

Curriculum Vitae
Sarah L. George, M.D.

Personal Information

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Current Position, Institution and start date

1. Professor of Internal Medicine, Division of Infectious Diseases, Allergy, and Immunology, Saint Louis University, St. Louis, MO 2022-present
2. Associate Professor of Internal Medicine, Division of Infectious Diseases, Allergy, and Immunology, Saint Louis University, St. Louis, MO 2011-2022
3. Adjunct Professor of Molecular Microbiology and Immunology, Saint Louis University, St. Louis, MO 2011-present
4. VA Staff physician, St. Louis VA Medical Center 2005-present

Education

Fellowship
University of Iowa Infectious Diseases Fellow 07/97-06/00
University of Michigan and St. Joseph Mercy Hospital Ann Arbor HIV fellow 07/96-06/97

Residency
University of Michigan 07/94-06/96

Internship
University of Michigan 06/93-06/94

Graduate degree and major
University of Chicago Pritzker School of Medicine, M.D. 09/89-06/93

Undergraduate degree and major
Carleton College, B.A., Biology, with Honors 09/85-06/89

Previous Professional experience

1. Assistant Professor of Internal Medicine, Division of Infectious Diseases, Allergy, and Immunology, St. Louis, MO 2003-2011
2. Adjunct Assistant Professor of Molecular Microbiology and Immunology, Saint Louis University, St. Louis, MO 2004-2011
3. VA Research, St. Louis VA Medical Center 2003-2005
4. Instructor, Division of Infectious Diseases, University of Iowa, Iowa City, Iowa 2000-2003
5. VA Research, Iowa City VA Medical Center 1999-2003

Hospital and Clinical Staff appointments

1. Saint Louis University Hospital/SLUCare-SSM Health 2003-2023
2. St. Louis VA Medical Center 2005-present
3. University of Iowa Hospitals, Iowa City, Iowa 2000-2003
4. Iowa City VA Medical Center 2000-2003

Board Certification and Licensure

Board Certification

Internal Medicine	1996-current
Infectious Diseases	1999-current
Licensure	
Michigan (trainee license only)	1993-1997
Iowa	1997-2003
Missouri	2003-current

Professional Society memberships

National: American Society of Tropical Medicine and Hygiene (ASTMH)
Infectious Diseases Society of America
Regional: Infectious Diseases Society of St. Louis

Honorary Societies, Honors and Awards

VA Investigator of the Year, St. Louis VA medical center	2023
National Merit Scholarship, National Honor Society	1985
Honors in Biology, Magna Cum Laude	1989
Phi Beta Kappa	1989
Sigma Xi	1989

Professional Services

Study sections:

National (NIH, VA, and Department of Defense)

1. Co-Chair, VA INF A study section, standing panel member, December 2, 2025.
2. Co-Chair, VA INF A study section, standing panel member, May 22, 2025
3. Special Emphasis Panel ZAI1-KAR-M (C2) HHS-NIH-CDC-SBIR PHS 2025-1: Discovery and Development of Oral Small-molecule Direct-acting Antivirals Targeting Viruses of Pandemic Potential (Topic 146), January 2025
4. Chair, 2025/01 Special Emphasis Panel ZRG1 DCAI-J (02) M 12/13/2024-12/13/2024 review of R01 and R21 applications Topics in Disease Control and Applied Immunology related to Vaccine Development/ Etiology, Diagnostic, Intervention and Treatment of Infectious Diseases, December 2024
5. VA INF A study section, standing panel member, November 22, 2024
6. Co-chair, VA INF A study section, standing panel member, May 23, 2024
7. Co-chair, VA INF A study section, standing panel member, November 28, 2023
8. Co-chair, VA INF A study section, standing panel member, May 25, 2023
9. ZRG1 NV U (90) Study Section Uniformed Services University's (USU's) Multi-domain Operations (MDO) Research grant applications October 27-28 2022

10. NIH Vaccines against Microbial Diseases (VMD) June 2022
11. Co-Chair, VA INF A study section, standing panel member, May 26 2022
12. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, February, 2022
13. SEP: ZAI1-MFH-W-S2 to review applications received in response to: Notice of Special Interest (NOSI): Availability of Emergency Awards for Limited Clinical Trials to Evaluate Therapeutic and Vaccine Candidates Against SARS-CoV-2 July 14, 2021
14. Congressionally Directed Medical Research Programs (CDRMP) Discovery Award, July 2021.
15. NIH Vaccines against Microbial Diseases (VMD) June 2021
16. Chair, VA INF A Study section, standing panel member, May 27, 2021
17. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, February, 2021
18. Co-Chair, VA INF A study section, standing panel member, December 2020
19. VA Review Panel ZRD1 SPLO -K (01) 2 for SARS-CoV-2/COVID-19, July 2020
20. Chair, Peer Reviewed Medical Research Program on the Coronavirus Disease - Therapeutics - 1 (COVID-T-1) panel, July, 2020
21. VA INF A study section, standing panel member, May 2020
22. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, March, 2020
23. NIH Special Emphasis panel ZAI1-MFH-M-J1 "NIAID Clinical Trial Planning Grant (R34); NIAID Clinical Trial Cooperative Agreement (U01); NIAID SBIR Phase II Clinical Trial Implementation Agreement (U44)" January 21-22, 2020
24. VA INF A study section, standing panel member, December 2019
25. Co-Chair, NIAID R01 2020/01 ZRG1 PSE-D (55) R PAR 17-142: International Research in Infectious Diseases, including AIDS, November 7, 2019.
26. VA INF A study section, standing panel member, May 2019
27. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, March, 2019
28. Chair, NIAID SBIR Phase II Clinical Trial Implementation Cooperative Agreement (U44), Clinical Trial Implementation Cooperative Agreement (U01), and Clinical Trial Planning Grant (R34) ZAI1 GPJ-M (M1) 1, January 2019
29. VA Merit Review, INF A panel, standing member, November 2018
30. Congressionally Directed Medical Research Programs (CDMRP) 2017 Defense Health Program OSD, October 2018

31. Chair, NIAID Special Emphasis panel “Planning and Implementation of Investigator-Initiated Clinical Trials”, September 17, 2018
32. NIH/NIAID Special Emphasis panel Vaccines, Host Defense, and Inflammation ZRG1-IMM-C 02 M, June 28, 2018
33. NIH/NIAID Special Emphasis panel: Clinical Trial Planning Grant (R34); NIAID Clinical Trial Implementation Grant (R01); NIAID Clinical Trial Implementation Cooperative Agreement (U01) ZAI1-MFH-MS2, June 18-19, 2018
34. VA Merit Review, INF A panel, May 2018
35. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, March, 2018
36. NIAID Special Emphasis panel Clinical Trial Implementation Grant (U44) ZAI1-VV-M, November 2017
37. NIAID Special Emphasis panel U01 ZAI1-KP-M (J1), August 2017
38. Chair, NIAID Special Emphasis panel Clinical Trial Implementation grant, ZAIJ-JKB-M-S2, August 2017
39. NIAID Special Emphasis panel Rapid Assessment of Zika Complications ZAI1 AWA-M (M2), May 2017
40. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, March 21, 2017.
41. Congressionally Directed Medical Research Programs (CDMRP) Peer-reviewed Medical Research Panel, Pre-application review, influenza panel, July 2016
42. NIH NHLBI Rapid Assessment of Zika Virus (ZIKV) Complications (R21), July 21, 2016.
43. MPMC BAA for Extramural Medical Research, April 2016
44. Military Infectious Diseases Research Program (MIDRP), Flavivirus panel, March 22, 2016.
45. NIH NIAID Clinical Trial Implementation Cooperative Agreement (U01), ZAI1 JKB-M, November 24, 2015.
46. Congressionally Directed Medical Research Programs (CDRMP) Peer Reviewed Medical Research Program (PRMRP), December 2, 2015.
47. NIH NIAID Clinical Trial Planning Grant (R34), April 16, 2015.
48. NIH NIAID International Collaborations in Infectious Disease Research (ICIDR) Special Emphasis Panel. August 20-22, 2014.

University

1. SLU PRF Study Section, March 2025
2. SLU Internal Medicine Seed Grant 2024
3. 2024 School of Medicine Research Opportunity Fund
4. SLU PRF Study Section, March 2023
5. SLU PRF Study Section, March 2021
6. SLU PRF Study Section, March 2019
7. SLU Research Growth Fund, November 2019

8. SLU PRF Study Section, March 2018
9. SLU PRF Study Section, August 2013

Committee Memberships:

International:

1. NIH/NIAID DMID, Clinical Trial Safety Monitoring Committee (SMC), Member. Protocol: 18-0022. Title: A Phase 1b Double-Blind, Placebo-Controlled, Dose-Ranging Study to Evaluate the Safety, Pharmacokinetics, and Anti-Viral Effects of Galidesivir Administered via Intravenous Infusion to Subjects with Yellow Fever or COVID19 at 5 clinical sites in Brazil. 2019-2021.

National:

1. Safety Monitoring Committee (SMC): A Phase 1, Open label, Dose-Escalation Study to Evaluate the Safety, Reactogenicity and Immunogenicity of a Nanoparticle Carrier-Formulated Self Amplifying RNS Vaccine against Crimean-Congo Hemorrhagic Fever (HDT-321) in Healthy Adults. June 2025-
2. NIH/NIAID DMID, Safety Monitoring Committee (SMC) Protocol: 22-0002 An Open Label, Cross-over Study to Evaluate the Effect of Food on the Pharmacokinetics, Safety and Tolerability of VNRX-7145 with Ceftibuten in Healthy Participants
3. NIH/NIAID DMID, Expert Working Group, Emerging Infectious Diseases 2021-present
This includes review of proposals submitted to the EWG, including pilot projects, clinical trials, 1 year proposals, and other.
4. NIH/NIAID DMID, Expert Working Group, Monkeypox 2022-2023
5. NIH/NIAID DMID, Innovations committee 2022-present
6. NIH/NIAID DMID, Pilot Projects review committee 2022-present
6. NIH/NIAID DMID, Expert Working Group, Malaria and Tropical Diseases 2020-2021
7. NIH/NIAID DMID, Clinical Trial Safety Monitoring Committee (SMC), mentee, Protocol: 16-0118. Title: A Phase 1 Clinical Trial to Evaluate the Plasma Pharmacokinetics, Safety, and Tolerability of a Single Oral Dose of Zoliflodacin in Healthy Male and Female Subjects 2017-2019

Saint Louis University:

1. Saint Louis University Research Planning Committee 2023-2025
2. Saint Louis University School of Medicine Research Space Review Committee 2022-2025
3. Saint Louis University School of Medicine Appointment, Promotion, and Tenure Committee 2022-present
4. Division of Infectious Diseases Faculty Recruitment Committee 2021-present

5. Division of Infectious Disease Fellows Research Committee 2021-present
6. Division of Infectious Diseases Clinical Section Committee 2021-present
7. Saint Louis University Department of Internal Medicine Research Committee and Clinical Research Working Group 2020-present
8. Saint Louis University Department of Internal Medicine Promotion and Tenure Committee. 2017-present
9. Dean's review committee for Department of Orthopedic Surgery 2010-2011
10. Saint Louis University Department of Internal Medicine Mentoring Committee. 2005-2013

St Louis VA Medical Center:

1. St. Louis Veterans Administration Institutional Animal Care and Use Committee (IACUC) 2013-present
Chair, 2026-present
2. St. Louis Veterans Administration Research and Development Committee (R and D) Member, 2026-present

Editorships:

2019: Guest Editor, *Vaccine*, Special Edition on Flavivirus vaccine development.
2014-2020: Academic Editor, *PLoS ONE*.

Ad hoc reviewer/referee for peer-reviewed journals:

1999-Current:

Science Translational Medicine
Hepatology
Journal of Infectious Diseases
PLoS ONE
Vaccine
Vaccines
Clinical Infectious Diseases
Journal of Infection
Journal of Infectious Diseases
Journal of General Virology
HIV Medicine
European Journal of Infectious Diseases
European Journal of Clinical Investigation
Viral Immunology
Journal of Antivirals and Antiretrovirals
Journal of Viral Hepatitis
Diagnostic Microbiology and Infectious Diseases
International Journal of Virology and AIDS
Reviews in Medical Virology

Virulence
 American Journal of Tropical Medicine and Hygiene
 NPJ Vaccines
 mSphere
 Rapid Reviews/Infectious Diseases
 Infectious Diseases and Therapy

Current and Past Teaching Responsibilities

Courses/lectures:

1. Microbes and Host Responses 2005-2024 (subsequently changed to Principles of Immunology, Pharmacology and Therapeutics in 2018)
 Topics:
 "AIDS Clinical Correlations"
 "Orthomyxoviruses"
 "Rotaviruses and Enveloped RNA viruses I"
 "Enveloped RNA viruses II and III"
 "Enveloped RNA viruses IV"
 "Rotaviruses, Rubella, Rhabdoviruses"
 "Paramyxoviruses, Filoviruses, Hantaviruses, Arenaviruses"
 "Respiratory viruses I and II"
 "Respiratory viruses"
 "Infection Control Clinical Correlations"
 "COVID19"
2. SLU Internal Medicine Noon Conferences
 "Immunizations" August 2023
 "Osteomyelitis and Septic Arthritis" 2018-2023
 "HIV and AIDS" 2018-2022
 "osteomyelitis" 2011, 2018, 2019-current
 "CNS infections" (given annually 2006-2012 as part of core curriculum)
 "Viral encephalitis and other CNS infections" 2016
 "Tick Transmitted Illnesses" 2015
 "Demystifying fungal infections and antifungals" November 2007
3. SLU Internal Medicine Afternoon School
 "HIV and AIDS" 2018-2019
4. Infectious Diseases Clinical Topics to residents/students rotating on the SLU ID service:
 Topics: Endocarditis
 Pneumonia
 Rickettsial disease
 Skin and soft tissue infections
5. Journal club
 Present 1-2 papers per year to Infectious Diseases Journal club
 Precept 2 papers on rotavirus vaccines per request of first year medical students as part of MHR course in 2009
 Liver Center Journal Club: presented an annual paper from 2005-2009
 Dept. of Molecular Microbiology and Immunology 2011

Molecular Microbiology and Immunology colloquium- presented 2 papers/year
2008-2010

6. Infectious Disease Board Review for ID fellows
 1. Met weekly with the ID fellows to discuss differential diagnosis, microbiology, and management of these cases in a Board-type question format. This program was started at the Infectious Diseases fellows' request in March of 2009 thru 2010 when it was suspended at fellow's request due to their other commitments
 2. Precepted again in 2019-2020
7. Infectious Disease Friday Didactics- attending presents cases to fellows, residents on ID team for discussion and teaching. 3 hour 2x/year.
2024-current
 - "Septic arthritis and osteomyelitis"
 - "mosquito borne infections"
 - "HIV prevention"
 - "ID case presentations/discussion"
 - "Hepatitis A, B, and E" (11.7.25)
8. Presentation of interesting clinical cases from the VA at ID clinical case conference on Monday mornings (2 hours/year)
 - "Corynebacterium striatum osteomyelitis" 6.23.25
 - "MAC presenting as spinal cord compression" 6.23.25
 - "Histoplasmosis psoas abscess" 6.16.25
9. Thesis/dissertation- see below under Protégé.

Clinical teaching responsibilities

1. Case-based and general didactic teaching to ID fellows, residents, students rotating on the SLU or VA ID services or attending VA ID clinic as part of teaching rounds and patient care.

Protégés

Ph.D. student candidacy and thesis committees:

1. Adnan Chowdhury 2009-2014 (graduation)
2. Lizzy Geerling, 2021-2022 (graduation)
3. Taylor Stone, 2023 (graduation)
4. Tara Steffan, 2022 (ended when she left Dr. Brien's lab in 2022)
5. Alexandria Dickson, 2022-23 (ended when she changed mentors)

Ph.D. student/Dissertation

1. Adnan Chowdhury, B.S., M.S., Ph.D., Molecular Microbiology and Immunology, Co-mentored with Dr. John Tavis. 2009-2014

Dissertation: "Characterization of GBV-C NS3/4A cleavage activity and its role in inhibiting HIV replication and attenuating the type I IFN response" 2014

2. Lizzy Geerling, Ph.D., Molecular Microbiology and Immunology, thesis committee, 2021-2022.

Dissertation: "Metabolic syndrome enhances viral disease severity and reduces vaccine efficacy in a murine model".

3. Taylor Stone, Ph.D., Molecular Microbiology and Immunology, thesis committee, 2021-2023. Dissertation: "Murine models of Powassan virus disease reveal a role for T cells in protection and pathogenesis."

All infectious Diseases fellows since 2003 have been taught/supervised in part by me. The same applies to all residents/students rotating on the SLU or VA inpatient ID consult service during the times I am attending. I also supervise Washington University ID fellows rotating on the VA ID consult service and in SLU or Washing University ID fellows rotating in the VA ID clinic.

Since 2020, I have assumed responsibility for liason/coordination for the SLU ID fellows rotating at the VA.

Research Support

Current Funding:

Grants:

1. PI, NIH/DMID/VTEU/IDCRC, "A Phase 1 Trial to Evaluate the Safety and Immunogenicity of an Inactivated West Nile Virus Vaccine, HydroVax-001B WNV in Healthy Adults" 2/2024-2026
2. PI, VA Merit Review Award "Durability and mechanisms of dengue vaccine and infection mediated immunity". 1 I01 CX002688-01
\$1,199,218 plus PI salary support (paid separately) 10/1/23-9/30/27
3. Co-investigator, (Krebs/Brien, PI), NIH/NIAID R01 "Evaluation of Antibody Responses Elicited by Zika Vaccination in Flavivirus-naïve and -experienced Individuals" R01AI155983
\$728,258 06/21-11/25
4. Co-investigator (Hoft, PI), NIH/NIAID 3UM1AI148685 "Vaccine Treatment and Evaluation Units (VTEUs)"
\$26,192,890 07/19-07/26

Contracts:

1. Co-investigator, (Hoft, PI), NIH/NIAID/DMID "Vaccine Treatment and Evaluation Units" # HHSN27201300021I 3C
\$24,140,331 09/13-09/26
2. PI, NIH/NIAID HHSN2720130021I sub award "160033 and 160034 Lab Assays" SLU ers #21355
\$1,020,609 09/17-9/26

Contracted studies/Clinical Trials:

1. PI, Sanofi pharmaceuticals, "A Phase 3 randomized, modified double-blind, active-controlled study to assess the safety of vYF, Yellow fever vaccine, in adults aged 18 years up to 60 years", 2025-26.
2. PI, Pfizer, "A phase 3, randomized, observer-blinded study to evaluate the safety, tolerability, and immunogenicity of a combined modified RNA vaccine candidate against COVID19 and influenza in healthy individuals" 2023-2025
3. PI, Sanofi pharmaceuticals, "vYF02, Controlled Study of Immunogenicity and Safety of the Investigational vYF Candidate Vaccine in Comparison to YF-VAX in Adults" # vYF02

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|----|--|---|-------------|
| | \$699,624 | " | 07/21-07/27 |
| 4. | PI, NIH/NIAID DMID 20-0006, "Adaptive COVID19 Treatment Trial (ACTT)" | | |
| | SLU eRS#s | | |
| | 23423 and 23480 | | |
| | \$1,095,008 | | 04/20-11/22 |
| 5. | Co-PI, NIH/NIAID DMID 16-0034, "Phase I, Randomized, Double-blinded, Placebo-Controlled Dose De-escalation Study to Evaluate the Safety and Immunogenicity of Alum Adjuvanted Zika Virus Purified Inactivated Vaccine (ZPIV) Administered by the Intramuscular Route in Adult Subjects who Reside in a Flavivirus Endemic Area" SLU eRS# 20138 (2 trials same award) | | |
| | \$1,300,013 | | 06/16-09/23 |
| 6. | PI, NIH/NIAID DMID 16-0033, "A Phase 1, Double-blinded, Placebo-Controlled Study of the Safety and Immunogenicity of Alum Adjuvanted Zika Virus Purified Inactivated Vaccine (ZPIV) Administered by the Intramuscular Route in Flavivirus Naïve Adult Subjects." SLU eRS# 20138 (2 trials same award) | | |
| | \$1,480,002 | | 03/17-09/23 |
| 7. | PI, NIH/NIAID DMID 14-0107, "A Phase I, Double-blind, Placebo-controlled Trial to Evaluate the Safety, Reactogenicity, and Immunogenicity of MVA-BN Yellow Fever Vaccine with and without ISA 720 Adjuvant in 18-45 Year Old Healthy Adults" SLU eRS #19119 | | |
| | \$1,169,065 | | 06/15-09/23 |

All Prior Funding:

Grants:

1. PI, VA Merit Review Award "Determine if a candidate dengue vaccine in advanced trials induces antigen-specific cellular immunity that mimics immunity after multiple infections and controls antibody-enhanced viral replication." I01BX003714
\$598,211 plus PI salary support (paid separately)
07/17-06/23
2. PI, Saint Louis University President's Research Fund: Determine how obesity and insulin resistance alters durability of adaptive immunity after COVID vaccination" 1/22-2024 \$50,000
3. PI, VA Pilot Award, "A novel model to measure durable protection from dengue viremia and disease" (no number)
4. PI, Saint Louis University School of Medicine Research Growth Fund (no number) \$9,551 07/21-2023
5. PI, Saint Louis University, COVID-19 Rapid Response Seed Funding (no number) \$9,910
6. PI, Saint Louis University Presidents Research Fund "Answering a key question for dengue vaccine development: does vaccination induce cellular immunity that mimics natural protection after secondary infection?" SLU eRS # 9017
\$49,777 06/16-05/17

7. PI, Saint Louis University President's Research Fund, "Does GB Virus C NS3 serine protease cleave an HIV protein and what step of HIV replication does it block?" SLU eRS #8265
\$45,000 03/13—08/14
8. PI, NIH/Washington University Institute of Clinical and Translational Sciences (ICTS) "Immunity to wild-type virus and immunodominant epitopes after dengue vaccination" SLU eRS # 15644
\$50,000 06/12-05/13
9. PI, NIH Human Immune Project Consortium (HIPC) "Identification of early innate, B cell, and CD4+ T follicular helper cell responses after dengue vaccination which predict a high titer cross-neutralizing antibody response" SLU eRS # 15573
\$118,878 12/11-03/13
10. Co-investigator (Zassenhaus, PI) NIH R21, "Dengue diagnostics using a novel peroxidase chain reaction (PxCR)" SLU eRS #15350,
\$440,884 06/12-05/14
11. PI, Saint Louis University Internal Medicine Seed Grant. "GB Virus C (GBV-C) NS3/4A protease/helicase: a novel HIV inhibitor." SLU eRS#8069
\$25,000 01/10-12/10
12. PI, VA Merit Review Award, "Inhibition of HIV-1 Replication by GBV-C Proteins." (no number),
\$319,829 plus salary support. 2006-2009
13. PI, Saint Louis University Liver Center Research Award, "Comparison of HCV specific effector T cell response to vaccine and infection", (no number)
\$33,410 2005-2007
14. PI, VA Advanced Research Career Development Award "Characterization of GBV-C (Hepatitis G) Viral Replication Determinants" (no number)
\$150,000 plus salary support 2002-2005
15. PI, VA Research Career Development Award "Antigenicity and Immunogenicity of Antibody Negative HCV Infection" (no number),
\$60,000 plus salary support 1999-2002

Contracts:

1. PI, Mediomics LLC subcontract SLU eRS# 20468
\$15,000 03/17-02/19
2. PI, MOGene Dx, "Collaboration with MOgene Clinical Diagnostics SLU eRS# 18533
\$27,932. 09/14-07/15
3. PI, Takeda Pharmaceuticals, "Innate Immune Response to Takeda's Tetravalent Dengue Vaccine" SLU eRS # 18427
\$221,861 10/14-03/18
4. Co-investigator (Belshe, PI) NIH-RFP-NIAID Contract N01-AI25464
"Evaluation of Control Measures against Infectious Diseases Other Than AIDS"
\$23,699,925 11/07-10/14

Contracted studies/Clinical Trials

1. PI, Pfizer, "A Phase 3, randomized, observer-blinded study to evaluate the relative safety, tolerability, and immunogenicity of a modified RNA vaccine against influenza compared to licensed inactivated influenza vaccine in healthy adults 65 years of age or older" PF-07252220 2022-2024
2. PI, Emergent Biosolutions, "A Phase 3 Safety, Immunogenicity, and Lot-Consistency Trial of the VLP-Based Chikungunya Vaccine PXVX0317 in Healthy Adults and Adolescents" # EBSI-CV-317-004
\$778,122 07/21-10/25
3. PI, NIH/NIAID DMID 20-0006, "Adaptive COVID19 Treatment Trial (ACTT)"
SLU eRS#s 23423 and 23480 \$1,095,008 04/20-11/23
4. Co-PI, NIH/NIAID DMID 16-0034, "Phase I, Randomized, Double-blinded, Placebo-Controlled Dose De-escalation Study to Evaluate the Safety and Immunogenicity of Alum Adjuvanted Zika Virus Purified Inactivated Vaccine (ZPIV) Administered by the Intramuscular Route in Adult Subjects who Reside in a Flavivirus Endemic Area" SLU eRS# 20138 (2 trials same award)
\$1,300,013 06/16-09/23
5. PI, NIH/NIAID DMID 16-0033, "A Phase 1, Double-blinded, Placebo-Controlled Study of the Safety and Immunogenicity of Alum Adjuvanted Zika Virus Purified Inactivated Vaccine (ZPIV) Administered by the Intramuscular Route in Flavivirus Naïve Adult Subjects." SLU eRS# 20138 (2 trials same award)
\$1,480,002 03/17-09/23
6. PI, NIH/NIAID DMID 14-0107, "A Phase I, Double-blind, Placebo-controlled Trial to Evaluate the Safety, Reactogenicity, and Immunogenicity of MVA-BN Yellow Fever Vaccine with and without ISA 720 Adjuvant in 18-45 Year Old Healthy Adults" SLU eRS #19119
\$1,169,065 06/15-09/23
7. PI, NIH/DMID 11-0034, "A Phase IIb, Open-Label, Dose-Ranging Study of 13-Valent Pneumococcal Conjugate Vaccine in Adults 55 through 74 Years of Age Previously Vaccinated with 23-Valent Pneumococcal Polysaccharide Vaccine."
\$521,194 9/11-10/14
8. PI, NIH/DMID 09-0055, "A Double-Blind, Randomized, Placebo-Controlled, Phase Dose Escalation Study to Investigate the Safety and Immunogenicity of a Tetravalent Chimeric Dengue Vaccine in Healthy Adults"
\$975,420 10/09-10/12
9. PI, NIH/DMID 09-0073, "A phase II Study in HIV-seropositive Adults to Assess the Safety and Immunogenicity of an unadjuvanted Novartis H1N1 Influenza Vaccine Administered at Two Dose Levels"
\$190,808.71 2009-2011
10. PI, Hawaii Biotech, "A Phase I, placebo controlled, double-blind safety study of HBV-001 D1 (monovalent recombinant subunit dengue vaccine) in healthy adults. (no number)
\$124,201 07/09-12/10

Bibliography

CVFormat: Revised 11/08/2011, 3/7/12

(Modified based on input from Credentials Committee, Dean's Staff, Chairs Committee and Faculty Affairs Committee)

(Peer Reviewed Articles numbered 1 and later, #3 and 4 under “Invited review articles” and #5 under “Chapters” are all published since promotion to Associate Professor)

Peer Reviewed Articles

1. Warren E., George, S., You, J., Kazanjian, P. Advances in the Treatment and Prophylaxis of *Pneumocystis carinii* pneumonia. *Pharmacotherapy*. 17:900-16, 1997.
2. Coffey, M.J., Phare, S.M., George, S., Peters-Golden, M. Kazanjian, P.H. Granulocyte colony-stimulating factor administration to HIV-infected subjects augments reduced leukotriene synthesis and anticryptococcal activity in neutrophils. *J. Clin. Invest.* 102:663-70, 1998.
3. George, S., Coffey, M., Cinti S., Collins, J., Brown, M. Kazanjian, P. Neutrophils from AIDS patients treated with granulocyte-colony stimulating factor demonstrate enhanced killing of *Mycobacterium avium*. *J. Inf. Dis.* 180:229-33, 1999.
4. George, S., Swindells, S., Knudson, R., and Stapleton, J.T. Unexplained thrombosis in HIV-infected patients receiving protease inhibitors: report of seven cases. *Amer. J. Med.* 107:624-626, 1999. PMID:10625032
5. George, S.L., and Schlesinger, L.S. *Mycobacterium neoaurum*- an unusual cause of infection in vascular catheters. *Clin. Inf. Dis.*, 28: 682-3, 1999.
6. Xiang, J., Wuenschmann, S., Diekema, D.J., Klinzman, D., Patrick, K.D., George, S.L., Stapleton, J.T.: Effect of coinfection with GB Virus type C (Hepatitis G Virus) on survival in HIV-infected individuals: in vitro co-infection suggests inhibition of HIV replication by GB Virus C. *New England J. of Medicine*. 345:707-714, 2001. PMID:11547739
7. Xiang, J., Wuenschmann, S., George, S.L., Schmidt, W.N., LaBrecque, D.R., Stapleton, J.T.: Recombinant hepatitis C virus-like particles expressed by baculovirus: Utility in cell-binding and antibody detection assays. *J. Med. Virol.* 68:537-543, 2002. PMID: 12376962
8. George, S.L., Gebhardt, J., Klinzman, D., Foster, M.B., Patrick, K.D., Schmidt, W.N., Alden, B., Pfaller, M.A., Stapleton, J.T.: Hepatitis C virus (HCV) viremia in HIV-infected individuals with negative HCV antibody tests. *J. Acquir. Immune Defic. Syndr.* 31:154-162, 2002. PMID: 12394793
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Invited review Articles:

1. George, S., and Stapleton, J.T.: The status of viral hepatitis vaccines. *Clin. Micro. News*. 21: 113-118, 1999.
2. George, S.L., and Varmaz, D. What you need to know about GB Virus C. *Current Gastroenterology Reports*. 7:54-62, 2005. PMID: 15701300
3. George, S.L. Prospects for a dengue vaccine: Progress and Pitfalls. *Missouri Medicine*. 111:337-42, 2014. Review PMID:25211865
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Chapters:

1. George, S. L., Klinzman, D., Schmidt, W.N., Patrick, K.D., Alden, B., Pfaller, M., Stapleton, J.T.: Antibody negative hepatitis C virus infection in HIV-infected individuals.

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 3. Xiang, J., Wuenschmann, S., George, S.L., Chang, Q., Klinzman, D., Stapleton, J.T. GB virus C/hepatitis G virus: In vivo and in vitro beneficial interactions with HIV. In: *11th International Symposium on Viral Hepatitis and Liver Diseases*, p. 494-496. Jilbert AR, Grgacic EVL, Vickery K, Burrl CJ, Cossart EE, eds. Australian Center for Hepatitis Virology, publisher. Melbourne, 2004.
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Submitted manuscripts:

1. Emmanuel Feroldi ; Mark J Mulligan; Kawsar Talaat; Chen Sabrina Tan; Kristopher Paolino; Srilatha Edupuganti ; Matthew H Collins ; Sarah L. George ; Matthew Davis; Brandon Essink; Robert Jeanfreau; James Peterson; David Fried; Ada-Maria Minutello; Sandrine Orlando; Joanna Korejwo; Andrey Rojas; Marine Dufournet; Tifany Machabert; Louis Devlin; Haritha Adhikarla; Carina Frago. "Immunogenicity and Safety of Yellow Fever Vaccine, vYF: A Phase 2 Randomized Study" Submitted to NEJM 4/25

Abstracts/Posters

National and International Conferences:

1. George, S., Coffey, M., Cinti, S., Kaul, D., Armstrong, W., Collins, J., and Kazanjian, P.: Neutrophils from AIDS patients treated with GCSF demonstrate enhanced killing of *M. avium*. Presented at the 5th Conference on Retroviruses and Opportunistic Infections, Chicago, IL, February, 1998.
2. George, S. and Stapleton, J.: Thromboembolic disease associated with initiation of protease inhibitor therapy. Presented 12th International Conference on AIDS, Geneva, Switzerland, June, 1998.
3. George, S., Klinzman, D., Schmidt, W.N., LaBrecque, D.R., and Stapleton, J.T.: Characterization of HCV isolates obtained from antibody-negative patients. Presented at the 6th International Symposium on Hepatitis C and Related Viruses, NIH, Bethesda, MD, June 6-9, 1999.
4. Xiang, J., George, S., Klinzman, D., Stapleton, J.T., HBV viremia in HIV positive individuals. Presented at 10th International Symposium on Viral Hepatitis and Liver Disease, Atlanta, April 9-14, 2000
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25. Dussupt, V., Sankhala, R.S., Gromowski, G.D., Donofrio, G., De La Barrera, R.A., Larocca, R.A., Zaky, W., Mendez-Rivera, L., Choe, M., Davidson, E., Brien, J.D., Abbink, P., Pinto, A., Rutvisuttinunt, W., Doranz, B.J, Eckels K.J., Barranco, E., Smith, D.R., Jarman, R.G., Koren, M, George, S.L., Stephenson, K.E., Barouch, D.H, Modjarrad, K., Michael, N.L., Joyce, M.G, and Krebs, S.J. Potent Zika and dengue cross-neutralizing antibodies induced by Zika vaccination in a dengue-exposed donor. American Society for Tropical Medicine and Hygiene, Baltimore, Maryland, USA, November 2019
26. George, S. and D'Angelo, J. Durable Dengue-Specific Immunity After Vaccination Vs. Infection In Flavi-naïves In A Non-Endemic Area. Global Summit on Vaccines Research and Development. Virtually. November, 2021
27. George S., D'Angelo June, Hoft DF, et al. Serologic response to Zika (ZPIV) vaccine modulated by prior flavivirus exposure. IDCRC meeting, Bethesda, Maryland, April 2023

28. Feroldi, Emmanuel, et al including George, Sarah. Safety and Immunogenicity of an investigational Yellow fever Vaccine in Adults. Conference and Congress: CISTM 18 (Basel, Switzerland, 21-25 May, 2023).
29. Feroldi, Emmanuel, et al including George, Sarah. 6-month safety and immunogenicity follow-up of an investigational yellow fever vaccine in adults. American Society of Tropical Medicine and Hygiene (Chicago, USA, October 18-23, 2023)
30. George, Sarah and D'Angelo, June. Durable B and T cell immunity 10 years after dengue vaccination of flavi-naïve people. American Society of Tropical Medicine and Hygiene (Chicago, USA, October 18-23, 2023)
31. George, Sarah and D'Angelo, June. Durable type-specific cytolytic CD4+ T cell immunity after DENVax (TAK001) in flavivirus-naïves. Pan American dengue meeting, Lima, Peru, November 2023
32. George, Sarah L., D'Angelo, June, Parker, Scott, Barranco, Elizabeth, and Hoft, Dan. "Antibody and T cell responses to an inactivated Zika vaccine (ZPIV) in flavi-naïve and experienced people". IDCRC/VTEU Annual Meeting, Bethesda, MD, May 2024.
33. Feroldi, E; Mulligan, M; Talaat, K; Tan, C.S.; Paolino, K; Edupuganti, S; Collins, M; George, S.L.; Davis, M; Essink, B; Jeanfreau, R; Peterson, J; Fried, D; Rojas, A; Joanna K; Machabert, T; Dufournet, M; Adhikarla, H; Devlin, L; Minutello, A-M; Frago, C. "Persistence of the humoral immune response one year after a single injection of a new Yellow fever vaccine in adults". 20th International Congress on Infectious Diseases (ICID), Cape Town, South Africa, December 2024.
34. E. Feroldi¹, M.J Mulligan, K.R Talaat, C.S. Tan, A.-r.Y. Collier, K. Paolino, S. Edupuganti, M.H Collins, S.L George, M. Davis, B. Essink, S. Striplin, J. Peterson, D. Fried, N. Rodriguez Valero, M. Ramharter, O. Launay, A. Kantele, T. Tantawichien, J.G Low, S. Orlando, P. Davaux, M. Dufournet, L. Devlin, C. Frago, Persistence of the neutralizing antibody response two years after a single injection of a new Yellow fever vaccine in adults. 19th conference of the international society for travel medicine, New Orleans, LA, May 2025.
35. George, SL, and Meyer, Keith. Obesity is associated with declining serum antibodies but not decline in antigen-specific T cells years after COVID19 vaccination/infection. Poster of Distinction. Third Annual Midwest Metabolic Clinical Symposium. April 5-6, St. Louis, MO.
36. George, SL, and Meyer, Keith. Obesity is associated with declining serum antibodies but not decline in antigen-specific T cells years after COVID19 vaccination/infection. Annual VTEU meeting, April 30-May 1 2025

Papers presented at National/International conferences

1. George, S., Klinzman, D., Schmidt, W.N., Patrick, K., Alden, B., Pfaller, M., Stapleton, J.T. Antibody negative HCV infection in HIV positive individuals. Presented, X Triennial International Symposium on Viral Hepatitis and Liver Disease, Atlanta April 9-14, 2000.
2. George, S., Haller, A., Huang, C., Wong, M., Dube, T., Osorio, J., and Stinchcomb, D.T., "Safety and Immunogenicity of Takeda's live attenuated dengue vaccine in

flavivirus-naïve human volunteers.” American Society of Tropical Medicine and Hygiene, New Orleans, LA, November 2014.

Supplemental Material

Invited Talks/Grand Rounds

1. 3rd International Online Conference on Cells (“Cells 2025”), Session C, Cellular Antivirus Immune Responses, “Durability of T cell immunity after dengue vaccination vs. primary and secondary infection in a non-endemic area” March 25th, 2025
2. SLU MMI Faculty Research Presentation: “Effect of obesity on type and durability of B and T cell immunity after COVID19 vaccination.” March 20, 2025
3. SLU ID Faculty Research Presentation: “Effect of obesity on type and durability of B and T cell immunity after COVID19 vaccination.” February 26, 2025
4. SLU ID Faculty Research Presentation: “Antibody and T cell responses to an inactivated whole virus Zika vaccine (ZPIV) in flavi-naïve and flavi-experienced people” February 28, 2024
5. SLU Internal Medicine Grand Rounds “Novel mRNA (and related) vaccines: coming soon to an arm near you” July 21, 2023
6. SLU ID Faculty Research Presentation: “Lessons learned from dengue vaccine trials and thoughts on possible correlates of protection” February 1, 2023
3. SLU MMI Faculty Research Presentation: “Lessons learned from dengue vaccine trials and thoughts on possible correlates of protection” December 7, 2022.
4. SLU MMI Faculty Research Presentation: “Durable multitypic and multifunctional immunity after dengue vaccination” May 5, 2022
5. WRAIR Emerging Infectious Diseases Branch, Science and Technology of Emerging Pathogens Seminar Series, given virtually, December 10, 2021. ““Durability of dengue-specific immunity after vaccination vs. infection in Flavi-naïves in a non-endemic area”
6. “Brief Review of Dengue Vaccines and Long-term Immunity to Dengue Virus After Vaccination vs. Infection”, Institute for Vaccine Science and Policy, Saint Louis University, July 29, 2021
7. SLU MMI Faculty Research Presentation: “Immunity to dengue virus after vaccination vs. infection” June 10, 2021
8. “COVID Vaccine Panel” sponsored by St. Louis Public Library
9. “Lunch with a Researcher” public forum with Q and A sponsored by Missouri Cures, February 4, 2021.
10. “St. Louis COVID19 panel” public forum with Q and A sponsored by St. Louis Forum, St. Louis, Missouri, November 30, 2020
11. SLU Pediatric Grand Rounds “Update on COVID19: Where we have been and where we might be going”, Saint Louis, Missouri, October 14, 2020
12. SLU Internal Medicine Grand Rounds “Update on Vaccine Development for (some) Emerging Pathogens” October 25, 2019
13. SLU Infectious Diseases Research Conference “Update on Zika and Flavivirus Vaccine Development” March 2019
14. SLU Medical Students Global Health: Zika, 2018
15. SLU Infectious Diseases Research Conference “Update on Zika Vaccine Development” March 2017

16. "Zika Symposium", public forum with presentations and Q and A, St. Louis, Missouri, July 12, 2017
17. SLU Infectious Diseases Research Conference "What We Do and Don't Know About Dengue and Flavivirus Vaccine Development and Correlates of Protective Immunity" 2017
18. Obstetrics and Gynecology Grand Rounds, St. Mary's Hospital, St. Louis, Missouri, March 22, 2017 "Update on Zika Vaccine Development"
19. SLU Internal Medicine Grand Rounds "New and Emerging viral pathogens and Vaccine Development" March 2016
20. SLU Infectious Diseases Research Conference "Dengue and Correlates of Protective Immunity" March 2016
21. SLU Infectious Diseases Research Conference "Do we have a dengue vaccine yet? Partially" October 2015
22. SLU Liver Group Seminar "The GB Virus C (GBV-C) and HCV proteases: common themes but different outcomes." 2014
23. SLU Infectious Diseases Research Conference: "Safety and Immunogenicity of a live attenuated tetravalent dengue vaccine: implications for development of an effective dengue vaccine" January 2013
24. SLU Internal Medicine Grand Rounds "Update on West Nile and dengue and prospects for Vaccines" November 1, 2012
25. SLU Infectious Diseases Research Conference "Update on dengue vaccines" March 2011
26. SLU Internal Medicine Grand Rounds "Exploring new ways of inhibiting HIV: fighting a virus with a virus- and a preview of dengue vaccine studies at Saint Louis University" July 2010
27. SLU Infectious Disease Research Conference "Is the GB Virus-C NS3/4A protease/helicase an HIV inhibitor?" March 2010
28. SLU Division of Gastroenterology Faculty Research seminar: "Why GB Virus C is important in HIV and HCV" January 2009
29. SLU Infectious Diseases Research Conference "A novel mechanism of HIV inhibition by GBV-C NS3/4A" March 2009
30. SLU Internal Medicine Grand Rounds "GB Virus C: when a virus might be good for you" March 2008
31. SLU Liver Group Seminar "Long term follow-up of 150 people with SVR after treatment of HCV: clinical, virological, histological, and biochemical outcomes" May 2008
32. Molecular Microbiology and Immunology Research talk "GB Virus C: when a virus might be good for you" May 2008
33. SLU Infectious Diseases Research Conference "GB Virus C: Vaccine vector and pathogenesis concepts" February 2008
34. SLU Internal Medicine Grand Rounds "Internal Medicine Mentor Protégé Program" 2007
35. SLU Infectious Diseases Research Conference "Surprises with Flaviviruses" February 2007
36. VA Grand Rounds "Tularemia in an HIV infected patient" July 2005
37. VA Grand Rounds "Fungal Sinusitis" May 2005

38. SLU Infectious Diseases Research Conference “An in vitro infectious clone of GBV-C: possible use as a vaccine vector” February 2005
39. SLU Internal Medicine Grand Rounds: “Virus Wars: why we should care about GB Virus C” (June 2004)
40. SLU Infectious Disease Research Conference “Why we should care about GB Virus C” October 2004
41. VA Grand Rounds “Gram negative rod bacteremia in a patient in the ICU” January 2004.
42. “What’s new in HIV” University of Northern Iowa, March 2001
43. “Oral manifestations of HIV infection” University of Iowa College of Dentistry, October 2000

Seminars and workshops at international and national meetings:

International:

1. “Durable dengue-specific immunity after vaccination vs. infection in flavivirus-naïves in a non-endemic area” Global Summit on Vaccines Research and Development, virtual meeting in person in Marseille, France, November 11, 2021
2. “Update on Human Dengue Vaccines and Animal Models.” CALIConf: International Conference on Mitigating Strategies for Emerging Infectious Diseases, Cali, Colombia October 14-16, 2015

National:

1. NIH Vaccine Treatment Evaluation Units national annual meeting “Interim Immunogenicity data on Zika and Yellow Fever vaccine trials”, Rockville, Maryland, May 2, 2018
2. NIH Vaccine Treatment Evaluation Units regional meeting, “Interim safety and immunogenicity data from 3 Zika vaccine trials”, St. Louis, Missouri, November 13, 2017
3. NIH Human Immune Project Consortium “Innate Immune and TFH cell responses after dengue vaccination”, Bethesda, Maryland, September 2013

Patents and Technology Transfer

Patent No. 7,291,723 issued November 6, 2007. “GB Virus C and Methods of Treating Viral Infections.” Inventors: Jack T. Stapleton, Iowa City, IA; Jinhua Xiang, Iowa City, IA, Sarah George, St. Louis, MO. 2007

Community Service/Civic Activities

1. St. Louis Symphony volunteer: “One and Done” Committee. Members provide service to the symphony on an ad hoc basis in multiple tasks: ushers, telephone calls, mailings, etc.
2. St. Louis chapter of North American Butterfly Association (NABA): provide data on butterfly sightings and numbers, species, location, participate in surveys.
3. Providing dozens of media interviews, appearances at community forums, etc, on emerging infectious diseases of public concern, such as Zika in 2016-17 and COVID in 2020-2021 flu in 2024-2025 and ongoing.

Consulting

CVFormat: Revised 11/08/2011, 3/7/12

(Modified based on input from Credentials Committee, Dean’s Staff, Chairs Committee and Faculty Affairs Committee)

N/A