THE UNIVERSITY OF TOKYO

Curriculum Vitae
Seitaro Nomura, M.D., Ph.D.

Associate Professor
Department of Frontier Cardiovascular Science
Department of Cardiovascular Medicine
The University of Tokyo, Tokyo, Japan

Education

2005, Chiba University, School of Medicine, Chiba, Japan
M.D., 2005
2013, Chiba University, Graduate school of Medicine, Chiba, Japan (Issei Komuro Laboratory)
Ph.D., Cardiovascular Medicine, 2013
Dissertation: Single-cell transcriptome analysis and epigenomic analysis in cardiomyocyte differentiation

Job History

2005, St. Luke's international hospital, internship
2007, St. Luke's international hospital, clinical fellow
2009, Chiba University Hospital, cardiology doctor

Postdoctoral Training and Faculty Appointments

2013, The University of Tokyo Hospital, Project researcher (Issei Komuro Laboratory)
2016, The University of Tokyo Hospital, Assistant Professor
2023, The University of Tokyo Hospital, Associate Professor

Board Certification

National Board of Medicine (Japan), 2005
Japanese Board of Internal Medicine, 2008
Japanese Board of General Internal Medicine, 2012
Japanese Board of Cardiology, 2013
Fellow of the European Society of Cardiology, 2021
Fellow of the American Heart Association, 2023

Teaching Activities

Main supervisor of 10 post doctors and 16 PhD students
Lecturer at the seminar of molecular biology at the University of Tokyo
Lecturer of Cardiovascular Medicine at the University of Tokyo

Awards and Honors

2007, Best Resident Award, St. Luke's international hospital

Postal address
Department of Frontier Cardiovascular Science, Graduate School of Medicine, The University of Tokyo
7-3-1, Hongo, Bunkyo-ku. Tokyo 113-8655 Japan

Visiting address
The University of Tokyo
7-3-1, Hongo, Bunkyo-ku, Tokyo 113-8655 Japan

Telephone
+81 3 3815 5411
+81 3 5800 9041

Email
senomura-cib@umin.ac.jp

2007, Silver medal, international EBM conference
2010, Young Investigator's Award, Kanto regional office, Japanese circulation society
2013, Young Investigator's Award, Japanese circulation society
2013, Travel Award, International society for heart research
2014, Louis N. and Arnold M. Katz Basic Research Award, American Heart Association
2018, Young Investigator's Award, Japanese College of Cardiology
2018, Melvin L. Marcus Young Investigator Award, American Heart Association
2019, Ryozo Nagai Award, The Society of Cardiovascular Endocrinology and Metabolism
2022, The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology (Awards for Science and Technology)
2022, Academic Award, The Japanese Heart Failure Society
2024, Japan Medical Association Medical Research Encouragement Award, Japan Medical Association
2024, Kazuwa Nakao Award, The Society of Cardiovascular Endocrinology and Metabolism, The CVEM Society

Speaker invitations **2012-present**

Invited speaker at 25 international conferences within the field of Cardiovascular Medicine, and over 150 research lectures outside the University of Tokyo

Membership on Scientific Committees

National/International Scientific Committees

American Heart Association (Fellow of AHA)
International Society for Heart Research
European Society of Cardiology (Fellow of ESC)

Regional Scientific Committees

Japanese Circulation Society
Japanese Circulation Association
Japanese College of Cardiology
The Molecular Biology Society of Japan
The Japanese Society for Epigenetics

Research Grants

1. 2015 – 2016 Grant-in-Aid for Young Scientists (B), Japan Society for the Promotion of Science, Title: Cardiomyocyte heterogeneity in heart failure, Amount: 3,900,000 JPY
2. 2018 – 2020 Research Center Network for Realization of Regenerative Medicine, Japan Agency for Medical Research and Development, Chromatin structure dynamics and regulation during heart development, Amount: 61,000,000 JPY
3. 2018 – 2021 AMED-PRIME, Japan Agency for Medical Research and Development, Single-cell dynamics at the organism level in cardiac stress response, Amount: 70,180,000 JPY
4. 2019 – 2021 Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science, Single-cell omics analysis in heart failure, Amount: 17,420,000 JPY
5. 2020 – 2022 Practical Research Project for Cardiovascular Diseases, Japan Agency for Medical Research and Development, Spatio-temporal single-cell analysis in myocardial infarction, Amount: 19,500,000 JPY
6. 2020 – 2022 Practical Research Project for Rare/Intractable Diseases, Japan Agency for Medical Research and Development, DCM genome cohort study for precision medicine, Amount: 30,000,000 JPY

7. 2022 – 2024 FOREST Program, Japan Science and Technology Agency, Cardiomyocyte plasticity in heart failure, Amount: 20,000,000 JPY
8. 2022 – 2024 Grant-in-Aid for Scientific Research (A), Japan Society for the Promotion of Science, Comprehensive understanding of cardiac system structure and its control, Amount: 42,900,000 JPY
9. 2022 – 2024 Research Center Network for Realization of Regenerative Medicine, Japan Agency for Medical Research and Development, Development of therapeutic methods for heart disease by gene therapy and mutation repair therapy targeting cardiomyocytes, Amount: 60,000,000 JPY
10. 2023 – 2025 Biobank - Construction and Utilization biobank for genomic medicine REalization: B-Cure, Japan Agency for Medical Research and Development, Digital omics to elucidate mechanisms of stress responses in heart failure for precision medicine, Amount: 70,000,000 JPY
11. 2024 – 2026 Practical Research Project for Cardiovascular Diseases, Japan Agency for Medical Research and Development, Multifaceted development of cardiac rehabilitation mimic therapy, Amount: 45,000,000 JPY

Peer Reviewed Publications

1. Kitai T, Kohsaka S, Kato T, Kato E, Sato K, Teramoto K, Yaku H, Akiyama E, Ando M, Izumi C, Ide T, Iwasaki YK, Ohno Y, Okumura T, Ozasa N, Kaji S, Kashimura T, Kitaoka H, Kinugasa Y, Kinugawa S, Toda K, Nagai T, Nakamura M, Hikoso S, Minamisawa M, Wakasa S, Anchi Y, Oishi S, Okada A, Obokata M, Kagiyama N, Kato NP, Kohno T, Sato T, Shiraishi Y, Tamaki Y, Tamura Y, Nagao K, Nagatomo Y, Nakamura N, Nochioka K, Nomura A, Nomura S, Horiuchi Y, Mizuno A, Murai R, Inomata T, Kuwahara K, Sakata Y, Tsutsui H, Kinugawa K; Japanese Circulation Society and the Japanese Heart Failure Society Joint Working Group. JCS/JHFS 2025 Guideline on Diagnosis and Treatment of Heart Failure. Circ J. 2025 Mar 28. doi: 10.1253/circj.CJ-25-0002. Epub ahead of print. PMID: 40159241.
2. Kitai T, Kohsaka S, Kato T, Kato E, Sato K, Teramoto K, Yaku H, Akiyama E, Ando M, Izumi C, Ide T, Iwasaki YK, Ohno Y, Okumura T, Ozasa N, Kaji S, Kashimura T, Kitaoka H, Kinugasa Y, Kinugawa S, Toda K, Nagai T, Nakamura M, Hikoso S, Minamisawa M, Wakasa S, Anchi Y, Oishi S, Okada A, Obokata M, Kagiyama N, Kato NP, Kohno T, Sato T, Shiraishi Y, Tamaki Y, Tamura Y, Nagao K, Nagatomo Y, Nakamura N, Nochioka K, Nomura A, Nomura S, Horiuchi Y, Mizuno A, Murai R, Inomata T, Kuwahara K, Sakata Y, Tsutsui H, Kinugawa K; Japanese Circulation Society and the Japanese Heart Failure Society Joint Working Group. JCS/JHFS 2025 Guideline on Diagnosis and Treatment of Heart Failure. J Card Fail. 2025 Mar 27:S1071-9164(25)00100-9. doi: 10.1016/j.cardfail.2025.02.014. Epub ahead of print. PMID: 40155256.
3. Murakami N, Asano D, Tokushige N, Omura J, Watanabe M, Nomura S, Kitaoka H, Tamura Y. Diagnostic Delays and Quality of Life in Japanese Patients with Pulmonary Hypertension: A Nationwide Survey. Pulm Ther. 2025 Mar 18. doi: 10.1007/s41030-025-00290-6. Epub ahead of print. PMID: 40100574.
4. Sugiura K, Kubo T, Inoue S, Nomura S, Yamada T, Tobita T, Kuramoto Y, Miyashita Y, Asano Y, Ochi Y, Miyagawa K, Baba Y, Noguchi T, Hirota T, Yamasaki N, Morita H, Komuro I, Kitaoka H. Unveiling Clinical and Genetic Distinctions in Pure-Apical Versus Distal-Dominant Apical Hypertrophic Cardiomyopathy. J Am Heart Assoc. 2025 Mar 18;14(6):e038208. doi: 10.1161/JAHA.124.038208. Epub 2025 Mar 7. PMID: 40055852.
5. Imai Y, Kusano K, Aiba T, Ako J, Asano Y, Harada-Shiba M, Kataoka M, Kosho T, Kubo T,

Matsumura T, Minamino T, Minatoya K, Morita H, Nishigaki M, Nomura S, Ogino H, Ohno S, Takamura M, Tanaka T, Tsujita K, Uchida T, Yamagishi H, Ebana Y, Fujita K, Ida K, Inoue S, Ito K, Kuramoto Y, Maeda J, Matsunaga K, Neki R, Sugiura K, Tada H, Tsuji A, Yamada T, Yamaguchi T, Yamamoto E, Kimura A, Kuwahara K, Maemura K, Minamino T, Morisaki H, Tokunaga K; Japanese Circulation Society; Japanese College of Cardiology; Japanese Society of Pediatric Cardiology; Cardiac Surgery Joint Working Group. Electronic address: jcsGL@j-circ.or.jp. JCS/JCC/JSPCCS 2024 Guideline on Genetic Testing and Counseling in Cardiovascular Disease. J Cardiol. 2025 Feb;85(2):115-176. doi: 10.1016/j.jjcc.2024.10.002. PMID: 39961651.

6. Wanezaki M, Watanabe T, Iizuka A, Kobayashi T, Edamura S, Sugai T, Tamura H, Nishiyama S, Yamaguchi R, Hashimoto N, Otaki Y, Kutsuzawa D, Kato S, Arimoto T, Inoue S, Ko T, Nomura S, Komuro I, Watanabe M. Recent Trends in Achievement Rates and Time Required for Left Ventricular Reverse Remodeling in Dilated Cardiomyopathy. Circ Rep. 2025 Jan 8;7(2):97-105. doi: 10.1253/circrep.CR-24-0148. PMID: 39931705; PMCID: PMC11807696.
7. Nakayama R, Tanaka TD, Inoue S, Yoshida J, Hasegawa J, Nagoshi T, Nomura S, Morita H, Yoshimura M. Familial restrictive cardiomyopathy with novel missense variant of uncertain significance in the FLNC gene. ESC Heart Fail. 2025 Feb 6. doi: 10.1002/ehf2.15233. Epub ahead of print. PMID: 39916360.
8. Nishijo D, Inoue S, Dai Z, Nomura S, Abe R, Hiruma T, Bujo C, Oshima T, Katoh M, Shimizu Y, Ito M, Yamagata K, Ishida J, Amiya E, Takeda N, Fujiu K, Hatano M, Morita H, Takeda N, Komuro I. Genetic cardiomyopathy mimicking isolated cardiac sarcoidosis: Diagnostic challenges with positron emission tomography. ESC Heart Fail. 2025 Feb 4. doi: 10.1002/ehf2.15185. Epub ahead of print. PMID: 39905734.
9. Yao N, Kinouchi K, Katoh M, Ashtiani KC, Abdelkarim S, Morimoto H, Torimitsu T, Kozuma T, Iwahara A, Kosugi S, Komuro J, Kato K, Tonomura S, Nakamura T, Itoh A, Yamaguchi S, Yoshino J, Irie J, Hashimoto H, Yuasa S, Satoh A, Mikami Y, Uchida S, Ueki T, **Nomura S**, Baldi P, Hayashi K, Itoh H. Maternal circadian rhythms during pregnancy dictate metabolic plasticity in offspring. ***Cell Metab.*** 2025 Jan 8:S1550-4131(24)00484-4. doi: 10.1016/j.cmet.2024.12.002. Epub ahead of print. PMID: 39814018.
10. Isotani R, Igarashi M, Miura M, Naruse K, Kuranami S, Katoh M, **Nomura S**, Yamauchi T. Nicotine enhances the stemness and tumorigenicity in intestinal stem cells via Hippo-YAP/TAZ and Notch signal pathway. ***Elife.*** 2025 Jan 3;13:RP95267. doi: 10.7554/eLife.95267. PMID: 39752217; PMCID: PMC11698494.
11. Hiruma T, Inoue S, Ko T, **Nomura S**, Abe R, Bujo C, Ishida J, Takeda N, Amiya E, Hatano M, Abe H, Morita H, Ono M, Takeda N, Komuro I. *PRKAG2* Syndrome Caused by a Novel Missense Variant Mimicked Sporadic Hypertrophic Cardiomyopathy Until Its Progression to Burned-Out Phase. ***Circ Heart Fail.*** 2024 Dec;17(12):e012047. doi: 10.1161/CIRCHEARTFAILURE.124.012047. Epub 2024 Nov 25. PMID: 39584259.
12. Hayashi H, Ko T, Dai Z, Fujita K, **Nomura S**, Kiyoshima H, Ishihara S, Hamano M, Komuro I, Yamanishi Y. TRAITER: Transformer-guided diagnosis and prognosis of heart failure using cell nuclear morphology and DNA damage marker. ***Bioinformatics.*** 2024 Oct 16:btae610.
13. Imai Y, Kusano K, Aiba T, Ako J, Asano Y, Harada-Shiba M, Kataoka M, Kosho T, Kubo T, Matsumura T, Minamino T, Minatoya K, Morita H, Nishigaki M, **Nomura S**, Ogino H, Ohno S, Takamura M, Tanaka T, Tsujita K, Uchida T, Yamagishi H, Ebana Y, Fujita K, Ida K, Inoue S, Ito K, Kuramoto Y, Maeda J, Matsunaga K, Neki R, Sugiura K, Tada H, Tsuji A, Yamada T, Yamaguchi T, Yamamoto E, Kimura A, Kuwahara K, Maemura K, Minamino T, Morisaki H, Tokunaga K; Japanese Circulation Society, Japanese College of Cardiology, Japanese Society of Pediatric Cardiology and Cardiac Surgery Joint Working Group. JCS/JCC/JSPCCS 2024 Guideline on Genetic Testing and Counseling in Cardiovascular

Disease. ***Circ J.*** 2024 Sep 27. doi: 10.1253/circj.CJ-23-0926.

14. Hiruma T, Inoue S, Dai Z, **Nomura S#**, Kubo T, Sugiura K, Suzuki A, Kashimura T, Matsushima S, Yamada T, Tobita T, Katoh M, Ko T, Ito M, Ishida J, Amiya E, Hatano M, Takeda N, Takimoto E, Akazawa H, Morita H, Yamaguchi J, Inomata T, Tsutsui H, Kitaoka H, Aburatani H, Takeda N, Komuro I. Association of Multiple Nonhypertrophic Cardiomyopathy-Related Genetic Variants and Outcomes in Patients With Hypertrophic Cardiomyopathy. ***JACC Heart Fail.*** 2024 Sep 10:S2213-1779(24)00604-8. #Corresponding author
15. Inoue S, Ko T, Shindo A, **Nomura S#**, Yamada T, Jimba T, Dai Z, Nakao H, Suzuki A, Kashimura T, Iwahana T, Goto K, Matsushima S, Ishida J, Amiya E, Zhang B, Kubota M, Sawami K, Heryed T, Yamada S, Katoh M, Katagiri M, Ito M, Nayakama Y, Fujiu K, Hatano M, Takeda N, Takimoto E, Akazawa H, Morita H, Yamaguchi J, Inomata T, Kobayashi Y, Minamino T, Tsutsui H, Kurokawa M, Aiba A, Aburatani H, Komuro I. Association Between Clonal Hematopoiesis and Left Ventricular Reverse Remodeling in Nonischemic Dilated Cardiomyopathy. ***JACC Basic Transl Sci.*** 2024 Jun 12;9(8):956-967. doi: 10.1016/j.jacbts.2024.04.010. PMID: 39297129; PMCID: PMC11405799. #Corresponding author
16. Ito M, Katoh M, Sassa T, Ko T, Fujita K, Yamada S, Miura K, Toyoda M, Takada S, Tobita T, Katagiri M, Kubota M, Yamada T, Hatsuse S, Morita H, Ikeuchi M, Matsuura K, Umezawa A, **Nomura S**, Aburatani H, Komuro I. LMNA Q353R Mutation Causes Dilated Cardiomyopathy Through Impaired Vitamin D Signaling. ***Circulation***. 2024 Sep 17;150(12):971-974. doi: 10.1161/CIRCULATIONAHA.124.069972. Epub 2024 Sep 16. PMID: 39283931.
17. Dai Z, Ko T, Inoue S, **Nomura S#**, Fujita K, Onoue K, Kuramoto Y, Asano Y, Katoh M, Yamada S, Katagiri M, Zhang B, Yamada T, Heryed T, Sawami K, Jimba T, Hori N, Kubota M, Ito M, Amiya E, Hatano M, Takeda N, Morita H, Saito Y, Takeda N, Komuro I. Myocardial DNA Damage Is Responsible for the Relationship Between Genotype and Reverse Remodeling in Patients With Dilated Cardiomyopathy. ***Circ Heart Fail.*** 2024 Aug 28:e011879. doi: 10.1161/CIRCHEARTFAILURE.124.011879. Epub ahead of print. PMID: 39193726. #Corresponding author
18. Katoh M*, **Nomura S*#**, Yamada S, Ito M, Hayashi H, Katagiri M, Heryed T, Fujiwara T, Takeda N, Nishida M, Sugaya M, Kato M, Osawa T, Abe H, Sakurai Y, Ko T, Fujita K, Zhang B, Hatsuse S, Yamada T, Inoue S, Dai Z, Kubota M, Sawami K, Ono M, Morita H, Kubota Y, Mizuno S, Takahashi S, Nakanishi M, Ushiku T, Nakagami H, Aburatani H, Komuro I. Vaccine Therapy for Heart Failure Targeting the Inflammatory Cytokine Igfbp7. ***Circulation***. 2024 Jul 30;150(5):374-389. doi: 10.1161/CIRCULATIONAHA.123.064719. Epub 2024 Jul 11. PMID: 38991046. *Equal contribution #Corresponding author
19. Isa K, Suzuki T, **Nomura S**, Miyoshi T, Fujita K, Kubo T, Yoneoka D, Mizuno A. Demographic Determinants Influencing the Adoption of Genetic Testing for Cardiovascular Diseases in Japan - Insights From a Large-Scale Online Survey. ***Circ Rep.*** 2024 Apr 9;6(5):178-182. doi: 10.1253/circrep.CR-24-0028. PMID: 38736847; PMCID: PMC11081704.
20. Li M, Nishimura T, Takeuchi Y, Hongu T, Wang Y, Shiokawa D, Wang K, Hirose H, Sasahara A, Yano M, Ishikawa S, Inokuchi M, Ota T, Tanabe M, Tada KI, Akiyama T, Cheng X, Liu CC, Yamashita T, Sugano S, Uchida Y, Chiba T, Asahara H, Nakagawa M, Sato S, Miyagi Y, Shimamura T, Nagai LAE, Kanai A, Katoh M, Nomura S, Nakato R, Suzuki Y, Tojo A, Voon DC, Ogawa S, Okamoto K, Foukakis T, Gotoh N. FXYD3 functionally demarcates an ancestral breast cancer stem cell subpopulation with features of drug-tolerant persisters. ***J Clin Invest.*** 2023 Nov 15;133(22):e166666.
21. Abe R, Ko T, Inoue S, **Nomura S**, Jimba T, Katoh M, Ito M, Ishida J, Amiya E, Takeda N, Hatano M, Morita H, Ono M, Takeda N, Komuro I. A Pathogenic LAMP2 Non-Canonical

Splice Site Mutation Caused Danon Disease Requiring Heart Transplantation. ***Circ J.*** 2024 Jan 20. doi: 10.1253/circj.CJ-23-0938.

22. Rashid MM, Hamano M, Iida M, Iwata M, Ko T, **Nomura S**, Komuro I, Yamanishi Y. Network-based identification of diagnosis-specific trans-omic biomarkers via integration of multiple omics data. ***Biosystems.*** 2024 Jan 8;236:105122.
23. Kurihara T, Amiya E, Hatano M, Ishida J, Minatsuki S, Inoue S, **Nomura S**, Morita H, Komuro I. Multivessel Coronary Artery Dissection in a Patient with Co-Occurrence of Aortic Dissection and Dilated Cardiomyopathy in the Postpartum Period. ***Diseases.*** 2023 Dec 10;11(4):178. doi: 10.3390/diseases11040178.
24. Nakamizo S, Sugiura Y, Ishida Y, Ueki Y, Yonekura S, Tanizaki H, Date H, Yoshizawa A, Murata T, Minatoya K, Katagiri M, **Nomura S**, Komuro I, Ogawa S, Nakajima S, Kambe N, Egawa G, Kabashima K. Activation of the pentose phosphate pathway in macrophages is crucial for granuloma formation in sarcoidosis. ***J Clin Invest.*** 2023 Dec 1;133(23):e171088.
25. Myocardial DNA Damage Predicts Heart Failure Outcome in Various Underlying Diseases. Dai Z, Ko T, Fujita K, **Nomura S#**, Uemura Y, Onoue K, Hamano M, Katoh M, Yamada S, Katagiri M, Zhang B, Hatsuse S, Yamada T, Inoue S, Kubota M, Sawami K, Heryed T, Ito M, Amiya E, Hatano M, Takeda N, Morita H, Yamanishi Y, Saito Y, Komuro I. JACC Heart Fail. in press. #Corresponding author
26. Inoue S, Ko T, **Nomura S#**, Yamada T, Zhang B, Dai Z, Jimba T, Kato M, Ishida J, Amiya E, Hatano M, Takeda N, Morita H, Ono M, Komuro I. Compound Heterozygous Truncating Variants in the BAG5 Gene as a Cause of Early-Onset Dilated Cardiomyopathy. ***Circulation Genom Precis Med***. in press. #Corresponding author
27. Fujiwara T, Takeda N, Hara H, Ishii S, Numata G, Tokiwa H, Katoh M, Maemura S, Suzuki T, Takiguchi H, Yanase T, Kubota Y, **Nomura S**, Hatano M, Ueda K, Harada M, Toko H, Takimoto E, Akazawa H, Morita H, Nishimura S, Komuro I. PGC-1α-mediated angiogenesis prevents pulmonary hypertension in mice. ***JCI Insight***. 2023 Sep 8;8(17):e162632. doi: 10.1172/jci.insight.162632.
28. Kishimoto H, Iwasaki M, Wada K, Horitani K, Tsukamoto O, Kamikubo K, **Nomura S**, Matsumoto S, Harada T, Motooka D, Okuzaki D, Takashima S, Komuro I, Kikuchi A, Shiojima I. Wnt5a-YAP signaling axis mediates mechanotransduction in cardiac myocytes and contributes to contractile dysfunction induced by pressure overload. ***iScience***. 2023 Jun 15;26(7):107146. doi: 10.1016/j.isci.2023.107146.
29. Shintani-Domoto Y, Ode KL, **Nomura S**, Abe H, Ueda HR, Sakatani T, Ohashi R. Elucidation of the mechanism of amyloid A and transthyretin formation using mass spectrometry-based absolute quantification. ***Virchows Arch.*** 2023 Jul 15. doi: 10.1007/s00428-023-03591-w.
30. Nakamura Y, Matsumoto H, Wu CH, Fukaya D, Uni R, Hirakawa Y, Katagiri M, Yamada S, Ko T, **Nomura S**, Wada Y, Komuro I, Nangaku M, Inagi R, Inoue T. Alpha 7 nicotinic acetylcholine receptors signaling boosts cell-cell interactions in macrophages effecting anti-inflammatory and organ protection. ***Commun Biol.*** 2023 Jun 23;6(1):666.
31. Yamada S*, Ko T*, Ito M*, Sassa T*, **Nomura S*#**, Okuma H, Sato M, Imasaki T, Kikkawa S, Zhang B, Yamada T, Seki Y, Fujita K, Katoh M, Kubota M, Hatsuse S, Katagiri M, Hayashi H, Hamano M, Takeda N, Morita H, Takada S, Toyoda M, Uchiyama M, Ikeuchi M, Toyooka K, Umezawa A, Yamanishi Y, Nitta R, Aburatani H, Komuro I#. TEAD1 trapping by the Q353R-Lamin A/C causes dilated cardiomyopathy. ***Sci Adv.*** 2023 Apr 14;9(15):eade7047. *Equal contribution. #Corresponding authors.
32. Shindo A, Ueda K, Minatsuki S, Nakayama Y, Hatsuse S, Fujita K, **Nomura S**, Hatano M, Takeda N, Akazawa H, Komuro I. Novel AGL variants in a patient with glycogen storage disease type IIIb and pulmonary hypertension caused by pulmonary veno-occlusive disease: A case report. ***Front Genet.*** 2023 Mar 23;14:1148067.

33. 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 H, Ozaki K, Onouchi Y; BioBank Japan Project; Takahashi A, Matsuda K, Murakami Y, Aburatani H, Kubo M, Momozawa Y, Terao C, Oki S, Akazawa H, Kamatani Y, Komuro I. Cross-ancestry genome-wide analysis of atrial fibrillation unveils disease biology and enables cardioembolic risk prediction. ***Nat Genet.*** 2023 Feb;55(2):187-197.
34. **Nomura S#**, Ono M. Precision and genomic medicine for dilated and hypertrophic cardiomyopathy. ***Front Cardiovasc Med.*** 2023 Mar 6;10:1137498. #Corresponding author.
35. Yamada T*, **Nomura S*#**, Amiya E, Katoh M, Inoue S, Hatsuse S, Fujita K, Ito M, Fujita T, Bujo C, Tsuji M, Ishida J, Ko T, Yamada S, Katagiri M, Sassa T, Kinoshita O, Nawata K, Tobita T, Satoh M, Ishiwata J, Daimon M, Tatsuno K, Fukuda S, Kashimura T, Minamino T, Hatano M, Ono M, Aburatani H, Komuro I#. LMNA Mutations and Right Heart Failure in Patients With Cardiomyopathy and With Left Ventricular Assist Devices. ***J Card Fail.*** 2023 May;29(5):855-857. *Equal contribution. #Corresponding authors.
36. Yamada S*, Ko T*, Hatsuse S*, **Nomura S*#**, Zhang B, Dai Z, Inoue S, Kubota M, Sawami K, Yamada T, Sassa T, Katagiri M, Fujita K, Katoh M, Ito M, Harada M, Toko H, Takeda N, Morita H, Aburatani H, Komuro I#. Spatiotemporal transcriptome analysis reveals critical roles for mechano-sensing genes at the border zone in remodeling after myocardial infarction. ***Nat Cardiovasc Res.*** 2022 Nov 17;1:1072–1083. *Equal contribution. #Corresponding authors.
37. Adachi Y*, Ueda K*, **Nomura S**, Ito K, Katoh M, Katagiri M, Yamada S, Hashimoto M, Zhai B, Numata G, Otani A, Hinata M, Hiraike Y, Waki H, Takeda N, Morita H, Ushiku T, Yamauchi T, Takimoto E, Komuro I. Beiging of perivascular adipose tissue regulates its inflammation and vascular remodeling. ***Nat Commun.*** 2022 Sep 7;13(1):5117. *Equal contribution.
38. Nakamura S, Numata G, Yamaguchi T, Tokiwa H, Higashikuni Y, **Nomura S**, Sasano T, Takimoto E, Komuro I. Endoplasmic reticulum stress-activated nuclear factor-kappa B signaling pathway induces the upregulation of cardiomyocyte dopamine D1 receptor in heart failure. ***Biochem Biophys Res Commun***. 2022 Dec 31;637:247-253.
39. Ko T, **Nomura S#**. Manipulating Cardiomyocyte Plasticity for Heart Regeneration. ***Front Cell Dev Biol.*** 2022 Jul 11;10:929256. #Corresponding author.
40. Ko T*, **Nomura S*#**, Yamada S*, Fujita K, Fujita T, Satoh M, Oka C, Katoh M, Ito M, Katagiri M, Sassa T, Zhang B, Hatsuse S, Yamada T, Harada M, Toko H, Amiya E, Hatano M, Kinoshita O, Nawata K, Abe H, Ushiku T, Ono M, Ikeuchi M, Morita H, Aburatani H, Komuro I#. Cardiac fibroblasts regulate the development of heart failure via Htra3-TGF-β-IGFBP7 axis. ***Nat Commun.*** 2022 Jun 7;13(1):3275. *Equal contribution. #Corresponding authors.
41. Miura K, Matsuura K, Yamasaki Itoyama Y, Sasaki D, Takada T, Furutani Y, Hayama E, Ito M, **Nomura S**, Morita H, Toyoda M, Umezawa A, Onoue K, Saito Y, Aburatani H, Nakanishi T, Hagiwara N, Komuro I, Shimizu T. Functional Evaluation of Human Bioengineered Cardiac Tissue Using iPS Cells Derived from a Patient with Lamin Variant Dilated Cardiomyopathy. ***Int Heart J***. 2022;63(2):338-346.
42. Dai Z, **Nomura S#**. Recent Progress in Cardiovascular Research Involving Single-Cell Omics Approaches. ***Front Cardiovasc Med.*** 2021 Dec 16;8:783398. #Corresponding author.
43. Yamada T, **Nomura S#**. Recent Findings Related to Cardiomyopathy and Genetics. ***Int J Mol Sci.*** 2021 Nov 20;22(22):12522. #Corresponding author.
44. Komai K, Ito M, **Nomura S**, Shichino S, Katoh M, Yamada S, Ko T, Iizuka-Koga M, Nakatsukasa H, Yoshimura A. Single-Cell Analysis Revealed the Role of $CD8^+$ Effector T Cells in Preventing Cardioprotective Macrophage Differentiation in the Early Phase of Heart Failure. ***Front Immunol.*** 2021 Oct 20;12:763647.
45. Fujiwara T, Takeda N, Hara H, Ishii S, Numata G, Tokiwa H, Maemura S, Suzuki T, Takiguchi

H, Kubota Y, Seo K, Sakata A, **Nomura S**, Hatano M, Ueda K, Harada M, Toko H, Takimoto E, Akazawa H, Nishimura S, Komuro I. Three-Dimensional Visualization of Hypoxia-Induced Pulmonary Vascular Remodeling in Mice. ***Circulation***. 2021 Oct 26;144(17):1452-1455.

46. Ishida M, Matsumoto C, Kida K, Fukuda M, Kagiyama N, Kusunose K, Matsumoto S, **Nomura S**, Okumura T, Shiono Y, Taniguchi T, Mizuno A, Kishi T, Node K, Komuro I, Hirata KI; Directors of the Japanese Circulation Society. New Vision, Mission, and Values of the Japanese Circulation Society. ***Circ J.*** 2021 Nov 25;85(12):2248-2251.
47. Katoh M*, **Nomura S***, Yamada S, Aburatani H, Komuro I. Single-Cardiomyocyte RNA Sequencing to Dissect the Molecular Pathophysiology of the Heart. ***Methods Mol Biol***. 2021;2320:183-192. *Equal contribution.
48. Hasegawa S, Inoue T, Nakamura Y, Fukaya D, Uni R, Wu CH, Fujii R, Peerapanyasut W, Taguchi A, Kohro T, Yamada S, Katagiri M, Ko T, **Nomura S**, Nakanishi Ozeki A, Susaki EA, Ueda HR, Akimitsu N, Wada Y, Komuro I, Nangaku M, Inagi R. Activation of Sympathetic Signaling in Macrophages Blocks Systemic Inflammation and Protects against Renal Ischemia-Reperfusion Injury. ***J Am Soc Nephrol.*** 2021 Apr 19;32(7):1599–615. (**IF: 14.981**)
49. Hamano M, **Nomura S**, Iida M, Komuro I, Yamanishi Y. Prediction of single-cell mechanisms for disease progression in hypertrophic remodelling by a trans-omics approach. ***Sci Rep***. 2021 Apr 14;11(1):8112.
50. Ishizuka M, Harada M, **Nomura S**, Ko T, Ikeda Y, Guo J, Bujo S, Yanagisawa-Murakami H, Satoh M, Yamada S, Kumagai H, Motozawa Y, Hara H, Fujiwara T, Sato T, Takeda N, Takeda N, Otsu K, Morita H, Toko H, Komuro I. CXCR7 ameliorates myocardial infarction as a β-arrestin-biased receptor. ***Sci Rep***. 2021 Feb 9;11(1):3426.
51. **Nomura S**, Komuro I. Precision medicine for heart failure based on molecular mechanisms: The 2019 ISHR Research Achievement Award Lecture. ***J Mol Cell Cardiol.*** 2021 Mar;152:29-39.
52. Yamada S, **Nomura S#**. Review of Single-Cell RNA Sequencing in the Heart. ***Int J Mol Sci***. 2020 Nov 6;21(21):8345. #Corresponding author.
53. Ito M, **Nomura S**, Morita H, Komuro I. Trends and Limitations in the Assessment of the Contractile Properties of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes From Patients With Dilated Cardiomyopathy. ***Front Cardiovasc Med.*** 2020 Sep 3;7:154.
54. 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 H, Akazawa H, Kim C, Seo JS, Higasa K, Iwasaki M, Yamaji T, Sawada N, Tsugane S, Koyama T, Ikezaki H, Takashima N, Tanaka K, Arisawa K, Kuriki K, Naito M, Wakai K, Suna S, Sakata Y, Sato H, Hori M, Sakata Y, Matsuda K, Murakami Y, Aburatani H, Kubo M, Matsuda F, Kamatani Y, Komuro I. Population-specific and trans-ancestry genome-wide analyses identify distinct and shared genetic risk loci for coronary artery disease. ***Nat Genet.*** 2020 Nov;52(11):1169-1177.
55. **Nomura S#**. Single-cell genomics to understand disease pathogenesis. ***J Hum Genet.*** 2021 Jan;66(1):75-84. #Corresponding author.
56. Yamaguchi T*, Sumida TS*, **Nomura S**, Satoh M, Higo T, Ito M, Ko T, Fujita K, Sweet ME, Sanbe A, Yoshimi K, Manabe I, Sasaoka T, Taylor MRG, Toko H, Takimoto E, Naito AT, Komuro I. Cardiac dopamine D1 receptor triggers ventricular arrhythmia in chronic heart failure. ***Nat Commun.*** 2020 Aug 31;11(1):4364. *Equal contribution.
57. 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 M, Hozawa A, Satoh M, Sasaki M, Yamaji T, Sawada N, Iwasaki M, Tsugane S, Tanaka K, Arisawa K, Ikezaki H, Takashima N, Naito M, Wakai K, Tanaka H, Sakata Y, Morita H, Sakata Y, Matsuda K, Murakami Y, Akazawa H, Kubo M, Kamatani Y, Komuro I. Transethnic Meta-Analysis of Genome-Wide Association Studies Identifies Three New Loci and Characterizes Population-Specific

Differences for Coronary Artery Disease. ***Circ Genom Precis Med.*** 2020 Jun;13(3):e002670.

58. **Nomura S**, Ko T, Fujita K, Uemura Y, Yamada S, Tobita T, Katoh M, Satoh M, Ito M, Domoto Y, Hosoya Y, Amiya E, Hatano M, Morita H, Fukayama M, Aburatani H, Komuro I. Quantification of DNA Damage in Heart Tissue as a Novel Prediction Tool for Therapeutic Prognosis of Patients With Dilated Cardiomyopathy. ***JACC Basic Transl Sci.*** 2019 Sep 25;4(6):670-680.
59. **Nomura S**, Izawa N, Kurotaki D, Fujita T, Omata Y, Yasui T, Hirose J, Matsumoto T, Saito T, Kadono Y, Okada H, Miyamoto T, Tamura T, Aburatani H, Tanaka S. Cooperation of PU.1 With IRF8 and NFATc1 Defines Chromatin Landscapes During RANKL-Induced Osteoclastogenesis. ***J Bone Miner Res.*** 2019 Jun;34(6):1143-1154.
60. Ito M, Hara H, Takeda N, Naito AT, **Nomura S**, Kondo M, Hata Y, Uchiyama M, Morita H, Komuro I. Characterization of a small molecule that promotes cell cycle activation of human induced pluripotent stem cell-derived cardiomyocytes. ***J Mol Cell Cardiol.*** 2019 Mar;128:90-95.
61. **Nomura S**, Satoh M, Harada M, Yamaguchi T, Ko T, Sumida T, Toko H, Naito AT, Takeda N, Tobita T, Fujita T, Ito M, Fujita K, Ishizuka M, Kariya T, Akazawa H, Kobayashi Y, Morita H, Takimoto E, Aburatani H, Komuro I. High-throughput single-molecule RNA imaging analysis reveals heterogeneous responses of cardiomyocytes to hemodynamic overload. ***J Mol Cell Cardiol.*** 2019 Mar;128:77-89.
62. **Nomura S***. Genetic and non-genetic determinants of clinical phenotypes in cardiomyopathy. ***J Cardiol.*** 2019 Mar;73(3):187-190. *Corresponding author.
63. Hara H, Takeda N, Kondo M, Kubota M, Saito T, Maruyama J, Fujiwara T, Maemura S, Ito M, Naito AT, Harada M, Toko H, **Nomura S**, Kumagai H, Ikeda Y, Ueno H, Takimoto E, Akazawa H, Morita H, Aburatani H, Hata Y, Uchiyama M, Komuro I. Discovery of a Small Molecule to Increase Cardiomyocytes and Protect the Heart After Ischemic Injury. ***JACC Basic Transl Sci.*** 2018 Nov 12;3(5):639-653.
64. **Nomura S**, Satoh M, Fujita T, Higo T, Sumida T, Ko T, Yamaguchi T, Tobita T, Naito AT, Ito M, Fujita K, Harada M, Toko H, Kobayashi Y, Ito K, Takimoto E, Akazawa H, Morita H, Aburatani H, Komuro I. Cardiomyocyte gene programs encoding morphological and functional signatures in cardiac hypertrophy and failure. ***Nat Commun.*** 2018 Oct 30;9(1):4435.
65. Sakai T, Naito AT, Kuramoto Y, Ito M, Okada K, Higo T, Nakagawa A, Shibamoto M, Yamaguchi T, Sumida T, **Nomura S**, Umezawa A, Miyagawa S, Sawa Y, Morita H, Lee JK, Shiojima I, Sakata Y, Komuro I. Phenotypic Screening Using Patient-Derived Induced Pluripotent Stem Cells Identified Pyr3 as a Candidate Compound for the Treatment of Infantile Hypertrophic Cardiomyopathy. ***Int Heart J.*** 2018 Sep 26;59(5):1096-1105.
66. Ito M, **Nomura S**. Cardiomyopathy with LMNA Mutation. ***Int Heart J.*** 2018;59(3):462-464.
67. Fujiwara T, Takeda N, Hara H, Morita H, Kishihara J, Inuzuka R, Yagi H, Maemura S, Toko H, Harada M, Ikeda Y, Kumagai H, **Nomura S**, Takimoto E, Akazawa H, Ako J, Komuro I. Distinct variants affecting differential splicing of TGFBR1 exon 5 cause either Loeys-Dietz syndrome or multiple self-healing squamous epithelioma. ***Eur J Hum Genet.*** 2018 Aug;26(8):1151-1158.
68. Tobita T*, **Nomura S***, Fujita T, Morita H, Asano Y, Onoue K, Ito M, Imai Y, Suzuki A, Ko T, Satoh M, Fujita K, Naito AT, Furutani Y, Toko H, Harada M, Amiya E, Hatano M, Takimoto E, Shiga T, Nakanishi T, Sakata Y, Ono M, Saito Y, Takashima S, Hagiwara N, Aburatani H, Komuro I. Genetic basis of cardiomyopathy and the genotypes involved in prognosis and left ventricular reverse remodeling. ***Sci Rep.*** 2018 Jan 31;8(1):1998. *Equal contribution.
69. Tobita T, **Nomura S**, Morita H, Ko T, Fujita T, Toko H, Uto K, Hagiwara N, Aburatani H, Komuro I. Identification of MYLK3 mutations in familial dilated cardiomyopathy. ***Sci Rep.***

2017 Dec 13;7(1):17495.
70. Yamaguchi J, Tanaka T, Saito H, **Nomura S**, Aburatani H, Waki H, Kadowaki T, Nangaku M. Echinomycin inhibits adipogenesis in 3T3-L1 cells in a HIF-independent manner. ***Sci Rep.*** 2017 Jul 26;7(1):6516.
71. Higo T, Naito AT, Sumida T, Shibamoto M, Okada K, **Nomura S**, Nakagawa A, Yamaguchi T, Sakai T, Hashimoto A, Kuramoto Y, Ito M, Hikoso S, Akazawa H, Lee JK, Shiojima I, McKinnon PJ, Sakata Y, Komuro I. DNA single-strand break-induced DNA damage response causes heart failure. ***Nat Commun.*** 2017 Apr 24;8:15104.
72. Nakamura S, Koyama T, Izawa N, **Nomura S**, Fujita T, Omata Y, Minami T, Matsumoto M, Nakamura M, Fujita-Jimbo E, Momoi T, Miyamoto T, Aburatani H, Tanaka S. Negative feedback loop of bone resorption by NFATc1-dependent induction of Cadm1. ***PLoS One.*** 2017 Apr 17;12(4):e0175632.
73. Kamo T, Akazawa H, Suda W, Saga-Kamo A, Shimizu Y, Yagi H, Liu Q, **Nomura S**, Naito AT, Takeda N, Harada M, Toko H, Kumagai H, Ikeda Y, Takimoto E, Suzuki JI, Honda K, Morita H, Hattori M, Komuro I. Dysbiosis and compositional alterations with aging in the gut microbiota of patients with heart failure. ***PLoS One.*** 2017 Mar 22;12(3):e0174099.
74. Kushida N, **Nomura S**, Mimura I, Fujita T, Yamamoto S, Nangaku M, Aburatani H. Hypoxia-Inducible Factor-1α Activates the Transforming Growth Factor-β/SMAD3 Pathway in Kidney Tubular Epithelial Cells. ***Am J Nephrol.*** 2016;44(4):276-285.
75. duVerle DA, Yotsukura S, **Nomura S**, Aburatani H, Tsuda K. CellTree: an R/bioconductor package to infer the hierarchical structure of cell populations from single-cell RNA-seq data. ***BMC Bioinformatics.*** 2016 Sep 13;17(1):363.
76. Nakagawa A, Naito AT, Sumida T, **Nomura S**, Shibamoto M, Higo T, Okada K, Sakai T, Hashimoto A, Kuramoto Y, Oka T, Lee JK, Harada M, Ueda K, Shiojima I, Limbourg FP, Adams RH, Noda T, Sakata Y, Akazawa H, Komuro I. Activation of endothelial β-catenin signaling induces heart failure. ***Sci Rep.*** 2016 May 5;6:25009.
77. Okada K, Naito AT, Higo T, Nakagawa A, Shibamoto M, Sakai T, Hashimoto A, Kuramoto Y, Sumida T, **Nomura S**, Ito M, Yamaguchi T, Oka T, Akazawa H, Lee JK, Morimoto S, Sakata Y, Shiojima I, Komuro I. Wnt/β-Catenin Signaling Contributes to Skeletal Myopathy in Heart Failure via Direct Interaction With Forkhead Box O. ***Circ Heart Fail.*** 2015 Jul;8(4):799-808.
78. Ikeda Y, Kumagai H, Okazaki H, Fujishiro M, Motozawa Y, **Nomura S**, Takeda N, Toko H, Takimoto E, Akazawa H, Morita H, Suzuki J, Yamazaki T, Komuro I, Yanagisawa M. Monitoring β-arrestin recruitment via β-lactamase enzyme fragment complementation: purification of peptide E as a low-affinity ligand for mammalian bombesin receptors. ***PLoS One.*** 2015 Jun 1;10(6):e0127445.
79. Kumagai H, Ikeda Y, Motozawa Y, Fujishiro M, Okamura T, Fujio K, Okazaki H, **Nomura S**, Takeda N, Harada M, Toko H, Takimoto E, Akazawa H, Morita H, Suzuki J, Yamazaki T, Yamamoto K, Komuro I, Yanagisawa M. Quantitative Measurement of GPCR Endocytosis via Pulse-Chase Covalent Labeling. ***PLoS One.*** 2015 May 28;10(5):e0129394.
80. Sumida T, Naito AT, **Nomura S**, Nakagawa A, Higo T, Hashimoto A, Okada K, Sakai T, Ito M, Yamaguchi T, Oka T, Akazawa H, Lee JK, Minamino T, Offermanns S, Noda T, Botto M, Kobayashi Y, Morita H, Manabe I, Nagai T, Shiojima I, Komuro I. Complement C1q-induced activation of β-catenin signalling causes hypertensive arterial remodelling. ***Nat Commun.*** 2015 Feb 26;6:6241.
81. Naito AT, Sumida T, **Nomura S**, Liu ML, Higo T, Nakagawa A, Okada K, Sakai T, Hashimoto A, Hara Y, Shimizu I, Zhu W, Toko H, Katada A, Akazawa H, Oka T, Lee JK, Minamino T, Nagai T, Walsh K, Kikuchi A, Matsumoto M, Botto M, Shiojima I, Komuro I. Complement C1q activates canonical Wnt signaling and promotes aging-related phenotypes. ***Cell.*** 2012 Jun 8;149(6):1298-313.

82. **Nomura S**, Funabashi N, Sekiguchi Y, Masuda S, Kuwabara S, Misawa S, Daimon M, Uehara M, Miyaiuchi H, Komuro I, Kobayashi Y. Dilated cardiomyopathy with centronuclear myopathy in a young male. ***Int J Cardiol***. 2011 Jul 15;150(2):213-6.
83. **Nomura S**, Taki F, Tamagaki K, Futatsuyama M, Nishihara S, Anzai H, Nishi Y, Takao N, Hayashida N, Komatsu Y. Renal outcome of contrast-induced nephropathy after coronary angiography in patients with chronic kidney disease. ***Int J Cardiol.*** 2011 Jan 21;146(2):295-6.
84. Naito AT, Okada S, Minamino T, Iwanaga K, Liu ML, Sumida T, **Nomura S**, Sahara N, Mizoroki T, Takashima A, Akazawa H, Nagai T, Shiojima I, Komuro I. Promotion of CHIP-mediated p53 degradation protects the heart from ischemic injury. ***Circ Res.*** 2010 Jun 11;106(11):1692-702.
85. **Nomura S**, Funabashi N, Tsubura M, Uehara M, Shiina Y, Daimon M, Tateno K, Nagai T, Komuro I. Cardiac sarcoidosis evaluated by multimodality imaging. ***Int J Cardiol.*** 2011 Jul 15;150(2):e81-4.
86. Saeki N, Sato M, Kubota M, Uchino Y, Murai H, Nagai Y, Ishikura H, **Nomura S**, Matsuura I, Yamaura A. MR imaging of normal perivascular space expansion at midbrain. ***AJNR Am J Neuroradiol.*** 2005 Mar;26(3):566-71.

Full list: https://scholar.google.co.jp/citations?user=hxzRQyEAAAAJ&hl=ja&oi=ao

REFERENCES

Issei Komuro, M.D., Ph.D.
Professor
Department of Frontier Cardiovascular Science, The University of Tokyo
Graduate School of Medicine, Tokyo 113-8655, Japan
Tel: +81-3-5800-9569
E-mail: komuro-tky@umin.ac.jp