




## David Vu

Clinical Associate Professor, Pediatrics - Infectious Diseases

 NIH Biosketch available Online

### CLINICAL OFFICE (PRIMARY)

- **Pediatric Infectious Disease**

730 Welch Rd

MC 5884 2nd Fl

Palo Alto, CA 94304

**Tel** (650) 721-5805      **Fax** (650) 725-8040

### Bio

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#### BIO

Dr. Vu is a pediatric infectious diseases specialist who is researching human responses to dengue virus and malaria infections. He performed his undergraduate studies at the University of California, San Diego, and obtained his medical doctorate at the University of Pennsylvania School of Medicine. He trained in general pediatrics at UCSF Benioff Children's Hospital Oakland, and in pediatric infectious diseases at Emory University School of Medicine. His present studies on pediatric dengue and malaria co-infection are supported by an NIAID Career Development Award (K23 AI127909) and a Instructor K Award Support Program Award from the Maternal & Child Health Research Institute and Department of Pediatrics.

#### CLINICAL FOCUS

- Pediatric Infectious Diseases

#### ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Pediatrics - Infectious Diseases
- Member, Maternal & Child Health Research Institute (MCHRI)

#### HONORS AND AWARDS

- KL-2 Career Development Award, Spectrum (Stanford CTSA) (7/2016-6/2018)
- Ruth L. Kirschstein National Research Service Award, NIAID, NIH (7/2003-6/2006)

#### PROFESSIONAL EDUCATION

- Residency: UCSF Pediatric Fellowships (2002) CA
- Board Certification: Pediatric Infectious Diseases, American Board of Pediatrics (2015)
- Medical Education: Perelman School of Medicine University of Pennsylvania (2000) PA
- Board Certification: Pediatrics, American Board of Pediatrics (2009)
- Fellowship: Emory University School of Medicine (2009) GA
- Residency: Children's Hospital of Oakland (2009) CA

- Fellowship: Childrens Hospital Oakland (2006) CA
- Internship: Children's Hospital of Oakland (2001) CA
- Fellowship, Emory University School of Medicine , Pediatric Infectious Diseases (2009)
- Residency, Children's Hospital & Research Center Oakland , General Pediatrics (2007)
- M.D., University of Pennsylvania School of Medicine (2000)
- B.S., University of California, San Diego , Animal Physiology & Neuroscience (1996)

## Teaching

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### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Epidemiology (Masters Program)

## Publications

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### PUBLICATIONS

- **Detection of acute dengue virus infection, with and without concurrent malaria infection, in a cohort of febrile children in Kenya, 2014-2019, by clinicians or machine learning algorithms.** *PLOS global public health*  
Vu, D. M., Krystosik, A. R., Ndenga, B. A., Mutuku, F. M., Ripp, K., Liu, E., Bosire, C. M., Heath, C., Chebii, P., Maina, P. W., Jembe, Z., Malumbo, S. L., Amugongo, et al  
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- **DENGUE VIRUS INFECTION LOWERED THE PERCENTAGE OF ATYPICAL MEMORY B CELLS IN KENYAN CHILDREN**  
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AMER SOC TROP MED & HYGIENE.2021: 327-328
- **High Dengue Burden and Circulation of 4 Virus Serotypes among Children with Undifferentiated Fever Kenya, 2014-2017** *EMERGING INFECTIOUS DISEASES*  
Shah, M. M., Ndenga, B. A., Mutuku, F. M., Vu, D. M., Grossi-Soyster, E. N., Okuta, V., Ronga, C. O., Chebii, P. K., Maina, P., Jembe, Z., Bosire, C. M., Amugongo, J. S., Sahoo, et al  
2020; 26 (11): 2638–50
- **High frequency of antibiotic prescription in children with undifferentiated febrile illness in Kenya.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*  
Hooff, A. M., Ndenga, B., Mutuku, F., Otuka, V., Ronga, C., Chebii, P. K., Maina, P. W., Jembe, Z., Lee, J., Vu, D. M., Mukoko, D., LaBeaud, A. D.  
2020
- **Parasitic infections during pregnancy need not affect infant antibody responses to early vaccination against Streptococcus pneumoniae, diphtheria, or Haemophilus influenzae type B.** *PLoS neglected tropical diseases*  
McKittrick, N. D., Malhotra, I. J., Vu, D. M., Boothroyd, D. B., Lee, J., Krystosik, A. R., Mutuku, F. M., King, C. H., LaBeaud, A. D.  
2019; 13 (2): e0007172
- **Parasitic infections during pregnancy need not affect infant antibody responses to early vaccination against Streptococcus pneumoniae, diphtheria, or Haemophilus influenzae type B** *PLOS NEGLECTED TROPICAL DISEASES*  
McKittrick, N. D., Malhotra, I. J., Vu, D. M., Boothroyd, D. B., Lee, J., Krystosik, A. R., Mutuku, F. M., King, C. H., LaBeaud, A.  
2019; 13 (2)
- **Acute Flavivirus and Alphavirus Infections among Children in Two Different Areas of Kenya, 2015** *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*  
Hortion, J., Mutuku, F. M., Eyherabide, A. L., Vu, D. M., Boothroyd, D. B., Grossi-Soyster, E. N., King, C. H., Ndenga, B. A., Desiree LaBeaud, A.  
2019; 100 (1): 170–73
- **Congenital Syphilis Misdiagnosed as Suspected Nonaccidental Trauma.** *Pediatrics*  
Jacobs, K. n., Vu, D. M., Mony, V. n., Sofos, E. n., Buzi, N. n.  
2019

- **Acute Flavivirus and Alphavirus Infections among Children in Two Different Areas of Kenya, 2015.** *The American journal of tropical medicine and hygiene*  
Hortion, J., Mutuku, F. M., Eyherabide, A. L., Vu, D. M., Boothroyd, D. B., Grossi-Soyster, E. N., King, C. H., Ndenga, B. A., LaBeaud, A. D.  
2018
- **Seroepidemiological Studies of Arboviruses in Africa**  
Gudo, E., Ali, S., Antonio, V. S., Chelene, I. R., Chongo, I., Demanou, M., Falk, K., Guiliche, O. C., Heinrich, N., Monteiro, V., Muianga, A. F., Oludele, J., Mula, et al  
edited by Hilgenfeld, R., Vasudevan, S. G.  
SPRINGER-VERLAG SINGAPORE PTE LTD.2018: 361–71
- **PHYLOGENETIC ANALYSES OF ALL FOUR DENGUE VIRUS SEROTYPES DETECTED IN WESTERN KENYA, 2014-2015**  
Hortion, J., Edgerton, S., Vu, D., Mutai, N., Ndenga, B., Bennett, S., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2018: 280
- **UNRECOGNIZED DENGUE AND CHIKUNGUNYA HUMAN TRANSMISSION IN WESTERN AND COASTAL KENYA**  
LaBeaud, A., Mutuku, F., Grossi-Soyster, E., Vu, D., Krystosik, A., Lee, J., Mukoko, D., King, C., Ndenga, B.  
AMER SOC TROP MED & HYGIENE.2018: 505
- **EVALUATION OF THE HEALTH-RELATED QUALITY OF LIFE OF CHILDREN WITH DENGUE AND MALARIA IN WESTERN KENYA**  
Liu, E., Vu, D., Boothroyd, D., Ndenga, B., Onyango, W., Okuta, V., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 31–32
- **CHIKUNGUNYA VIRUS INFECTION IS CAUSING ACUTE FEBRILE ILLNESS AMONG CHILDREN IN KENYA**  
Hortion, J., Vu, D. M., Grossi-Soyster, E. N., Okuta, V., Jembe, Z., Maina, P., Chebii, P., Onyango, W. A., King, C. H., Ndenga, B. A., Mutuku, F. M., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 223
- **PLASMODIUM FALCIPARUM CO-INFECTION MODULATES DENGUE DISEASE SEVERITY**  
Vu, D. M., Ripp, K., Mutai, N., Ndenga, B. A., Heath, C., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 32
- **Unrecognized Dengue Virus Infections in Children, Western Kenya, 2014-2015** *EMERGING INFECTIOUS DISEASES*  
Vu, D. M., Mutai, N., Heath, C. J., Vulule, J. M., Mutuku, F. M., Ndenga, B. A., LaBeaud, A.  
2017; 23 (11): 1915–17
- **DENGUE VIREMIA IN KENYAN CHILDREN WITH ACUTE FEBRILE ILLNESS**  
Vu, D. M., Mutai, N., Heath, C., Ndenga, B. A., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 429
- **PRINCIPLES, PRACTICES, AND KNOWLEDGE OF PROVIDERS EVALUATING CHILDREN PRESENTING WITH FEVER IN KENYA**  
Hooft, A. M., Ripp, K., Ndenga, B., Mutuku, F., Vu, D., Baltzell, K., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 332
- **MATERNAL PARASITIC INFECTIONS ALTER INFANT ANTIBODY RESPONSE TO PNEUMOCOCCAL IMMUNIZATION**  
McKittrick, N. D., Vu, D. M., Boothroyd, D., Malhotra, I., King, C. H., Mutuku, F. M., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 29
- **Principles, practices and knowledge of clinicians when assessing febrile children: a qualitative study in Kenya** *MALARIA JOURNAL*  
Hooft, A. M., Ripp, K., Ndenga, B., Mutuku, F., Vu, D., Baltzell, K., Masese, L. N., Vulule, J., Mukoko, D., LaBeaud, A.  
2017; 16: 381
- **The role of anti-NHba antibody in bactericidal activity elicited by the meningococcal serogroup B vaccine, MenB-4C** *VACCINE*  
Partridge, E., Lujan, E., Giuntini, S., Vu, D. M., Granoff, D. M.  
2017; 35 (33): 4236–44
- **Parasitic Infections in Pregnancy Decrease Placental Transfer of Antipneumococcus Antibodies.** *Clinical and vaccine immunology*  
McKittrick, N. D., Vu, D. M., Malhotra, I., King, C. H., Mutuku, F., LaBeaud, A. D.  
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- **Chikungunya Virus.** *Clinics in laboratory medicine*  
Vu, D. M., Jungkind, D., Angelle Desiree LaBeaud  
2017; 37 (2): 371-382
- **Pneumococcal Vaccine Response After Exposure to Parasites in Utero, in Infancy, or Mid-Childhood** *PEDIATRICS*  
Singer, M. N., Heath, C., Muinde, J., Gildengorin, V., Mutuku, F. M., Vu, D., Mukoko, D., King, C. L., Malhotra, I. J., King, C. H., LaBeaud, A. D.  
2017; 139 (4)
- **Dengue and West Nile Virus Transmission in Children and Adults in Coastal Kenya** *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*  
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2017; 96 (1): 141-143
- **DENGUE AND CHIKUNGUNYA HUMAN TRANSMISSION IN WESTERN AND COASTAL KENYA: GEOGRAPHIC, CLIMACTIC, VECTORIAL AND SOCIODEMOGRAPHIC RISK FACTORS FOR EXPOSURE AND DISEASE**  
LaBeaud, A., Ndenga, B. A., Grossi-Soyster, E. N., Vu, D. M., Krystosik, A. R., Ngugi, H., Anyamba, A., Damoah, R., Kiptoo, C., Vulule, J., Mukoko, D., Kitron, U., King, et al  
AMER SOC TROP MED & HYGIENE.2017: 429-30
- **DIFFERENCES IN SYMPTOMATOLOGY OF CHILDHOOD DENGUE, CHIKUNGUNYA AND MALARIA INFECTION IN KENYA**  
Vu, D. M., Grossi-Soyster, E. N., Krystosik, A. R., Kiptoo, C., King, C. H., Vulule, J., Mukoko, D., Ndenga, B. A., Mutuku, F. M., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 552
- **DEMOGRAPHIC AND REGIONAL RISK FACTORS FOR MALARIA-ASSOCIATED HOSPITALIZATIONS IN WESTERN AND COASTAL KENYA**  
Suresh, P., Krystosik, A., Vu, D. M., Kiptoo, C., Vulule, J., Mukoko, D., Kitron, U., King, C. H., Ndenga, B., Mutuku, F. M., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2017: 321
- **Dengue and West Nile Virus Transmission in Children and Adults in Coastal Kenya.** *American journal of tropical medicine and hygiene*  
Vu, D. M., Banda, T., Teng, C. Y., Heimbaugh, C., Muchiri, E. M., Mungai, P. L., Mutuku, F. M., Brichard, J., Gildengorin, G., Borland, E. M., Powers, A. M., Kitron, U., King, et al  
2016
- **EVIDENCE OF TRANSMISSION OF DENGUE AND CHIKUNGUNYA VIRUSES IN WESTERN KENYA**  
Vu, D. M., Musaki, S., Ndenga, B. A., Mutuku, F. M., Harris, E., Heise, M. T., Mukoko, D., Vulule, J., Kitron, U., King, C. H., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2015: 47
- **PNEUMOCOCCAL VACCINE RESPONSE IN MID-CHILDHOOD IS NOT AFFECTED BY PREVIOUS PARASITE EXPOSURE IN UTERO OR DURING THE FIRST THIRTY-SIX MONTHS OF LIFE IN COASTAL KENYA**  
Singer, M., King, C., Vu, D. M., Heath, C. J., Malhotra, I., Mutuku, F., Mwinde, J., Mungai, P., Mukoko, D., LaBeaud, A.  
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- **STREPTOCOCCUS PNEUMONIAE CARRIAGE RATES AND SEROTYPE PREVALENCE IN COASTAL KENYA**  
Heath, C., Singer, M., Vu, D. M., Mutuku, F., King, C. H., Malhotra, I., LaBeaud, A.  
AMER SOC TROP MED & HYGIENE.2015: 343
- **ACUTE FEBRILE ILLNESS DUE TO DENGUE VIRUS INFECTIONS AMONG CHILDREN IN WESTERN KENYA**  
Ndenga, B. A., Mutai, N., Heath, C., Vu, D., Mutuku, F., Mukoko, D., Vulule, J., King, C., LaBeaud, A. D.  
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Lewis, L. A., Vu, D. M., Granoff, D. M., Ram, S.  
2014; 82 (6): 2574-2584
- **Fusion protein comprising factor H domains 6 and 7 and human IgG1 Fc as an antibacterial immunotherapeutic.** *Clinical and vaccine immunology : CVI*  
Shaughnessy, J. n., Vu, D. M., Punjabi, R. n., Serra-Pladevall, J. n., DeOliveira, R. B., Granoff, D. M., Ram, S. n.  
2014; 21 (10): 1452-59
- **Factor H-Dependent Alternative Pathway Inhibition Mediated by Porin B Contributes to Virulence of Neisseria meningitidis** *MBIO*

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- Lewis, L. A., Vu, D. M., Vasudhev, S., Shaughnessy, J., Granoff, D. M., Ram, S.  
2013; 4 (5)
- **fH-dependent complement evasion by disease-causing meningococcal strains with absent fHbp genes or frameshift mutations** *VACCINE*  
Giuntini, S., Vu, D. M., Granoff, D. M.  
2013; 31 (38): 4192-4199
  - **A Broadly Cross-Reactive Monoclonal Antibody Against an Epitope on the N-terminus of Meningococcal fHbp (vol 2, pg 341, 2012)** *SCIENTIFIC REPORTS*  
Vu, D. M., Pajon, R., Reason, D. C., Granoff, D. M.  
2013; 3
  - **A Broadly Cross-Reactive Monoclonal Antibody Against an Epitope on the N-terminus of Meningococcal fHbp** *SCIENTIFIC REPORTS*  
Vu, D. M., Pajon, R., Reason, D. C., Granoff, D. M.  
2012; 2
  - **Enhanced Bacteremia in Human Factor H Transgenic Rats Infected by Neisseria meningitidis** *INFECTION AND IMMUNITY*  
Vu, D. M., Shaughnessy, J., Lewis, L. A., Ram, S., Rice, P. A., Granoff, D. M.  
2012; 80 (2): 643-650
  - **Cooperative serum bactericidal activity between human antibodies to meningococcal factor H binding protein and Neisserial heparin binding antigen** *VACCINE*  
Vu, D. M., Wong, T. T., Granoff, D. M.  
2011; 29 (10): 1968-1973
  - **NEISSERIA SICCA/SUBFLAVA BACTEREMIA PRESENTING AS CUTANEOUS NODULES IN AN IMMUNOCOMPROMISED HOST** *PEDIATRIC INFECTIOUS DISEASE JOURNAL*  
Jung, J. J., Vu, D. M., Clark, B., Keller, F. G., Spearman, P.  
2009; 28 (7): 661-663
  - **Group A antibody persistence five years after meningococcal polysaccharide vaccination in the Sudan** *HUMAN VACCINES*  
Flitter, B. A., Ismail, A., Vu, D., Granoff, D. M.  
2007; 3 (4): 135-138
  - **Effectiveness analyses may underestimate protection of infants after group C meningococcal immunization** *45th Interscience Conference on Antimicrobial Agents and Chemotherapy*  
Vu, D. M., Kelly, D., Heath, P. T., McCarthy, N. D., Pollard, A. J., Granoff, D. M.  
OXFORD UNIV PRESS INC.2006: 231-37
  - **Priming for immunologic memory in adults by meningococcal group C conjugate vaccination** *CLINICAL AND VACCINE IMMUNOLOGY*  
Vu, D. M., de Boer, A. W., Danzig, L., Santos, G., Canty, B., Flores, B. M., Granoff, D. A.  
2006; 13 (6): 605-610
  - **Antibody persistence 3 years after immunization of adolescents with quadrivalent meningococcal conjugate vaccine** *43rd Annual Meeting of the Infectious-Diseases-Society-of-America*  
Vu, D. M., Welsch, J. A., Zuno-Mitchell, P., Dela Cruz, J. V., Granoff, D. M.  
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