

Graduate School of Medicine and Faculty of Medicine, Kyoto University



# 125th anniversary of the publication of the College



Museum of the Faculty of Medicine

### On the Occasion of the 125th Anniversary of the University's Founding

In 2024 (Reiwa 6), the Graduate School of Medicine and Faculty of Medicine of Kyoto University will mark the 125th anniversary of its establishment as the Kyoto Imperial University Medical College in 1899 (Meiji 32).

Over the past century, as one of Japan's leading institutions for medical education and research, we have been dedicated to our mission: "To contribute to the advancement of human health and welfare through the creation of innovative knowledge in the field of medicine and healthcare, ensuring its continual application in the real-world contexts. Furthermore, we are committed to developing future global leaders who will drive this mission forward."



To commemorate this new milestone, we are planning a special anniversary project with three key initiatives:

1.Construction of a "multi-purpose facility": This new space will support both sports and academic workshops, promoting the integration of knowledge and the development of human potential through interactions among a diverse community of students and faculty members.

2.Renovation of the Student Center: Thirteen years after its initial construction, we aim to revitalize community activities within the School of Medicine, in line with the original vision of the Student Union.

3.Enhancement of Campus Welfare Facilities: We will upgrade and renovate additional welfare facilities across the medical campus, enriching the campus life for our students and faculty by creating synergies with the other two initiatives.

As we cerebrate our 125th anniversary, we reaffirm our commitment to enhancing the welfare environment on campus, fostering the the next generation of global leaders, and cultivating medical professionals and researchers with a profound understanding of society, human behavior, and a strong sense of empathy with patients and ethics to promote the health of society as large.

We sincerely ask for your continued support in helping advancement of the future of the Graduate School of Medicine and Faculty of Medicine at Kyoto University.

> Dean, Graduate School of Medicine and Faculty of Medicine, Kyoto University Tadashi Isa

### On the 125<sup>th</sup> anniversary of the founding of the Graduate School and Faculty of Medicine, Kyoto University

I am delighted to extend my heartfelt congratulations on the 125<sup>th</sup> anniversary of the Kyoto University Graduate School and Faculty of Medicine.

The history of the Faculty and Graduate School of Medicine dates back to in 1899 (Meiji 32), and the founding of the Kyoto Imperial University School of Medicine.

Although it was exactly 25 years ago, it seems like only yesterday that I helped compile the Graduate School and Faculty of Medicine's 100<sup>th</sup> anniversary commemorative album, *Konoe-cho Mubanchi*, at the request of Distinguished Professor Tasuku Honjo, who was dean of those institutions at that time.

Back then, the Graduate School and Faculty of Medicine could boast a remarkable 100-year history, having produced a wealth of groundbreaking research founded on a unique pioneering spirit, and in the quarter-century since, they have further pioneered new fields of medicine with even more remarkable results.

In particular, Professor Shinya Yamanaka's research on iPS cells and Distinguished Professor Tasuku Honjo's research on cancer immunology have turned a new page in the world of medicine and healthcare, and Kyoto University has become a world-class institution for medical research that has produced two Nobel laureates in Physiology or Medicine. Behind those achievements lies the deep understanding and tireless support of not only our current faculty and staff, but also of our alumni associations, including the Shirankai medical alumni the Memorial Auditorium and Museum of Medicine (formerly the Anatomy Hall), and the Student Center are symbolic of that support.

Furthermore, in recent years, the university's industry-academia collaboration and international collaboration activities aimed at groundbreaking drug



discovery have become a pioneering model for medical research and development in Japan, and this year will see the completion of a new research building for the affiliated Center for Cancer Immunotherapy and Immunobiology.

As we look toward the coming quarter-century, I sincerely hope that the Graduate School and Faculty of Medicine, as long-established institutions, will continue to make significant contributions to improving people's health and welfare through original research and the training of the next generation of talent who will lead medical research around the world.

> President Kyoto University Nagahiro Minato

### Celebrating the 125th anniversary of the Kyoto University Graduate School of Medicine and Faculty of Medicine

I would like to extend my sincere congratulations on the 125th anniversary of the founding of the Faculty of Medicine and Graduate School of Medicine.

Kyoto University has led research in both clinical and basic sciences in Japan.

In the clinical field, Dr. Ikutaro Hirai made the important discovery that the face powder used as cosmetics by geisha contained high levels of lead, which spread serious diseases.

What I am most proud of is the achievements of Dr. Noboru Ogasawara, who was an associate professor at the time, in the study of Hansen's disease. Despite his vision that Hansen's disease is a slowly progressing infection primarily driven by the body's immune response, and that extreme isolation policies were unnecessary, a forceful nationwide isolation policy was implemented at the time, resulting in various issues that we face today. Fortunately, after the War, former Ministry of Health and Welfare Director Fujio Otani, an alumnus of our university, recognized the error of this policy and worked towards its repeal, leading to the acknowledgment of the rights of Hansen's disease patients today.



As an example of the fusion of clinical and basic medicine, Professor Kiyoshi Takatsuki established the disease concept of adult T-cell leukemia (ATL). Following this, Professor Yorio Hinuma discovered that its cause is a virus, and Professor Takashi Uchiyama identified the Tac antigen that is strongly expressed on the surface of affected cells. I later found that the true identity of this antigen is the IL-2 receptor alpha chain. These discoveries were all possible within this context.

In the basic medicine field, several significant discoveries have been made: Professor Akira Fujinami from the department of Pathology discovered the tumor virus known as "Fujinami sarcoma virus", Professor Ko Hirasawa discovered the extrapyramidal neural circuit, while Professor Shosaku Numa from the Department of Medical Chemistry elucidated the structure and function of the acetylcholine receptor. His successor, Professor Shigetada Nakanishi discovered the structure and function of the glutamate receptor. Following this, Professor Shinya Yamanaka discovered the genes essential for cell reprogramming, leading to the establishment of induced pluripotent stem (iPS) cell. For this discovery, Professor Yamanaka was awarded the Nobel Prize in Physiology or Medicine in 2012. Additionally, I received the Nobel Prize in Physiology or Medicine in 2018 for my discovery of the enzyme activation-induced cytidine deaminase (AID), which catalyzes the recombination of antibody genes, and for the discovery of the PD-1 blockade that regulates the immune system and has significant applications in cancer immunotherapy. Kyoto University's Faculty of Medicine is the only medical school in Japan to have produced two Nobel Prize laureates.

I sincerely hope that Kyoto University's Faculty of Medicine will continue to cherish its rich history and traditions while further establishing itself as a leading research institution on the global stage.

Deputy Director-General and Distinguished Professor, Kyoto University Institute for Advanced Research Director Center for Cancer Immunotherapy and Immunobiology (CCII) Kyoto University

Tasuku Honjo

### Towards the 100-year life: Empowering the Youth to Soar Globally

Congratulations on the 125th anniversary of the Kyoto University Graduate School of Medicine and Faculty of Medicine. It was through my interaction with Professer Nagahiro Minato that I became deeply acquainted with the "Kyoto University School of Medicine.

Dr. Minato, a distinguished immunologist and yet a remarkably approachable person despite his role as the university's president, always listened to our discussions with great breadth of vision and genuine seriousness. Through our numerous conversations about the future of universities, society, and education, I gained a deeper understanding of the ongoing efforts of Kyoto University's Graduate School of Medicine and Faculty of Medicine to remain at the forefront of medical education and research in Japan.

Kyoto University School of Medicine has been home to many world-class medical scientists and researchers, including Nobel Prize winners in Physiology and Medicine Dr. Tasuku Honjo and Dr. Shinya Yamanaka, who have made significant contributions to the development of medicine throughout its history, while constantly pioneering new frontiers.We are deeply grateful for their efforts and studies over the past 125 years, and look forward to their further progress in the future.

As we approach a new era of 100-year lifespans, the importance of those involved in medical and welfare fields is becoming increasingly significant. I sincerely





hope that Kyoto University Graduate School of Medicine and Faculty of Medicine will continue to innovate and produce many outstanding individuals who will soar globally with creativity and intuition.

Please continue to give a ray of hope to the youth who aspire to a career in medicine.

> Architect Tadao Ando

### In Celebration of the 125th Anniversary of the Kyoto University Graduate School of Medicine and Faculty of Medicine

I extend my sincere congratulations to the Kyoto University Graduate School of Medicine and Faculty of Medicine on this distinguished occasion of their 125th anniversary. I wish to express my deep respect for your longstanding contributions to the development of medical research and medicine and for producing many outstanding physicians and researchers. We are proud of the fact that you have pioneered many new areas of medical science, including the cancer immunology research of Special Professor Tasuku Honjo.

At the Center for iPS Cell Research and Application (CiRA), we have had the privilege of welcoming many



graduate students through the cooperative courses offered by the Graduate School of Medicine and have provided medical students with research experience through the My Course Program. New ideas from young people are extremely important for creating innovative research. We will continue to contribute to the development of young researchers who will lead the future of medical research. We would also like to take this opportunity to thank the Kyoto University Hospital for conducting many of the clinical studies and trials based on our research results.

We believe that many excellent researchers and students will continue to gather at the Graduate School of Medicine and the School of Medicine, and they will contribute to the advancement of medicine and life sciences and the improvement of human health and welfare. We will continue our efforts toward the medical application of iPS cells, working in close collaboration with you. I extend my best wishes for the continued success and growth of the Kyoto University Graduate School of Medicine and Faculty of Medicine.

> Director Emeritus and Professor, Center for iPS Cell Research and Application (CiRA), Kyoto University Shinya Yamanaka

As we reflect on the 125-year history, we spoke with young researchers associated with our graduate school, who will be at the forefront of future medical education, research, and healthcare. They shared their insights on the joy and significance of research.



#### The full interviews can be viewed on the website below.

Kyoto University Graduate School of Medicine 125th Anniversary Website https://125th.med.kyoto-u.ac.jp/en/interview/



#### Yan Luo

From Clinical Practice to Clinical Research: Gaining Insights to Support Patients from Diverse Perspectives



#### Kosuke Inoue

Pioneering Future Healthcare through Convergence Knowledge



#### Yuki Sato

Forging a Path Toward a Cure for Chronic Inflammatory Diseases: Adapting to Change and **Inspiring Progress** 



#### Masashi Ikuno

From "Clinical Practice and Research" to "Medical Education": My Goals and Beliefs in Medical Education Research and Supporting Learners



#### Keisuke Irie

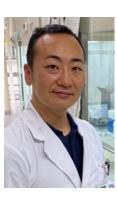
Supporting children's mental and physical health through digital transformation



#### Masahiro Sawada

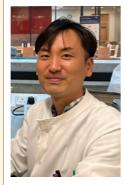
I firmly believe in a hands-on approach

#### INTERVIEWS WITH YOUNG RESEARCHERS



### Hirofumi Shibata

The Challenge of Clinical Pediatrics and Research in Nurturing the Next Generation



#### Tatsuya Suwa

Striving to Realise Fundamental Ideas in Clinical Practice: Translating Research into Side-Effect-Free Cancer Treatments



#### Atsushi Takayama

Kyoto University SPH Opened the Door to Clinical Research



#### Masaya Harada

Journey from Kyoto University to the Frontiers of Neuroscience



#### Nozomi Higashiyama

Pursuing Quality of Life Improvement and Supportive Care for Gynecological Cancer Patients

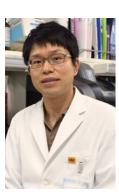
#### Hidetoshi Masumoto

Developing New Treatments for Heart Disease Using iPS Cell Technology



#### Hidemasa Matsuo

Pioneering the Future of Medicine in the Freedom and Diversity of Kyoto University – As a Medical Technologist and Faculty Member



#### Fakaaki Murakami

Walking as a Physician Scientist at Kyoto University



#### Yugo Yamashita

Young Researchers at Kyoto University Pioneering the Future of Research



#### Yuki Masuo

Pioneering New Frontiers in Human Immunology Research



#### Yasufumi Matsumura

Fascination of Infectious Disease Research: When the World of Microorganisms Becomes Visible



#### Satoshi Yoshiji

Using large-scale human genetics and data science to advance drug target discovery or diabetes, obesity, and cardiovascular diseases



#### Chika Nishiyama

"Kenkyusha-yoshi (good for researchers), "Shimin/Kanja-yoshi (good for citizens and patients)", "Shakai-yoshi (good for society)"



#### Soichiro Masuda

New Evidence for Orthopedic Surgery Using Real World Data



#### Takushi Miyoshi

Research on the Biology of Inner Ear Hair Cells in the U.S. as a Principal Investigator



#### Masanori Yoshinaga

Nurturing Research Passion at Kyoto University Kyoto University Graduate School of Medicine and Faculty of Medicine will celebrate the 125th anniversary of its founding in 2024, since its establishment as Kyoto Imperial University Medical School in September 1899. The following is a chronological look back at the history of learning to date.

1897 (Meiji 30) The Kyoto Imperial University was founded.



1901 (Meiji 34): Kaibotaisai ceremony of Medicine.

1919 (Taisho 8): The Imperial University Law was enacted and The College of Medicine was renamed Faculty

> 1945 Atomic bomb disaster comprehensive research



1918 (Taisho 7): 1918 Flu pandemic

(Meiji 32): The University Hospital opened and the Nursing School was established



©Kyoto University Archives Panoramic view of the Medical College



© Kyoto University Archives Lecture Scene (Final practice of histopathology) at the School of Medicine (Akira Fujinami)

1947 (Showa 22): Kyoto Imperial University was renamed Kyoto University.

## 1949

(Showa 24): Kyoto University was reorganized under the new educational system of the National School Establishment Law.

> 1955 (Showa 30): Kyoto University Graduate School of Medicine was

> > established.



1999 (Heisei 11): The Faculty of Medicine of Kyoto University celebrates its 100th



anniversary in 1999

Album commemorating the 100th anniversary of the founding of the Faculty of Medicine, Kyoto University "Konoe-cho Mu-banchi



Dr. Shinya Yamanaka© Nobel Media AB Photo: Alex Ljungdahl

2003 (Heisei 15): School of Health Science was

established in Faculty of Medicine.

20 (Heisei 24): Professor Shinya Yamanaka was awarded the Nobel Prize in Physiology or Medicine.

(Heisei 30):

(Heisei 16): Kyoto University became a national university as an

School of Public Health was opened in the Graduate School of Medicine.







## 2018(Heisei 30)

Professor Emeritus Tasuku Honjo was awarded the Nobel Prize in Physiology or Medicine.

2018 Kyoto-McGill

International Collaborative Program in Genomic Medicine.

### 2016(Heisei 28):

MD Researcher Course and MD-PhD course was launched.

2015 (Heisei 27): The Special Entrance Examination System was launched.

## 2014

Ceremony to Commemorate the Completion of the Fundamenta Medicine Memorial Hall and Faculty of Medicine Museum





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© Kyoto University Archives Dr. Akira Fujinami, appointed professor in 1900



©Kyoto University Archives Dr. Osamu Hayaishi, appointed professor in 1958



Dr. Hiroo Imura, appointed professor in 1977



## (Heisei 12):



Dr. Tasuku Honjo © Nobel Media AB Photo: Alexander Mahmoud

(Reiwa 6):

Center for Health Security was established.

## (Reiwa 4):

(Reiwa 2):

Center for Digital Transformation of Healthcare was established at the Graduate School of Medicine.

The Center for Cancer Immunotherapy and Immunobiology (CCII) has been established in April 2000 within the Graduate School of Medicine at Kyoto University.



Bristol Myers Squibb Building at the Center for Cancer Immunotherapy and Immunobiology



Clinical Anatomy Laboratory: CAL was established.



#### EDITOR'S NOTES





#### Editor's Note

The Graduate School of Medicine and Faculty of Medicine at Kyoto University celebrate their 125th anniversary in 2024 (Reiwa 6), marked by the publication of a commemorative bulletin and the launch of a special website. We are deeply grateful for everyone's support to our 125th anniversary project.

It has been 25 years since the creation of the centennial album \*Konoe-cho Mubanchi\* under the leadership of Professor Nagahiro Minato, during which two of our esteemed colleagues were awarded the Nobel Prize in Physiology or Medicine a source of great pride for us all.

Looking ahead, the next 25 years promise revolutionary advancements in medical DX areas such as medical AI, telemedicine, big data, mobile health, as well as in regenerative medicine, gene therapy, and novel pharmaceuticals and medical devices.

In the summer of 2025, we will complete a "Multipurpose Facility" for sports and workshops, which we hope will foster communication among students and faculty members, and spark innovation through interdisciplinary collaboration.

> Member, 125th Anniversary Project Steering Committee Professor, Kyoto University Graduate School of Medicine and Faculty of Medicine Koichi Omori

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