

Susumu Tonegawa

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Birth Date: September 5, 1939
Birth Place: Nagoya, Japan
Nationality: Japanese
Marital Status: Married
Children: Three children (two sons, one daughter)

Academic Education

Department of Chemistry, Kyoto University, Kyoto, Japan 4/1959 – 3/1963. B.S.
Institute for Virus Research, Kyoto University, Japan 4/1963 – 8/1963.
Department of Biology, University of California, San Diego 9/1963 – 8/1968. Ph.D.

Postgraduate Work

Department of Biology, University of California, San Diego 9/1968 – 4/1969
Laboratory of Dr. Hayashi
The Salk Institute, San Diego, California 5/1969 – 12/1970
Laboratory of Dr. Dulbecco

Professional Positions

Research Assistant, Department of Biology, University of California, San Diego, California 9/63 – 6/64
Teaching Assistant, Department of Biology, University of California, San Diego, California 9/64 – 6/68
Member, Basel Institute for Immunology, Basel, Switzerland 1/71 – 8/81
Professor of Biology, Center for Cancer Research and Department of Biology, Massachusetts Institute of Technology, Cambridge, Massachusetts 9/1/81 – present
Howard Hughes Medical Institute Investigator 2/88 – present
Director, MIT Center for Learning and Memory 4/1/94 – 4/30/02
Amgen Professor of Biology and Neuroscience 5/1/93 – 6/30/99
Whitehead Professor of Biology and Neuroscience 4/1/99 – 4/30/02
Director, RIKEN-MIT Neuroscience Research Center 10/98 – 4/08
Picower Professor of Biology and Neuroscience 5/1/02 – present
Director, the Picower Institute for Learning and Memory 5/1/02 – 12/31/06
Director, RIKEN-MIT Center for Neural Circuit Genetics 4/1/08 – present

Memberships

Honorary Member, American Association of Immunologists
Honorary Member, Scandinavian Society for Immunology

Honorary Member, Japanese Biochemical Society
Member, American Association for the Advancement of Science
Member, U.S. Society for Neuroscience

Advisory Roles

Member, Advisory Council, 50th Anniversary of the Fulbright Program
Member, External Steering Committee, UCLA Pharmacogenetics and Pharmacogenomics Research Group
Member, Calouste Gulbenkian Foundation
Member, Royal Academy of Morocco, Hassan II Academy of Sciences and Technology
Member, Board of Scientific Governors, The Scripps Research Institute
Member, Board of Governors, Okinawa Institute of Science and Technology
Member, Jury, Antonio Champalimaud Vision Award
Special Advisor, RIKEN-Brain Science Institute
Member, Wellcome Trust, Neuroscience and Mental Health Strategy Committee
Member, Scientific Committee, Champalimaud Foundation

Scholarships and Fellowships

David Sarnoff RCA Scholarship 4/62 – 3/63
Damon Runyon Memorial Fund, Postdoctoral Fellowship 7/69 – 12/70

Honorary Degree

1986 Honorary Degree, Doctor of Science, Northwestern University, Evanston, Illinois
2004 Honorary Degree, Kyoto University, Kyoto Japan
2006 Honorary Degree, University of Massachusetts Lowell
2006 Honorary Degree, University of Alcala, Madrid

Editorial Boards

International Journal of Immunology (1988 – 1998)
Current Opinion in Immunology (1992 – 1998)
Immunity (1994 – 2000)
Immunological Reviews (1995 – 1998)
Molecular Neurobiology (1997 – present)
Physiological Genomics (1998 – present)
Neuron (2000 – present)

Awards and Major Honors

1978 The Cloetta Prize of Foundation Professor Dr. Max Cloetta, Switzerland
1980 Warren Triennial Prize of the Massachusetts General Hospital, U.S.A.
1981 Genetics Grand Prize of Genetics Promotion Foundation, Japan
1981 Avery Landsteiner Prize of the Gesselschat fur Immunologie, West Germany
1982 Asahi Prize of Asahi - Shimbun (Asahi Press), Tokyo, Japan
1982 Louisa Gross Horwitz Prize of Columbia University, New York, U.S.A.
1983 The V.D. Mattia Award of the Roche Institute of Molecular Biology, Nutley, U.S.A.
1983 Gairdner Foundation International Awards of the Gairdner Foundation, Toronto, Canada
1983 Person of Cultural Merit "Bunkakorosha" of the Japanese Government
1984 Order of Culture "Bunkakunsho" from the Emperor of Japan
1984 Fellow, American Academy of Arts and Sciences

- 1986 Bristol-Myers Award for Distinguished Achievement in Cancer Research, New York, U.S.A.
- 1986 Robert Koch Prize of the Robert Koch Foundation, Bonn, West Germany
- 1986 Foreign Associate, National Academy of Sciences of the United States
- 1987 Albert and Mary Lasker Award (Basic Research), New York City
- 1987 Nobel Prize for Physiology or Medicine, Stockholm, Sweden
- 1988 Kihara Prize of Japanese Society for Genetics, Kyoto, Japan
- 1989 Distinguished Investigator Award of American College of Rheumatology, Atlanta, U.S.A.
- 1989 Rabbi Shai Shacknai Memorial Prize in Immunology and Cancer Research, Jerusalem, Israel
- 1991 Order of the Southern Cross, presented by Fernando Collor de Melo, President of Brazil, Sao Paulo, Brazil
- 1994 Professorship, Amgen, Inc.
- 1994 Honorary member of the Polish Academy of Medicine and awarded the Golden Medal *Medicus Magnus*
- 1999 1999 Mike Hogg Award, the University of Texas M.D. Anderson Cancer Center
- 1999 Professorship, Whitehead Family Funds
- 2002 Professorship, Picower Foundation
- 2002 Presidential Lecturer, Society for Neuroscience Annual Meeting
- 2007 RIKEN Fellow, Saitama, Japan
- 2007 Gold Medal, Spanish National Research Council, Cajal Institute (CSIC), Madrid

Bibliography

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2. Tonegawa, S., and Hayashi, M. Genetic Transcription Directed by the $\beta 2$ Region of λ Bacteriophage. *Proc. Natl. Acad. Sci. USA* **61**:1320-1327 (1968).
3. Tonegawa, S., and Hayashi, M. Intermediates of Assembly of ϕ X-174. *J. Mol. Biol.* **48**:219-242 (1970).
4. Tonegawa, S., Walter, G., Bernardini, A., and Dulbecco, R. Transcription of the SV40 Genome in Transformed Cells and during Lytic Infection. *Cold Spring Harbor Symp. Quant. Biol.* **35**:823-831 (1970).
5. Tonegawa, S., Walter, G., and Dulbecco, R. Transcription of SV40 Genome in Transformed and Lytically Infected Cells. *Lepetit Coloquia on Biology and Medicine- The Biology of Oncogenic Viruses* **2**:65-76 (1970).
6. Tonegawa, S., and Baldi, I. Electrophoretically Homogeneous Myeloma Light Chain mRNA and its Transcription in vitro. *Biochim. Biophys. Res. Comm.* **51**:81-87 (1973).
7. Tonegawa, S., Bernardini, A., Weimann, B.J., and Steinberg, C. Reiteration Frequency of Antibody Genes. Studies with κ -chain mRNA. *FEBS Letters* **40**:92-96 (1974).
8. Bernardini, A., and Tonegawa, S. Hybridization Studies with an Antibody Heavy Chain mRNA. *FEBS Letters* **41**:73-77 (1974).
9. Tonegawa, S., Steinberg, C., Dube, S., and Bernardini, A. Evidence for Somatic Generation of Antibody Diversity. *Proc. Natl. Acad. Sci. USA* **71**:4027-4031 (1974).
10. Tonegawa, S. Reiteration frequency of immunoglobulin light chain genes: Further evidence for somatic generation of antibody diversity. *Proc. Natl. Acad. Sci. USA* **73**:203-207 (1976).
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13. Matthyssens, G., Hozumi, N., and Tonegawa, S. Somatic Generation of Antibody Diversity. *Ann. Immunol. (Inst. Pasteur)* **127C**:439-448 (1976).
14. Tonegawa, S., and Hozumi, N. Differentiation of Immunoglobulin Genes. *The Immune System. 27 Colloquium Mosbach 1976*, F. Melchers and K. Rajewsky (eds.). Berlin, Heidelberg, Springer-Verlag, 1976, pp.86-97.
15. Tonegawa, S., Hozumi, N., Matthyssens, G., and Schuller, R. Somatic Changes in the Content and Context of Immunoglobulin Genes. *Cold Spring Harbor Symp. Quant. Biol.* **41**:877-889 (1977).
16. Tonegawa, S., Brack, C., Hozumi, N., Matthyssens, G., and Schuller, R. Dynamics of Immunoglobulin Genes. *Immunological Reviews* **36**:73-94 (1977).
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18. Brack, C., and Tonegawa, S. Variable and constant parts of the immunoglobulin light chain gene of a mouse myeloma cell are 1250 nontranslated bases apart. *Proc. Natl. Acad. Sci. USA* **74**:5652-5656 (1977).
19. Tonegawa, S., Hozumi, N., Brack, C., and Schuller, R. Arrangement and Rearrangement of Immunoglobulin Genes. In: *Regulatory Genetics of the Immune System*, L. Herzenberg and C.F. Fox, (eds.), New York, Academic Press, (1977), Vol. VI, pp. 43-55.
20. Tonegawa, S., Brack, C., Hozumi, N., and Pirrotta, V. Organization of Immunoglobulin Genes *Cold Spring Harbor Symp. Biol.* **42**:921-931 (1978).
21. Tonegawa, S., Maxam, A.M., Tizard, R., Bernard, O., and Gilbert, W. Sequence of a mouse germ-line gene for a variable region of an immunoglobulin light chain. *Proc. Natl. Acad. Sci. USA* **75**:1485-1489 (1978).
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58. Saito, H., Kranz, D.M., Takagaki, Y., Hayday, A.C., Eisen, H.N., and Tonegawa, S. Complete Primary Structure of a Heterodimeric T-cell Receptor Deduced from cDNA Sequences. *Nature* **309**:757-762 (1984).
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