

Kenzo Ichimura, MD, PhD.

CONTACTS

Stanford University, School of Medicine, Pulmonary, Allergy and Critical Care Medicine
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EDUCATION

2/28/2018 Ph.D. Graduate School of Medical Sciences, Kyushu University, Japan
3/25/2008 M.D. Faculty of Medicine, Kyushu University, Japan

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

Postgraduate Medical Trainings

2011-2013 Clinical Fellow, Cardiovascular Medicine, Aso Iizuka Hospital, Japan
2010-2011 Clinical Fellow, Emergency Medicine, Aso Iizuka Hospital, Japan
2008-2010 Resident, Aso Iizuka Hospital, Japan

Academic Appointments

2019- Postdoctoral Research Fellow, Stanford University, School of Medicine,
 Pulmonary, Allergy and Critical Care Medicine
 300 Pasteur Dr, Grant Building, Rm 126B, Stanford CA 94305, (650) 724-1493
2017 Assistant Professor, Emergency and Critical Care Center, Kyushu University Hospital,
 3-1-1, Maidashi, Higashi Ward, Fukuoka, 812-8582, Japan, +81-92-642-1151

Teaching and Mentoring

- Resident and medical students training in the ICU: Emergency and Critical Care Center, Kyushu University Hospital, Japan
- Mentoring medical students in the laboratory: Graduate School of Medical Sciences, Kyushu University, Japan

AWARDS

2022 Cournand & Comroe Early Career Investigator Prize in Cardiopulmonary, Critical Care, Perioperative and Resuscitation, Finalist, American Heart Association Council on 3CPR
2022 Poster Award Winner at the Stanford-Cornell Cardiovascular Research Symposium
2022 Abstract Scholarship, American Thoracic Society Assembly on Pulmonary Circulation
2021 Stanford Cardiovascular Institute Travel Awards
2017 Young Investigator Award, Clinical Research, Japanese Association of Cardiovascular Intervention and Therapeutics Congress

- 2016 Young Researcher Award, European Society of Cardiology, Working Group on Pulmonary Circulation and Right Ventricular Function
- 2016 Young Investigator Award, Basic Science, European Society of Cardiology Congress
- 2016 Young Investigator Award, Clinical Research, Japanese Association of Cardiovascular Intervention and Therapeutics Congress
- 2014 Top Score Poster Award, European Society of Cardiology Congress
- 2010 Best Resident of the Year 2009, Aso Iizuka Hospital

GRANT FUNDINGS

- 2022 Postdoctoral Fellowship Award, American Heart Association
- 2018 Grant-in-Aid for Young Scientists, Japan Society for the Promotion of Science
- 2017 Research Grant, Kowa Life Science Foundation

LICENSURE AND CERTIFICATE

- 2020 Board Certification of Intensive Care Medicine, Japanese Society of Intensive Care Medicine
- 2020 Board Certification of Emergency Medicine, Japanese Association of Acute Medicine
- 2018 Board Certification of Echocardiography for Structural Heart Disease, Japanese Society of Echocardiography
- 2017 Board Certification of Cardiology, Japanese Circulation Society
- 2016 Board Certification of Perioperative Transesophageal Echocardiography, Japanese Society of Cardiovascular Anesthesiologists
- 2012 Board Certification of Internal Medicine, Japanese Society of Internal Medicine

PUBLICATIONS

Original Articles

- 1) Tremblay-Gravel M, **Ichimura K**, Picard K, Kawano Y, Dries AM, Haddad F, Lakdawala NK, Wheeler MT, Parikh VN. Intrinsic Atrial Myopathy Precedes Left Ventricular Dysfunction and Predicts Atrial Fibrillation in *Lamin A/C* Cardiomyopathy. *Circ Genom Precis Med*. 2022 Dec 22:e003480. doi: 10.1161/CIRCGEN.121.003480.
- 2) Sakamoto K, Matoba T, Nakai M, Tahara Y, Nakashima T, Hosoda H, Miyamoto Y, Nishimura K, Sumita Y, Yagi T, **Ichimura K**, Yonemoto N, Tachibana E, Nagao K, Ikeda T, Sato N, Tsutsui H. Clinical picture of the duration of venoarterial extracorporeal membrane oxygenation: analysis from JROAD-DPC. *Heart Vessels*. 2022 Sep 29. doi: 10.1007/s00380-022-02158-0.
- 3) Nishihara M, Hiasa KI, Enzan N, **Ichimura K**, Iyonaga T, Shono Y, Kashiura M, Moriya T, Kitazono T, Tsutsui H. Hyperoxemia is Associated With Poor Neurological Outcomes in Patients With Out-of-Hospital Cardiac Arrest Rescued by Extracorporeal Cardiopulmonary Resuscitation: Insight From the Nationwide Multicenter Observational

- JAAM-OHCA (Japan Association for Acute Medicine) Registry. *J Emerg Med.* 2022 Aug 26:S0736-4679(22)00323-7. doi: 10.1016/j.jemermed.2022.05.018.
- 4) Zhao J, Winetraub Y, Du L, Vleck AV, **Ichimura K**, Huang C, Aasi SZ, Sarin KY, de la Zerda A. Flexible method for generating needle-shaped beams and its application in optical coherence tomography. *Optica* 2022(9), 859-867. doi: 10.1364/optica.456894
 - 5) van der Have O, Westöö C, Ahrné F, Tian X, **Ichimura K**, Dreier T, Norvik C, Kumar ME, Spiekerkoetter E, Tran-Lundmark K. Shunt-type plexiform lesions identified in the Sugen5416/Hypoxia rat model of pulmonary arterial hypertension using SP μ CT. *Eur Respir J.* 2022 Mar 24:2102802. doi: 10.1183/13993003.02802-2021.
 - 6) Enzan N, Hiasa KI, **Ichimura K**, Nishihara M, Iyonaga T, Shono Y, Tohyama T, Funakoshi K, Kitazono T, Tsutsui H. Delayed administration of epinephrine is associated with worse neurological outcomes in patients with out-of-hospital cardiac arrest and initial pulseless electrical activity: insight from the nationwide multicentre observational JAAM-OHCA (Japan Association for Acute Medicine) registry. *Eur Heart J Acute Cardiovasc Care.* 2022 Mar 3:zuac026. doi: 10.1093/ehjacc/zuac026.
 - 7) Dufva MJ, Boehm M, **Ichimura K**, Truong U, Qin X, Tabakh J, Hunter KS, Ivy D, Spiekerkoetter E, Kheifets VO. Pulmonary arterial banding in mice may be a suitable model for studies on ventricular mechanics in pediatric pulmonary arterial hypertension. *J Cardiovasc Magn Reson.* 2021 Jun 3;23(1):66. doi: 10.1186/s12968-021-00759-8.
 - 8) Boehm M, Tian X, Ali MK, Mao Y, **Ichimura K**, Zhao M, Kuramoto K, Dannewitz Prosseda S, Fajardo G, Dufva MJ, Qin X, Kheifets VO, Bernstein D, Reddy S, Metzger RJ, Zamanian RT, Haddad F, Spiekerkoetter E. Improving Right Ventricular Function by Increasing BMP Signaling with FK506. *Am J Respir Cell Mol Biol.* 2021 Sep;65(3):272-287. doi: 10.1165/rcmb.2020-0528OC.
 - 9) Matoba T, Sakamoto K, Nakai M, **Ichimura K**, Mohri M, Tsujita Y, Yamasaki M, Ueki Y, Tanaka N, Hokama Y, Fukutomi M, Hashiba K, Fukuhara R, Suwa S, Matsuura H, Hosoda H, Nakashima T, Tahara Y, Sumita Y, Nishimura K, Miyamoto Y, Yonemoto N, Yagi T, Tachibana E, Nagao K, Ikeda T, Sato N, Tsutsui H. Institutional Characteristics and Prognosis of Acute Myocardial Infarction With Cardiogenic Shock in Japan - Analysis From the JROAD/JROAD-DPC Database. *Circ J.* 2021 Sep 24;85(10):1797-1805. doi: 10.1253/circj.CJ-20-0655.
 - 10) Boehm M, Tian X, Mao Y, **Ichimura K**, Dufva MJ, Ali K, Dannewitz Prosseda S, Shi Y, Kuramoto K, Reddy S, Kheifets VO, Metzger RJ, Spiekerkoetter E. Delineating the molecular and histological events that govern right ventricular recovery using a novel mouse model of pulmonary artery de-banding. *Cardiovasc Res.* 2020 Aug 1;116(10):1700-1709. doi: 10.1093/cvr/cvz310.
 - 11) **Ichimura K**, Matoba T, Koga JI, Nakano K, Funamoto D, Tsutsui H, Egashira K. Nanoparticle-Mediated Targeting of Pitavastatin to Small Pulmonary Arteries and

Leukocytes by Intravenous Administration Attenuates the Progression of Monocrotaline-Induced Established Pulmonary Arterial Hypertension in Rats. *Int Heart J.* 2018 Nov 28;59(6):1432-1444. doi: 10.1536/ihj.17-683.

- 12) **Ichimura K**, Matoba T, Nakano K, Tokutome M, Honda K, Koga J, Egashira K. A Translational Study of a New Therapeutic Approach for Acute Myocardial Infarction: Nanoparticle-Mediated Delivery of Pitavastatin into Reperfused Myocardium Reduces Ischemia-Reperfusion Injury in a Preclinical Porcine Model. *PLoS One.* 2016 Sep 7;11(9):e0162425. doi: 10.1371/journal.pone.0162425.

Review Articles

- 1) Schimmel K, **Ichimura K**, Reddy S, Haddad F, Spiekerkoetter E. Cardiac Fibrosis in the Pressure Overloaded Left and Right Ventricle as a Therapeutic Target. *Front. Cardiovasc. Med.* 2022;9:886553.
- 2) Ali K, **Ichimura K**, Spiekerkoetter E. Promising Therapeutic Approaches in Pulmonary Arterial Hypertension. *Current Opinion in Pharmacology.* 2021. 2021;59: 127-139.

SELECTED PRESENTATIONS

- 1) **Ichimura K**, Boehm M, Andruska A, Schimmel K, Zhang F, Bonham S, Kabiri A, Kheyfets VO, Reddy S, Wang G, MacArthur JW, Woo YJ, Metzger R, Spiekerkoetter E. *Three-Dimensional Deep-Tissue Imaging of the Right Ventricle Reveals the Complex Remodeling of the Microvascular Network in Right Heart Failure.* American Heart Association Scientific Session 2022, Chicago
- 2) **Ichimura K**, Boehm M, Zhang F, Andruska A, Dufva MJ, Reddy S, Kheyfets VO, Metzger R, Spiekerkoetter E. *Three-dimensional Deep-tissue Imaging of the Right Ventricle Reveals Adaptive Reconstruction of the Capillary Network in Right Heart Failure.* American Thoracic Society International Conference 2022, San Francisco.
- 3) **Ichimura K**, Boehm M, Zhang F, Andruska A, Dufva MJ, Reddy S, Kheyfets VO, Metzger R, Spiekerkoetter E. *Three-Dimensional Deep-Tissue Imaging of the Right Ventricle Reveals Decreased Capillary-Cardiomyocyte Contact Surface in Decompensated Right Heart Failure.* American Heart Association Scientific Session 2021, Virtual.
- 4) **Ichimura K**, Matoba T, Nakano K, Egashira K. *Nanoparticle-Mediated Targeting of Pitavastatin into Small Pulmonary Arteries by Intravenous Administration Attenuates the Progression of Monocrotaline-induced Established Pulmonary Arterial Hypertension in Rats.* European Society of Cardiology Congress 2016, Roma, Italy.
- 5) **Ichimura K**, Matoba T, Nagahama R, Nakano K, Sunagawa K, Egashira K. *Nanoparticle-Mediated Delivery of Pitavastatin into Small Pulmonary Arteries by Intravenous Administration Attenuated the Progression of Already Established*

Monocrotaline-induced Pulmonary Arterial Hypertension in Rats. American Heart Association Scientific Session 2014, Chicago, IL.

- 6) **Ichimura K**, Matoba T, Nakano K, Nagaoka K, Sunagawa K, Egashira K. *Nanoparticle-Mediated Targeting of Pitavastatin into Reperfused Myocardium Reduces Ischemia-Reperfusion Injury in a Preclinical Porcine Model*. European Society of Cardiology Congress 2014, Barcelona, Spain.
- 7) **Ichimura K**, Matoba T, Nagaoka K, Sunagawa K, Egashira K. *Nanoparticle-Mediated Targeting of Pitavastatin into Reperfused Myocardium Reduces Ischemia-Reperfusion Injury in a Preclinical Pig Model*. American Heart Association Scientific Session 2013, Dallas, TX.

MEMBERSHIP

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| 2013-present | American Heart Association, Professional Member |
| 2014-present | European Society of Cardiology, Professional Member |
| 2016-present | European Society of Cardiology, Working Group on Pulmonary Circulation and Right Ventricular Function |
| 2016-present | European Association of Percutaneous Cardiovascular Interventions |
| 2022-present | American Thoracic Society, Member |