Stanford



Sean M. Wu

Professor of Medicine (Cardiovascular Medicine) and, by courtesy, of Pediatrics

Medicine - Cardiovascular Medicine

CLINICAL OFFICE (PRIMARY)

- **Institute of Stem Cell and Regenerative Medicine**

  265 Campus Dr Rm G1120A

  Lokey Stem Cell Research Bldg

  Stanford, CA 94305

  Tel (650) 724-4498 **Fax** (650) 724-1444

ACADEMIC CONTACT INFORMATION

- **Administrative Contact (For CVI/Research ; For Dept of Med Appointment/Promotion)**

  Francesca Mae G. Tongco ; Cardiovascular Institute Administrative Associate - Sean P Wrenn ; Department of Medicine, Office of the Chair

  Email ftongco@stanford.edu ; wrenn1@stanford.edu

  Tel (650)736-9206; (202)630-9207

Bio

BIO

Sean M Wu, MD, PhD is a board certified cardiologist who specializes in treating men and women with cardiac diseases such as coronary artery disease, cardiac valve disorder, rhythm disorders, cardio-oncology/cancer drug toxicity, and cardiac preventive management.

Dr. Wu also conduct research in cardiac developmental biology/congenital heart disease, stem cell biology and translation of stem cells into new treatments for congenital heart disease, adult heart failure and rhythm disorders.

In addition to completion of residency program and board certification in internal medicine, Dr. Wu has also completed a 3-year ACGME-accredited fellowship in cardiovascular disease with board certification and additional clinical training in echocardiography at Massachusetts General Hospital and cardiac developmental biology research training at Boston Children's Hospital/Harvard Medical School in Boston, MA.

CLINICAL FOCUS

- Cardiovascular Disease
- Coronary Artery Disease
- Arrhythmias, Cardiac
- cardio-oncology
- Cardiac prevention
- Valve disorders

ACADEMIC APPOINTMENTS

- Professor, Medicine - Cardiovascular Medicine
- Professor (By courtesy), Pediatrics

- Member, Bio-X
- Member, Cardiovascular Institute
- Member, SPARK at Stanford
- Member, Institute for Stem Cell Biology and Regenerative Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Member, Editorial Board, Journal of Cardiovascular Aging, (2025- present)
- Senior Vice Chair for Academic Affairs, Department of Medicine, Stanford University School of Medicine, (2025- present)
- Guest Editor, Circulation Research, (2024- present)
- Vice Chair for Academic Affairs, Department of Medicine, Stanford University School of Medicine, (2023-2025)
- Senior Vice Chair (Interim) for Academic Affairs, Department of Medicine, Stanford University School of Medicine, (2022-2023)
- Professor of Medicine and (by courtesy) Pediatrics, Stanford University, (2022- present)
- Editor-in-Chief, Current Treatment Options in Cardiovascular Medicine, (2022- present)
- Section Chief, Basic and Translational Research, Cardiovascular Medicine Division, Department of Medicine, (2021- present)
- Co-Chair, Faculty Search Committee, Basic Sci & Enginr (BASE) Program, Moore Heart Center, LPCH, (2021- present)
- Member, Editorial Board, Journal of Cardiovascular Development and Disease, (2021- present)
- Member, Editorial Board, Cardiology Discovery, (2020- present)
- Chair, Faculty Search Committee, Surgical & Basic Science Faculty, Dept. of Cardiothoracic Surgery, Stanford SoM, (2020- present)
- Chair, Faculty Search Committee, Basic Sci & Enginr (BASE) Program, Moore Heart Center, LPCH, (2018-2019)
- Associate Member, Stanford Diabetes Research Center, (2017- present)
- Section Editor, Current Cardiology Reports, (2016- present)
- Associate Professor of Medicine (with tenure) and (by courtesy) Pediatrics, Stanford University, (2016-2022)
- Editorial Consultant, Journal of American College of Cardiology: Basic to Translational Science, (2015- present)
- Guest Editor, Journal of Cardiovascular Development and Differentiation, (2015-2016)
- Consulting Editor, Circulation Research, (2015-2019)
- Editorial Board - General, Circulation Research, (2014- present)
- Section Editor, Current Treatment Options in Cardiovascular Medicine, (2013-2017)
- Assistant Professor of Medicine, Stanford University, School of Medicine, (2012-2015)
- Associate Editor, BMC Cardiovascular Disease, (2011-2014)
- Organizing Committee, NIH/NHLBI Cardiovascular Regenerative Medicine Symposium, (2011-2013)
- Editorial Board, Frontiers in Pharmacology and Smooth Muscle Biology, (2010-2013)
- Editorial Board, World Journal of Stem Cell, (2009-2012)
- Assistant Physician, Massachusetts General Hospital, (2009-2012)
- Assistant Professor of Medicine, Harvard Medical School, (2009-2012)
- Editorial Board, Clinical Medicine Insights: Cardiology, (2007-2012)
- Director, Mouse Microinjection Core, Massachusetts General Hospital, (2007-2012)
- Instructor in Medicine, Harvard Medical School, (2006-2009)

HONORS AND AWARDS

- 4th Annual Robert J. Levy Lecture in Cardiovascular Basic and Translational Sciences, Children's Hospital Of Pennsylvania, University of Pennsylvania (2027)
- 2025 Massie Trainee Distinguished Lecturer, Center for Cardiovascular Research, Washington University School of Medicine (2025)
- Elected Member, Association of American Physicians (AAP) (2024)
- Elected Member, Association of University Cardiologists (AUC) (2023)
- Distinguished Achievement Award, Basic Cardiovascular Sciences Council, American Heart Association (2022)
- Joan and Sanford I. Weill Scholar, Stanford Cardiovascular Institute (2020-)
- 2018 Kenneth D. Bloch Memorial Lecturer in Vascular Biology, American Heart Association (2018)
- Consulting Editors of the Year, Circulation Research (2018)
- Established Investigator Award, American Heart Association (2017-2021)
- Superior Editorial Consultant, Circulation Research (2017)
- Elected Member, American Society for Clinical Investigation (ASCI) (2016)
- Cardiovascular Medicine Division Teaching Award, Department of Medicine, Stanford University School of Medicine (2015)
- NIH Director's Pioneer Award, National Institutes of Health, Office of the Director (2014-2019)
- David Lawrence Stein Award, American Heart Association-Western Affiliate (2014)
- Endowed Faculty Scholar, Child Health Research Institute/ Lucile Packard Foundation for Children's Health (2013-2018)
- Seed Grant Award (Co-Recipient with Dr. Beth Pruitt), Stanford Cardiovascular Institute (2013-2014)
- SPARK Research Award, Division of Cardiology, Massachusetts General Hospital (2010-2011)
- Fellow, American College of Cardiology (2010)
- Progenitor Cell Biology Consortium, Co-Principal Investigator, NIH/NHLBI (2009-2016)
- NIH Director's New Innovator Award, National Institutes of Health, Office of the Director (2008-2013)
- Seed Grant Recipient, Harvard Stem Cell Institute (2008-2010)
- Young Investigator Competitive Award in Cardiovascular Medicine, GlaxoSmithKline Education and Research Foundation (2007-2009)
- de Gunzburg Family Scholar, Massachusetts General Hospital (2006)
- K08 Mentored Clinical Scientist Award, NIH/NHLBI (2005-2011)
- Abstract of Distinction, Research Symposium - Massachusetts General Hospital (2005)
- NIH/NHLBI Scholarship, Keystone Symposium on Molecular Mechanism of Cardiac Disease and Regeneration (2005)
- Career Development Award in Cardiovascular Medicine, American College of Cardiology Foundation/Pfizer (2004-2007)
- ACCF/Bristol Meyers Travel Award, American College of Cardiology (2002)
- Merck/ACC Young Investigator Award - 2nd Place, American College of Cardiology (2001)
- Henry Christian Award for Research Excellence, American Federation for Medical Research (1999)
- Experimental Pathologist-in-Training, American Society for Investigative Pathology (1998)
- Award for Academic Excellence and Achievement, American Society of Clinical Pathologists (1996, 1997)
- Tau Beta Pi, Stanford University School of Engineering (1992)
- Terman Award, Stanford University School of Engineering (1992)
- President's Award for Academic Excellence, Stanford University (1989)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, AHA Basic Cardiovascular Sciences Council (2026 - present)

- Member, AHA National Science Advisory and Coordinating Committee (2026 - present)
- Member, AHA Science Manuscript Oversight Committee (2026 - present)
- Ambassador, Board of Directors, American Heart Association Bay Area Division (2025 - present)
- Chair-Elect, AHA Basic Cardiovascular Sciences Council (2024 - 2026)
- Immediate Past Chair, Scientific Committee, Sarnoff Cardiovascular Research Foundation (2024 - 2025)
- Immediate Past President, Board of Directors, American Heart Association Bay Area Division (2024 - 2025)
- Chair, Scientific Committee, Sarnoff Cardiovascular Research Foundation (2023 - 2024)
- Member, Scientific Advisory Board, Cardiovascular Research Institute, Mt Sinai School of Medicine (2022 - present)
- Member, AHA-Council Operations Committee (2022 - 2026)
- Immediate-Past Chair, AHA-BCVS Committee on Early Career Development (2022 - 2024)
- President, Board of Directors, American Heart Association Bay Area Division (2022 - 2024)
- Vice Chair, Scientific Committee, Sarnoff Cardiovascular Research Foundation (2022 - 2023)
- President-Elect, Board of Directors, American Heart Association Bay Area Division (2021 - 2022)
- Member, Scientific Committee, Sarnoff Cardiovascular Research Foundation (2020 - 2025)
- Chair, AHA-BCVS Committee on Early Career Development (2020 - 2022)
- Chair, American Heart Association National Research Committee, Bioethics Subcommittee (2020 - 2022)
- Vice Chair, AHA-BCVS Committee on Early Career Development (2018 - 2020)
- Vice-Chair, American Heart Association National Research Committee, Bioethics Subcommittee (2017 - 2020)
- Member, AHA - BCVS Committee on Scientific and Clinical Education Lifelong Learning Committee (2016 - 2020)
- Member, AHA - Committee on Scientific Session Programming (CSSP) (2016 - 2020)
- Member, American Heart Association - BCVS Committee on Early Career Development (2015 - 2018)
- Member, American Heart Association National Research Committee, Stem Cell Research Subgroup (2013 - 2017)
- Member, American Heart Association National Stem Cell Therapy Writing Group (2012 - 2014)
- Member, Research Administration Advisory Committee, Massachusette General Hospital (2010 - 2012)

PROFESSIONAL EDUCATION

- Board Re-Certification, American Board of Internal Medicine-LKA Pathway , Cardiovascular Disease (2025)
- Board Certification: Cardiovascular Disease, American Board of Internal Medicine (2016)
- Research Fellowship, Boston Children's Hospital/Harvard Medical School , Stem Cell Biology (2006)
- Fellowship: Massachusetts General Hospital (2005) MA
- Board Certification, Internal Medicine, ABIM (2003)
- Residency: Duke University Medical Center (2001) NC
- Medical Education: Duke University School of Medicine (1999) NC
- PhD, Duke University School of Arts and Sciences , Pathology (1998)
- BS, Stanford University , Mechanical Engineering (1992)
- BS, Stanford University , Biological Science (1992)

COMMUNITY AND INTERNATIONAL WORK

- Faculty Advisor

PATENTS

- Sean Wu, William Goodyer,. "United States Patent Application No. 63/322,297 ; PCT/US2023/015747 Monoclonal Antibodies for Targeting the Cardiac Conduction System", Board of Trustees of the Leland Stanford Junior University, Mar 21, 2023
- Sean Wu, Han Zhu, Patricia Nguyen. "United States Patent Application No. 63/235,580 IDENTIFICATION OF PATHOGENIC IMMUNE CELL SUBSETS IN CHECKPOINT INHIBITOR-INDUCED MYOCARDITIS", Leland Stanford Junior University, Aug 20, 2021
- Sean Wu, Soah Lee. "United States Patent Application No. 63/045,952 MOLECULES REGULATING HUMAN IPSC-DERIVED CARDIOMYOCYTE PROLIFERATION BY INHIBITING CELL-CELL CONTACT", Leland Stanford Junior University, Jun 30, 2020
- Sean Wu, William Goodyer, Benjamin Beyersdorf, Eben Rosenthal, Nynke van den Berg. "United States Patent Application No. 62/871,551; Patent No. 12,625,147 NOVEL MOLECULAR TOOLS TO VISUALIZE AND TARGET THE CARDIAC CONDUCTION SYSTEM (CCS)", Leland Stanford Junior University, Jul 30, 2019
- Sean Wu, Jan Buikema, Arun Sharma. "United States Patent Application No. 16/981,077; Patent No. 12,516,293 Japan Patent No.7950652. REAGENTS AND METHODS WITH WNT AGONISTS AND BIOACTIVE LIPIDS FOR GENERATING AND EXPANDING CARDIOMYOCYTES", Stem Cell Technology, Inc., Mar 16, 2018
- Sean M. Wu. "United States Patent Application No. 13/552,975; US Patent No. 9,393,221 Methods and compounds for reducing intracellular lipid storage", Massachusetts General Hospital, Jul 19, 2016

LINKS

- Sean Wu Stanford Lab website: http://seanwulab.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Cardiovascular Developmental Biology

A major focus of the Wu Laboratory is to define the earliest steps in heart formation. We use experimentally-modified mice as our live model to take advantage of a broad range of molecular tools available. The similarity between a mouse heart and a human heart allows us to connect our results directly into finding ways to treat human heart diseases. We seek to understand what genes are responsible for making the heart chamber form in the right way. We are also interested in finding out what disturbances in the normal process of heart formation is responsible for devastating congenital heart diseases that lead to fetal demise or death shortly after birth. We have utilized the most state-of-the-art tools to try to understand the process of normal heart formation and have made significant discoveries in this area of research.

Cardiovascular Tissue Engineering

We have recently embarked on cardiac tissue engineering work due to the significant promise of this research direction in creating functional cardiac tissue for modeling of heart diseases and for generation a new organ that may be transplantable. By using stem cells that can be turned into cardiac cells, we have brought stem cell biology and tissue engineering together to begin making true functional heart tissue for screening drugs to treat heart diseases and to build new replacement tissues that may one day be used to replace the damaged heart muscle after heart attack. We have actively collaborated with material science engineers, vascular engineers, and mechanical engineers to make new discoveries in this research area. We currently employ 3D bioprinting as a tool to generate full-thickness, vascularized, and functional cardiac tissue.

Cardiovascular Disease Modeling

While mouse models are useful for studying the process of heart formation, they are not exactly like the human hearts in various ways. Since we cannot easily obtain human heart tissue, we have chosen to use stem cells as the next best source of material to study human heart formation and disease onset. We focus on a special type of stem cells call induced pluripotent stem cells (iPSCs) that behave exactly like embryonic stem cells but are made from regular human skin or blood cell. These human iPSCs make excellent model of heart formation inside a petri dish in the lab and can be turned into beating heart muscle cells by treating them with special factors. Furthermore, the steps that these iPSCs take to become heart muscle cells replicate exactly the way a human fetus goes through during early development in utero.

Cardiovascular Regenerative Biology

Ultimately, our work in developmental biology and tissue engineering seek to identify the most effective way to treat damage hearts. The regenerative potentials of stem cells is unlimited but requires careful guidance when given to a patient with heart disease. Many efforts that have failed in the past is due to the lack of understanding of what stem cells are capable of doing to treat damaged hearts. We have studied the role of stem cells in a fetal heart injury and recovery model (Sturzu et al, Circulation 2015) and have addressed the challenges that must be overcome in order to move the field forward (Wu et al, Cell 2008). We are currently seeking to find new cell types that may be useful for repairing damages to the muscle and the conduction system (i.e. the electrical network) in the heart using human iPSC-derived cells. In the future, we seek to generate transplantable organs using innovative strategies that involve tissue engineering and interspecies chimerism with pluripotent stem cells.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Yi Yi Du, Peter Martin

Postdoctoral Faculty Sponsor

Yena Oh

Doctoral Dissertation Advisor (AC)

Amitoj Singh Sawhney

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cardiovascular Medicine (Fellowship Program)
- Medicine (Masters Program)

Publications

PUBLICATIONS

- **IGFBP2 Mediates Human iPSC-Cardiomyocyte Proliferation in a Cellular Contact-Dependent Manner.** *Circulation research*
  Lee, S., Heinrich, P., Lee, D., Kang, Y., Robinson, H., Humphrey, S. J., Yun, J., Goodyer, W. R., Buikema, J. W., Paik, D. T., Galdos, F. X., Kim, B., Belbachir, et al
  2025
- **Using plasma cell-free mRNA to profile immune response and myocardial damage in immune checkpoint inhibitor-induced myocarditis.** *The Journal of clinical investigation*
  Raissadati, A., Zhou, X., Chou, H., Huang, Y. V., Khatua, S., Sun, Y., Xu, A., Loa, S., Hernandez, A., Zhu, H., Wu, S. M.
  2025; 135 (16)
- **Rapid model-guided design of organ-scale synthetic vasculature for biomanufacturing.** *Science (New York, N.Y.)*
  Sexton, Z. A., Rütsche, D., Herrmann, J. E., Hudson, A. R., Sinha, S., Du, J., Shiwarski, D. J., Masaltseva, A., Solberg, F. S., Pham, J., Szafron, J. M., Wu, S. M., Feinberg, et al
  2025; 388 (6752): 1198-1204
- **Cardiac ACTN2 enhancer regulates cardiometabolism and maturation.** *Nature cardiovascular research*
  Galdos, F. X., Lee, C., Wu, S. M.
  2024; 3 (6): 616-618
- **The sum of the parts is greater than the whole: current research models for congenital heart disease.** *Nature cardiovascular research*
  Samad, T., Wu, S. M.
  2023; 2 (8): 708-710

- **Combined lineage tracing and scRNA-seq reveals unexpected first heart field predominance of human iPSC differentiation.** *eLife*
  Galdos, F. X., Lee, C., Lee, S., Paige, S., Goodyer, W., Xu, S., Samad, T., Escobar, G. V., Darsha, A., Beck, A., Bak, R. O., Porteus, M. H., Wu, et al
  2023; 12
- **Sex differences in ICI myocarditis: Hormones to the rescue** *SCIENCE TRANSLATIONAL MEDICINE*
  Nguyen, P. K., Wu, S. M.
  2022; 14 (669)
- **devCellPy is a machine learning-enabled pipeline for automated annotation of complex multilayered single-cell transcriptomic data.** *Nature communications*
  Galdos, F. X., Xu, S., Goodyer, W. R., Duan, L., Huang, Y. V., Lee, S., Zhu, H., Lee, C., Wei, N., Lee, D., Wu, S. M.
  2022; 13 (1): 5271
- **In vivo visualization and molecular targeting of the cardiac conduction system.** *The Journal of clinical investigation*
  Goodyer, W. R., Beyersdorf, B. M., Duan, L., van den Berg, N. S., Mantri, S., Galdos, F. X., Puluca, N., Buikema, J. W., Lee, S., Salmi, D., Robinson, E. R., Rogalla, S., Cogan, et al
  2022
- **Identification of Pathogenic Immune Cell Subsets Associated With Checkpoint Inhibitor-Induced Myocarditis.** *Circulation*
  Zhu, H., Galdos, F. X., Lee, D., Waliany, S., Vivian Huang, Y., Ryan, J., Dang, K., Neal, J. W., Wakelee, H. A., Reddy, S. A., Srinivas, S., Lin, L. L., Witteles, et al
  2022: 101161CIRCULATIONAHA121056730
- **The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans.** *Science (New York, N.Y.)*
  Jones, R. C., Karkanias, J., Krasnow, M. A., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaup, B., Brown, P., Harper, W., Hemenez, M., Ponnusamy, R., Salehi, et al
  2022; 376 (6594): eabl4896
- **Molecular hallmarks of heterochronic parabiosis at single-cell resolution.** *Nature*
  Palovics, R., Keller, A., Schaum, N., Tan, W., Fehlmann, T., Borja, M., Kern, F., Bonanno, L., Calcuttawala, K., Webber, J., McGeever, A., Tabula Muris Consortium, Luo, J., et al
  2022
- **Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*
  Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkanias, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaup, B., Brown, P., et al
  2022
- **Patient-Specific Induced Pluripotent Stem Cells Implicate Intrinsic Impaired Contractility in Hypoplastic Left Heart Syndrome.** *Circulation*
  Paige, S. L., Galdos, F. X., Lee, S., Chin, E. T., Ranjbarvaziri, S., Feyen, D. A., Darsha, A. K., Xu, S., Ryan, J. A., Beck, A. L., Qureshi, M. Y., Miao, Y., Gu, et al
  2020; 142 (16): 1605–8
- **Intrinsic Endocardial Defects Contribute to Hypoplastic Left Heart Syndrome.** *Cell stem cell*
  Miao, Y., Tian, L., Martin, M., Paige, S. L., Galdos, F. X., Li, J., Klein, A., Zhang, H., Ma, N., Wei, Y., Stewart, M., Lee, S., Moonen, et al
  2020
- **A single-cell transcriptomic atlas characterizes ageing tissues in the mouse.** *Nature*
  2020
- **Next-Generation Surrogate Wnts Support Organoid Growth and Deconvolute Frizzled Pleiotropy In Vivo.** *Cell stem cell*
  Miao, Y. n., Ha, A. n., de Lau, W. n., Yuki, K. n., Santos, A. J., You, C. n., Geurts, M. H., Puschhof, J. n., Pleguezuelos-Manzano, C. n., Peng, W. C., Senlice, R. n., Piani, C. n., Buikema, et al
  2020
- **Wnt Activation and Reduced Cell-Cell Contact Synergistically Induce Massive Expansion of Functional Human iPSC-Derived Cardiomyocytes.** *Cell stem cell*
  Buikema, J. W., Lee, S. n., Goodyer, W. R., Maas, R. G., Chirikian, O. n., Li, G. n., Miao, Y. n., Paige, S. L., Lee, D. n., Wu, H. n., Paik, D. T., Rhee, S. n., Tian, et al
  2020; 27 (1): 50–63.e5

- **Ageing hallmarks exhibit organ-specific temporal signatures.** *Nature*
  Schaum, N. n., Lehallier, B. n., Hahn, O. n., Pálovics, R. n., Hosseinzadeh, S. n., Lee, S. E., Sit, R. n., Lee, D. P., Losada, P. M., Zardeneta, M. E., Fehlmann, T. n., Webber, J. T., McGeever, et al
  2020

- **Transcriptomic Profiling of the Developing Cardiac Conduction System at Single-Cell Resolution.** *Circulation research*
  Goodyer, W. R., Beyersdorf, B., Paik, D. T., Tian, L., Li, G., Buikema, J. W., Chirikian, O., Choi, S., Venkatraman, S., Adams, E. L., Tessier-Lavigne, M., Wu, J. C., Wu, et al
  2019

- **Prometheus Unbound in Ya(p) Heart** *DEVELOPMENTAL CELL*
  Buikema, J. W., Wu, S. M.
  2019; 48 (6): 741–42

- **Single-cell analysis of early progenitor cells that build coronary arteries** *NATURE*
  Su, T., Stanley, G., Sinha, R., D'Amato, G., Das, S., Rhee, S., Chang, A. H., Poduri, A., Raftrey, B., Thanh Theresa Dinh, Roper, W. A., Li, G., Quinn, K. E., et al
  2018; 559 (7714): 356-+

- **Single-cell transcriptomics of 20 mouse organs creates a Tabula Muris** *NATURE*
  The Tabula Muris Consortium, ..
  2018; 562: 367–372

- **Transcriptomic Profiling Maps Anatomically Patterned Subpopulations among Single Embryonic Cardiac Cells** *DEVELOPMENTAL CELL*
  Li, G., Xu, A., Sim, S., Priest, J. R., Tian, X., Khan, T., Quertermous, T., Zhou, B., Tsao, P. S., Quake, S. R., Wu, S. M.
  2016; 39 (4): 491-507

- **Lift NIH restrictions on chimera research.** *Science (New York, N.Y.)*
  Sharma, A. n., Sebastiano, V. n., Scott, C. T., Magnus, D. n., Koyano-Nakagawa, N. n., Garry, D. J., Witte, O. N., Nakauchi, H. n., Wu, J. C., Weissman, I. L., Wu, S. M.
  2015; 350 (6261): 640

- **Harnessing the potential of induced pluripotent stem cells for regenerative medicine** *NATURE CELL BIOLOGY*
  Wu, S. M., Hothedlinger, K.
  2011; 13 (5): 497-505

- **Generation of Functional Ventricular Heart Muscle from Mouse Ventricular Progenitor Cells** *SCIENCE*
  Domian, I. J., Chiravuri, M., van der Meer, P., Feinberg, A. W., Shi, X., Shao, Y., Wu, S. M., Parker, K. K., Chien, K. R.
  2009; 326 (5951): 426-429

- **Epicardial progenitors contribute to the cardiomyocyte lineage in the developing heart** *NATURE*
  Zhou, B., Ma, Q., Rajagopal, S., Wu, S. M., Domian, I., Rivera-Feliciano, J., Jiang, D., von Gise, A., Ikeda, S., Chien, K. R., Pu, W. T.
  2008; 454 (7200): 109-U5

- **Origins and fates of cardiovascular progenitor cells** *CELL*
  Wu, S. M., Chien, K. R., Mummery, C.
  2008; 132 (4): 537-543

- **Developmental origin of a bipotential myocardial and smooth muscle cell precursor in the mammalian heart** *CELL*
  Wu, S. M., Fujiwara, Y., Cibulsky, S. M., Clapham, D. E., Lien, C., Schultheiss, T. M., Orkin, S. H.
  2006; 127 (6): 1137-1150

- **The mini-heart: a step toward non-invasive cardiac pump models.** *Cardiovascular research*
  Sawhney, A. S., Nayyer, A., Wu, S. M.
  2026

- **Beta-Adrenergic Stimulation and MYH7 G256E Mutant Gene Dosage Drive Hypertrophic Cardiomyopathy Phenotype Penetrance.** *bioRxiv : the preprint server for biology*
  Heinrich, P., Jung, R. M., Achter, J. S., Nguyen, V. X., Lee, C. A., Sailer, C., Domian, H., Vander Roest, A., Suchy, F. P., Jahng, J. W., Kojic, A., Lee, D., Paasche, et al

2026

- **Prioritizing Discovery and Advancements in Arrhythmia Therapies: NIH/NHLBI Workshop.** *JACC. Clinical electrophysiology*
  Hanna, P., Boyle, P. M., Caldwell, J. L., El Refaey, M., Goodyer, W. R., Khurshid, S., Mesubi, O. O., Palatinus, J. A., Pfenniger, A., Ajijola, O. A., Albert, C. M., Armoundas, A. A., Benjamin, et al
  2026; 12 (6): 1445-1468

- **Modeling early human heart development using an iPSC-based 3D bioprinted model of embryonic heart tube.** *Nature communications*
  Jin, L., Park, C., Neelakantan, S., Karnik, S., Dey, A., Fineman, S., Nandwani, R., Gil, C. J., Hwang, B., Cadena, M. A., Sridhar, V., Wang, J., Wu, et al
  2026

- **Replicating The Cell Population of the Developing Human Heart for Cardiac Grafts**
  Rutsche, D., Sexton, Z., Herrmann, J., Hudson, A., Sinha, S., Shiwarski, D., Masaltseva, A., Solberg, F., Szafron, J., Pham, J., Wu, S., Feinberg, A., Scott, et al
  MARY ANN LIEBERT, INC.2025

- **Decoding ETV2 networks driving endothelial specification and cardiac repression.** *Cardiovascular research*
  Oh, Y., Wu, S. M.
  2025

- **Cardiac Troponin Screening and Clinical Outcomes in Patients Receiving Immunotherapy.** *JACC. CardioOncology*
  Cheng, E., Ivanovic, M., Chan, A., Xu, S., Franquiz, M., Lee, C., You, J., Fazal, M., Le Guen, Y., Batchelder, R., Reddy, S. A., Katsumoto, T., Ramchandran, et al
  2025

- **Insights Into Heart-Tumor Interactions in Heart Failure.** *Circulation research*
  Caller, T., Moore, K. J., Lehmann, L. H., Wu, S. M., Leor, J.
  2025; 136 (11): 1262-1285

- **Olmesartan Restores LMNA Function in Haploinsufficient Cardiomyocytes.** *Circulation*
  Kort, E. J., Sayed, N., Liu, C., Mondéjar-Parreño, G., Forsberg, J., Eugster, E., Wu, S. M., Wu, J. C., Jovinge, S.
  2025

- **Novel Therapeutic Approach Targeting CXCR3 to Treat Immunotherapy Myocarditis.** *Circulation research*
  Huang, Y. V., Sun, Y., Chou, H., Wagner, N., Vitale, M. R., Bayer, A. L., Xu, B., Lee, D., Lin, Z., Branche, C., Waliany, S., Neal, J. W., Wakelee, et al
  2025

- **Cardiac Development at a Single-Cell Resolution.** *Advances in experimental medicine and biology*
  Wei, N., Lee, C., Duan, L., Galdos, F. X., Samad, T., Raissadati, A., Goodyer, W. R., Wu, S. M.
  2024; 1441: 253-268

- **Incomplete-penetrant hypertrophic cardiomyopathy MYH7 G256E mutation causes hypercontractility and elevated mitochondrial respiration.** *Proceedings of the National Academy of Sciences of the United States of America*
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