

University of California, San Francisco
CURRICULUM VITAE

Name: William John Karlon, MD, PhD

Position: HS Clinical Professor, Step 3
Laboratory Medicine
School of Medicine

Address: Box 0134
185 Berry Street, China Basin, 2112
University of California, San Francisco
Voice: 353-4721
Email: william.karlon@ucsf.edu

EDUCATION

1984 - 1988	Boston University, Boston, MA	B.S.	Biomedical Engineering	
1988 - 1991	Boston University, Boston, MA	M.S.	Biomedical Engineering	
1993 - 1998	University of California, San Diego	Ph.D.	Bioengineering	(Andrew McCulloch, advisor)
1998 - 2002	University of California, Irvine	M.D.		
2002 - 2004	University of California, San Francisco	Resident	Clinical Pathology	
2004 - 2005	University of California, San Francisco	Fellow	Hematopathology	

LICENSES, CERTIFICATION

2004	Medical Licensure, California (License #: A87881)
2005	American Board of Pathology, Clinical Pathology
2006	American Board of Pathology, Hematopathology

PRINCIPAL POSITIONS HELD

2005 - 2008	University of California, San Francisco	Assistant Clinical Professor	Laboratory Medicine
2008 - 2015	University of California, San Francisco	Associate Clinical Professor	Laboratory Medicine

2015 - present	University of California, San Francisco	Clinical Professor	Laboratory Medicine
----------------	---	--------------------	------------------------

OTHER POSITIONS HELD CONCURRENTLY

2005 - 2018	UCSF Lab Medicine Residency Training Program	Site Director, China Basin	Lab Medicine
2016 - present	UCSF Clinical Labs	Medical Director, China Basin Clinical Laboratory	Lab Medicine
2005 - present	UCSF Clinical Labs	Director, Clinical Immunology Section	Lab Medicine
2005 - present	UCSF Clinical Labs	Staff Hematopathologist	Lab Medicine
2013 - 2020	UCSF Lab Medicine Residency Training Program	Clinical Competence Committee Chair	Lab Medicine

HONORS AND AWARDS

2006	Department of Laboratory Medicine Resident Teaching Award
2007	Department of Laboratory Medicine Resident Teaching Award
2012	Department of Laboratory Medicine Resident Teaching Award

KEYWORDS/AREAS OF INTEREST

Hematology, hematopathology, flow cytometry, lymphoma, leukemia, rheumatologic testing, serologic testing, medical education

CLINICAL ACTIVITIES

CLINICAL ACTIVITIES SUMMARY

My clinical activities encompass two main areas:

1. Medical Director of the UCSF Clinical Labs at China Basin - in this capacity, I oversee all testing in the laboratory sections based at our China Basin facility (Microbiology, Immunology, Special Chemistry, Cytogenetics, and Molecular Diagnostics) along with our sendout department and processing facilities. I am responsible for reviewing all policies and procedures and ensuring our compliance with all state and federal regulations. I review all new test validations prior to implementation. I also provide clinical consultation for all of our tests if needed. Although the test volume performed at China Basin is lower than our main hospital sites, our test menu is significantly broader.
2. Director of the Immunology section of the clinical lab - I provide direct oversight on all testing performed in the section, including infectious disease serology, autoimmune disease testing, flow cytometry, and immune status testing. I provide clinical consultation on testing performed

in these areas. Our test menu and volume of testing has grown significantly over the years, as has the complexity of the tests.

CLINICAL SERVICES

- 2005 - present Director, Immunology Section, UCSF Clinical Labs: I oversee the day-to-day operation of the Immunology section of the Clinical Laboratory which performs laboratory testing in the following areas: - Rheumatologic testing - including ANA and other autoimmune disease testing - Infectious disease serology - including HIV and viral hepatitis - Viral testing - including viral load testing for HIV, HBV, and HCV and high-risk HPV testing - Flow immunophenotyping - for monitoring peripheral blood lymphocyte subsets and workup of leukemia or lymphoma in a variety of sample types The overall test volume for the section is approximately 100,000 tests per year. Many of the tests are considered moderate or high complexity. I interpret flow cytometry studies performed for evaluation of hematologic malignancy. Our flow immunophenotyping volume has expanded greatly in the past few years, now approaching 4000 leukemia/lymphoma workups per year. I work closely with the technical staff in developing new tests.
- 2005 - 2016 Staff Hematopathologist, UCSF Clinical Labs: Performed bone marrow interpretations.
- 2016 - present Director, UCSF Clinical Labs at China Basin: I oversee all clinical laboratory testing at our China Basin facility, with testing in special chemistry, immunology, molecular diagnostics, cytogenetics, and microbiology.

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

- 1998 - present American Medical Association
- 2004 - present American Society for Clinical Pathology
- 2006 - present College of American Pathologists
- 2010 - present International Clinical Cytometry Society
- 2016 - 2019 American Association of Clinical Chemistry

SERVICE TO PROFESSIONAL ORGANIZATIONS

- 2006 - College of American Pathologists Inspection team member

2013 - 2019	College of American Pathologists	Diagnostic Immunology Resource Committee Member
2014 - 2014	Academy of Clinical Laboratory Physicians and Scientists Annual Meeting	Moderator for Resident presentations in immunology
2015 - 2020	College of American Pathologists	Co-lead for the new HPATH educational program
2021 - present	College of American Pathologists	Diagnostic Immunology and Flow Cytometry Committee Member

SERVICE TO PROFESSIONAL PUBLICATIONS

2007 - Ad hoc reviewer for the journal Biologicals

INVITED PRESENTATIONS - NATIONAL

2021	International Clinical Cytometry Society	Invited to give a plenary session talk regarding CAP inspections
2022	International Clinical Cytometry Society	Invited to give a plenary session talk about changes in the CAP inspection checklists

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2010 Diagnostic Hematopathology, ASCP

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

I am a member of the College of American Pathologists Diagnostic Immunology Resource Committee (DIRC), now renamed the Diagnostic Immunology and Flow Cytometry Committee (DIFCC). I will be Vice Chair of this committee starting in 2024. This committee is responsible for proficiency testing in all areas of immunology and in flow cytometry. The DIFCC meets 3 times per year to discuss committee matters. During the year, committee members are responsible for responding to proficiency testing questions. As part of the flow cytometry group within the DIFCC, I also provide clinical cases used for proficiency testing purposes, and I also provide case discussions for our testing materials. Our committee works closely with other

CAP committees on hematopathology-related topics. I am part of a joint effort with the Hematology and Diagnostic Microscopy Resource Committee and the Surgical Pathology Committee to create continuing education materials required for maintenance of certification by the American Board of Pathology. DIFCC also provides educational materials to clinical laboratory scientists included with our proficiency materials. The DIFCC works with manufacturers to ensure quality and consistency of laboratory tests. Recently, there have been some inconsistencies with a test manufactured by BioRad, and our committee worked with this manufacturer in attempt to resolve the issue.

I served as the Co-Lead for the College of American Pathologists' new educational program, HPATH. The program presents interesting hematopathology cases for pathologists to stay current in their knowledge. The program provides CME/SAM credits that are used to maintain American Board of Pathology certification.

I previously served as the Chair of the Department of Laboratory Medicine's residency training Clinical Competence Committee. As part of our accreditation by the Accreditation Council for Graduate Medical Education (ACGME), the CCC is required to review all residents twice per year to assess progress in meeting the milestones required for residency training in pathology and laboratory medicine.

I previously served as a member of the Department of Laboratory Medicine's Advancement, Promotions, and Merits (APM) Committee, charged with reviewing packets submitted for departmental faculty actions, including all appointments, promotions, and merit increases. The committee meets 3 to 5 times per year depending upon the number of actions. Each committee member reviews individual faculty packets and presents findings to the committee as a whole. Our recommendations are presented to the department as a whole for faculty voting.

I also previously served as an interviewer for the residency training program (joint program with the Department of Pathology) and our Hematopathology Fellowship program. I am also a member of the Hematopathology Fellowship Committee, which meets approximately twice per year to evaluate our training program and fellows.

I am currently the Chair of a search committee for hiring two new microbiologists for the Clinical Labs at China Basin.

UCSF CAMPUSWIDE

2013 - 2016	HPV Interest Group	Member
-------------	--------------------	--------

DEPARTMENTAL SERVICE

2008 - 2016	Advancements, Promotions, and Merits Committee	Member
2007 - 2015	Residency Selection Committee	Interviewer
2005 - present	Hematopathology Fellowship Committee	Member, Interviewer
2013 - 2021	Clinical Competency Committee, residency training program	Chair
2010 - 2010	Search Committee, Assistant Director, Hematology Section, UCSF Clinical Labs	Member

2012 - 2012	Search Committee, Assistant Director, Hematology Section, UCSF Clinical Labs	Member
2013 - 2013	Search Committee, Director, Hematology Section, UCSF Clinical Labs at Mission Bay	Member
2016 - 2017	Search Committee, Director, UCSF Clinical Labs at Parnassus	Member
2022 - 2023	Search Committee, Medical Microbiologists	Chair

COMMUNITY AND PUBLIC SERVICE

2005 - 2007	Instructor for Philippine Association of Medical Technologists review course	PAMET
-------------	--	-------

TEACHING AND MENTORING

TEACHING SUMMARY

I serve oversee residents who rotate through the Immunology section of the lab for a two month rotation block. I spend approximately 2-4 hours per day reviewing flow cytometry data with the residents. This process includes determining a differential diagnosis based on clinical history and prior pathology data, selecting important antibodies if the sample is limited, reviewing the actual flow cytometry data for integrity and quality, rendering a likely diagnosis, and writing a report. In order for residents to become proficient at this process, I also spend time training them on the use of the clinical flow cytometry software (Kaluza, Beckman Coulter) and possibly the pathology data entry software (CoPath). We also spend time reviewing other Immunology tests (particularly serologic tests). I also give several lectures to residents, and we also go over review questions particularly for Boards preparation.

FORMAL TEACHING

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2006 - 2007	Led a small-group session for medical student course series			
	2007 - 2012	Led microscope-based teaching sessions for medical student course Cancer: Bench to Bedside			
	2009 - 2009	Small group sessions for microbiology and hematology medical student lectures			

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2005 - present	Responsible for Immunology section of Laboratory Medicine residents' core curriculum lecture series (8 lectures total per year), also gave one lecture on flow cytometry during the Hematology section of the same series			
	2006 - 2014	Lecture presentation to hematology/oncology fellows			

INFORMAL TEACHING

- 2005 - present Flow cytometry data review (daily with resident)
- 2005 - 2012 Flow cytometry conference (as part of the weekly Hematology conference 6-8 residents/students at multi-headed microscope)
- 2005 - 2015 Bone marrow sign out (approximately once weekly with 1-3 residents/students at multi-headed microscope)
- 2005 - 2015 Blood smear and bodily fluids review (during weekend call)

MENTORING SUMMARY

I directly supervise each of the residents in the residency training program during their 2 month rotation in the Immunology section of the UCSF Clinical Labs. While on their rotation, I provide them with a framework for working as a clinical pathologist responsible for supervising a complex laboratory section with a large test menu. I advise them on clinical, professional, and interpersonal skills required for an academic pathologist. The residents gain proficiency in report writing and communicating flow cytometry data and results to other clinical services.

Similarly, our hematopathology fellows also rotate through the laboratory to gain proficiency in flow cytometry interpretation, report writing, and design of flow cytometry panels used for diagnosis and monitoring various hematolymphoid neoplasms. While on rotation, we discuss all aspects of running a flow cytometry laboratory, including laboratory management aspects such as training personnel, proficiency testing, new test development and validation processes.

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
-------	------	--------	-------------	--------------	------------------

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2005 - 2006	Tony Yang, MD, PhD	Hematopathology Fellow		Clinical Mentor	Hematopathologist, Western Pathology Consultants
2006 - 2007	Imran Siddiqi, MD, PhD	Hematopathology Fellow		Clinical Mentor	Hematopathology, University of Southern California
2006 - 2007	Edit Hegyi, MD	Hematopathology Fellow		Clinical Mentor	Director, Gensignia, Inc.
2007 - 2008	Anne Deucher, MD, PhD	Hematopathology Fellow		Clinical Mentor	Assistant Professor, UCSF Department of Laboratory Medicine
2007 - 2008	Judith Doyle, MD	Hematopathology Fellow		Clinical Mentor	Hematopathologist, California Pacific Medical Center
2008 - 2009	Stephanie McAlhaney, MD, PhD	Hematopathology Fellow		Clinical Mentor	Hematopathologist, Integrated Oncology
2008 - 2009	Edward Thornborrow, MD, PhD	Hematopathology Fellow		Clinical Mentor	Associate Professor, UCSF Department of Laboratory Medicine
2009 - 2010	Ryan Gill, MD, PhD	Hematopathology Fellow		Clinical Mentor	Associate Professor, UCSF Department of Pathology

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2009 - 2010	Ari Molofsky, MD, PhD	Hematopathology Fellow		Clinical Mentor	Adjunct Assistant Professor, UCSF Department of Laboratory Medicine
2010 - 2011	Teresa Hyun, MD, PhD	Hematopathology Fellow		Clinical Mentor	Acting Assistant Professor, University of Washington Department of Pathology
2010 - 2011	Michael Deftos, MD, PhD	Hematopathology Fellow		Clinical Mentor	Pathologist, Santa Clara Valley Medical Center
2011 - 2012	Ellen Krasik, MD, PhD	Hematopathology Fellow		Clinical Mentor	Pathologist, Greater Cincinnati Pathologists
2011 - 2012	A. Brent Mendez, MD	Hematopathology Fellow		Clinical Mentor	Pathologist, St. Peter's Hospital, Helena, MT
2012 - 2013	Qian Dai, MD	Hematopathology Fellow		Clinical Mentor	Molecular Genetic Fellow, University of Alabama, Birmingham Department of Pathology
2012 - 2013	Michael Nystrom, MD	Hematopathology Fellow		Clinical Mentor	

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2013 - 2014	Kristie White, MD	Hematopathology Fellow		Clinical Mentor	Assistant Professor, UCSF Department of Laboratory Medicine
2013 - 2014	Geoffrey Wool, MD	Hematopathology Fellow		Clinical Mentor	Transfusion Medicine Fellow, University of Chicago Department of Pathology
2014 - 2015	Tab Toochinda, MD	Hematopathology Fellow		Clinical Mentor	
2014 - 2015	Linlin Wang, MD	Hematopathology Fellow		Clinical Mentor	
2005 - 2005	Dawn Darbonne, MD	Resident		Clinical Mentor	
2005 - 2005	Mai Le, MD	Resident		Clinical Mentor	
2006 - 2006	Thomas Chou, MD	Resident		Clinical Mentor	
2006 - 2006	Anne Huang, MD	Resident		Clinical Mentor	
2006 - 2006	Raga Ramachandran, MD	Resident		Clinical Mentor	
2006 - 2006	Karuna Garg, MD	Resident		Clinical Mentor	
2007 - 2007	Nicholas Byrne, MD	Resident		Clinical Mentor	
2007 - 2007	Rebecca Swain, MD	Resident		Clinical Mentor	
2007 - 2007	David Park, MD	Resident		Clinical Mentor	
2007 - 2007	Nancy Ciau, MD	Resident		Clinical Mentor	

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2007 - 2007	Judy Pang, MD	Resident		Clinical Mentor	
2007 - 2007	Elizabeth Hosfield, MD	Resident		Clinical Mentor	
2008 - 2008	Nafis Shafizadeh, MD	Resident		Clinical Mentor	
2008 - 2008	Andi Pingitore, MD	Resident		Clinical Mentor	
2009 - 2009	John Jalas, MD	Resident		Clinical Mentor	
2009 - 2009	Elizabeth Losada, MD	Resident		Clinical Mentor	
2009 - 2009	Amanda Doherty, MD	Resident		Clinical Mentor	
2009 - 2009	Jessica Finn, MD	Resident		Clinical Mentor	
2010 - 2010	Helen Bailey, MD	Resident		Clinical Mentor	
2010 - 2010	Chris Nixon, MD	Resident		Clinical Mentor	
2010 - 2010	Arun Wiita, MD	Resident		Clinical Mentor	
2010 - 2010	Morvarid Moayeri, MD	Resident		Clinical Mentor	
2010 - 2010	Vijay George, MD	Resident		Clinical Mentor	
2011 - 2011	Robert Angelo, MD	Resident		Clinical Mentor	
2011 - 2011	Christopher Liverman, MD	Resident		Clinical Mentor	
2011 - 2011	Michael Bonham, MD	Resident		Clinical Mentor	
2011 - 2011	Thuy Nguyen, MD	Resident		Clinical Mentor	
2012 - 2012	Taylor Sittler, MD	Resident		Clinical Mentor	

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2012 - 2012	Benjamin Buelow, MD	Resident		Clinical Mentor	
2012 - 2012	Sarah Calkins, MD	Resident		Clinical Mentor	
2012 - 2012	Yuna Kang, MD	Resident		Clinical Mentor	
2012 - 2012	Jessica Davis, MD	Resident		Clinical Mentor	
2013 - 2013	Michael Lindsey, MD	Resident		Clinical Mentor	
2013 - 2013	Patty Goldhoff, MD	Resident		Clinical Mentor	
2013 - 2013	Gillian Genrich, MD	Resident		Clinical Mentor	
2013 - 2013	Tara Saunders, MD	Resident		Clinical Mentor	
2013 - 2013	Jonathan Esensten, MD, PhD	Resident		Clinical Mentor	
2014 - 2014	Christy Perez-Valles, MD	Resident		Clinical Mentor	
2014 - 2014	Jamal Benhamida, MD	Resident		Clinical Mentor	
2014 - 2014	Brandie Firetag, MD	Resident		Clinical Mentor	
2014 - 2014	Joshua Menke, MD	Resident		Clinical Mentor	
2014 - 2014	Charity Hope, MD	Resident		Clinical Mentor	

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

Although I do not conduct a formal research program, I have been involved with several collaborative projects mainly with the clinical Hematology/Oncology service and other clinical services. Additionally, my involvement with the College of American Pathologists Diagnostic

Immunology and Flow Cytometry Committee (DIFCC) has resulted in several publications based on survey material used to ensure laboratory quality.

Some of the survey materials from DIFCC were used to create the Color Atlas of Flow Cytometry, for which I served as one of the 3 main editors. This book was published by the CAP Press in 2023 and is one of the few books related to clinical flow cytometry. This is the first new book in the clinical flow cytometry area to be published in approximately 5 years.

PEER REVIEWED PUBLICATIONS

1. 1992 Lehr JL, Ramirez IF, Karlon WJ, Eisenberg SR. Test of four defibrillation dosing strategies using a two-dimensional finite-element model. *Med Biol Eng Comput.* 1992 Nov; 30(6):621-8. PMID: 1297017
2. 1993 Karlon WJ, Eisenberg SR, Lehr JL. Effects of paddle placement and size on defibrillation current distribution: a three-dimensional finite element model. *IEEE Trans Biomed Eng.* 1993 Mar; 40(3):246-55. PMID: 8335328
3. 1994 Karlon WJ, Lehr JL, Eisenberg SR. Finite element models of thoracic conductive anatomy: sensitivity to changes in inhomogeneity and anisotropy. *IEEE Trans Biomed Eng.* 1994 Nov; 41(11):1010-7. PMID: 8001989
4. 1998 Karlon WJ, Covell JW, McCulloch AD, Hunter JJ, Omens JH. Automated measurement of myofiber disarray in transgenic mice with ventricular expression of ras. *Anat Rec.* 1998 Dec; 252(4):612-25. PMID: 9845212
5. 1998 Trost SU, Omens JH, Karlon WJ, Meyer M, Mestril R, Covell JW, Dillmann WH. Protection against myocardial dysfunction after a brief ischemic period in transgenic mice expressing inducible heat shock protein 70. *J Clin Invest.* 1998 Feb 15; 101(4):855-62. PMID: 9466981. PMCID: PMC508634
6. 1999 Karlon WJ, Hsu PP, Li S, Chien S, McCulloch AD, Omens JH. Measurement of orientation and distribution of cellular alignment and cytoskeletal organization. *Ann Biomed Eng.* 27:712-720, 1999.
7. 1999 Karlon WJ, Hsu PP, Li S, Chien S, McCulloch AD, Omens JH. Measurement of orientation and distribution of cellular alignment and cytoskeletal organization. *Ann Biomed Eng.* 1999 Nov-Dec; 27(6):712-20. PMID: 10625144
8. 2000 Zimmerman SD, Karlon WJ, Holmes JW, Omens JH, Covell JW. Structural and mechanical factors influencing infarct scar collagen organization. *Am J Physiol.* 278:H194-H200, 2000.

9. 2000 Zimmerman SD, Karlon WJ, Holmes JW, Omens JH, Covell JW. Structural and mechanical factors influencing infarct scar collagen organization. *Am J Physiol Heart Circ Physiol*. 2000 Jan; 278(1):H194-200. PMID: 10644599
10. 2000 Karlon WJ, McCulloch AD, Covell JW, Hunter JJ, Omens JH. Regional septal dysfunction correlates with myofiber disarray in transgenic mice with ventricular expression of *ras*. *Am J Physiol*, 278:H898-H906, 2000.
11. 2000 Karlon WJ, McCulloch AD, Covell JW, Hunter JJ, Omens JH. Regional dysfunction correlates with myofiber disarray in transgenic mice with ventricular expression of *ras*. *Am J Physiol Heart Circ Physiol*. 2000 Mar; 278(3):H898-906. PMID: 10710359.
12. 2002 Lee AA, Graham DA, Dela Cruz S, Ratcliffe A, Karlon WJ. Fluid shear stress-induced alignment of cultured vascular smooth muscle cells. *J Biomech Eng*, 124:37-43, 2002.
13. 2002 Lee AA, Graham DA, Dela Cruz S, Ratcliffe A, Karlon WJ. Fluid shear stress-induced alignment of cultured vascular smooth muscle cells. *J Biomech Eng*. 2002 Feb; 124(1):37-43. PMID: 11871603
14. 2004 Karlon WJ; Ng V. High-sensitivity C-reactive protein. *ASCP CheckSample*, 2004.
15. 2008 Deftos M; Karlon W; Ezzell J. Hypereosinophilic Syndrome/Chronic Eosinophilic Leukemia. *ASCP CheckSample*, 2008.
16. 2008 Gill R; Karlon W; Ezzell J. Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma: Clinical and Pathologic Features. *ASCP CheckSample*, s 2008.

17. 2009 Alter D, Grenache DG, Bosler DS, Karcher RE, Nichols J, Rajadhyaksha A, Camelo-Piragua S, Rauch C, Huddleston BJ, Frank EL, Sluss PM, Lewandrowski K, Eichhorn JH, Hall JE, Rahman SS, McPherson RA, Kiechle FL, Hammett-Stabler C, Pierce KA, Kloehn EA, Thomas PA, Walts AE, Madan R, Schlesinger K, Nawgiri R, Bhutani M, Kanber Y, Abati A, Atkins KA, Farrar R, Gopez EV, Jhala D, Griffin S, Jhala K, Jhala N, Bentz JS, Emerson L, Chadwick BE, Barroeta JE, Baloch ZW, Collins BT, Middleton OL, Davis GG, Haden-Pinneri K, Chu AY, Keylock JB, Ramoso R, Thoene CA, Stewart D, Pierce A, Barry M, Aljinovic N, Gardner DL, Barry M, Shields LB, Arnold J, Stewart D, Martin EL, Rakow RJ, Paddock C, Zaki SR, Prahlow JA, Stewart D, Shields LB, Rolf CM, Falzon AL, Hudacki R, Mazzella FM, Bethel M, Zarrin-Khameh N, Gresik MV, Gill R, Karlon W, Etzell J, Deftos M, Karlon WJ, Etzell JE, Wang E, Lu CM, Manion E, Rosenthal N, Wang E, Lu CM, Tang P, Petric M, Schade AE, Hall GS, Oethinger M, Hall G, Picton AR, Hoang L, Imperial MR, Kibsey P, Waites K, Duffy L, Hall GS, Salangsang JA, Bravo LT, Oethinger MD, Veras E, Silva E, Vicens J, Silva E, Keylock J, Hempel J, Rushing E, Posligua LE, Deavers MT, Nash JW, Basturk O, Perle MA, Greco A, Lee P, Maru D, Weydert JA, Stevens TM, Brownlee NA, Kemper AE, Williams HJ, Oliverio BJ, Al-Agha OM, Eskue KL, Newlands SD, Eltorkey MA, Puri PK, Royer MC, Rush WL, Tavora F, Galvin JR, Franks TJ, Carter JE, Kahn AG, Lozada Muñoz LR, Houghton D, Land KJ, Nester T, Gildea J, Lefkowitz J, Lacount RA, Thompson HW, Refaai MA, Quillen K, Lopez AO, Goldfinger D, Muram T, Thompson H. Check Sample Abstracts. *Am J Clin Pathol*. 2009 Feb; 131(2):286-299. PMID: 19176368
18. 2015 Keeney M, Halley JG, Rhoads DD, Ansari MQ, Kussick SJ, Karlon WJ, Mehta KU, Dorfman DM, Linden MA. Marked Variability in Reported Minimal Residual Disease Lower Level of Detection of 4 Hematolymphoid Neoplasms: A Survey of Participants in the College of American Pathologists Flow Cytometry Proficiency Testing Program. *Arch Pathol Lab Med*. 2015 Oct; 139(10):1276-80. PMID: 25695342
19. 2016 Karlon WJ, Naides SJ, Crosson JT, Ansari MQ. Variability in Testing for Antineutrophil Cytoplasmic Antibodies: A Survey of Participants in the College of American Pathologists Proficiency Testing Program. *Arch Pathol Lab Med*. 2016 Jun; 140(6):524-8. PMID: 27232346
20. 2021 Hupp MM, Bashleben C, Cardinali JL, Dorfman DM, Karlon W, Keeney M, Leith C, Long T, Murphy CE, Pillai V, Rosado FN, Seegmiller AC, Linden MA. Participation in the College of American Pathologists Laboratory Accreditation Program Decreases Variability in B-Lymphoblastic Leukemia and Plasma Cell Myeloma Flow Cytometric Minimal Residual Disease Testing: A Follow-up Survey. *Arch Pathol Lab Med*. 2021 03 01; 145(3):336-342. PMID: 32886757

21. 2021 Routledge I, Epstein A, Takahashi S, Janson O, Hakim J, Duarte E, Turcios K, Vinden J, Sujishi K, Rangel J, Coh M, Besana L, Ho WK, Oon CY, Ong CM, Yun C, Lynch K, Wu AHB, Wu W, Karlon W, Thornborrow E, Peluso MJ, Henrich TJ, Pak JE, Briggs J, Greenhouse B, Rodriguez-Barraquer I. Citywide serosurveillance of the initial SARS-CoV-2 outbreak in San Francisco. *Res Sq.* 2021 Feb 04. PMID: 33564754. PMCID: PMC7872360
22. 2021 Routledge I, Epstein A, Takahashi S, Janson O, Hakim J, Duarte E, Turcios K, Vinden J, Sujishi K, Rangel J, Coh M, Besana L, Ho WK, Oon CY, Ong CM, Yun C, Lynch K, Wu AHB, Wu W, Karlon W, Thornborrow E, Peluso MJ, Henrich TJ, Pak JE, Briggs J, Greenhouse B, Rodriguez-Barraquer I. Citywide serosurveillance of the initial SARS-CoV-2 outbreak in San Francisco using electronic health records. *Nat Commun.* 2021 06 11; 12(1):3566. PMID: 34117227. PMCID: PMC8195995
23. 2023 Clark IC, Fontanez KM, Meltzer RH, Xue Y, Hayford C, May-Zhang A, D'Amato C, Osman A, Zhang JQ, Hettige P, Ishibashi JSA, Delley CL, Weisgerber DW, Replogle JM, Jost M, Phong KT, Kennedy VE, Peretz CAC, Kim EA, Song S, Karlon W, Weissman JS, Smith CC, Gartner ZJ, Abate AR. Microfluidics-free single-cell genomics with templated emulsification. *Nat Biotechnol.* 2023 Mar 06. PMID: 36879006

BOOKS AND CHAPTERS

1. 2023 Editor, *Color Atlas of Flow Cytometry*, CAP Press 2023

SIGNIFICANT PUBLICATIONS

1. Trost SU, Omens JH, Karlon WJ, Meyer M, Mestrlil R, Covell JW, Dillmann WH. Protection against myocardial dysfunction after a brief ischemic period in transgenic mice expressing inducible heat shock protein 70. *J Clin Invest*, 101:855-862, 1998.
2. Karlon WJ, Hsu PP, Li S, Chien S, McCulloch AD, Omens JH. Measurement of orientation and distribution of cellular alignment and cytoskeletal organization. *Ann Biomed Eng*, 27:712-720, 1999.
3. Karlon WJ, McCulloch AD, Covell JW, Hunter JJ, Omens JH. Regional septal dysfunction correlates with myofiber disarray in transgenic mice with ventricular expression of ras. *Am J Physiol*, 278:H898-H906, 2000.
4. Karlon WJ; Ng V. High-sensitivity C-reactive protein. *ASCP CheckSample*, 2004.

5. Deftos M; Karlon W; Etzell J. Hypereosinophilic Syndrome/Chronic Eosinophilic Leukemia. ASCP CheckSample, 2008.

OTHER CREATIVE ACTIVITIES

1. 2005-2012 Lectures given to Clinical Laboratory Scientist (CLS) students (approximately 7-10 per year, including intern students from San Francisco State University general CLS program and UCSF limited license students) - approximately 6 lectures given several times covering select hematology and immunology topics