Conference. New Orleans, LA. 1992.
11. **Richards AL**, Kelly DJ, Ching W-M, Dasch GA. Recent advances in the detection and identification of pathogenic rickettsiae of military importance. 33rd Navy Occupational Health and Preventive Medicine Workshop. Virginia Beach, VA. 1992.
12. **Richards AL**, Hyams KC, Bourgeois AL, Merrell BR, Rozmajzl P. The Navy Forward Laboratory's role in infectious disease assessment during Operations Desert Shield and Desert Storm. 33rd Navy Occupational Health and Preventive Medicine Workshop. Virginia Beach, VA. 1992.
13. **Richards AL**, Jackson LM, Dasch GA. Infection and persistence of *Rickettsia prowazekii*, *R. typhi*, and *R. rickettsii* in human mononuclear phagocytes. FASEB Meeting, Anaheim, CA. Abst 4493. FASEB J. 1992;6:A1712.
14. Dasch G, Ching W, Kelly D, **Richards A**, Moree M, Churilla A. Molecular approaches to the detection and identification of rickettsiae. Third Annual R&D Informative Exchange Conference. Naval Surface Warfare Center, White Oak Laboratory, Silver Spring, MD. 1992.
15. **Richards AL**, Jackson LM, Moree M. Detection of *Rickettsia tsutsugamushi* by polymerase chain reaction (PCR) amplification of its conserved 47 kDa major surface protein antigen gene. American Society for Microbiology Annual Meeting. New Orleans, LA. 1992. Abst D-91, p110.

16. Rollins DM, Haberberger RL, Lane EM, Brook I, **Richards AL**, Hyams KC. Microbiological profile of Persian Gulf sand. American Society for Microbiologists Annual Meeting. New Orleans, LA. 1992. Abst Q-175, p 364.
17. Kelly D, Dasch G, **Richards A**, Moree M, Strickman D, Tanskul P, Easmsila C, Watcharapichat P. Molecular analysis of *Rickettsia tsutsugamushi* isolates from Thailand. XIIIth International Congress for Tropical Medicine and Malaria. Jomtien, Pattaya, Thailand. 1992.
18. Dasch GA, **Richards AL**, Kelly DJ, Manning GC. Genetic heterogeneity of prototypes of *Rickettsia tsutsugamushi*. American Society for Rickettsiology and Rickettsial Diseases. 10th National Meeting. Hamilton, MT. 1992.
19. Dasch GA, Kupcho GL, **Richards AL**. Characterization of the 22 kD protein antigen operon in prototype strains of *Rickettsia tsutsugamushi*. Am J Trop Med Hyg. 1992;47:201. Am Soc. Trop. Med Hyg Annual Meeting. Abstract #267.
20. Dasch G, Jackson L, **Richards A**. Characterization of the groESL operon in eight prototype strains of *Rickettsia tsutsugamushi*. Am Soc for Microbiol Annual Meeting, p.128. Abstract #D183.
21. Dasch GA, Kelly DJ, **Richards AL**, Sanchez JL, Rives CC. Western blotting analysis of sera from military personnel exhibiting serological reactivity to spotted fever group rickettsiae. 42nd Meeting of the American Society of Tropical Medicine & Hygiene. Atlanta, GA. Am J Trop Med Hyg 1993;49:220.
22. Corwin AL, Olson JG, Habib MA, Dasch G, Kelly D, **Richards A**, Darwish MA, Botrus BB, Watts DM, Arthur RR. Community-based profiles of rickettsial infections in the Nile River Delta of Egypt. 42nd Meeting of the American Society of Tropical Medicine & Hygiene. Atlanta, GA. 1993.
23. Widodo S, Mustadjab A, Purnomo, **Richards AL**, Shanks GD, Corwin AL. Chloroquine chemoprophylaxis in Indonesian soldiers deployed to central Cambodia as part of UNTAC peace-keeping operations. 42nd Meeting of the American Society of Tropical Medicine & Hygiene. Atlanta, GA. 1993.
24. Koshy A, Grover S, Shabrawy MA, Pacsa A, Al-Anezi AH, AL-Nakib B, Al-Mufti S, **Richards AL**, Burans J, Carl M, Hyams KC. Rapid decline in antibodies to hepatitis E virus may explain frequency of acute hepatitis E infection in adults from endemic countries. International Association for the Study of the Liver. Cancun, Mexico. 1994.
25. Soebianto S, Ratiwayanto S, Fryauff D, **Richards A**. Cytokine production by human PBMC incubated with *Plasmodium falciparum* antigen. Experimental Biology 94. Anaheim, CA. Abstract # 5754. FASEB J 1994;8:A994.
26. **Richards A**, Dasch G. Induction of TNF release from human monocytic cells by pathogenic rickettsiae, a requirement for intact rickettsia, but not host cell microfilament or microtubule function. Experimental Biology 94. Anaheim, CA. Abstract # 1245. FASEB J 1994;8:A216.
27. Corwin A, Sie A, Church C, Graham R, Kelly D, Dasch G, **Richards A**. A serological survey for evidence of infection with pathogenic rickettsiae in humans and animals of Indonesia. American Society for Microbiology 94th General Meeting. Las Vegas, NV. 1994; Abst V6, p. 618.
28. **Richards A**, Bagus R, Baso S, Sanjay B, Tan R, Corwin A, Graham R. Dengue hemorrhagic fever outbreak in Jayapura, Indonesia. American Society for Microbiology 94th General Meeting. Las Vegas, NV. 1994; Abst V-35. p. 623.
29. Fryauff DJ, Baird JK, Basri H, Sumawinata IW, Purnomo, **Richards AL**, Anthony RL, Richie TL, Church CJ, Choi YM, Bangs MJ, Subianto B, Sandjaya B, Hoffman SL. A double-blinded, placebo-controlled evaluation of primaquine for causal prophylaxis against hyperendemic malaria in Indonesia. American Society of Tropical Medicine and Hygiene Annual Meeting in Cincinnati, OH, 1994.

30. **Richards AL**. Biotechnology in military medicine: Rapid identification of infectious disease threats during military operations. National symposium on biotechnology in medicine. Misuse and use on human resource development in Indonesia. 12-14SEP94. Oral presentation.
31. Sardjono TW, Church CJ, Yarluiyadi B, Rubijoso, Baskoro AD, Soebaktiningsih, Soeatmadji DW, Sundoro M, Corwin AL, **Richards AL**. Identification of peri-domestic rodents and their ectoparasites as potential vectors for rickettsial diseases in Malang. Seminar on Parasitic Problems in Humans and Animals in Indonesia. Surabaya. 20 December 1994.
32. **Richards AL**, Soeatmadji DW, Soeprapto W, Widodo MA, Sardjono TW, Yanuwiadi B, Hernowati TE, Baskoro AD, Roebiyoso, Hakim L, Soendoro M, Putri MP, Strickman D, Kelly D, Dasch GA, Church CJ, Olson JG, Corwin AL. Risk of rickettsial disease among military and civilian personnel residing in the Malang area of East Java. 5th Annual Asia-Pacific Military Medical Conference. New Delhi, India. 25-30 January 1995. Oral presentation.
33. Hadiputranto H, Riberu W, Sie A, Sandjaja B, Rosen L, Gessain A, Anthony RL, **Richards AL**. Detection of antibody to HTLV I/II antigen among people of Irian Jaya. 3rd National Congress of Clinical Microbiology, 3-5 July 1995, Jakarta.
34. Nuraini N, Rahardjo E, Komalasari S, Nasution C, Hendarwanto, Strickman D, Dasch G, Corwin AL, Lesmana M, Punjabi NH, **Richards AL**. Etiology of fever among patients admitted to two Jakarta Hospitals. In: Jakarta, Indonesia, 24-27 July 1995. 11th National Meeting on Biology. Abst.
35. Rahardjo E, Soeatmadji DW, Widodo MA, Sardjono TW, Yanuwiadi B, Hernowati TE, Baskoro AD, Roebiyoso, Hakim L, Soendoro M, Maily PP, Masters J, Strickman D, Dasch GA, Olson JG, Church CJ, Corwin AL, **Richards AL**. Rickettsiosis in East Java. In: Jakarta, Indonesia, 24-27 July 1995. 11th National Meeting on Biology. Abst.
36. Riberu W, Anthony RL, **Richards AL**. Anti-NANP response of individuals residing in malaria hyperendemic highlands of Irian Jaya. In: Jakarta, Indonesia, 24-27 July 1995. 11th National Biology Meeting. Abst.
37. Rubiasih I, Saraswati S, Orndorff G, Samsuridjal, Karyadi E, **Richards AL**. Evaluation of an IL-6 bioassay for assessment of the human inflammatory response to infectious disease. In: Jakarta, Indonesia, 24-27 July 1995. 11th National Biology Meeting. Abst.
38. Saraswati S, Rubiasih I, **Richards AL**. Bioassay: tumor necrosis assay (TNF). In: Jakarta, Indonesia, 24-27 July 1995. 11th National Biology Meeting. Abst.
39. Soeatmadji DW, Yanuwijaya B, Rusjdy AF, Panda, S, Rahardjo E, Church CJ, Corwin A, Sardjono TW, Hernowati TE, Roebijoso, Hakim L, Sundoro M, Dasch GA, **Richards AL**. Detection of *Rickettsia typhi* DNA in fleas from peridomestic rodents using polymerase chain reaction. 2nd Asia-Pacific Conference on Medical Genetics and Eijkman Symposium on the Molecular Biology of Disease, 19-23 Sept, 1995; p 130, Abst # PII.X11.
40. Gomez E, **Richards A**, Kurniawan L, Doolan D, Richie T, Hoffman S. Strategy for the design of an HLA-degenerate malaria vaccine. 2nd Asia-Pacific Conference on Medical Genetics and Eijkman Symposium on the Molecular Biology of Disease, 19-23 Sept, 1995; p 104, Abst # PII.X05.
41. **Richards AL**, Anthony RL, Sandjaja B, Hadiputranto H, Graham RR, Wignall FS, Rosen L, Gessain A, de The G. Indeterminate HTLV-1 seroconversion among former Javanese residents currently living in Northeastern Irian Jaya (Indonesian New Guinea). VIIIth International Conference in Human Retrovirology: HTLV. 17-21 Oct 1995, Paris. J Acquir Immune Defic Syndr Human Retrovir 1995;10:255, Abst # 166.
42. **Richards AL**, Pamungkas J, Anthony RL, Sie A, Rosen L, Iskandriati D, Franchini G. Amplification by polymerase chain reaction (PCR) of HTLV nucleic acid in *Macaca nemestrina*. VIIIth International Conference in Human Retrovirology: HTLV. 17-21 Oct 1995, Paris. J Acquir Immune Defic Syndr Human Retrovir 1995;10:284, Abst # 283.

43. **Richards A**, Riberu A, Sandjaja B, Subianto B, Tjitra E, Fryauff D, Church C. Anti-NANP levels an indicator of malaria incidence among individuals residing in a hyperendemic region of Irian Jaya. European Conference on Tropical Medicine. 22-26 Oct 1995, Hamburg. Oral Presentation. Abst # H13.
44. Porter KR, Anthony RL, **Richards A**, Sandjaja B, Ignatias H, HadiputrantoH, Wignall FS, Hayes GC. Role of malaria antibodies in the development of HTLV-1 immunoreactivity in Indonesian transmigrants. 44th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Nov 17-21, 1995, San Antonio, TX. Am J Trop Med Hygiene 1995;53s:187-8. Abst # 304.
45. Church CJ, Richie TL, Ohrt C, Tjitra E, Subianto B, Sandjaja B, Gomez E, Baird JK, Fryauff DJ, **Richards AL**. Efficacy of lambda-cyhalothrin treated bed nets in preventing malaria in a cohort of radically cured volunteers. 44th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Nov 17-21, 1995, San Antonio, TX. Am J Trop Med Hygiene 1995;53s:239. Abst # 458.
46. Church CJ, Ohrt C, Fizal, Basri H, Widjaja H, Sumawinata I, Hamzah N, Susapto D, Gionar YR, Trenggono B, Tjitra E, Fryauff DJ, Richie TL, **Richards AL**. Risk factors for malaria like illness and confirmed malaria in Irian Jaya, Indonesia. Annual National Meeting of the Entomology Society of America 17-21 Dec 1995, Las Vegas, NV.
47. **Richards AL**, Soeatmadji DW, MA Widodo, Sardjono TW, Yanuwiadi B, Hernowati TE, Baskoro AD, Roebiyoso, Hakim L, Soendoro M, Rahardjo E, Putri MP, Strickman D, Kelly D, Dasch GA, Olson JG, Church CJ, Corwin AL. Seroepidemiological evidence for murine and scrub typhus in Malang, Indonesia. 6th Annual Asia-Pacific Military Medicine Conference. Sydney. April 14-19, 1996; oral presentation.
48. Samsuridjal, Sukmana N, **Richards A**. Interleukin 6 and interleukin 8 in cirrhotic liver ascites. Second Indonesian-Dutch-Flemish Meeting on Infectious Diseases and Immunology. Noordwijk, The Netherlands. May 29- June 01, 1996. Abstract P-57.
49. Soeatmadji DW, **Richards AL**, Hernowati TE, Sardjono TW, Yanuwiyadi B, Church CJ, Roebijoso, Corwin AL, Hakim L, Sundoro M. Risk assessment of rickettsial disease in Malang, Indonesia. A population study. Second Indonesian-Dutch-Flemish Meeting on Infectious Diseases and Immunology. Noordwijk, The Netherlands. May 29- June 01, 1996. Abstract P-58.
50. **Richards AL**. Tumor necrosis factor and other related factors involved in the host's response to malaria. Parasites and Southeast Asia Now (PASEAN) conference in Bali, Sep 15-20, 1996. Invited Speaker.
51. **Richards AL**. Early Diagnosis of Rickettsiosis. Annual Scientific Meeting and Microbiology National Seminar; Indonesian Microbiology Association. Malang, Indonesia Nov 12-13, 1996. Abstract pp 69. Invited Speaker.
52. Fryauff DJ, **Richards AL**, Richie TL, Mouzin E, Tjitra E, Sutamihardja AM, Ratiwayanto S, Hadiputranto H, Larasati RP, Pudjoprawoto N, Subianto B, Hoffman SL. Lymphocyte proliferative response and subset profiles during extended periods of chloroquine or primaquine prophylaxis. 45th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Baltimore, MD Dec 1-5, 1996. Am J Trop Med Hyg 1996;55:24, abst # 8.
53. Sutanto I, **Richards AL**, Atmosoedjono S, Bandi R, Deloron P, Pribadi W. Evaluation of NANP & EENV antibodies after two years intervention in a hyperendemic village, Irian Jaya, Indonesia. Seminar on Tropical Diseases in Asia. Tropical Disease Research Center, Airlangga University, Surabaya, Indonesia. January 24-25, 1997.
54. **Richards AL**, Ratiwayanto S, Nuraimi N, Soebianto S, Rubiasih I, Riberu W, Purtomo H, Salawati E, Widjaja H, Sandjaja B, Fryauff DJ, Richie TL, Church CJ, Jones TR, Hoffman SL, Kurniawan L. *Plasmodium falciparum* antigen-induced IFN and TNF Levels: Association with immunity to malaria among residents of a hyperendemic region of Irian Jaya. American Academy of Allergy Asthma &

Immunology, American Association of Immunologists, and Clinical Immunology Society Joint Meeting, San Francisco, Feb 21-26, 1997; Abst. # 1846.

55. **Richards AL**, Ratiwayanto S, Nuraini N, Soebianto S, Riberu W, Salawati E, Widjaja H, Sandjaja B, Fryauff DJ, Richie TL, Church CJ, Jones TR, Kurniawan L. Humoral Immunity to *Plasmodium falciparum* Following Anti-malarial Intervention Among Residents of Arso, Irian Jaya. 7th Annual Asia-Pacific Military Medicine Conference. Kuala Lumpur, Malaysia. March 3-7, 1997.
56. Nugraha S, Soeprapto W, Widodo PS, Kelly DJ, Dasch GA, Olson JG, Sie A, Rahardjo E, Larasati RP, **Richards AL**, Corwin AL. Surveillance of rickettsial infections in Indonesian military personnel during peace keeping operations in Cambodia. 7th Annual Asia-Pacific Military Medicine Conference. Kuala Lumpur, Malaysia. March 3-7, 1997.
57. Bangs MJ, Fryauff DJ, **Richards AL**. Vector-borne medical threats in Indonesia. 7th Annual Asia-Pacific Military Medicine Conference. Kuala Lumpur, Malaysia. March 3-7, 1997.
58. Fryauff DJ, Church PJ, **Richards AL**, Widjaja H, Mouzin E, Cryz S, Ratiwayanto S, Hadiputranto H, Sutamihardja MA, Richie TL, Subianto B, Titra E, Hoffman SL. Immune responses to tetanus-diphtheria among adult men vaccinated during extended prophylactic use of chloroquine or primaquine. 7th Annual Asia-Pacific Military Medicine Conference. Kuala Lumpur, Malaysia. March 3-7, 1997.
59. **Richards, AL**. Surveillance of Rickettsial Infections in Indonesian Military Personnel during Peacekeeping Operations in Cambodia. Indonesian-American Military Medical Research Cooperation Conference. Jakarta, Indonesia. March 27, 1997. Invited speaker-Oral presentation.
60. Gomez E, **Richards AL**, Kurniawan L, Doolan DL, Hoffman SL. Selection of conserved HLA-degenerate peptides for a vaccine against malaria. 10th International Congress of Protozoology, Sydney, Australia, July 21-25, 1997.
61. Fryauff DJ, Cryz SJ, Widjaja H, Mouzin E, Church PJ, Sutamihardja MP, **Richards A**, Subianto B, Hoffman SL. Humoral immune response to tetanus diphtheria (TD) vaccine given during extended use of chloroquine or primaquine malaria prophylaxis. American Society of Tropical Medicine and Hygiene Annual Meeting, Lake Buena Vista, FL, Dec 7-11, 1997. Am J Trop Med Hyg 1997;57:111. Abst # 29.
62. Gomez E, **Richards A**, Doolan DL, Kurniawan L, Tjitra E, Southwood S, Sette A, Murphy G, Richie T, Hoffman SL. Recognition of degenerate CD4+ T cell epitopes from *P. falciparum* restricted by multiple HLA-DR alleles in a transmigrant Javanese population residing in a malaria endemic area. American Society of Tropical Medicine and Hygiene Annual Meeting, Lake Buena Vista, FL, Dec 7-11, 1997. Am J Trop Med Hyg 1997;57:134. Abst # 95.
63. **Richards AL**, Rahardjo E, Soeatmadji DW, Bangs MJ, Fryauff DJ, Kelly DJ, Dasch GA. Variation in antibody prevalence to *Rickettsia typhi* in the Indonesian archipelago. American Society of Tropical Medicine and Hygiene Annual Meeting (Cancelled), San Juan, Puerto Rico, Oct 18-22, 1998. Am J Trop Med Hyg 1998;59:171, abst # 175. Oral presentation.
64. Doolan DL, Gomez E, Southwood S, **Richards AL**, Sette A, Hoffman SL. Degenerate CD4+ T cell epitopes from *Plasmodium falciparum* restricted by multiple HLA class II alleles. American Society of Tropical Medicine and Hygiene Annual Meeting (Cancelled), San Juan, Puerto Rico, Oct 18-22, 1998. Am J Trop Med Hyg 1998;59:143, abst # 97.
65. **Richards AL**. Tumor necrosis factor and other important cytokines in the host's immune response to malaria. 664th meeting of the Helminthological Society of Washington, Bethesda, MD, 10 March 1999, invited speaker.
66. Yevich SM, Jackson L, Temenak J, Dasch GA, Kelly DJ, Nelson WM, **Richards AL**. Rapid molecular identification of *Orientia tsutsugamushi*. Uniformed Services University of the Health Sciences Research Day 1999/Graduate Student Colloquium. April 7-8, 1999.

67. **Richards AL**, Ratiwayanto S, Hadiputranto H, Rahardjo E, Olson JG, Bangs MJ, Fryauff DJ, Jenkins J, Kelly DJ, Dasch GA. Evidence for infection with Rickettsia and Rickettsia-like agents among residents of Gag Island, Indonesia. American Society for Microbiology 99th General Meeting. Chicago, IL. May 30 – June 3, 1999. Abst. #D/B-132: page 235.
68. **Richards AL**, Yevich SM, Jackson LM, Temenak JJ, Kelly DJ, Nelson WM, Dasch GA. Multiple strains of *Orientia tsutsugamushi* detected by polymerase chain reaction. American Society of Tropical Medicine and Hygiene Annual Meeting, Washington DC, Nov 28-Dec 2, 1999. Am J Trop Med Hyg 1999;61:224, abst # 175. Oral presentation.
69. DeCarlo KM, Temenak JJ, Nelson WM, Ching W-M, Dasch GA, **Richards AL**. A Fluorogenic 5'-3' nuclease assay (Taqman) for the rapid detection and quantitation of scrub typhus rickettsia, *Orientia tsutsugamushi*. Uniformed Services University of the Health Sciences Research Day 2000/Graduate Student Colloquium. March 22-23, 2000, Abst #C-1, page 134.
70. **Richards AL**, Rahardjo E, Rusjdy AF, Kelly DJ, Dasch GA, Bangs MJ. Evidence of murine typhus in Pelabuhan Jayapura, Irian Jaya. American Society for Rickettsiology. April 30-May 3, 2000. Oral presentation.
71. Barker TL, **Richards AL**, Laksono E, Sanchez JL, Feighner BH, McBride WZ, Rubertone MV, Hyams KC. Large-Scale *Borrelia burgdorferi* sensu stricto (*Bbss*) Seroprevalence Survey of U.S. Military Personnel, 1997. American Society of Tropical Medicine and Hygiene 49th Annual Meeting, Oct 29-Nov 2, 2000.
72. Suh W, Jiang J, Chan CT, **Richards AL**. Detection of *Orientia tsutsugamushi* nucleic acid extracted from blood of mice with scrub typhus. Uniformed Services University of the Health Sciences Research Day 2001/Graduate Student Colloquium. April 11-12, 2001, Abst # F6.
73. Jiang J, Marienau KJ, May LA, Beecham HJ, Peterson S, Bordonado M, Ching W-M, **Richards AL**. Laboratory diagnosis of scrub typhus outbreak among U.S. Marines deployed to Camp Fuji, Japan. Uniformed Services University of the Health Sciences Research Day 2001/Graduate Student Colloquium. April 11-12, 2001, Abst # F5.
74. Ching W, Surcel A, Lousteau L, Zhang Z, Jiang J, **Richards A**. The development of a diagnostic reagent for scrub typhus infection: comparison of a mixture of recombinant 56 kDa proteins from various strains to the mixed antigens of whole cell lysates in immunoassays. American Society for Microbiology 101st General Meeting. Orlando, FL. May 20-24, 2001. Abst C-47.
75. **Richards AL**, Jiang J, Barker TL, Sanchez JL, Feighner BH, McBride WZ, Rubertone MV, Hyams KC. Low prevalence of antibody to human granulocytic ehrlichiosis (HGE) agent found among U.S. military personnel. American Society for Rickettsiology/Bartonella Joint Conference. Big Sky, Montana. Aug 17-22, 2001. Abst #17.
76. Chan TC, Jiang J, Temenak JJ, **Richards AL**. Development of a rapid method for determining the ID₅₀ of *Orientia tsutsugamushi* in a mouse model utilizing ELISA. American Society of Tropical Medicine and Hygiene 50th Annual Meeting, Nov 11-15, 2001. Am J Trop Med Hyg 2001;65:292, Abst # 432.
77. Ching WM, Jiang J, Yang Q, Lousteau L, **Richards A**. Improve the serodiagnosis of scrub typhus by using multiple recombinant 56 kDa antigens from different strains. American Society of Tropical Medicine and Hygiene 50th Annual Meeting, Nov 11-15, 2001. Am J Trop Med Hyg 2001;65:380, Abst # 673.
78. **Richards AL**. The Department of Defense's Role in Parasitology. Parasitology in Science and Society special meeting of The Helminthological Society of Washington. Oct 27, 2001. Invited speaker.
79. Taye A, Chan T-C, Temenak JJ, Dasch GA, Ching W-M, **Richards AL**. DNA sequence analysis of 56-kDa type-specific antigens from *Orientia tsutsugamushi* strains. 2nd ASM & TIGR Conference on Microbial Genomes, February 10-13, 2002, in Las Vegas, Nevada.

80. Ching W-M, Chan CT, Jiang J, Yang Q, **Richards AL**. The Development of a Multivalent Vaccine for Scrub Typhus Infection: The evaluation of a trivalent recombinant 56 kDa protein vaccine candidate against heterologous challenge of *Orientia tsutsugamushi* in an out bred mouse model. American Society for Microbiology 102nd General Meeting. Salt Lake City, Utah. May 19-23, 2002.
81. **Richards AL**. Tick-borne diseases in Maryland. Zoonotic Disease Update 2002 meeting presented by the Center for Veterinary Public Health, Epidemiology and Disease Control Program, Community Health Administration, Maryland Department of Health and Mental Hygiene and Howard Community College. June 13, 2002. Invited speaker.
82. **Richards AL**. Real Time PCR assays for agents of arthropod-borne diseases. University of Maryland School of Medicine, Dept. of Microbiology and Immunology Seminar. July 29, 2002. Invited speaker.
83. Jiang J, Temenak JJ, **Richards AL**. Real Time PCR duplex assay for *Rickettsia prowazekii* and *Borrelia recurrentis*. International Conference on Rickettsiae and Rickettsial Diseases. Ljubljana, Slovenia. Sept 4-7, 2002.
84. Yang Q, Ching W-M, Jiang J, Lousteau L, **Richards A**. An improved method for the purification and refolding of r56-kDa proteins from Gilliam and Kato stains of *Orientia tsutsugamushi*. International Conference on Rickettsiae and Rickettsial Diseases. Ljubljana, Slovenia. Sept 4-7, 2002.
85. **Richards AL**, Chan T-C, Chattopadhyay S, Wang RY-H, Jiang J, Ching W-M. Evaluation of CpG containing adjuvants for enhancement of Kp r56 vaccine protection from lethal scrub typhus in a mouse model. American Society of Tropical Medicine and Hygiene 51st Annual Meeting, Denver, CO, Nov 10-14, 2002. Am J Trop Med Hyg 2002;67:124-5, Abst 8.
86. Flavin M, Jiang J, Ching W-M, **Richards AL**. A real-time polymerase chain reaction assay for the detection of *Rickettsia typhi*. American Society for Microbiology Biodefense Research Conference. Baltimore, MD. March 9-12, 2003.
87. Jiang J, Flavin M, Ching W-M, **Richards AL**. Development of a multiplex real-time PCR assay for the detection of *Rickettsia prowazekii*, *Rickettsia rickettsii* and *Rickettsia typhi*. American Society for Microbiology Biodefense Research Conference. Baltimore, MD. March 9-12, 2003.
88. Jiang J, Macaluso KR, Azad AF, Dasch GA, **Richards AL**. Development of a Real-Time PCR Assay for *Rickettsia felis*. American Society for Microbiology 103rd General Meeting. Washington, DC. May 18-22, 2003. Abst D/B-132. pp. 235.
89. Ching WM, Chan TC, Chao CC, Chattopadhyay S, **Richards AL**. The evaluation of a trivalent recombinant 56 kDa protein vaccine candidate against homologous and heterologous challenge of *Orientia tsutsugamushi* in an outbred mouse model. American Society for Microbiology 103rd General Meeting, Washington DC. May 18-22, 2003.
90. Chao CC, Chan TC, Chattopadhyay S, **Richards AL**, Ching W-M. Plasmid containing IL-12 as adjuvant provides better protection than plasmid containing GM-CSF against *Orientia tsutsugamushi* challenge in a DNA vaccine study using plasmid carrying the gene codes for the outer membrane protein (56 kDa). American Society for Microbiology 103rd General Meeting, Washington DC. May 18-22, 2003.
91. Taye AB, Chan TC, Temenak JJ, Dasch GA, Ge H, Ching W-M, **Richards AL**. DNA sequence analysis of 56-kDa type-specific antigens from *Orientia tsutsugamushi* strains. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.
92. Chao CC, Hammamieh R, Ryan, Chan TC, **Richards A**, Jett M, Ching W-M. Analysis of Early Responsive Genes of Human Peripheral Leukocytes upon infection of *Orientia Tsutsugamushi* by DNA microarray. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.

93. Chan TC, Chao CC, Chattopadhyay S, **Richards A**, Ching WM. Determination of the minimum LD₁₀₀ dose of various *Orientia tsutsugamushi* strains in a murine model to evaluate vaccine candidates. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.
94. Chattopadhyay S, Jiang J, Chan T-C, Chao C-C, Ching W-M, **Richards AL**. Immunological responses to a recombinant protein vaccine against scrub typhus in cynomolgus monkeys. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003. Oral presentation.
95. Ge H, Chuang Y-YE, Zhao S, Tong M, Temenak JJ, **Richards AL**, Ching W-M. Genomic differences of *Rickettsia prowazekii* Madrid E and Breinl strains. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.
96. Kiang A, **Richards A**, Ching W-M, Chao CC. Amplification of whole genomic DNA by phi29 DNA polymerase. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.
97. Jiang J, Macaluso KR, Azad AF, Dasch GA, Flavin M, Rizzuto P, Ching W-M, **Richards AL**. Development of a duplex real-time PCR assay for *Rickettsia typhi* and *Rickettsia felis*. American Society for Rickettsiology 18th Meeting, Cumberland, MD. Sep 27-Oct 1, 2003.
98. Rentas FJ, Lippert L, Harman R, Gomez C, Salata J, Childs J, Silva T, **Richards A**, Chan C, Jiang J, Dupuis K, Reid T, Sawyer L. Inactivation of *Orientia tsutsugamushi* in an Animal Model using The INTERCEPT Blood System for Platelets. The 2003 Annual Meeting of the American Association of Blood Banks. November 1 – 4, 2003 San Diego, CA.
99. Jiang J, **Richards AL**. Development of a real-time polymerase chain reaction assay for the genus specific detection of *Rickettsia*. Joint Sci Conf Chem Biol Def Res. Nov 17-20, 2003.
100. Blair PJ, Moron C, Schoeler GB, Cespedes M, Anaya E, Mendoza L, Villaseca P, Luckett R, Cruz C, Felices V, Sumner J, Jiang J, **Richards AL**, Olson JG. Elucidation of the etiologic agents responsible for an outbreak of undifferentiated febrile illnesses in Sapiillica, Peru. American Society of Tropical Medicine and Hygiene Annual Meeting. Philadelphia PA. Dec 3-7, 2003.
101. Schoeler GB, Moron C, **Richards AL**, Blair PJ, Olson JG. Evidence of spotted fever rickettsial infections in Peru. American Society of Tropical Medicine and Hygiene Annual Meeting. Philadelphia PA. Dec 3-7, 2003.
102. Chattopadhyay S, Jiang J, Chan T-C, Chao C-C, Ching W-M, **Richards AL**. Immunological responses to *Orientia tsutsugamushi* in experimentally infected cynomolgus monkeys. American Society of Tropical Medicine and Hygiene Annual Meeting. Philadelphia PA. Dec 3-7, 2003. Oral presentation.
103. Jiang J, Chattopadhyay S, Rentas F, **Richards AL**. Real-time PCR assay for Scrub Typhus: Evaluation of blood and tissue samples from laboratory animals experimentally infected with *Orientia tsutsugamushi*. American Society of Tropical Medicine and Hygiene Annual Meeting. Philadelphia PA. Dec 3-7, 2003.
104. **Richards AL**. The US Department of Defense's rickettsial diseases research program for scrub typhus. The Indo-US Symposium on Infectious Disease Research and Development. Bangalore, India. January 6-10, 2004. Oral Presentation.
105. **Richards AL**. Real-time polymerase chain reaction assays for rickettsial diseases. NATO Human Factors & Medicine Panel Symposium on NATO Medical Surveillance and Response: Research & Technology Opportunities and Options. Budapest, Hungary. April 19-21, 2004. Oral Presentation.
106. **Richards AL**, Jiang J, Olson JG, Blair PJ. Polymerase chain reaction (PCR) detection and sequence analysis of three spotted fever rickettsiae isolated from Sapiillica, Peru. The 2004 American Society for Microbiology Annual Meeting. May 23-27, 2004 New Orleans, LA.
107. Chao C-C, Chan T-C, Chattopadhyay S, **Richards AL**, Ching W-M. DNA Vaccine plasmid expressing the 22 kDa protein of *Orientia tsutsugamushi* inhibited the protections provided by DNA

- vaccine plasmids expressing other antigen genes in a mouse lethal challenge model. The 2004 American Society for Microbiology Annual Meeting. May 23-27, 2004 New Orleans, LA.
108. Chao C-C, Chan T-C, Chattopadhyay S, **Richards AL**, Ching W-M. DNA vaccine candidate plasmid expressing the 110 kDa protein of *Orientia tsutsugamushi* provided protection in a mouse lethal challenge model. The 2004 American Society for Microbiology Annual Meeting. May 23-27, 2004 New Orleans, LA.
 109. Ge H (Invited Speaker), Chuang Y-YE, Zhao S, Tong M, Tsai M-H, Temenak JJ, **Richards AL**, Ching W-M. Genomic differences of *Rickettsia prowazekii* virulent strain versus avirulent strain. At the 12th Annual Nucleic Acid-Based Technologies: profiling PCR and beyond “in celebration of twenty years of PCR”, June 21-23, 2004, McLean, VA.
 110. **Richards AL**, Jiang J, Temenak JJ. Development of a duplex quantitative real-time PCR assay for the detection of spotted fever group rickettsiae and *Rickettsia rickettsii*. XXXV International Congress on Military Medicine. Washington DC September 12-17, 2004. Abst # ID 120.
 111. Ching W-M, Choi Y H, Chao CC, Coleman R, **Richards AL**. Rapid serological diagnosis of scrub typhus. International Congress on Military Medicine. Washington DC, USA. September 12-17, 2004.
 112. Rentas F, Gomez C, Harmon R, Salata J, Childs J, Silva T, Kennedy A, Meledandri C, O’Sullivan A, **Richards A**, Chan C, Jiang J, Reddy H, Goodrich R. Inactivation of *Orientia tsutsugamushi* in red blood cell suspensions with riboflavin and light. The 57th Annual Meeting of the American Association of Blood Banks. Baltimore, MD. Oct 23-26, 2004.
 113. Rentas F, Gomez C, Harmon R, Salata J, Childs J, Silva T, Kennedy A, Meledandri C, O’Sullivan A, **Richards A**, Chan C, Jiang J, Dupuis K, Sawyer L. Inactivation of *Orientia tsutsugamushi* using the Intercept blood system for plasma, as demonstrated in an animal model. The 57th Annual Meeting of the American Association of Blood Banks. Baltimore, MD. Oct 23-26, 2004.
 114. Jiang J, Lerthusnee K, Sangkasuan V, Sukvit S, Chuenchitra T, Eamsila C, Jones JW, **Richards AL**. Molecular evidence of human infection with TT-118, *Rickettsia honei*, from Thailand. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Oral Presentation. Abst #502.
 115. Jordan G, Herrera V, Blair PJ, Huaman A, Gotuzzo E, **Richards AL**, Naquira C, Suarez L, Olson JG. Evidence of murine typhus cases in northern Peru. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst #503.
 116. Blair PJ, Jiang J, Schoeler GB, Moron C, Anaya E, Cespedes M, Cruz C, Felces P, Sumner JW, **Richards AL**, Olson JG. Characterization of spotted fever group rickettsiae in flea and tick specimens from northern Peru. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst #504.
 117. Lederman ER, Winoto IL, Ibrahim IN, Ratiwayanto S, Stoops CA, Brice GT, Maguire JD, **Richards AL**. Evidence of spotted fever group rickettsiae in and around Jakarta, Indonesia. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst # #505.
 118. Rozmajzl PJ, Woods CW, Jiang J, Murdoch DR, Zimmerman MD, **Richards AL**, Reller LB. *Orientia tsutsugamushi* real-time PCR analysis of whole blood from febrile patients in Kathmandu, Nepal. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst #506.
 119. Zavaleta C, Fernandez C, Quinones J, Guevara C, Huaman A, Zonia R, Rivera C, Caceda R, Blair P, **Richards AL**, Suarez L, Naquira C, Gotuzzo E. Acute febrile illnesses in Yurimaguas, Peru 2000-2004. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst #556.
 120. Montes A, Blair PJ, **Richards AL**, Suarez L, Naquira C, Gotuzzo E, Olson JG. Etiologies of febrile illnesses in La Merced, Peru, 2000-2004. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst #997.

121. Kriangkrai L, Krairojananan P, Chandranoi K, Monkanna T, Leepitakrat W, Khlaimanee N, Leepitakrat S, Insuan S, Khuntirat B, Jiang J, **Richards AL**, Jones JW. Detection and quantification of *O. tsutsugamushi* in the pre- and post-feeding *Leptotrombidium* chiggers, using real-time polymerase chain reaction assay. American Society of Tropical Medicine and Hygiene Annual Meeting. Miami Beach, FL. Nov 7-11, 2004. Abst # 1154.
122. **Richards AL**, Jiang J, Rozmajzl PJ. Detection of human pathogens within ectoparasites by quantitative real-time PCR. Southeast Society of Parasitologists Annual Meeting. Blacksburg, VA. April 6-8, 2005. Abst #51. Oral Presentation.
123. Xu G, Chattopadhyay S, Jiang J, Chan T-C, Chao C-C, Ching W-M, **Richards AL**. Characterization of the immune response of CD1 outbred mice to infection with *Orientia tsutsugamushi*. 105th General Meeting of American Society for Microbiology in Atlanta, GA, June 5-9, 2005.
124. Chattopadhyay S, Xu G, Jiang J, Chan TC, Chao CC, Ching WM, **Richards AL**. Murine spleen cell cytokine response following successful immunization with the scrub typhus vaccine candidate: Kp 47DNA. 4th International Conference on Rickettsia and Rickettsial Diseases. Logroño, Spain June 18-21, 2005.
125. Jiang J, Blair PJ, Felices V, Moron C, Cespedes M, Anaya E, Schoeler GB, Sumner JW, Oslon JG, **Richards AL**. Phylogenetic analysis of a novel molecular isolate of spotted fever group rickettsiae from northern Peru: *Candidatus* Rickettsia andeanae. 4th International Conference on Rickettsia and Rickettsial Diseases. Logroño, Spain June 18-21, 2005.
126. Houhamdi L, Jiang J, Raoult D, **Richards AL**, Rozmajzl PJ. Validation of a *Rickettsia*-specific quantitative real-time PCR cassette and DNA extraction protocols using experimentally infected lice. 4th International Conference on Rickettsia and Rickettsial Diseases. Logroño, Spain June 18-21, 2005.
127. Rozmajzl PJ, Woods CW, Jiang J, Murdoch DR, Zimmerman MD, Henry K, Clark J, **Richards AL**, Reller LB. Quantitative real-time PCR analysis of whole blood from febrile patients in Kathmandu, Nepal for evidence of rickettsial infection. 4th International Conference on Rickettsia and Rickettsial Diseases. Logroño, Spain June 18-21, 2005.
128. Walsh DS, Delacruz EC, Abalos RM, Tan EV, **Richards A**, Myint KS. Cynomolgus monkeys infected with *Orientia tsutsugamushi* (Karp) by intradermal inoculation develop eschar-like lesions and lymphadenopathy akin to human scrub typhus. The 54th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, December 11-15, 2005. Abst # 238.
129. Ge H, Tong M, Jiang J, Dasch GA, **Richards AL**. Genotypic characterization of *Rickettsia prowazekii* Cairo 3 by multilocus sequencing. The 54th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, December 11-15, 2005. Abst # 716.
130. Rozmajzl PJ, Francesconi S, Ching W-M, Gunasinghe U, **Richards AL**. Development of a rapid hand-held point of care antigen detection assay for *Orientia tsutsugamushi* - preliminary results. The 54th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, December 11-15, 2005. Abst # 718.
131. Ching W-M, Johnson TO, Chan T-C, Chao C-C, Ge H, Xu G, Jiang J, Chattopadhyay S, **Richards AL**. Evaluation of the long term protective efficacy and immunogenicity of a DNA vaccine plasmid expressing the 47 kDa antigen of *Orientia tsutsugamushi* and the safety of this DNA vaccine candidate in an outbred mouse model. The 54th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, December 11-15, 2005. Abst # 989.
132. Henry K, Jiang J, Soeatmadji DW, Ratiwayanto S, Azad AF, Macaluso KR, **Richards AL**. Real-time PCR assays detect *Rickettsia typhi* and *Rickettsia felis* in *Xenopsylla cheopis* and *Ctenocephalides felis* fleas, arthropod vectors of murine and cat flea typhus. The 54th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, December 11-15, 2005. Abst # 2318.

133. Pimentel G, Parker T, Fadeel MA, Maksoud MA, Morcos M, El Mofty M, Wasfy M, Jiang J, **Richards A**, El Sayed N, Hajjeh R. Laboratory-based surveillance for acute febrile illness in Egypt: a focus on rickettsioses. International Conference on Emerging Infectious Diseases, Atlanta, GA, March 19-22, 2006. Abst # 311.
134. Jiang J, Soeatmadji DW, Henry KM, Ratiwayanto S, Bangs MJ, Azad AF, Macaluso KR, **Richards AL**. Gene sequence comparisons of *Rickettsia felis* from Indonesian *Xenopsylla cheopis* and *R. felis* from North American *Ctenocephalides felis*. 2006 Joint Meeting: The 20th Meeting of the American Society for Rickettsiology and The 5th International Conference on Bartonella as Emerging Pathogens Asilomar Conference Grounds, Pacific Grove, CA. September 2-7, 2006.
135. Rozmajzl PJ, Flyer JG, Jiang J, Stromdahl EY, **Richards AL**. A novel qPCR assay used to detect *Rickettsia montanensis* in *Dermacentor variabilis* ticks removed from DoD personnel. 2006 Joint Meeting: The 20th Meeting of the American Society for Rickettsiology and The 5th International Conference on Bartonella as Emerging Pathogens Asilomar Conference Grounds, Pacific Grove, CA. September 2-7, 2006. Oral presentation.
136. Chen C, Jiang J, Miller MK, Stromdahl EY, **Richards AL**. Molecular detection of *Rickettsia amblyommii* in *Amblyomma americanum* parasitizing humans. 2006 Joint Meeting: The 20th Meeting of the American Society for Rickettsiology and The 5th International Conference on Bartonella as Emerging Pathogens Asilomar Conference Grounds, Pacific Grove, CA. September 2-7, 2006.
137. Tettelin H, Chao C-C, Khouri H, Mohamoud Y, Shvartsbeyn A, **Richards A**, Ching W-M. Genome sequence of *Orientia tsutsugamushi*. 2006 Joint Meeting: The 20th Meeting of the American Society for Rickettsiology and The 5th International Conference on Bartonella as Emerging Pathogens Asilomar Conference Grounds, Pacific Grove, CA. September 2-7, 2006.
138. Graf PCF, Chretien J-P, Ung L, Gaydos JC, **Richards AL**. *Anaplasma phagocytophilum* and *Rickettsia rickettsii* seroprevalence in US military personnel. 44th Annual Meeting of IDSA, Toronto, Ontario, Canada. Oct 12-15, 2006.
139. **Richards AL**. Current status of the DoD Rickettsial Diseases Research Program. Department of Microbiology and Immunology Seminar, Uniformed Services University of the Health Sciences, Bethesda, MD. Oct 16, 2006. Invited Speaker.
140. Jiang J, Flyer JG, Fryauff MJ, Klee LM, Chen SC, Miller MK, Stromdahl EY, Rozmajzl PJ, **Richards AL**. A new protocol for the detection and identification of rickettsiae in ticks removed from military personnel. 55th Annual Meeting of the Am Soc Trop Med Hygiene, Atlanta, GA. Nov 12-16, 2006.
141. Ching W-M, Ni Y-S, Chao C-C, Chan T-C, Jiang J, Chattopadhyay S, **Richards AL**. The 47 kDa antigen of *Orientia tsutsugamushi* Karp strain provided heterologous protection in a mouse lethal challenge model. 55th Annual Meeting of the Am Soc Trop Med Hygiene, Atlanta, GA. Nov 12-16, 2006.
142. Whitman TJ, **Richards AL**, Paddock CD, Tamminga CL, Sanders JW. *Rickettsia parkeri* in a US serviceman with a tick bite. 55th Annual Meeting of the Am Soc Trop Med Hygiene, Atlanta, GA. Nov 12-16, 2006.
143. Graf PCF, **Richards AL**, Manuel KR, Lay J, Remington N, Gaydos JC, Chretien JP. Seroprevalence to rickettsioses in US military forces deployed to Korea. 55th Annual Meeting of the Am Soc Trop Med Hygiene, Atlanta, GA. Nov 12-16, 2006.
144. Chattopadhyay S, Jiang J, Xu G, Chan TC, Chao CC, Ching WM, **Richards AL**. Mixed Type 1-Type 2 Immune Response Detected in Scrub Typhus Vaccine Candidate pKarp47 Immunized Mice Partially Protected from Lethal Heterologous Challenge. The American Society for Microbiology 107th General Meeting. May 21-25, 2007 Toronto, Canada.

145. Graf P, Kathirval E, Chao CC, Ching WM, **Richards AL**. *In silico* Analysis of the 47-kDa Antigen from *Orientia tsutsugamushi*. The American Society for Microbiology 107th General Meeting. May 21-25, 2007 Toronto, Canada.
146. Jiang J, **Richards AL**. Development of a quantitative real-time PCR assay to detect *Candidatus* Rickettsia andeanae. The 21st Meeting of the American Society for Rickettsiology. Colorado Springs, CO Sep 8-11, 2007.
147. Jiang J, Graf PCF, Stromdahl EY, **Richards AL**. Risk of spotted fever group rickettsia infection to U.S. military personnel. Am Soc Trop Med & Hyg 56th Annual Meeting. Philadelphia, PA Nov 4-8, 2007.
148. Chao CC, Mutumanje EA, Chan TC, Chattopadhyay S, **Richards AL**, Ching WM. Protection effect of the 56 kDa antigen from Karp and Kato strains of *O. tsutsugamushi* in heterologous challenged mouse model. Am Soc Trop Med & Hyg 56th Annual Meeting. Philadelphia, PA Nov 4-8, 2007.
149. Widjaja S, Ibrahim IN, Winoto IL, Farzeli A, Andre, Jaya UA, Pepi D, **Richards AL**, Burgess TH, Barbara K, Stoops CA, Blair PJ. Geographical assessment of rickettsial infections in rodents in three islands in Indonesia. Joint International Tropical Medicine Meeting. Bangkok, Thailand Nov 29-30, 2007. p62.
150. Jiang J, Blacksell SD, Aukkanit N, Day NPJ, **Richards AL**. Diversity of the 47 kDa/HtrA gene sequences among human isolates of *Orientia tsutsugamushi* from Thailand. Joint International Tropical Medicine Meeting. Bangkok, Thailand Nov 29-30, 2007. p139.
151. **Richards AL**. Military research on rickettsial diseases. Tropical Medicine Association of Washington Monthly Meeting. Invited speaker. Feb 21, 2008.
152. **Richards AL**, Jiang J. Use of real-time PCR for the detection and identification of rickettsiae in clinical diagnosis, and research and surveillance studies. ASM Conference on Emerging Technologies of Medical Importance for the Diagnosis of Infectious Diseases and the Detection of Pathogenic Microbes. Beijing, China. April 6-10, 2008.
153. Jiang J, **Richards AL**. Development of a real-time PCR assay for the detection of *Orientia tsutsugamushi* and its use in evaluation of blood samples from a scrub typhus vaccine study employing a non-human primate model. ASM Conference on Emerging Technologies of Medical Importance for the Diagnosis of Infectious Diseases and the Detection of Pathogenic Microbes. Beijing, China. April 6-10, 2008.
154. **Richards AL**, Tan E, Lim G, dela Cruz E, Burgos J, Abalos R, Paris DH. Safety evaluation of pKarp47 immunization utilizing the scrub typhus cynomolgus NHP model. Fifth International Conference on Rickettsia and Rickettsial Diseases. Marseille, France. May 18-20, 2008.
155. Magiri C, Mutai B, Mbori J, Njagi O, Walsh D, **Richards A**, Schnabel D, Waitumbi J. Zoonotic Disease Surveillance of Rickettsia Infections in Domestic Animals. 28th Africa Health Science Congress, Mauritius, July 14-17, 2008.
156. Klein TA, Baek LJ, Kim HC, Sames W, O'Guinn, Lee JS, Chong ST, Turell M, Graf P, **Richards A**, Song JW. Rodent-borne disease surveillance at US military training sites near the demilitarized zone, Republic of Korea. 13th International Congress on Infectious Diseases (ICID), Kuala Lumpur, Malaysia, July 19-22, 2008.
157. **Richards AL**. Detection of *Rickettsia amblyommii* in *Amblyomma americanum* ticks. Am Soc Trop Med & Hyg 56th Annual Meeting. New Orleans, LA Dec 7-11, 2008. Symposium 2. Invited speaker.
158. **Richards AL**. Scrub typhus vaccines: past history and recent developments. Am Soc Trop Med & Hyg 56th Annual Meeting. New Orleans, LA Dec 7-11, 2008. Symposium 71. Invited speaker.
159. Graf PCF, Myers TE, **Richards AL**, Jiang J, Manuel KR, Fink R, Fryauff K, Yarina TR, Lay J, Nevin R, Gaydos JC, Chretien JP. Seroprevalence to Rickettsioses in US Military Forces Deployed to Korea. Am Soc Trop Med & Hyg 56th Annual Meeting. New Orleans, LA Dec 7-11, 2008. Abst # 2693.

160. Myers TE, Lee JS, Francesconi SC, O'Guinn ML, Tsertsvadze N, Vepkhvadze N, Babuadze G, Sidamonidze K, Kokhraidze M, Donduashvili M, **Richards AL**. *Rickettsia slovaca* Isolated from *Dermacentor marginatus* in the Republic of Georgia. Am Soc Trop Med & Hyg 56th Annual Meeting. New Orleans, LA Dec 7-11, 2008. Abst # 2870.
161. Smith MP, Ponnusamy L, **Richards A**, Apperson CS. Identification of bacterial pathogens and hosts of blood meals in questing ixodid ticks in the North Carolina Piedmont. Am Soc Trop Med & Hyg 56th Annual Meeting. New Orleans, LA Dec 7-11, 2008. Abst # 780.
162. Graf PCF, Myers TE, Jiang J, Yarina TR, Rozmajzl PJ, Lay J, Nevin R, Chretien JP, Gaydos JC, **Richards AL**. Infections with typhus, spotted fever and scrub typhus group rickettsiae among US military personnel deployed to the Republic of Korea. 19th Annual Asia Pacific Military Medicine Conference. Seoul, Korea Apr 6-19, 2009.
163. Jiang J, Blacksell SD, Paris DH, Aukkanit N, Newton PN, Phetsouvanh R, Stenos J, Graves SR, Day NPJ, **Richards AL**. Diversity of the 47 kDa/HtrA translated amino acid sequences among human isolates of *Orientia tsutsugamushi*. 23rd Meeting of the American Society for Rickettsiology. Hilton Head, SC Aug 15-18, 2009.
164. **Richards AL**, Jiang J, Omulo S, Feikin DR, Breiman RF, Njenga MK. Human infection with *Rickettsia felis*, Kenya. 23rd Meeting of the American Society for Rickettsiology. Hilton Head, SC Aug 15-18, 2009.
165. **Richards AL**. Update on rickettsial diseases of military importance. GEIS Partners' Call. Armed Forces Health Surveillance Center. Sep 2, 2009. Invited speaker.
166. **Richards AL**. Molecular techniques to detect and identify rickettsiae of military importance in vertebrate and invertebrate hosts. Medical Biodefense Conference 2009. Munich Germany, Oct 20-22, 2009. Medical Corps International Forum 2009; Supplement 4:13, abstract DV20.
167. Yarina TR, Myers TE, Lee JS, Francesconi SC, O'Guinn ML, Tsertsvadze N, Vepkhvadze N, Babuadze G, Sidamonidze K, Kokhraidze M, Donduashvili M, **Richards AL**. Surveillance of rickettsial pathogens isolated from ticks in the Republic of Georgia. Am Soc Trop Med Hyg 58th Annual Meeting. Washington, DC Nov 18-22, 2009.
168. Flores-Mendoza C, Florin D, Mendoza L, Pozo E, Felices V, Cruz C, Mundal K, Graf PCF, **Richards AL**. Spotted fever group rickettsiae in ectoparasites from northwestern Peru. Am Soc Trop Med Hyg 58th Annual Meeting. Washington, DC Nov 18-22, 2009.
169. Jiang J, **Richards AL**. Development of a quantitative real-time PCR (qPCR) assay for *Rickettsia parkeri*. Am Soc Trop Med Hyg 58th Annual Meeting. Washington, DC Nov 18-22, 2009.
170. Kinzer MH, Ratiwayanto S, Susanti AI, Soebianto S, Hasikin R, Kania W, Williams M, Ibrahim IN, Winoto I, Farzeli A, **Richards AL**. Spotted fever group rickettsial infection in Jakarta, Indonesia. Am Soc Trop Med Hyg 58th Annual Meeting. Washington, DC Nov 18-22, 2009.
171. Widjaja S, Williams M, Ibrahim IN, Winoto IL, Farzeli A, Yuniyanto A, Perwitasari D, Jaya UA, Pepi D, **Richards AL**, Barbara KA, Stoops CA, Blair PJ. Geographical assessment of rickettsial infections in rodents in Indonesia. Am Soc Trop Med Hyg 58th Annual Meeting. Washington, DC Nov 18-22, 2009.
172. Bishop-Lilly KA, Ge H, Willner KM, Butani A, Dorsey S, George M, Read TD, Brahmabhatt TN, Mateczun A, Sozhamannan S, **Richards AL**. Metagenomic sequencing of ixodid ticks: identification of *Rickettsia* species. ASM Biodefense and Emerging Diseases Research Meeting. Baltimore, MD. Feb 21-24, 2010.
173. **Richards AL**, Jiang J. Development and use of quantitative real-time PCR assays in the diagnosis of militarily important rickettsioses and scrub typhus. Asia Pacific Military Medicine Conference. Jakarta, Indonesia. May 3-7, 2010.
174. **Richards AL**. Current status of the DNA vaccine candidate against scrub typhus, pKarp47. PMK & AFRIMS Joint Symposium. Bangkok, Thailand. June 9, 2010. Invited speaker.

175. Bishop-Lilly KA, Ge H, Mishra P, Patel M, Willner KM, Butani A, Dorsey S, George M, Read TD, Brahmabhatt TN, Mateczun A, Sozhamannan S, **Richards AL**. NextGen sequencing of *Rickettsia* species: virulence, reservoirs, and vectors. Uniformed Services University of the Health Sciences Research Days. Bethesda, MD. May 10-12, 2010.
176. Witt CJ, Anyamba A, Colacicco-Mayhugh MG, Myers T, Masuoka PM, Foley DH, Buczak AL, Musila LA, Linthicum K, Richardson JH, Klein TA, **Richards AL**, Russell KL. A multidisciplinary predictive approach for the early detection and response to outbreaks. International Conference on Emerging Infectious Diseases. Atlanta, GA. July 11-14, 2010.
177. Clark DV, Ismayilov A, Seyidova E, Hajiyeva A, Bakhishova S, Hajiyev H, Nuriyev T, Piraliyev S, Bagirov S, **Richards AL**, Habashy EE, Pimentel G, Lane A, Qasimov M, Hepburn MJ. Seroprevalence of select arthropod-borne and zoonotic infections in rural Azerbaijan. International Conference on Emerging Infectious Diseases. Atlanta, GA. July 11-14, 2010.
178. Jiang J, Stromdahl EY, **Richards AL**. Detection of spotted fever group rickettsiae in *Amblyomma maculatum* (Gulf Coast Ticks) Collected from Humans in the United States. 24th Meeting of the American Society for Rickettsiology. Skamania Lodge, Stevenson, Washington, July 31-August 3, 2010.
179. Hong Ge H, Xin Hu X, Jiang J, Blacksell SD, Paris DH, Aukkanit N, Newton PN, Phetsouvanh R, Izzard L, Stenos J, Graves SR, Day NPJ, Wallqvist A, **Richards AL**. Diversity of the 47 kDa protein and insights into vaccine development from structural modeling and epitope prediction. 24th Meeting of the American Society for Rickettsiology, Skamania Lodge, Stevenson, Washington, July 31-August 3, 2010.
180. Richards AL. Rickettsial Diseases Research at NMRC 2010. Seoul National University, School of Veterinarian Medicine. Sep 15, 2010. Invited speaker.
181. Klein T, Jang WJ, Park KH, Song JW, Kim HC, Chong ST, Choi CY, Lee JS, Sames WJ, Robbins RG, Gaydos J, Chae JS, **Richards AL**. Ecological Changes Affecting the Potential for Tick-borne Diseases in the Republic of Korea. 48th annual meeting of IDSA, Vancouver, BC, Canada. Oct 21-24, 2010.
182. Klein TA, Kim HC, Song JW, Chae JS, Jang WJ, Park KH, Sames WJ, **Richards AL**. Socioeconomic and environmental factors: increasing the potential risk of tick-borne diseases in the Republic of Korea. 59th Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 3-7 Nov 2010. Abst # 820.
183. Kurhanova I, Kushnir Z, Tarasyuk A, Bek N, Lutsyk T, Vsyaka I, Nicholson W, **Richards A**. Current status of Q fever in Ukraine and needs for expand surveillance of *Coxiella burnetii*. International Meeting on Emerging Diseases and Surveillance. Vienna, Austria. Feb 4-7, 2011.
184. Kurhanova I, Loginov J, Tarasyuk O, Chipak N, Kitsara M, Bek N, Lukjanchuk V, Kushnir Z, Sagajdakovskyj M, Vsjaka I, Lutsyk T, Kogut O, Moroz G, Shnyr V, Jmurko B, Antonyshyn M, Hepburn M, Regules JA, Clark D, Land AK, Holstein A, Nicholson W, **Richards AL**. Surveillance for evidence of typhus group rickettsia infections among people residing in western Ukraine (PDG P364). Biological Threat Reduction and Cooperative Biological Engagement Programs (BTRP/CBEP) Annual Science and Disease Surveillance Review. Garmisch-Partenkirchen, Germany. 14-17 March 2011.
185. Jiang J, You BJ, Liu E, Apte A, Yarina TR, Myers TE, Lee JS, Francesconi SC, O'Guinn ML, Tsertsvadze N, Vepkhvadze N, Babuadze G, Sidamonidze K, Donduashvili M, Onashvili T, Imnadze P, Ismayilov A, Agayev N, Aliyev M, Muttablibov N, **Richards AL**. Development of Three Quantitative Real-Time PCR Assays for the Detection of *Rickettsia raoultii*, *Rickettsia slovaca* and *Rickettsia aeschlimannii* and their Validation with Ticks Collected from the Country of Georgia and the Republic of Azerbaijan. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.

186. Chattopadhyay S, Jiang J, Tan E, Lim G, dela Cruz E, Burgos J, Abalos R, Paris D, **Richards AL**. Immune response of non-human primates to scrub typhus vaccine candidate, pKarp47. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
187. Kurhanova I, Tarasyuk O, Chipak N, Kitsara M, Bek N, Loginov J, Lukjanchuk V, Kushnir Z, Sagajdakovskyj M, Vsjaka I, Kogut O, Moroz G, Shnyr V, Jmurko B, Antonyshyn M, Nicholson WL, **Richards AL**. Seroprevalence of spotted fever group rickettsioses in western Ukraine and perspectives for the future. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
188. Fedrow AL, Wright C, Gaff H, Sonenshine D, Hynes W, **Richards AL**. *In vitro* propagation of *Candidatus* Rickettsia andeanae isolated from *Amblyomma maculatum*. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
189. **Richards AL**. Worldwide detection and identification of new and old rickettsiae. Invited speaker. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
190. Gaff H, Hynes W, Jiang J, Nadolny R, **Richards A**, Sonenshine D, Wright C. Tidewater spotted fever: detection of *Rickettsia parkeri* in Gulf Coast ticks, southeastern Virginia. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
191. Stenos J, Izzard L, Fuller A, Blacksell S, Paris D, **Richards A**, Aukkanit N, Mguyen C, Jiang J, Fenwick S, Day N, Graves S. Isolation and partial characterization of a novel *Orientia* species (*O. chuto* sp. nov.) from a patient infected in Dubai. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
192. Bourzac KM, Zullo KA, Watthanaworawit W, Greene S, Turner P, Jiang J, **Richards AL**, Karaszkiwicz JW, Dabisch C, Lingenfelter B. Evaluation of the JBAIDS scrub typhus and *Rickettsia* detection kits. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
193. Lurchachaiwong W, Monkanna T, Leepitakrat S, Ponlawat A, Prachumsri J, **Richards A**, Evans B. Variation in the response of ICR mice to feeding by *Leptotrombidium* sp. (Acari: Trombiculidae) infected with *Orientia tsutsugamushi*. 6th International Meeting on Rickettsiae and Rickettsial Diseases. Heraklion, Greece 5-7 June 2011.
194. Myers T, Jiang J, Parker TM, Pimentel G, Kronmann KC, Njenga MK, Breiman RF, Maina AN, Waitumbi J, Sall AA, Faye O, **Richards AL**. Rickettsioses as causes of acute febrile illnesses in Africa. EUCOM/AFRICOM Science and Technology Conference. Stuttgart, Germany. June 13-17, 2011.
195. **Richards AL**. Flea-borne rickettsiae in Kenya. Medical Biodefense Conference 2011. Munich, Germany 25-28 October 2011. Invited Speaker.
196. Jiang J, Maina AN, Knobel DL, Cleaveland S, Laudisoit A, Wamburu K, Ogola E, Breiman RF, Njenga MK, **Richards AL**. Detection of a unique *Rickettsia* in fleas from Aembo, Kenya. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.
197. Teepruksa P, **Richards AL**, Jiang J, Huy R, Wierzba TF, Yasuda CY. Serological surveillance of rickettsial diseases in northeastern Cambodia. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.
198. Ousmane F, Ceesay A, Jiang J, Sall AA, **Richards A**. Rickettsioses: forgotten causes of febrile illnesses in Senegal. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.
199. Mullins K, Jiang J, Gonzalez J, Smoak B, Canales E, Solorzano N, Meza R, Maguina C, Myers T, Blazes D, Laughlin L, **Richards AL**. Characterization of a unique *Bartonella* isolate from Peru. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.

200. Mutai BK, Jiang J, **Richards AL**, Waitumbi JN. *Rickettsia aeschlimannii* infection among patients with acute febrile illness in Kenya. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.
201. Luce-Fedrow A, Wright C, Gaff H, Sonenshine D, Hynes W, **Richards AL**. The cell biology of *Candidatus Rickettsia andeanae*. 60th Annual meeting of The American Society of Tropical Medicine and Hygiene, Philadelphia, PA. 4-8 Dec 2011.
202. **Richards AL**. Rickettsial Diseases Research at the Naval Medical Research Center. Tropical Medicine Dinner Club of Baltimore. 11 Jan 2012. Invited Speaker.
203. Mullins K, Jiang J, Miller MK, Desena ML, McBride JW, Richards AL. Evidence of rickettsial infections in White-tailed deer (*Odocoileus virginianus*) in Caroline County, Virginia. 2012 International Conference on Emerging Infectious Diseases. Atlanta, GA. March 11-14, 2012.
204. Garges, E, **Richards A**, Seyidov A, Nasirova E, Rivard R, Dyson H, Ahmadvkhanov T, Huseynov N. Seroprevalence of *Rickettsia*-specific antibodies in young male volunteers in Azerbaijan. 2012 International Conference on Emerging Infectious Diseases. Atlanta, GA. March 11-14, 2012.
205. Myers T, Lalani T, Dent M, Jiang J, Daly P, Maguire J, **Richards A**. *Rickettsia parkeri* infection detected by polymerase chain reaction amplification from eschar swab specimens: a novel diagnostic approach for a rare condition. 2012 International Conference on Emerging Infectious Diseases. Atlanta, GA. March 11-14, 2012.
206. Mullins K, Jiang J, Gonzalez J, Smoak B, Canal E, Solarzano N, Meza R, Maguina C, Myers T, Blazes D, Laughlin L, **Richards AL**. Characterization of a unique *Bartonella* agent isolated from patients in Peru. 7th International Conference on *Bartonella* as Animal and Human Pathogens. Raleigh, NC. April 25-28, 2012.
207. Waitumbi J, Wainaina J, Mutai B, Magiri C, Nganga J, Ithondeka P, Njagi O, Jiang J, **Richards A**. Zoonotic surveillance for rickettsiae in domestic animals in Kenya. 15th International Congress on Infectious Diseases. Bangkok, Thailand. June 13-16, 2012.
208. Blacksell S, **Richards A**, Paris DH, Tanganuchitcharnchai A, Day N. Validation of a semi-quantitative IgM ELISA for the detection of *Orientia tsutsugamushi* IgM antibodies for use in sero-epidemiology studies in Thailand. 15th International Congress on Infectious Diseases. Bangkok, Thailand. June 13-16, 2012.
209. Bourzac KM, Watthanaworawit W, Turner P, Blacksell S, Jiang J, **Richards AL**, Dabisch JC, Lingenfelter B. Pilot clinical evaluation of the JBAIDS scrub typhus and rickettsia detection kits. American Society for Microbiology General Meeting. San Francisco, CA. June 16-19, 2012.
210. Beyer AR, VieBrock L, Ge H, **Richards AL**, Carlyon JA. Characterization of *Orientia tsutsugamushi* ankyrin repeat-containing protein Ank9. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
211. Luce-Fedrow A, Borschel R, Myers T, **Richards AL**. Aerosol infectivity of *Rickettsia prowazekii* in Guinea pigs. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
212. Woradee Lurchachaiwong W, Chye TC, **Richards AL**, McCardle PW, Schuster AL. Determination of the murine lethal dose (LD₅₀) of *Orientia tsutsugamushi* obtained from mice fed upon by naturally infected *Leptotrombidium chiangraiensis* from a well characterized chigger colony. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
213. Sunyakumthorn P, Chan TC, Jones M, Fedrow AL, Chattopadhyay S, Jiang J, Anantatat T, Day NP, Turner GD, Paris DH, **Richards AL**. Host innate immune responses of CD-1 outbred mice to the intradermal inoculation of *Orientia tsutsugamushi* Karp, Gilliam and Woods strains. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.

214. Fitak R, Kelly DJ, Daniels MK, Jiang J, **Richards AL**, Fuerst PA. A longitudinal study of the prevalence of rickettsial and ehrlichial endosymbionts in Ohio *Amblyomma americanum* ticks. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
215. Luce-Fedrow A, Macaluso KR, **Richards AL**. *Rickettsia felis* infection in *Drosophila* S2 cells. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
216. **Richards AL**. Update on the diversity and characteristics of *Rickettsia felis*-like bacteria. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
217. Maina A, Jiang J, **Richards A**. Flea-borne rickettsiae in western Kenya, 2007-2010. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
218. Mullins K, Jiang J, Leguia M, Kasper M, Gonzalez J, Smoak B, Canal E, Solarzano N, Meza R, Maguina C, Myers T, Blazes D, Laughlin L, Jarman R, **Richards AL**. Whole Genome Sequencing of a Novel *Bartonella* Agent Found to Cause Verruga Peruana. 25th Meeting of the American Society for Rickettsiology. Park City, Utah. July 28-31, 2012.
219. **Richards AL**. Rickettsiae that parasitize ticks and mites. XXIV International Congress of Entomologists. Daegu, Republic of Korea. 19-25 August 2012. Invited speaker.
220. VieBrock L, Beyer AR, Ge H, **Richards AL**, Carlyon JA. *Orientia tsutsugamushi* expresses *virB/D* genes and upregulates the candidate Type IV effector ankyrin repeat-containing protein 4. Biophysical Aspects of Type IV Secretion Workshop Sep. 2012.
221. An H, Jiang J, Zhang Y, Song D, Bao Y, **Richards AL**. Prevalence of rickettsial infections among fever patients in Henan Province, China. 61st Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 11-15 Nov 2012.
222. Villaran MV, Guevara C, **Richards A**, Ching WM, Chao CC, Chen HW, Fiestas V, Vargas J, Aquayo N, Madrid C, Vimos C, Kochel T, Halsey E. Rickettsioses in humans presenting with febrile illness in four South American countries. 61st Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 11-15 Nov 2012.
223. **Richards AL**. *Rickettsia* of military importance: an update. 61st Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 11-15 Nov 2012.
224. Sukhiashvili R, Zhgenti E, Khmaladze E, Tsertsvadze N, Alkhazashvili M, Francesconi S, Wallace E, **Richards A**, Pisarcik S. Detection of *Rickettsia*, *Ehrlichia* and *Borrelia* species in ticks from different regions of Georgia using real-time PCR assays. ASM BioDefense annual meeting. Washington DC. 24-27 Feb 2013.
225. Jiang J, Zhi B, Tong M, Chan TC, Ge H, **Richards AL**. Prediction and Immunogenicity: Genetic Analysis of the *ScaC* Genes among disparate strains of *Orientia tsutsugamushi*. 26th Meeting of the American Society for Rickettsiology, Portland, Maine. June 15-18, 2013.
226. Sunyakumthorn P, Somponpun SJ, Imerbsin R, Anantatat T, Jenjaroen K, Dunachie S, Lombardini ED, Burke RL, **Richards AL**, Day NPJ, Paris DH. Susceptibility of Rhesus macaques (*Macaca mulatta*) to *Orientia tsutsugamushi*: Development of a non-human primate model of scrub typhus by an intradermal inoculation. 26th Meeting of the American Society for Rickettsiology, Portland, Maine. June 15-18, 2013.
227. Beyer AR, VieBrock L, Evans AM, Singh S, Ge H, **Richards AL**, Carlyon JA. Characterizing the molecular choreography of *Orientia tsutsugamushi* ankyrin repeat proteins. Cold Spring Harbor Asia conference, Bacterial Infection and Host Defense, Suzhou, China, Nov 18-22, 2013.
228. Zhgenti E, Sukhiashvili R, Khmaladze E, Tsertsvadze N, Pisarcik S, Farris C, **Richards A**. Prevalence of *Rickettsia*, *Ehrlichia* and *Borrelia* in arthropods in Georgia. 62nd Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 13-17 Nov 2013. Abst # 744.
229. St. John HK, Masuoka PM, Taylor ML, Flyer JG, Jiang J, Rozmajzl PJ, Stromdahl EY, **Richards AL**. *Rickettsia montanensis* positive *Dermacentor variabilis* ticks collected from US military

- personnel in the continental US from 2002-2012. 62nd Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 13-17 Nov 2013. Abst# LB-2014.
230. Odhiambo AM, Maina AN, Taylor ML, Jiang J, **Richards AL**. Development and validation of a quantitative real-time polymerase chain reaction (qPCR) assay specific for the detection of *Rickettsia felis* and *Rickettsia felis*-like organisms. 62nd Annual meeting of The American Society of Tropical Medicine and Hygiene, Atlanta, GA. 13-17 Nov 2013. Abst # LB-2040.
231. Zghenti E, Sukhiashvili R, Khmaladze E, Tsertsvadze N, Lee J, Obiso RJ, Francesconi S, Pisarcik S, Metreveli M, Farris C, **Richards A**, Imnadze P. *Rickettsia* and *Borrelia* prevalence among ticks in Georgia. 2013 International Society for Disease Surveillance (ISDS) Conference, New Orleans, LA. 12-13 Dec 2013.
232. **Richards AL**. Rickettsial diseases in eastern Africa. Invited Speaker. 16th International Congress on Infectious Diseases, Cape Town, South Africa. 2-5 Apr 2014. Abst # 32.001.
233. Andryushchenko A, Ayazbayev T, **Richards A**, Pisarcok S. Tick identification in northwestern Kazakhstan using morphological and molecular characteristics. 16th International Congress on Infectious Diseases, Cape Town, South Africa. 2-5 Apr 2014. Abst# 60.014.
234. Andryushchenko AV, Ayazbayev TZ, Bidashko FG, Tanitovsky VA, Farris CM, **Richards AL**. Detection of rickettsial DNA from Ixodid ticks of the West Kazakhstan region. ASM 2014 Boston, MA. 17-20 May 2014. Abst: #852.
235. Kyraubayev K, Shapiyeva Z, Utegenova U, Zhandosov S, Beysenaeva M, Ziyadina L, Omasheva G, Hay J, Farris CM, **Richards AL**. Study of *Dermacentor marginatus* ticks for rickettsiae in Central Kazakhstan. ASM 2014 Boston, MA. 17-20 May 2014. Abst: #858.
236. Huseynova E, Garges E, Seyidov A, Robert R, **Richards A**, Farris C, Dyson H, Ahmadkhanov T, Huseynov N. Seroprevalence of specific antibodies to rickettsial pathogens in young male volunteers in Azerbaijan. International Meeting on Emerging Diseases and Surveillance. Vienna, Austria. 31 Oct-3 Nov 2014.
237. Salmon-Mulanovich G, Simons M, Silva M, Ghersi BM, Kasper M, Razuri HR, Bausch DG, **Richards AL**. Human seroprevalence of leptospirosis and rickettsiosis in four regions of Peru. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #
238. Luce-Fedrow A, Maina AN, **Richards AL**. Isolation, cultivation, and characterization of *Candidatus Rickettsia asemboensis* from Kenyan fleas. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst # 3248 1220 110.
239. Jiang J, Horton KC, Maina AN, Dueger E, Pimentel G, **Richards AL**. A study of rickettsial and orientia infection among abattoir workers and the detection of Rickettsiae in ticks, Djibouti. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst # 3292 114 A.
240. Farris CM, **Richards AL**, Myers TE. Q fever and rickettsiosis in U.S. marines deployed to Afghanistan. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst # 3186 111 A.
241. Mullins KE, Paris D, Dittrich S, Blacksell S, Newton P, **Richards AL**. Investigation of genotype variations in *Orientia tsutsugamushi* obtained from moderate and severe scrub typhus patients. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #3204 1852 162.
242. Mullins KE, Hang J, Clifford R, Onmus-Leone F, Lesho E, Jiang J, Leguia M, Maguina C, Jarman RG, Blazes D, **Richards AL**. Characterization of *Candidatus Bartonella ancashi*: a new agent associated with Carrion's Disease. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #.

243. Prouty MG, Supaprom C, Hip P, Ouch P, Kim L, Rachmat A, Chenda Y, **Richards AL**, Jiang J, Huy R. Serologic surveillance of rickettsial diseases in northeastern and central Cambodia. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #.
244. Maina AN, Jiang J, **Richards AL**. *Rickettsia africae* variants. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #.
245. Maina AN, O'Meara W, Jiang J, Farris CM, **Richards AL**. Q fever, scrub typhus and rickettsial diseases are common causes of fevers of unknown origin among the pediatric patients in western Kenya. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #4301 LB_3307 B.
246. Gaywee J, Rodkvamtook W, Sangjun N, Utainnam D, Sakpaisal P, Prompinit C, Kumtim L, St. John H, Jiang J, Siri wattanakul K, Sornsamran W, Kormanee P, Somsri K, Kuttasingkee N, Na Ayuthaya AS, Sirisopana N, **Richards A**. Survey for arthropod-borne bacterial pathogens to determine risk areas along Thai borders. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst #.
247. **Richards A**, Jiang J, Maina A, Horton K, Dueger E, Pimentel G, Mutai B, Thiga J, Waitumbi J. Scrub typhus in Africa. 63rd Annual Meeting of The American Society of Tropical Medicine and Hygiene, New Orleans, LA. 2-6 Nov 2014. Abst # 3226 112 A.
248. Miller MK, Pagac BB, Mazzei M, Stromdahl E, **Richards A**, Jiang J. *Amblyomma maculatum* Koch and *Rickettsia parkeri* in the Eastern US. ESA's 62nd Annual Meeting, Portland, OR. Nov 16-19, 2014.