



Andrew Young Chang, MD

- Clinical Instructor, Medicine
- Ph.D. Student in Epidemiology and Clinical Research, admitted Summer 2020

CLINICAL OFFICES

- **Hospitalist for Stanford Medical Center**

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Bio

BIO

Clinical Instructor in Department of Medicine, Post-doctoral Research Fellow at Stanford Cardiovascular Institute, PhD Candidate in Epidemiology and Population Health Sciences. Graduate of Stanford Internal Medicine / Global Health Residency, Chief Resident, and Cardiology Fellowship Programs.

Professional interests include epidemiology and health services research focused on heart disease and environmental determinants of cardiovascular disease in the developing world and domestic vulnerable populations, utilizing multiple methodologies including epidemiology, health systems modeling, and geospatial data. Other formal training includes bench and translational research background in immunology, cancer biology, and neuroscience. Funded by Spectrum TL1 NIH training grant, completed MS in Epidemiology and Clinical Research in 2018.

CLINICAL FOCUS

- Cardiology
- Global Health
- Internal Medicine
- Environmental Health
- Cardiovascular Diseases
- Rheumatic Heart Disease

ACADEMIC APPOINTMENTS

- Clinical Instructor, Medicine
- Member (Postdoc), Cardiovascular Institute

ADMINISTRATIVE APPOINTMENTS

- Clinical Instructor / Attending Physician, Stanford Department of Medicine, (2021- present)
- Fellow, Stanford Department of Medicine, Division of Cardiovascular Medicine, (2018-2021)
- Clinical Instructor / Attending Physician, Stanford Department of Medicine, VA Palo Alto Medical Center, (2016-2018)

- Chief Resident, Stanford Internal Medicine Residency Program, (2016-2017)

HONORS AND AWARDS

- Alpha Omega Alpha Medical Honor Society, AOA, Stanford University Chapter (2017)
- Gold Humanism Honor Society, Arnold P. Gold Foundation (2012)
- TL1 Gold Ribbon Presentation, Association for Clinical and Translational Science (2018)
- Stanford Cardiovascular Institute Travel Award, Stanford Cardiovascular Institute (2018)
- Johnson and Johnson Global Health Scholar, Yale/Stanford Johnson & Johnson Global Health Scholars Program (2015)
- Johnson and Johnson Global Health Scholar, Yale/Stanford Johnson & Johnson Global Health Scholars Program (2014)
- Asian Pacific American Medical Student Association Global Health Fellowship, Asian Pacific American Medical Student Association (2012)
- Stanford Medical Scholars Research Fellowship, Stanford University School of Medicine (2009-2011)
- The John E. Linck III Memorial Graduation Prize, Yale University (2008)
- Yale College Dean's Research Fellowship in the Sciences, Yale University (2007)
- Yale Science and Engineering Research Presentation Travel Prize, Yale University (2007)
- 1st Place Presentation, Yale Undergraduate Research Symposium in the Biological Sciences, Yale University (2007)
- The Paul K. and Evalyn Elizabeth Cook Richter Summer Fellowship, Yale University (2007)
- The Gary Stein Memorial Internship, Yale University (2006)
- Robert C. Byrd Congressional Honors Scholarship, United States Department of Education (2005)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Faculty Fellow, Stanford Center for Innovation in Global Health (2016 - present)
- Representative, Chief Resident's Council, Department of Graduate Medical Education, Stanford University Medical Center (2016 - 2017)
- Representative, Committee on Residency Reform, Department of Medicine, Stanford University Medical Center (2014 - 2016)
- Resident Member, American College of Cardiology (2015 - 2017)
- Resident: Medicine/Global Health, Stanford University Hospital (2013 - 2016)
- Resident Member, American College of Physicians (2013 - 2016)
- Member, Stanford Center for Population Health Sciences (2015 - present)
- Member, Stanford Society of Physician Scholars (2013 - present)
- Member, Young Professionals Chronic Disease Network (2013 - present)
- Member, California Medical Association (2013 - present)
- Editor-in-Chief, The Stanford Medical Student Clinical Journal (2010 - 2012)

PROFESSIONAL EDUCATION

- Fellowship, Stanford Hospitals & Clinics , Cardiology (2021)
- Residency: Stanford University Internal Medicine Residency (2017) CA
- Board Certification: Internal Medicine, American Board of Internal Medicine (2016)
- Medical Education: Stanford University School of Medicine (2013) CA
- Chief Resident, Stanford Hospitals & Clinics , Internal Medicine (2017)
- Residency, Stanford Hospital & Clinics , Internal Medicine (2016)
- MS, Stanford University , Epidemiology, Clinical Research (2018)
- MD, Stanford University , Clinical Research, Immunology, Global Health (2013)

- BS, Yale University , Molecular, Cellular & Developmental Biology (2008)
- Non-degree Program, American Heart Association (AHA) Ten-Day Seminar on the Epidemiology and Prevention of Cardiovascular Disease , Epidemiology (2017)
- Non-degree Program, Hasso Plattner Institute of Design at Stanford University , Entrepreneurial Design for Extreme Affordability Program (2012)

COMMUNITY AND INTERNATIONAL WORK

- Johnson & Johnson Global Health Scholar, Kampala, Uganda
- Johnson & Johnson Global Health Scholar, Kigali, Rwanda
- Clinical Director, Co-Founder, Dhaka, Bangladesh
- Medical Student Clinical Volunteer, Rosebud, SD
- Administrative/Media Intern, Kathmandu, Nepal
- Physician Volunteer, Menlo Park, CA
- Hepatitis B Clinic Coordinator, San Jose, CA
- Social Services Volunteer, Fair Haven, CT
- Health Educator, New Haven, CT

SERVICE, VOLUNTEER, AND COMMUNITY WORK

- Hepatitis B Clinic Coordinator (2009 - 2009)
- Clinical Volunteer (2008 - 2013)
- Intern (2006 - 2008)
- Health Educator (2004 - 2005)
- Community Associate (2009 - 2011)
- Johnson & Johnson Global Health Scholar (2015)

PATENTS

- Andrew Chang, Carey Lee, Pamela Pavkov, Karen Lee, Michael Strasser. "United States Patent Attorney docket number: S11-190 Provisional Patent: "Low Cost Bubble CPAP Device"", Jun 1, 2011

PERSONAL INTERESTS

Travel, History, Anthropology, Writing, Art Appreciation, Cooking, Football, Hiking

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests center around the epidemiology, environmental determinants, and health services dimensions of heart disease, with an emphasis on vulnerable populations, both international and domestic. Current projects include the development of novel care quality metrics for use in rheumatic heart disease in East Africa, testing of low sodium salt substitutes in South Asia, describing the global patterns of cardiovascular multimorbidity, and assessing the cardiovascular impacts of cyclical climate change-associated major environmental events. Other research interests include cost-effectiveness analysis, health economics, and device/service innovation for low-resource settings.

CURRENT CLINICAL INTERESTS

- Cardiovascular Disease
- Rheumatic Heart Disease
- Valvular Heart Disease
- Atrial Fibrillation

- Anticoagulation
- Echocardiography

PROJECTS

- Inspire Medical - Hasso Plattner Institute of Design, Stanford University (2011 - present)

LAB AFFILIATIONS

- Peter Lee (9/3/2010 - - 10/31/2013)

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cardiovascular Medicine (Fellowship Program)
- Epidemiology (Phd Program)

Professional

WORK EXPERIENCE

- Researcher - Stanford University School of Medicine, Department of Hematology (2009 - 2012)
- Teaching Assistant - Stanford University School of Medicine (2010 - 2011)
- Community Associate - Stanford University Graduate Life Office (2009 - 2011)
- Research Assistant - Yale University School of Medicine, Department of Neurobiology (2005 - 2008)

Publications

PUBLICATIONS

- **Health system and patient-level factors serving as facilitators and barriers to rheumatic heart disease care in Sudan.** *Global health research and policy*
Edwards, J. G., Barry, M., Essam, D., Elsayed, M., Abdulkarim, M., Elhossein, B. M., Mohammed, Z. H., Elnogomi, A., Elfaki, A. S., Elsayed, A., Chang, A. Y.
2021; 6 (1): 35
- **Clinical Outcomes, Echocardiographic Findings, and Care Quality Metrics for People Living with HIV and Rheumatic Heart Disease in Uganda.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
Chang, A. Y., Rwebembera, J., Bendavid, E., Okello, E., Barry, M., Beaton, A. Z., Haeffele, C., Webel, A. R., Kityo, C., Longenecker, C. T.
2021
- **The Need to Expand the Framework of Environmental Determinants of Cardiovascular Health From Climate Change to Planetary Health: Trial by Wildfire.** *Circulation*
Chang, A. Y., Barry, M., Harrington, R. A.
2021; 143 (21): 2029-2031
- **The Impact of Novel Coronavirus COVID-19 on Non-Communicable Disease Patients and Health Systems: A Review.** *Journal of internal medicine*
Chang, A. Y., Cullen, M. R., Harrington, R. A., Barry, M.
2020
- **Outcomes and Care Quality Metrics for Women of Reproductive Age Living With Rheumatic Heart Disease in Uganda.** *Journal of the American Heart Association*
Chang, A. Y., Nabbaale, J. n., Okello, E. n., Ssinabulya, I. n., Barry, M. n., Beaton, A. Z., Webel, A. R., Longenecker, C. T.
2020: e015562
- **Breast cancer induces systemic immune changes on cytokine signaling in peripheral blood monocytes and lymphocytes.** *EBioMedicine*
Wang, L. n., Simons, D. L., Lu, X. n., Tu, T. Y., Avalos, C. n., Chang, A. Y., Dirbas, F. M., Yim, J. H., Waisman, J. n., Lee, P. P.
2020; 52: 102631

- **Cost-effectiveness of Canakinumab for Prevention of Recurrent Cardiovascular Events.** *JAMA cardiology*
Sehested, T. S., Bjerre, J., Ku, S., Chang, A., Jahansouz, A., Owens, D. K., Hlatky, M. A., Goldhaber-Fiebert, J. D.
2019
- **Interventions to Reduce Ethnic and Racial Disparities in Dyslipidemia Management.** *Current treatment options in cardiovascular medicine*
Chang, A. Y., Abou-Arrej, N. E., Rodriguez, F. n.
2019; 21 (5): 24
- **Association of Healthcare Plan with Atrial Fibrillation Prescription Patterns.** *Clinical cardiology*
Chang, A. Y., Askari, M. n., Fan, J. n., Heidenreich, P. A., Ho, P. M., Mahaffey, K. W., Ullal, A. J., Perino, A. C., Turakhia, M. P.
2018
- **Patient and facility variation in costs of catheter ablation for atrial fibrillation.** *Journal of cardiovascular electrophysiology*
Perino, A. C., Fan, J. n., Schmitt, S. n., Kaiser, D. W., Heidenreich, P. A., Narayan, S. M., Wang, P. J., Chang, A. Y., Turakhia, M. P.
2018
- **Motivations of women in Uganda living with rheumatic heart disease: A mixed methods study of experiences in stigma, childbearing, anticoagulation, and contraception.** *PloS one*
Chang, A. Y., Nabbaale, J. n., Nalubwama, H. n., Okello, E. n., Ssinabulya, I. n., Longenecker, C. T., Webel, A. R.
2018; 13 (3): e0194030
- **IL6 Signaling in Peripheral Blood T Cells Predicts Clinical Outcome in Breast Cancer.** *Cancer research*
Wang, L., Miyahira, A. K., Simons, D. L., Lu, X., Chang, A. Y., Wang, C., Suni, M. A., Maino, V. C., Dirbas, F. M., Yim, J., Waisman, J., Lee, P. P.
2017; 77 (5): 1119-1126
- **Regenerative Medicine: Potential Mechanisms of Cardiac Recovery in Takotsubo Cardiomyopathy.** *Current treatment options in cardiovascular medicine*
Chang, A. Y., Kittle, J. T., Wu, S. M.
2016; 18 (3): 20-?
- **The Global Health Implications of e-Cigarettes.** *JAMA*
Chang, A. Y., Barry, M.
2015; 314 (7): 663-664
- **Evaluating the Cost-effectiveness of Catheter Ablation of Atrial Fibrillation.** *Arrhythmia & electrophysiology review*
Chang, A. Y., Kaiser, D., Ullal, A., Perino, A. C., Heidenreich, P. A., Turakhia, M. P.
2014; 3 (3): 177-183
- **Trial of Zolpidem, Eszopiclone, and Other GABA Agonists in a Patient with Progressive Supranuclear Palsy** *Case Reports in Medicine*
Chang, A. Y., Weirich, E.
2014; 2014: 5
- **Spatial organization of dendritic cells within tumor draining lymph nodes impacts clinical outcome in breast cancer patients** *JOURNAL OF TRANSLATIONAL MEDICINE*
Chang, A. Y., Bhattacharya, N., Mu, J., Setiadi, A. F., Carcamo-Cavazos, V., Lee, G. H., Simons, D. L., Yadegarynia, S., Hemati, K., Kapelner, A., Ming, Z., Krag, D. N., Schwartz, et al
2013; 11
- **Center-surround vs. distance-independent lateral connectivity in the olfactory bulb** *FRONTIERS IN NEURAL CIRCUITS*
Kim, D. H., Chang, A. Y., McTavish, T. S., Pateland, H. K., Willhite, D. C.
2012; 6
- **Learning to live together: harnessing regulatory T cells to induce organ transplant tolerance.** *Yale journal of biology and medicine*
Chang, A. Y., Bhattacharya, N.
2011; 84 (4): 345-351
- **Lateral connectivity in the olfactory bulb is sparse and segregated** *FRONTIERS IN NEURAL CIRCUITS*
Kim, D. H., Phillips, M. E., Chang, A. Y., Patel, H. K., Nguyen, K. T., Willhite, D. C.
2011; 5
- **Hydrophilic Graft Modification of a Commercial Crystalline Polyolefin** *J. Polym. Sci. Part A: Polym. Chem.*

Jihoon Shin, Andrew Y. Chang, Lacie V. Brownell, Ira O. Racoma, Coreen H. Ozawa, Ho-Yong Chung, Shufu Peng, Chulsung Bae
2008; 46: 3533-3545

- **Regioselective functionalization of high-molecular-weight crystalline polyolefins via C-H activation of methyl side group** *Polymer Preprints*
Hoyong Chung, Andrew Y. Chang, Ira O. Racoma, Coreen H. Ozawa, Chulsung Bae
2006; 47: 247-248

PRESENTATIONS

- Characteristics and Motivations of Women of Reproductive Age in Uganda with Rheumatic Heart Disease: A Mixed Methods Study - Consortium of Universities for Global Health Annual Meeting (2017)
- Recurrent Seizure-Induced Takotsubo Cardiomyopathy over Twelve Years with Interval Complete Resolution of Ventricular Dysfunction - ACP Northern California Annual Meeting (2005)
- Cardiovascular Disease in East Africa: Two Cases from the Johnson & Johnson Global Health Scholars Program - Grand Rounds, Stanford University Department of Medicine (2017)
- Extreme CPAP: Developing a Low-Cost Respiratory Support Device for Bangladesh - TEDxStanford Conference (2011)
- A Cross-Generational Approach to Promoting Productivity and Resilience in Academic Medicine - Stanford Teaching and Mentoring Academy Medical and Bioscience Education Seminar (2017)
- Improving Housestaff Wellness in Medicine Residency - Stanford Innovations in Medical Education Conference (2017)
- Risk Factors for the Development of Ocular Graft Versus Host Disease after Hematopoietic Cell Transplantation - Association for Research in Vision and Ophthalmology (5/6/2012 - 5/9/2012)
- Specificity of Mitral and Tufted Cell Lateral Connectivity in the Olfactory Bulb - Yale University (10/6/2007)