

## Hirota Ieki

Postdoctoral Scholar, Cardiovascular Medicine

### Bio

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#### BIO

Cardiologist in Japan.

Research interest: precision medicine in cardiovascular disease. Genomics, Exposomics.

#### HONORS AND AWARDS

- Young Investigator Award, The 21st Annual Scientific meeting of the Japanese Heart Failure Society (Oct 2017)
- Young Investigator Award (1st prize), The 24th Annual Scientific meeting of the Japanese Heart Failure Society (Oct 2020)
- Young Investigator's Award (2nd place), Japanese Circulation Society 2021 Meeting (Mar 2021)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, University Of Tokyo (2021)
- Doctor of Medicine, University Of Tokyo (2013)
- Ph.D., The University of Tokyo , Medicine (2021)
- M.D., The University of Tokyo , Medicine (2013)

#### STANFORD ADVISORS

- Themistocles Assimes, Postdoctoral Research Mentor
- Paul Cheng, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Current State of Artificial Intelligence in Assessing Cardiac Function.** *Current cardiology reports*  
Yuan, V., Lee, K., Ambrosy, A. P., Ouyang, D., Ieki, H.  
2025; 27 (1): 158
- **Artificial intelligence prediction of age from echocardiography as a marker for cardiovascular disease.** *NPJ digital medicine*  
Rawlani, M., Ieki, H., Binder, C., Yuan, V., Chiu, I. M., Bhatt, A., Ebinger, J. E., Sahashi, Y., Ambrosy, A. P., Usuku, H., Tsujita, K., Cheng, P., Kwan, et al  
2025; 8 (1): 688
- **Genome-wide analysis of heart failure yields insights into disease heterogeneity and enables prognostic prediction in the Japanese population.** *Nature communications*  
Enzan, N., Miyazawa, K., Koyama, S., Kurosawa, R., Ieki, H., Yoshida, H., Takechi, F., Fukuyama, M., Osako, R., Tomizuka, K., Liu, X., Ozaki, K., Onouchi, et al  
2025; 16 (1): 9680
- **Molecular Mechanisms of Exosomes From Human iPSC-Cardiomyocytes and Mesenchymal Stem Cells in Restoring the Injured Myocardium.** *Journal of the American Heart Association*  
Tzng, E., Bayardo, N., Ikeda, G., Vadgama, N., Takashima, H., Lyons, J., Ieki, H., Bennett, M., Snyder, M., Wu, J. C., O'Brien, C. G., Yang, P. C.

2025: e037005

- **Artificial Intelligence Automation of Echocardiographic Measurements.** *Journal of the American College of Cardiology*  
Sahashi, Y., Ieki, H., Yuan, V., Christensen, M., Vukadinovic, M., Binder-Rodriguez, C., Rhee, J., Zou, J. Y., He, B., Cheng, P., Ouyang, D.  
2025
- **Automated Deep Learning Pipeline for Characterizing Left Ventricular Diastolic Function.** *medRxiv : the preprint server for health sciences*  
Yuan, V., Sahashi, Y., Ieki, H., Vukadinovic, M., Binder, C., Pieszko, K., Ambrosy, A. P., Cheng, P. P., Cheng, S., Ouyang, D.  
2025
- **Artificial Intelligence Prediction of Age from Echocardiography as a Marker for Cardiovascular Disease.** *medRxiv : the preprint server for health sciences*  
Rawlani, M., Ieki, H., Binder, C., Yuan, V., Chiu, I. M., Bhatt, A., Ebinger, J. E., Sahashi, Y., Ambrosy, A. P., Cheng, P., Kwan, A. C., Cheng, S., Ouyang, et al  
2025
- **Artificial intelligence automation of echocardiographic measurements.** *medRxiv : the preprint server for health sciences*  
Sahashi, Y., Ieki, H., Yuan, V., Christensen, M., Vukadinovic, M., Binder-Rodriguez, C., Rhee, J., Zou, J. Y., He, B., Cheng, P., Ouyang, D.  
2025
- **Cross-ancestry genome-wide analysis of atrial fibrillation unveils disease biology and enables cardioembolic risk prediction** *NATURE GENETICS*  
Miyazawa, K., Ito, K., Ito, M., Zou, Z., Kubota, M., Nomura, S., Matsunaga, H., Koyama, S., Ieki, H., Akiyama, M., Koike, Y., Kurosawa, R., Yoshida, et al  
2023: 187-197
- **Deep learning-based age estimation from chest X-rays indicates cardiovascular prognosis.** *Communications medicine*  
Ieki, H., Ito, K., Saji, M., Kawakami, R., Nagatomo, Y., Takada, K., Kariyasu, T., Machida, H., Koyama, S., Yoshida, H., Kurosawa, R., Matsunaga, H., Miyazawa, et al  
2022; 2 (1): 159
- **Population-specific and trans-ancestry genome-wide analyses identify distinct and shared genetic risk loci for coronary artery disease** *NATURE GENETICS*  
Koyama, S., Ito, K., Terao, C., Akiyama, M., Horikoshi, M., Momozawa, Y., Matsunaga, H., Ieki, H., Ozaki, K., Onouchi, Y., Takahashi, A., Nomura, S., Morita, et al  
2020; 52 (11): 1169-+
- **Diagnosing Heart Failure from Chest X-Ray Images Using Deep Learning** *INTERNATIONAL HEART JOURNAL*  
Matsumoto, T., Koderu, S., Shinohara, H., Ieki, H., Yamaguchi, T., Higashikuni, Y., Kiyosue, A., Ito, K., Ando, J., Takimoto, E., Akazawa, H., Morita, H., Komuro, et al  
2020; 61 (4): 781-786
- **Transethnic Meta-Analysis of Genome-Wide Association Studies Identifies Three New Loci and Characterizes Population-Specific Differences for Coronary Artery Disease** *CIRCULATION-GENOMIC AND PRECISION MEDICINE*  
Matsunaga, H., Ito, K., Akiyama, M., Takahashi, A., Koyama, S., Nomura, S., Ieki, H., Ozaki, K., Onouchi, Y., Sakaue, S., Suna, S., Ogishima, S., Yamamoto, et al  
2020; 13 (3): 128-138
- **Impact of Pulmonary Artery-to-Aorta Ratio by CT on the Clinical Outcome in Heart Failure** *JOURNAL OF CARDIAC FAILURE*  
Ieki, H., Nagatomo, Y., Tsugu, M., Mahara, K., Iguchi, N., Isobe, M., Yoshikawa, T.  
2019; 25 (11): 886-893
- **Complete Resolution of Left Ventricular Outflow Tract Obstruction After Spontaneous Mitral Valve Chordal Rupture in a Patient With Hypertrophic Cardiomyopathy.** *CASE (Philadelphia, Pa.)*  
Ieki, H., Mahara, K., Nagatomo, Y., Iguchi, N., Takayama, M., Isobe, M.  
2019; 3 (3): 103-106