2007 Keio Medical Science Prize
Winner Announcement

Brian J. Druker, M.D.
Investigator, Howard Hughes Medical Institute
Director, Oregon Health & Science University Cancer Institute
J ELD-WEN Chair of Leukemia Research

For the development of a molecular-targeted drug for chronic myelogenous leukemia

Hiroaki Mitsuya, M.D., Ph.D.
Professor, Department of Hematology, Department of Rheumatology and Clinical Immunology, Division of Infections Diseases, Graduate School of Medical and Pharmaceutical Sciences, Kumamoto University

Chief and Principal Investigator, Experimental Retrovirology Section Center for Cancer Research
National Cancer Institute

For the development of anti-AIDS drugs

Award Ceremony and Commemorative Symposium
The award ceremony and a commemorative lecture given by the prize winners will be held on December 4, 2007 and a commemorative symposium will take place on December 5. Both events will be held at the Keio University School of Medicine (Shinonomachi Campus).

Please see the contact information below to inquire about interviews or photographs.

Attachments:
(1) About the Keio University Medical Science Fund
(2) 2007 Prize Winner: Brian J. Druker (Theme, CV, other information)
(3) 2007 Prize Winner: Hiroaki Mitsuya (Theme, CV, other information)
(4) 2007 Keio Medical Science Prize Award Ceremony/Commemorative Lecture/Commemorative Symposium

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About the Keio University Medical Science Fund

Background

In 1994, Dr. Mitsunada Sakaguchi, a 1940 alumnus of the School of Medicine, donated five billion yen to Keio, expressly to encourage medical research and creative progress at the University and to promote worldwide medical advances. It was specifically intended that the donation be used to expand the network of medical investigators in the global academic community, and to support researchers through grants.

To fully reflect Dr. Sakaguchi's commitment to medical progress, the University launched the Keio University Medical Science Fund on April 1, 1995. Dr. Sakaguchi made an additional donation of two billion yen, bringing the Fund's endowment to seven billion yen. The following five projects have been established through the Fund to date.

1. The Keio Medical Science Prize
2. Grants for International Activities in Life Sciences and Medicine
3. Medical School Faculty and Alumni Grants
4. Research Grants for Life Sciences and Medicine
5. The Sakaguchi Laboratory

Purpose

The Keio Medical Science Prize was established as one of the Keio University Medical Science Fund's major projects in order to contribute to the advancement of life sciences and medicine, and to encourage the expansion of researcher networks. Our hope is that by rewarding outstanding achievements in the fields of medical and life sciences, this prize will ultimately contribute to world peace.

Selection and Overview of the Prize

Nominations are solicited by letters of request sent to academics and researchers throughout the world. Japanese academics and researchers then review the achievements of the nominees and select a winner. No consideration is given to nationality.

The Keio Medical Science Prize consists of a certificate of merit, a medal and a monetary award of 20 million yen. The award ceremony and commemorative events are held at Keio University in the presence of invited guests.

Past Winners

2006    Dr. Thomas A. Steitz
        The structural basis of large ribosomal subunit function and drug development

2005    Dr. Yoshinori Fujiyoshi
        Development of high-resolution electron cryo-microscopy for the determination of membrane protein structures

2002    Dr. Barry J. Marshall
        Establishment of diagnostic techniques and treatment for the Helicobacter pylori
        (2005 Nobel Prize in Physiology or Medicine)

1996    Dr. Stanley B. Prusiner
        Discovery of prions and prion diseases (1997 Nobel Prize in Physiology or Medicine)
2007 Prize Winner

Brian J. Druker, M.D.
Investigator, Howard Hughes Medical Institute
Director, Oregon Health & Science University Cancer Institute
J ELD-WEN Chair of Leukemia Research

For the development of a molecular-targeted therapy for chronic myelogenous leukemia

Chronic myelogenous leukemia (CML) is caused by the BCR/ABL tyrosine kinase. This fusion protein is generated from a chromosomal translocation called the “Philadelphia chromosome”. Toxic therapies, such as an allogeneic stem cell transplant have been the only available curative therapy. Dr. Brian Druker, in collaboration with researchers at a pharmaceutical company, has developed a low-molecular-weight inhibitor of the ABL tyrosine kinase, called Imatinib (Gleevec®). As a researcher and practicing oncologist, his extensive knowledge of tyrosine kinases and CML afforded him a unique ability to spearhead critical pre-clinical and clinical studies of this drug. Imatinib is now known to be effective not only for CML, but also for other types of cancer, including GIST (gastrointestinal stromal tumor). The successful development of Imatinib, which is orally administered and does not produce severe adverse effects, has revolutionized cancer therapy. It has spurred the era of molecular-targeted therapy, in which drugs are targeted at specific molecules predicted by basic cancer research, replacing conventional, non-specific anti-cancer drugs. The Keio University Medical Science Fund would like to congratulate Dr. Druker on his innovative accomplishment in establishing a new paradigm for the treatment of cancer by presenting him with the 2007 Keio Medical Science Prize.

Background
1977  B.A., University of California, San Diego
1981  M.D., University of California School of Medicine, San Diego
      Internship and Residency in Internal Medicine, Barnes Hospital, Washington University School of Medicine
1984  Fellowship in Medical Oncology, Dana-Farber Cancer Institute, Harvard Medical School
1987  Instructor in Medicine, Harvard Medical School
      Clinical Associate, Dana-Farber Cancer Institute
      Associate Physician, Brigham and Women's Hospital
      Medical Director, Nashoba Community Hospital, Oncology Clinic
1993  Staff Physician, University Hospital and Clinics, Oregon Health & Science University (OHSU)
1993  Associate Professor, Department of Medicine, OHSU
1993  Co-Director, Center for Hematologic Malignancies, OHSU Cancer Institute
1993  Joint Appointment, Department of Cell and Developmental Biology, OHSU
1993  Program Leader, Hematologic Malignancies, OHSU Cancer Institute
1996  Joint Appointment, Department of Biochemistry and Molecular Biology, OHSU
1996  Director /Associate Director, OHSU MD/PhD Program
2000  Professor of Medicine, Division of Hematology & Medical Oncology, OHSU
2002  Investigator, Howard Hughes Medical Institute
2007  Director, OHCU Cancer Institute
2007  Interim Chief, Division of Hematology & Medical Oncology: Hematologic Malignancies

Message from Dr. Druker
I’d like to thank the committee for selecting me for this prestigious honor. No scientist works alone and I accept this award on behalf of my lab and my collaborators. I am especially grateful to my patients who put enormous faith in my work.
2007 Prize Winner

Hiroaki Mitsuya, M.D., Ph.D.
Professor, Department of Hematology, Department of Rheumatology and Clinical Immunology, Division of Infectious Diseases, Graduate School of Medical and Pharmaceutical Sciences, Kumamoto University
Chief and Principal Investigator, Experimental Retrovirology Section Center for Cancer Research National Cancer Institute

For the development of anti-AIDS drugs

Acquired immune deficiency syndrome or AIDS, caused by the human immunodeficiency virus (HIV), appeared suddenly toward the end of the last century and has had an enormous negative impact on the society, generating tremendous fear and loss. In 1984, Dr. Hiroaki Mitsuya, despite great risk, attempted to develop anti-HIV drugs targeting the retroviral reverse transcriptase using human CD4-positive helper T cell lines that he generated in Dr. Samuel Broder’s laboratory at the National Cancer Institute, National Institutes of Health in the United States. In 1985, Dr. Mitsuya discovered that AZT exhibits potent HIV-inhibiting activity, and ultimately developed it as the world’s first anti-AIDS drug. He subsequently developed ddl and ddC as additional anti-AIDS drugs, and has recently succeeded in developing a new protease inhibitor that is effective in refractory AIDS patients. These anti-AIDS drugs have been used in clinics around the world, and have dramatically improved the prognosis of HIV-infected individuals. Dr. Mitsuya’s discovery is highly regarded as a clinical breakthrough in the fight against AIDS. His revolutionary research has made Dr. Mitsuya a world expert in the area of anti-HIV drug development. The Keio University Medical Science Fund is very pleased to admire Dr. Mitsuya’s achievement by presenting him with the 2007 Keio Medical Science Prize.

Background
1975 M.D. Kumamoto University School of Medicine
1980 Instructor, Department of Internal Medicine II, Kumamoto University School of Medicine
1982 Received a Ph.D. degree (Doctor of Medical Science) from Kumamoto University School of Medicine
1982 Visiting Fellow, National Cancer Institute
1984 Cancer Expert, Clinical Oncology Program, National Cancer Institute
1988 Visiting Scientist, Clinical Oncology Program, National Cancer Institute
1989 Senior Investigator, Clinical Oncology Program, National Cancer Institute
1991 Chief, Experimental Retrovirology Section, Medicine Branch, National Cancer Institute
1997 Professor of Medicine and Chairman, Department of Hematology, Department of Infectious Diseases, Kumamoto University School of Medicine
1997 Principal Investigator & Chief, Experimental Retrovirology Section, Medicine Branch, National Cancer Institute
1998 Director, Center for Clinical Trials, University Hospital, National Kumamoto University School of Medicine
2000 Director, Department of Infectious Diseases, University Hospital, National Kumamoto University School of Medicine
2000 Vice-Director, University Hospital, National Kumamoto University School of Medicine
2001 Principal Investigator & Chief, Experimental Retrovirology Section, HIV and AIDS Malignancy Branch, National Cancer Institute
2003 Visiting Professor, Institute for Virus Research, Kyoto University

Message from Dr. Mitsuya
When I began my research on AIDS, this disease was literally a deadly disease. I got engaged in the fight against this disease through my efforts to develop AIDS drugs. If I did contribute in positively changing the lives of those AIDS-inflicted individuals, I feel like I am such a blessed one as a physician. Of course, I should remember that my contributions were not possible at all without the efforts and talents of the fellow scientists in Japan, the US, and throughout the world. I take this award as a call that I should further strengthen my research efforts and I wish to sincerely accept this honor with my greatest pleasure.

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2007 Keio Medical Science Prize
Award Ceremony, Commemorative Lecture and
Commemorative Symposium

(1) Award Ceremony
Time and Date: December 4, 2007 from 3:00pm to 5:15pm
Venue: Kitasato Hall, School of Medicine, Keio University, Tokyo

(2) Commemorative Lecture
Date: December 4, 2007
Venue: Kitasato Hall, School of Medicine, Keio University, Tokyo
Session 1 “Therapeutic Strategies for Retro Viral Diseases” 10:00am to 12:00
Masao Matsuoka (Institute for Virus Research, Kyoto University)
Kunitada Shimotohno (School of Medicine, Keio University)
Hiroaki Mitsuya (2007 Prize Winner)
Session 2 “Molecular Target Therapy against Cancer” 1:00pm to 4:00pm
Motowo Nakajima (Johnson & Johnson K.K.)
Hideyuki Saya (School of Medicine, Keio University)
Mitsutomi Tetsuya (Aichi Cancer Center Hospital)
Brian Druker (2007 Prize Winner)

(3) Symposium
All three events are open to the public. Japanese and English simultaneous translation will be available for the events of December 4 and the symposium on December 5 will be conducted in English. The commemorative lecture (December 4) is intended for general audiences and the commemorative symposium (December 5) is more technical in nature and is intended primarily for medical researchers and students.

Please visit the Keio Medical Science Prize website below for further details and to register for events. (http://www.ms-fund.keio.ac.jp/prize/)

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