



## Hiroyuki Inoue

Postdoctoral Scholar, Cardiovascular Institute

### Bio

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#### BIO

Physician-scientist and board-certified cardiologist with expertise in cardiovascular disease, gene therapy, iPSC disease modeling, genome editing, high-throughput screening, and computational approaches for functional genomics and phenotypic data analysis.

Performed 400+ percutaneous coronary interventions (PCI), catheter ablations, and cardiac device implantations as primary operator, and currently conduct translational cardiovascular research at Stanford.

#### HONORS AND AWARDS

- AHA Postdoctoral Fellowship, American Heart Association (2026)
- JSPS Overseas Research Fellow, Japan Society for the Promotion of Science (2023-2025)
- Young Investigator Award, Japanese Circulation Society (2022)
- Young Doctor Award, National Hospital Organization (2015)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, Osaka University (2022)
- Doctor of Medicine, Osaka University (2011)
- Board Certification, the Japanese Society of Internal Medicine (2022)
- Board Certification, Japanese Circulation Society (2019)

#### STANFORD ADVISORS

- Mark Mercola, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Plasma Extracellular Vesicle Surface Marker Profiling Reveals Immune Cell-Associated Mitochondrial Membrane Potential Alterations in Long COVID and Myalgic Encephalomyelitis/Chronic Fatigue Syndrome** *OPEN FORUM INFECTIOUS DISEASES*  
Ikeda, G., Koike-Ieki, M., Inoue, H., Dadhania, A., El Kamari, V., Jagannathan, P., Geng, L. N., Miglis, M. G., Shafer, R. W., Yang, P. C., Bonilla, H. 2026; 13 (5)
- **Multiplexed measurement of cell type-specific calcium kinetics using high-content image analysis combined with targeted gene disruption** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*  
Tabata, T., Masumura, Y., Higo, S., Kunimatsu, S., Kameda, S., Inoue, H., Okuno, S., Ogawa, S., Takashima, S., Watanabe, M., Miyagawa, S., Hikoso, S., Sakata, et al

2022; 637: 40-49

- **Human-Induced Pluripotent Stem Cell-Derived Cardiomyocyte Model for TNNT2 Δ160E-Induced Cardiomyopathy.** *Circulation. Genomic and precision medicine*  
Kondo, T., Higo, S., Shiba, M., Kohama, Y., Kameda, S., Tabata, T., Inoue, H., Okuno, S., Ogawa, S., Nakamura, S., Takeda, M., Ito, E., Li, et al  
2022; 15 (5): e003522
- **Modeling reduced contractility and impaired desmosome assembly due to plakophilin-2 deficiency using isogenic iPS cell-derived cardiomyocytes** *STEM CELL REPORTS*  
Inoue, H., Nakamura, S., Higo, S., Shiba, M., Kohama, Y., Kondo, T., Kameda, S., Tabata, T., Okuno, S., Ikeda, Y., Li, J., Liu, L., Yamazaki, et al  
2022; 17 (2): 337-351
- **Absence of first-pass isolation is associated with poor pulmonary vein isolation durability and atrial fibrillation ablation outcomes** *JOURNAL OF ARRHYTHMIA*  
Ninomiya, Y., Inoue, K., Tanaka, N., Okada, M., Tanaka, K., Onishi, T., Hirao, Y., Oka, T., Inoue, H., Takayasu, K., Nakamaru, R., Kitagaki, R., Koyama, et al  
2021; 37 (6): 1468-1476
- **Phenotypic recapitulation and correction of desmoglein-2-deficient cardiomyopathy using human-induced pluripotent stem cell-derived cardiomyocytes** *HUMAN MOLECULAR GENETICS*  
Shiba, M., Higo, S., Kondo, T., Li, J., Liu, L., Ikeda, Y., Kohama, Y., Kameda, S., Tabata, T., Inoue, H., Nakamura, S., Takeda, M., Ito, et al  
2021; 30 (15): 1384-1397
- **Clinical significance of left ventricular reverse remodeling after catheter ablation of atrial fibrillation in patients with left ventricular systolic dysfunction** *JOURNAL OF CARDIOLOGY*  
Okada, M., Tanaka, N., Oka, T., Tanaka, K., Ninomiya, Y., Hirao, Y., Yoshimoto, I., Inoue, H., Kitagaki, R., Onishi, T., Koyama, Y., Okamura, A., Iwakura, et al  
2021; 77 (5): 500-508
- **A case of pulseless electrical activity due to takotsubo syndrome following radiofrequency catheter ablation for atrial fibrillation.** *Journal of cardiology cases*  
Oka, T., Tanaka, K., Inoue, H., Ninomiya, Y., Tanaka, K., Hirao, Y., Tanaka, N., Okada, M., Takayasu, K., Kitagaki, R., Koyama, Y., Okamura, A., Iwakura, et al  
2020; 22 (6): 294-298
- **Adeno-associated virus-mediated gene delivery promotes S-phase entry-independent precise targeted integration in cardiomyocytes** *SCIENTIFIC REPORTS*  
Kohama, Y., Higo, S., Masumura, Y., Shiba, M., Kondo, T., Ishizu, T., Higo, T., Nakamura, S., Kameda, S., Tabata, T., Inoue, H., Motooka, D., Okuzaki, et al  
2020; 10 (1): 15348
- **Overhanging Bioresorbable Vascular Scaffold Observed on Angioscopy 1 Year After Implantation** *CIRCULATION JOURNAL*  
Inoue, H., Okamura, A., Iwamoto, M., Sumiyoshi, A., Tanaka, K., Takayasu, K., Kawamura, K., Koyama, Y., Inoue, K., Iwakura, K., Fujii, K., Sakata, Y., Nagai, et al  
2020; 84 (9): 1605
- **Burden and Long Firing of Premature Atrial Contraction Early After Catheter Ablation Predict Late Recurrence of Atrial Fibrillation** *CIRCULATION JOURNAL*  
Inoue, H., Tanaka, N., Tanaka, K., Ninomiya, Y., Hirao, Y., Oka, T., Okada, M., Kitagaki, R., Takayasu, K., Koyama, Y., Okamura, A., Iwakura, K., Fujii, et al  
2020; 84 (6): 894-901
- **Outcomes After Atrial Fibrillation Ablation in Patients With Premature Atrial Contractions Originating From Non-Pulmonary Veins** *JACC-Clinical Electrophysiology*  
Nakamaru, R., Okada, M., Tanaka, N., Tanaka, K., Ninomiya, Y., Hirao, Y., Oka, T., Inoue, H., Takayasu, K., Koyama, Y., Okamura, A., Iwakura, K., Rakugi, et al  
2019; 5 (11): 1319-1327
- **Multiple Shifts of the Earliest Retrograde Atrial Activation Site Along the Tricuspid Annulus During the Fast-Slow Form of Atrioventricular Nodal Reentrant Tachycardia by Radiofrequency Modification** *INTERNATIONAL HEART JOURNAL*  
Okada, M., Tanaka, K., Matsunaga-Lee, Y., Ninomiya, Y., Hirao, Y., Oka, T., Tanaka, N., Inoue, H., Iwakura, K., Fujii, K., Inoue, K.  
2019; 60 (3): 761-767

- **Comparison of the Safety and Efficacy of Automated Annotation-Guided Radiofrequency Ablation and 2nd-Generation Cryoballoon Ablation in Paroxysmal Atrial Fibrillation** *CIRCULATION JOURNAL*  
Tanaka, N., Tanaka, K., Ninomiya, Y., Hirao, Y., Oka, T., Okada, M., Inoue, H., Nakamaru, R., Takayasu, K., Kitagaki, R., Koyama, Y., Okamura, A., Iwakura, et al  
2019; 83 (3): 548-555
- **Usefulness of Failed Electrical Cardioversion for Early Recurrence After Catheter Ablation for Atrial Fibrillation as a Predictor of Future Recurrence** *AMERICAN JOURNAL OF CARDIOLOGY*  
Nakamaru, R., Tanaka, N., Okada, M., Tanaka, K., Ninomiya, Y., Hirao, Y., Oka, T., Inoue, H., Koyama, Y., Okamura, A., Iwakura, K., Rakugi, H., Sakata, et al  
2019; 123 (5): 794-800
- **Left Atrial Reverse Remodeling After Catheter Ablation of Nonparoxysmal Atrial Fibrillation in Patients With Heart Failure With Reduced Ejection Fraction** *AMERICAN JOURNAL OF CARDIOLOGY*  
Oka, T., Inoue, K., Tanaka, K., Ninomiya, Y., Hirao, Y., Tanaka, N., Okada, M., Inoue, H., Nakamaru, R., Koyama, Y., Okamura, A., Iwakura, K., Sakata, et al  
2018; 122 (1): 89-96
- **Efficacy and Safety of Figure-of-Eight Suture for Hemostasis After Radiofrequency Catheter Ablation for Atrial Fibrillation** *CIRCULATION JOURNAL*  
Okada, M., Inoue, K., Tanaka, K., Ninomiya, Y., Hirao, Y., Oka, T., Tanaka, N., Inoue, H., Nakamaru, R., Koyama, Y., Okamura, A., Iwakura, K., Sakata, et al  
2018; 82 (4): 956-+
- **Automated Ablation Annotation Algorithm Reduces Re-conduction of Isolated Pulmonary Vein and Improves Outcome After Catheter Ablation for Atrial Fibrillation** *CIRCULATION JOURNAL*  
Tanaka, N., Inoue, K., Tanaka, K., Toyoshima, Y., Oka, T., Okada, M., Inoue, H., Nakamaru, R., Koyama, Y., Okamura, A., Iwakura, K., Sakata, Y., Fujii, et al  
2017; 81 (11): 1596-1602
- **Quantitative Assessment of Fluid Accumulation Using Bioelectrical Impedance Analysis in Patients With Acute Decompensated Heart Failure** *CIRCULATION JOURNAL*  
Sakaguchi, T., Yasumura, K., Nishida, H., Inoue, H., Furukawa, T., Shinouchi, K., Miura, H., Miyazaki, K., Hamano, G., Koide, M., Abe, H., Date, M., Hirooka, et al  
2015; 79 (12): 2616-2622