Stanford

Kelly Brennan

Contingent Employee, Medicine - Med/Cardiovascular Medicine

Bio

INSTITUTE AFFILIATIONS

- Member (Staff), Cardiovascular Institute

Publications

PUBLICATIONS

- **Noninvasive Characterization of Atrial and Ventricular Activation and Conduction Velocity by Solid-State Magnetocardiography in a Pre-Clinical Pacing Model**

  Brennan, K., Sillett, C., Bandyopadhyay, S., Lyons, J., Ganesan, P., Ansari, R., Liu, X., Wang, P. J., Narayan, S. M., Rogers, A. J.

  LIPPINCOTT WILLIAMS & WILKINS.2026: A7189

- **Weight Trajectory in Young People Undergoing Sleeve Gastrectomy: Does Age Make a Difference? A Children's Obesity Surgery Multi-Institutional Collaborative (COSMIC) Analysis.** *Obesity surgery*

  Rodrigues de Oliveira Filho, J., Kochis, M. A., Shacker, M., Brennan, K., Bizimana, C. B., Stetson, A. E., Chinn, J. O., Pratt, J. S., Griggs, C., Hornick, M.

  2026

- **Reducing diverse sources of noise in ventricular electrical signals using variational autoencoders** *EXPERT SYSTEMS WITH APPLICATIONS*

  Ruiperez-Campillo, S., Ryser, A., Sutter, T. M., Deb, B., Feng, R., Ganesan, P., Brennan, K. A., Rogers, A. J., Kolk, M. Z. H., Tjong, F. V. Y., Narayan, S. M., Vogt, J. E.

  2026; 300

- **Deep Learning-Based Continuous QT Monitoring to Identify High-Risk Prolongation Events After Class III Antiarrhythmic Initiation.** *Circulation*

  Ansari, R. A., Bandyopadhyay, S., Trivedi, R. K., Brennan, K. A., Liu, X., Ganesan, P., Hughes, J. W., Perino, A. C., Ashley, E. A., Wang, P. J., Coleman, T., Perez, M. V., Ouyang, et al

  2026; 153 (1): 35-46

- **The impact of preoperative antiobesity medications on weight loss in adolescents undergoing metabolic and bariatric surgery - a COSMIC study.** *Surgery for obesity and related diseases : official journal of the American Society for Bariatric Surgery*

  Chinn, J. O., Shacker, M., Brennan, K. A., Kochis, M., Stetson, A., Bizimana, C., Rodrigues de Oliveira Filho, J., Hornick, M. A., Pratt, J. S., Abu El Haija, M., Griggs, C.

  2025

- **Deep Learning-Based Continuous QT Monitoring Identifies High-Risk Prolongation Events After Class III Antiarrhythmic Initiation**

  Rogers, A., Ansari, R., Bandyopadhyay, S., Trivedi, R., Brennan, K., Ganesan, P., Perino, A., Ashley, E., Wang, P., Perez, M., Ouyang, D., Narayan, S.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Development of Personalized Myocardial Surface Mesh Models with LGE Scar Integration: a Pipeline for Machine Learning and Digital Twins**

  Liu, X., Qayyum, A., Ganesan, P., Bandyopadhyay, S., Somani, S., Brennan, K., Wang, P., Niederer, S., Narayan, S., Rogers, A.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Abstract 4367773: Predicting Peak Heart Rate from Resting 12-Lead ECGs in Patients Undergoing Stress Testing using Deep Learning**

Liu, X., Bandyopadhyay, S., Ganesan, P., Somani, S., Brennan, K., Karius, A., Baykaner, T., Perino, A., Wang, P., Ashley, E., Perez, M., Narayan, S., Rogers, et al

LIPPINCOTT WILLIAMS & WILKINS.2025

- **AI-based prediction of mortality in patients with ventricular tachycardia**

  Bandyopadhyay, S., Sadri, S., Brennan, K., Ganesan, P., Clopton, P., Ruiperez-Campillo, S., Peralta, E., Sillett, C., Rogers, A., Narayan, S.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Identifying optimum ECG features to predict sudden cardiac arrest at varying time points before the event**

  Bandyopadhyay, S., Ganesan, P., Brennan, K., Ruiperez-Campillo, S., Ansari, R., Clopton, P., Perino, A., Wang, P., Ashley, E., Perez, M., Narayan, S., Rogers, A.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Novel Foundation Models for Detecting and Generating Text Reports of Atrial Fibrillation from 12-lead ECGs in a Large Registry**

  Ganesan, P., Peralta, E., Ruiperez-Campillo, S., Bandyopadhyay, S., Rogers, A., Chang, H., Brennan, K., Sillett, C., Clopton, P., Perino, A., Niederer, S., Narayan, S.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Automated End-to-End Framework for Extracting Raw ECG Waveforms and ST Segment Values from ECG Reports and Predicting ST Elevation by Machine Learning**

  Ganesan, P., Liu, X., Bandyopadhyay, S., Ansari, R., Somani, S., Brennan, K., Karius, A., Baykaner, T., Perino, A., Wang, P., Ashley, E., Perez, M., Narayan, et al

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Non-Contact Magnetocardiography Localizes Atrial Foci as Accurately as High-Resolution Contact ECG**

  Brennan, K., Bandyopadhyay, S., Ganesan, P., Ansari, R., Somani, S., Liu, X., Baykaner, T., Perino, A., Wang, P., Narayan, S., Rogers, A.

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Longitudinal Evaluation of Anti-Arrhythmic Drug Use to Predict Hospitalization or Death in Patients with Ventricular Tachycardia**

  Sadri, S., Brennan, K., Bandyopadhyay, S., Ganesan, P., Desai, Y., Peralta, E., Feng, R., Sillett, C., Ruiperez-Campillo, S., Wang, P., Clopton, P., Rogers, A., Narayan, et al

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Large Language Models Detect Ventricular Tachycardia Recurrence in Clinical Notes and Enable Prediction of Clinical Outcomes at Scale**

  Sadri, S., Brennan, K., Bandyopadhyay, S., Desai, Y., Ganesan, P., Peralta, E., Feng, R., Sillett, C., Ruiperez-Campillo, S., Wang, P., Clopton, P., Rogers, A., Narayan, et al

  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Timing of Antiobesity Medications and Adolescent Metabolic and Bariatric Surgery.** *JAMA surgery*

  Chinn, J. O., Shacker, M., Brennan, K. A., Esquivel, M. M., Pratt, J. S.

  2025

- **Does the MBSAQIP Bariatric Surgical Risk/Benefit Calculator Accurately Predict Weight Loss in Adolescents?** *Obesity surgery*

  Kochis, M. A., Chinn, J. O., Nzenwa, I. C., Brennan, K. A., Pratt, J. S., Griggs, C. L.

  2025

- **Physics-Inspired Diffusion Probabilistic Models for Improved Denoising in Intracardiac Time Series.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*

  Ruiperez-Campillo, S., Rau, M., Ganesan, P., Brennan, K. A., Feng, R., Bandyopadhyay, S., Rogers, A. J., Narayan, S. M., Vogt, J. E.

  2025; 2025: 1-5

- **Comparing Phenotypes for Acute and Long-Term Response to Atrial Fibrillation Ablation Using Machine Learning.** *Circulation. Arrhythmia and electrophysiology*

  Ganesan, P., Pedron, M., Feng, R., Rogers, A. J., Deb, B., Chang, H. J., Ruiperez-Campillo, S., Srivastava, V., Brennan, K. A., Giles, W., Baykaner, T., Clopton, P., Wang, et al

  2025: e012860

- **Engineering of Generative Artificial Intelligence and Natural Language Processing Models to Accurately Identify Arrhythmia Recurrence.** *Circulation. Arrhythmia and electrophysiology*

  Feng, R., Brennan, K. A., Azizi, Z., Goyal, J., Deb, B., Chang, H. J., Ganesan, P., Clopton, P., Pedron, M., Ruipe Rez-Campillo, S., Desai, Y., De Larochellière, H., Baykaner, et al

2024: e013023

- **AUTOMATED, ACCURATE IDENTIFICATION OF VENTRICULAR TACHYCARDIA FROM ELECTRONIC HEALTH RECORDS USING NATURAL LANGUAGE PROCESSING**

  Brennan, K., Azizi, Z., Feng, R., Goyal, J., Liu, X., Ganesan, P., Ruiperez-Campillo, S., Baykaner, T., Badhwar, N., John, R. M., Viswanathan, M., Perino, A., Wang, et al

  ELSEVIER SCIENCE INC.2024: 2644

- **Defibrillation effectiveness and safety of the shock waveform used in a contemporary wearable cardioverter defibrillator: Results from animal and human studies** *PLOS ONE*

  Gleva, M. J., Sullivan, J., Crawford, T. C., Walcott, G., Birgersdotter-Green, U., Branch, K. R., Doshi, R. N., Kivilaid, K., Brennan, K., Rowbotham, R. K., Gustavson, L. M., Poole, J. E.

  2023; 18 (3): e0281340