

Stanford



Karim Sallam, MD

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Bio

BIO

Karim Sallam, MD, is trained in Cardiovascular Medicine and Advanced Heart Failure.

CLINICAL FOCUS

- Cardiovascular Medicine
- Advanced Heart Failure
- Advanced Heart Failure and Transplant Cardiology

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Medicine - Cardiovascular Medicine
- Member, Cardiovascular Institute

HONORS AND AWARDS

- Highest Performance in Medicine, James D. Heard Junior Prize (2006)
- Compassion and Humanism, Jeffrey Alan Grey Memorial Prize (2006)
- Empathetic, Sensitive and Respectful Behavior, Leonard Tow Humanism in Medicine Student Award (2006)
- Exemplary Professionalism Award, Stanford Medicine Residency Program (2007/2008)

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Pain Management Fellowship (2015) CA
- Board Certification: Cardiovascular Disease, American Board of Internal Medicine (2013)
- Fellowship: Stanford Hospital and Clinics (2015) CA
- Residency: Stanford University Medical Center (2013) CA
- Medical Education: University of Pittsburgh Medical Center (2006) PA

LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Publications

PUBLICATIONS

- **Uptake of sodium-glucose cotransporter-2 inhibitors in hospitalized patients with heart failure: insights from the veterans affairs healthcare system.** *Journal of cardiac failure*
Varshney, A. S., Calma, J., Kalwani, N. M., Hsiao, S., Sallam, K., Cao, F., Din, N., Schirmer, J., Bhatt, A. S., Ambrosy, A. P., Heidenreich, P., Sandhu, A. T.
2024
- **Generation of induced pluripotent stem cell line from a patient suffering from arterial calcification due to deficiency of CD73 (ACDC).** *Stem cell research*
Tripathi, D., Manhas, A., Noishiki, C., Wu, D., Adkar, S., Sallam, K., Fukaya, E., Leeper, N. J., Sayed, N.
2023; 75: 103285
- **Generation of two induced pluripotent stem cell lines from hereditary amyloidosis patients with polyneuropathy carrying heterozygous transthyretin (TTR) mutation.** *Stem cell research*
Melesio, J., Bonilauri, B., Li, A., Pang, P. D., Liao, R., Witteles, R. M., Wu, J. C., Sallam, K.
2023; 74: 103265
- **Generation of two induced pluripotent stem cell lines from patients with cardiac amyloidosis carrying heterozygous transthyretin (TTR) mutation** *STEM CELL RESEARCH*
Bonilauri, B., Shin, H., Htet, M., Yan, C. D., Witteles, R. M., Sallam, K., Wu, J. C.
2023; 72
- **Continuous Wearable Monitoring Analytics To Improve Outcomes In Heart Failure: Vanguard Phase Results And Study Design Of The Randomized Phase Of Link-HF2 Multicenter Study**
Sideris, K., Weir, C., Schmalfuss, C., Bozkurt, B., Lewis, N., Sallam, K., Hanff, T., Schofield, R., Pipke, M., Larimer, K., Kyriakopoulos, C. P., Davis, C., Beauchamp, et al
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- **Generation of two induced pluripotent stem cell lines from dilated cardiomyopathy patients carrying heterozygous FLNC mutations.** *Stem cell research*
Kojic, A., Kim, H., Guevara, J. V., Ravada, S., Sallam, K., Wu, J. C.
2022; 64: 102928
- **Generation of two induced pluripotent stem cell lines carrying the phospholamban R14del mutation for modeling ARVD/C.** *Stem cell research*
Vera, C. D., Manhas, A., Shenoy, S. P., Wheeler, M. T., Sallam, K., Wu, J. C.
2022; 63: 102834
- **Modeling Effects of Immunosuppressive Drugs on Human Hearts Using Induced Pluripotent Stem Cell-Derived Cardiac Organoids and Single-Cell RNA Sequencing.** *Circulation*
Sallam, K., Thomas, D., Gaddam, S., Lopez, N., Beck, A., Beach, L., Rogers, A. J., Zhang, H., Chen, I. Y., Ameen, M., Hiesinger, W., Teuteberg, J. J., Rhee, et al
2022; 145 (17): 1367-1369
- **Heterozygous LMNA mutation-carrying iPSC lines from three cardiac laminopathy patients.** *Stem cell research*
Cho, S., Lee, C., Lai, C., Zhuge, Y., Haddad, F., Fowler, M., Sallam, K., Wu, J. C.
1800; 59: 102657
- **Cardiovascular effects of immunosuppression agents.** *Frontiers in cardiovascular medicine*
Elezaby, A., Dexheimer, R., Sallam, K.
2022; 9: 981838
- **Generation of two induced pluripotent stem cell lines from Brugada syndrome affected patients carrying SCN5A mutations.** *Stem cell research*
Belbachir, N., Lai, C., Rhee, J., Zhuge, Y., Perez, M. V., Sallam, K., Wu, J. C.
2021; 57: 102605
- **Coronary Artery Vasospasm Requiring Cardiac Autotransplantation Yet Controlled With Tobacco.** *JACC. Case reports*
Tran, M. V., Marceau, E., Liu, Y., Sallam, K., Medina, P., Liu, C., Sayed, N., Muller, M. D., Liang, D. H., Chen, I. Y.

2021; 3 (9): 1177-1181

- **Generation of three induced pluripotent stem cell lines from hypertrophic cardiomyopathy patients carrying MYH7 mutations.** *Stem cell research*
Cao, X., Jahng, J. W., Lee, C., Zha, Y., Wheeler, M. T., Sallam, K., Wu, J. C.
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- **A protocol for transdifferentiation of human cardiac fibroblasts into endothelial cells via activation of innate immunity.** *STAR protocols*
Liu, C., Medina, P., Thomas, D., Chen, I. Y., Sallam, K., Sayed, D., Sayed, N.
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- **The Unfolded Protein Response as a Compensatory Mechanism and Potential Therapeutic Target in PLN R14del Cardiomyopathy.** *Circulation*
Feyen, D. A., Perea-Gil, I., Maas, R. G., Harakalova, M., Gavidia, A. A., Arthur Ataam, J., Wu, T., Vink, A., Pei, J., Vadgama, N., Suurmeijer, A. J., Te Rijdt, W. P., Vu, et al
2021
- **Generation of three induced pluripotent stem cell lines, SCVIi003-A, SCVIi004-A, SCVIi005-A, from patients with ARVD/C caused by heterozygous mutations in the PKP2 gene.** *Stem cell research*
Jahng, J. W., Black, K. E., Liu, L., Bae, H. R., Perez, M., Ashley, E. A., Sallam, K., Wu, J. C.
2021; 53: 102284
- **Sirolimus Adverse Event Profile in a Non-Clinical Trial Cohort of Heart Transplantation Patients.** *Annals of transplantation*
Sallam, K., Bhumireddy, G. P., Evuri, V. D., Abella, J. P., Haddad, F., Valentine, H. A., Nguyen, P. K., Pham, M. X.
2021; 26: e923536
- **Clinical trial in a dish using iPSCs shows lovastatin improves endothelial dysfunction and cellular cross-talk in LMNA cardiomyopathy.** *Science translational medicine*
Sayed, N., Liu, C., Ameen, M., Himmati, F., Zhang, J. Z., Khanamiri, S., Moonen, J., Wnorowski, A., Cheng, L., Rhee, J., Gaddam, S., Wang, K. C., Sallam, et al
2020; 12 (554)
- **Modeling Secondary Iron Overload Cardiomyopathy with Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes.** *Cell reports*
Rhee, J. W., Yi, H. n., Thomas, D. n., Lam, C. K., Belbachir, N. n., Tian, L. n., Qin, X. n., Malisa, J. n., Lau, E. n., Paik, D. T., Kim, Y. n., Choi, B. S., Sayed, et al
2020; 32 (2): 107886
- **HIF1# Regulates Early Metabolic Changes due to Activation of Innate Immunity in Nuclear Reprogramming.** *Stem cell reports*
Liu, C. n., Ruan, H. n., Himmati, F. n., Zhao, M. T., Chen, C. C., Makar, M. n., Chen, I. Y., Sallam, K. n., Mocarski, E. S., Sayed, D. n., Sayed, N. n.
2020; 14 (2): 192–200
- **Targeted and Selective Treatment of Pluripotent Stem Cell-derived Teratomas Using External Beam Radiation in a Small-animal Model.** *Journal of visualized experiments : JoVE*
Sallam, K., Rhee, J., Chour, T., D'addabbo, J., Lee, A. S., Graves, E., Nguyen, P. K.
2019
- **Targeted and Selective Treatment of Pluripotent Stem Cell-derived Teratomas Using External Beam Radiation in a Small-animal Model JOVE-JOURNAL OF VISUALIZED EXPERIMENTS**
Sallam, K., Rhee, J., Chour, T., D'addabbo, J., Lee, A. S., Graves, E., Nguyen, P. K.
2019
- **Electronic Cigarettes: Where There Is Smoke There Is Disease.** *Journal of the American College of Cardiology*
Wu, J. C., Rhee, J. W., Sallam, K. n.
2019; 74 (25): 3121–23
- **Modelling diastolic dysfunction in induced pluripotent stem cell-derived cardiomyocytes from hypertrophic cardiomyopathy patients.** *European heart journal*
Wu, H. n., Yang, H. n., Rhee, J. W., Zhang, J. Z., Lam, C. K., Sallam, K. n., Chang, A. C., Ma, N. n., Lee, J. n., Zhang, H. n., Blau, H. M., Bers, D. M., Wu, et al
2019
- **Activation of PDGF pathway links LMNA mutation to dilated cardiomyopathy.** *Nature*
Lee, J. n., Termglinchan, V. n., Diecke, S. n., Itzhaki, I. n., Lam, C. K., Garg, P. n., Lau, E. n., Greenhaw, M. n., Seeger, T. n., Wu, H. n., Zhang, J. Z., Chen, X. n., Gil, et al
2019

- **The Incremental Value of Right Ventricular Size and Strain in the Risk Assessment of Right Heart Failure Post - Left Ventricular Assist Device Implantation.** *Journal of cardiac failure*
Aymami, M., Amsallem, M., Adams, J., Sallam, K., Moneghetti, K., Wheeler, M., Hiesinger, W., Teuteberg, J., Weisshaar, D., Verhoye, J., Woo, Y. J., Ha, R., Haddad, et al
2018; 24 (12): 823–32
- **Genome Editing of Induced Pluripotent Stem Cells to Decipher Cardiac Channelopathy Variant.** *Journal of the American College of Cardiology*
Garg, P., Oikonomopoulos, A., Chen, H., Li, Y., Lam, C. K., Sallam, K., Perez, M., Lux, R. L., Sanguinetti, M. C., Wu, J. C.
2018; 72 (1): 62–75
- **RIGHT HEART MALADAPTIVE PHENOTYPES AND PREDICTION OF RIGHT HEART FAILURE FOLLOWING CONTINUOUS-FLOW LEFT VENTRICULAR ASSIST DEVICE IMPLANTATION**
Aymami, M., Haddad, F., Amsallem, M., Wheeler, M., Moneghetti, K., Adams, J., Verhoye, J., Sallam, K., Woo, Y., Ha, R., Banerjee, D.
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- **Transcriptomic and epigenomic differences in human induced pluripotent stem cells generated from six reprogramming methods** *NATURE BIOMEDICAL ENGINEERING*
Churko, J. M., Lee, J., Ameen, M., Gu, M., Venkatasubramanian, M., Diecke, S., Sallam, K., Im, H., Wang, G., Gold, J. D., Salomonis, N., Snyder, M. P., Wu, et al
2017; 1 (10): 826–37
- **Transcriptomic and epigenomic differences in human induced pluripotent stem cells generated from six reprogramming methods.** *Nature biomedical engineering*
Churko, J. M., Lee, J., Ameen, M., Gu, M., Venkatasubramanian, M., Diecke, S., Sallam, K., Im, H., Wang, G., Gold, J. D., Salomonis, N., Snyder, M. P., Wu, et al
2017; 1 (10): 826-837
- **Simultaneous ramp right heart catheterization and echocardiography in a ReliantHeart left ventricular assist device.** *World journal of cardiology*
Banerjee, D., Dutt, D., Duclos, S., Sallam, K., Wheeler, M., Ha, R.
2017; 9 (1): 55-59
- **Patient-Specific Induced Pluripotent Stem Cell-Based Disease Model for Pathogenesis Studies and Clinical Pharmacotherapy.** *Circulation. Arrhythmia and electrophysiology*
Li, Y. n., Sallam, K. n., Schwartz, P. J., Wu, J. C.
2017; 10 (6)
- **Patient-Specific and Genome-Edited Induced Pluripotent Stem Cell-Derived Cardiomyocytes Elucidate Single-Cell Phenotype of Brugada Syndrome.** *Journal of the American College of Cardiology*
Liang, P., Sallam, K., Wu, H., Li, Y., Itzhaki, I., Garg, P., Zhang, Y., Vermglinchan, V., Lan, F., Gu, M., Gong, T., Zhuge, Y., He, et al
2016; 68 (19): 2086-2096
- **A Rapid, High-Quality, Cost-Effective, Comprehensive and Expandable Targeted Next-Generation Sequencing Assay for Inherited Heart Diseases.** *Circulation research*
Wilson, K. D., Shen, P., Fung, E., Karakikes, I., Zhang, A., Inanloorahatloo, K., Odegaard, J., Sallam, K., Davis, R. W., Lui, G. K., Ashley, E. A., Scharfe, C., Wu, et al
2015; 117 (7): 603-611
- **Epigenetic Regulation of Phosphodiesterases 2A and 3A Underlies Compromised β-Adrenergic Signaling in an iPSC Model of Dilated Cardiomyopathy.** *Cell stem cell*
Wu, H., Lee, J., Vincent, L. G., Wang, Q., Gu, M., Lan, F., Churko, J. M., Sallam, K. I., Matsa, E., Sharma, A., Gold, J. D., Engler, A. J., Xiang, et al
2015; 17 (1): 89-100
- **Finding the rhythm of sudden cardiac death: new opportunities using induced pluripotent stem cell-derived cardiomyocytes.** *Circulation research*
Sallam, K., Li, Y., Sager, P. T., Houser, S. R., Wu, J. C.
2015; 116 (12): 1989-2004
- **Establishing disease causality for a novel gene variant in familial dilated cardiomyopathy using a functional in-vitro assay of regulated thin filaments and human cardiac myosin.** *BMC medical genetics*
Pan, S., Sommese, R. F., Sallam, K. I., Nag, S., Sutton, S., Miller, S. M., Spudich, J. A., Ruppel, K. M., Ashley, E. A.
2015; 16 (1): 97-?
- **Human induced pluripotent stem cell-derived cardiomyocytes as an in vitro model for coxsackievirus B3-induced myocarditis and antiviral drug screening platform.** *Circulation research*

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2014; 115 (6): 556-566

● **Modeling inherited cardiac disorders.** *Circulation journal*

Sallam, K., Kodo, K., Wu, J. C.
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● **Cardiac stem cell biology: glimpse of the past, present, and future.** *Circulation research*

Matsa, E., Sallam, K., Wu, J. C.
2014; 114 (1): 21-27

● **Concomitant ECG findings and J wave patterns.** *Journal of electrocardiology*

Sallam, K., Froelicher, V.
2013; 46 (5): 399-403

● **Drug screening using a library of human induced pluripotent stem cell-derived cardiomyocytes reveals disease-specific patterns of cardiotoxicity.** *Circulation*

Liang, P., Lan, F., Lee, A. S., Gong, T., Sanchez-Freire, V., Wang, Y., Diecke, S., Sallam, K., Knowles, J. W., Wang, P. J., Nguyen, P. K., Bers, D. M., Robbins, et al
2013; 127 (16): 1677-1691

● **Natural History of Early Repolarization in the Inferior Leads** *ANNALS OF NONINVASIVE ELECTROCARDIOLOGY*

Stein, R., Sallam, K., Adhikarla, C., Boga, M., Wood, A. D., Froelicher, V. F.
2012; 17 (4): 331-339

● **Prognostic Implications of Q Waves and T-Wave Inversion Associated With Early Repolarization** *MAYO CLINIC PROCEEDINGS*

Uberoi, A., Sallam, K., Perez, M., Jain, N. A., Ashley, E., Froelicher, V.
2012; 87 (7): 614-619

● **COMPARISON OF EARLY REPOLARIZATION IN INFERIOR AND LATERAL LEADS** *61st Annual Scientific Session and Expo of the American-College-of-Cardiology (ACC)/Conference on ACC-i2 with TCT*

Downing, N. L., Abhimanyu, Uberoi, M., Sallam, K., Sadik, J., Adhikarla, C., Froelicher, V.
ELSEVIER SCIENCE INC.2012: E1940-E1940

● **Embryonic stem cell biology: insights from molecular imaging.** *Methods in molecular biology (Clifton, N.J.)*

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2010; 660: 185-199