Curriculum Vitae Professor Dr Tasuku Honjo

Image: private

Name: **Tasuku Honjo**
Date of birth: **27 January 1942**

Research Priorities: Molecular biological causes of antibody diversity, immunological approaches to cancer therapy, checkpoint inhibitors

Tasuku Honjo is a Japanese physician who researches the molecular biological mechanisms of immune responses. His work has contributed to the understanding of important processes in the maturation of B-lymphocytes, which produce antibodies. Honjo achieved worldwide recognition thanks to his discovery of a mechanism which acts to suppress the immune response. This opens the door to an approach to cancer therapy. For this achievement, Tasuku Honjo was awarded the 2018 Nobel Prize for Physiology or Medicine.

Academic and Professional Career

since 2005	Professor, Department of Immunology and Genomic Medicine, Graduate School of Medicine, Kyōto University, Kyōto, Japan
2004 - 2006	Director, Research Center for Science Systems, Japan Society for the Promotion of Science, Japan
1996 - 2004	Dean, Faculty of Medicine, Kyōto University, Kyōto, Japan
1988 - 1997	Director, Institute for Molecular Biology and Genetics, Kyōto University, Kyōto, Japan
1984 - 2005	Professor, Department of Medical Chemistry, Faculty of Medicine, Kyōto University, Kyōto, Japan
1979 - 1984	Professor of Genetics, Faculty of Medicine, Osaka University, Osaka, Japan
1975	Ph.D. in Medical Chemistry, Kyōto University, Kyōto, Japan
1974	Assistant Professor, Faculty of Medicine, University of Tokyo, Tokyo, Japan

1971 - 1973	Physician, National Institutes of Health, USA and Fellow, Carnegie Institution, Washington D.C., USA
1966	Ph.D. in Medicine, Kyōto University, Kyōto, Japan
1960 - 1966	Degree in Medicine, Kyōto University, Kyōto, Japan

Functions in Scientific Societies and Committees

since 2012	Chairman, Board of Directors, Shizuoka Prefectural University Corporation, Shizuoka, Japan
since 2006	Member, Scientific Advisory Board, Singapore Immunology Network, Singapore
2006 - 2012	Member, Council for Science and Technology Policy, Cabinet Office, Japan
2004 - 2006	Director, Research Center for Science Systems, Japan Society for the Promotion of Science, Japan
since 2005	Advisor, Takeda Science Foundation, Osaka, Japan
1996 - 2004	Dean, Faculty of Medicine, Kyōto University, Kyōto, Japan
since 1996	Member, External Advisory Board, Committee for Human Gene Therapy Working Group, European Medicines Agency (EMA), Amsterdam, The Netherlands
1992 - 1995	Member, Fellowship Review Committee, International Human Frontier Science Program, Strasbourg, France

Honours and Awarded Memberships

2018	Nobel Prize for Physiology or Medicine, Nobel Assembly, Karolinska Institute, Stockholm, Sweden
2016	Kyōto Prize, Kyocera K.K., Kyōto, Japan
2014	Tang Prize in Biopharmaceutical Science, Taipei, Taiwan
2013	Order of Culture, Japan
2012	Robert Koch Award, Robert Koch Foundation, Berlin, Germany
since 2005	Member, Japan Academy, Japan
2004	Leading Japanese Scientists in Emerging Research Fronts (Thomson)
since 2003	Member, German National Academy of Sciences Leopoldina, Germany
since 2001	Foreign Associate, National Academy of Sciences, USA
2000	Persons of Cultural Merit, Japan
1996	The Imperial Prize and the Japan Academy Prize, Japan

1994	Uehara Prize, Taisho Pharmaceutical Holdings, Tokyo, Japan
1992	Behring Kitasato Award, Philipps University Marburg, Marburg, Germany
1991 - 1996	Fogarty Scholar-in-residence, National Institutes of Health (NIH), USA
1988	Takeda Medical Prize, Takeda Pharmaceutical, Osaka, Japan
1985	Erwin von Baelz Prize, Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim, Germany
1984	Osaka Science Prize, Japanese Genetics Society, Japan
1984	Kihara Prize, Japanese Genetics Society, Japan
1981	Noguchi Hideyo Memorial Award for Medicine, Japan International Cooperation Agency (JICA), Japan
1981	Asahi Prize, Asahi Shimbun-sha, Tokyo, Japan

Research priorities

Tasuku Honjo is a physician who researches the molecular biological mechanisms of immune responses. His work has contributed to the understanding of important processes in the maturation of B-lymphocytes, which produce antibodies. Point mutations and class switching in immunoglobulins, which lead to the subtypes IgA, IgE, and IgG play a central role. Honjo achieved worldwide recognition thanks to his discovery of a mechanism which acts to suppress the immune response. This opens the door to an approach to cancer therapy. For this achievement, Tasuku Honjo was awarded the 2018 Nobel Prize for Physiology or Medicine.

In some cancer cells, the immune response is suppressed. Tasuku Honjo was able to identify one of the proteins responsible for this effect, the immunoregulator PD1. By blocking this immunoregulator with specific monoclonal antibodies, so-called checkpoint inhibitors, the immune system is reactivated. On the basis of clinical studies in Japan and the United States, two such monoclonal antibodies were approved as medications in 2014. This triggers an immune response to the tumour tissue by the immune system.

Furthermore, Tasuku Honjo was able to uncover mechanisms, which lead to the maturation of B-lymphocytes.