CURRICULUM VITAE
Timothy Alan Springer

Education:

1971	B.A. University of California, Berkeley (Biochemistry)
1976	Ph.D. Harvard University (Biochemistry and Molecular Biology)

Postdoctoral Training:

1976-1977	National Institutes of Health Research Fellow, University of Cambridge, England, and MRC Laboratory of Molecular Biology, Cambridge, England (César Milstein)

Academic Appointments:

1977-1983	Assistant Professor, Harvard Medical School
1983-1989	Associate Professor, Harvard Medical School
1981-1988	Chief, Laboratory of Membrane Immunochemistry, Dana Farber Cancer Institute
1988-	Senior Investigator, Immune Disease Institute (formerly Center for Blood Research)
1988-1992	Vice President, Immune Disease Institute, (formerly Center for Blood Research)
1989-	Latham Family Professor, Harvard Medical School
1989-2011	Professor of Pathology, Harvard Medical School
2004-	Honorary Chair Professor, Fudan University, Shanghai, China
2006-	Honorary Professor, College of Life Sciences, Nankai University, Tianjin, China
2007-	Honorary Professor, Shanghai Jiao Tong University
2011-	Professor of Biological Chemistry and Molecular Pharmacology, Harvard Medical School
2011-	Professor of Medicine, Boston Children's Hospital
2012-	Senior Investigator, Program in Cellular and Molecular Medicine, Boston Children's Hospital

Awards and Honors:

1966	National Merit Scholar
1971	Phi Beta Kappa
1971	Biochemistry Departmental Citation (awarded to most outstanding graduate)
1971	B.A. with Distinction in General Scholarship and Great Distinction in the Major
1981	American Cancer Society Junior Faculty Research Award
1984	American Cancer Society Faculty Research Award
1988	MERIT Grant Award, National Institutes of Health
1992	Distinguished Lectureship, Vanderbilt School of Medicine
1993	American Heart Association Basic Research Prize
1994	Royal Society of Medicine, Medal, Visiting Professor, United Kingdom
1995	William B. Coley Medal for Distinguished Research in Fundamental Immunology, Cancer Research Institute
1995	Marie T. Bonazinga Award for Excellence in Leukocyte Biology Research, Society for Leukocyte Biology
1996-	Member, National Academy of Sciences
1997	Wellcome Visiting Professor, Wayne State University
2001-	Fellow, American Academy of Arts and Sciences
2004	MERIT Grant Award, National Institutes of Health
2004	Crafoord Prize in Polyarthritis 2004, Royal Swedish Academy of Sciences
2004	Fellowship, John Simon Guggenheim Memorial Foundation
2011	Doctor Medicinae Honoris Causa, Aarhus University, Denmark

Major Committee Assignments:

National and Regional:

1980	Panel Member, NIAID Study Group on Immunology
1982	Ad Hoc Member, Experimental Immunology Study Section

1985	Ad Hoc Member, Allergy and Immunology Study Section
1986	Ad Hoc Member, Board of Scientific Councilors, National Institutes of Allergy and Infectious Disease
1986-1990	Member, Allergy and Immunology Study Section, National Institutes of Health
1989-2000	Councilor, International Leukocyte Workshop
1990	Organizer, International Conference on Leukocyte Adhesion Molecules, Titisee, Germany
1990-1992	Executive Committee, International Congresses on Inflammation
1991	Organizer, Banbury Center Conference on Adhesion Molecule Receptors and Disease, Cold Spring Harbor, New York
1991	Organizer, Juan March Foundation Workshop on Adhesion Receptors in the Immune System, Madrid, Spain
1991-1993	Scientific Advisory Board, New England Regional Primate Research Center
1994	Co-Organizer, Keystone Symposium, "Biology of Physicochemical Interactions at the Cell Surface"
1992-1994	Chair, Adhesion Structures Section, Fifth International Leukocyte Workshop
1994-1996	Chair, Endothelial Cell Section, Sixth International Leukocyte Workshop
1996-2000	Howard Hughes Medical Institute, Scientific Review Board
2010-	Board of Trustees, Children's Hospital Boston Trust

Harvard:

1982-1994	Committee on Cell and Developmental Biology
1989-	Executive Committee, Committee on Immunology
1989-1991	Ryan Fellowship Committee
1989-1992	Center for Blood Research, Planning Director for Space in the Warren Alpert Building
1990-1993	Member and then Chair, Dunham Lectureship Committee
1991-1993	Faculty Fellowships Committee
1991-	Chair and member, numerous ad hoc search committees for full professors and junior faculty members. Recruits from committees chaired: Rick van Etten, Jose-Carlos Gutierrez-Ramos, Uli von Andrian, Anjana Rao, Denisa Wagner, Sun Hur, Wesley Wong
1991-1994	Committee on Immunology, Admissions Committee
1989-	Appointments Committee, Center for Blood Research
1993-1994	Health Sciences and Technology Fellowships Committee
1993-2004	Executive Committee, Department of Pathology
1994-	Ph.D. Program Faculty in Biomedical and Biological Sciences
1996-1999	Member, Faculty Council
2002-	Overseer, Board of Overseers, Center for Blood Research

Editorial Boards:

1981-1985	Associate Editor, Journal of Immunology
1981-	Editorial Board, Hybridoma
1985-1995	Advisory Editor, Journal of Experimental Medicine
1988-1993	Editorial Board, Cellular Immunology
1988-1992	Editorial Board, Journal of Clinical Immunology
1989-1992	Editorial Board, New Biologist
1989-1992	Editorial Board, Cell Regulation (Molecular Biology of the Cell)
1992-1996	Associate Editor, Molecular Biology of the Cell
1996-2001	Editorial Board, Immunological Reviews

Memberships and Committee Assignments in Professional Societies:

1979-	American Association of Immunologists
1981-1994	Reticuloendothelial Society
1982-	American Society for Biochemistry and Molecular Biology
1985-1986	American Association of Immunologists Meeting, Block Chairman, Macrophages & Natural Killer Cells
1986	Reticuloendothelial Society, Membership Chair
1987	Program Committee, Reticuloendothelial Society (chair 1989)

1989-	American Association of Pathologists
1993	Nomination Committee, American Association of Immunologists
1995-	Society for Leukocyte Biology
2001	Canadian Vaccines and Immunotherapeutics Network, Scientific Advisor
2004-2007	Chair of Section 29, Biophysics and Computational Biology, National Academy of Sciences
2004-	Member, Center for Molecular and Cellular Dynamics, Harvard Medical School
2006-	Committee on University Resources, Harvard University

Consulting:

1989-1995	Boehringer-Ingelheim
1992-1999	LeukoSite, Inc., Founder and Chairman of Scientific Advisory Board
1995-1999	LeukoSite, Inc., Member, Board of Directors
1999-2001	Millennium Pharmaceuticals
2003-	Sunesis Pharmaceuticals
2011-	Pfizer, Inc., Resident Professor

Major Research Interests: Adhesion Receptors of the Immune System
Teaching Experience:

1972-1974	Harvard University, Biochemistry 10 Teaching Assistant
1974-1975	Harvard University, Biochemistry 111 Teaching Assistant
1981	Instructor, Alton Jones Cell Culture Center Course on Macrophages, Lake Placid, NY
1984, 1986	Developer and leader, Harvard Medical School Continuing Education Course, "Hybridomas in Biotechnology and Medicine"
1985-1994	Course leader and lecturer, Harvard Medical School, Immunology 203, "Biochemistry and Molecular Biology of the Immune System"
1988	Lecturer, Harvard Medical School, "Identity, Microbes and Defense," in New Pathway Curriculum
1988-1994	Lecturer, Harvard University, Molecular and Cellular Biology 200a “Molecular Development of the Cell”
1989, 1993-1998	Lecturer, Harvard Medical School, Human Pathology, HST-030
1996, 1998	Lecturer, Rockefeller U., Cell Biology Course
1998	Lecturer, Harvard Medical School, Advanced Biomedical Sciences Course “Revisiting Biomedical Sciences and Pathology”
1999	Lecturer, Harvard University, Molecular and Cellular Immunology 169
1999	Presentation to Graduate Students, Harvard University, Biological and Biomedical Sciences
1999, 2001	Lecturer, Harvard University, Molecular Immunology 268
2003	Lecturer, Harvard University, Immunology Critical Reading Course 204
2007	Lecturer, Harvard University, Department of Biological Chemistry and Molecular Pharmacology 201 Proteins
2010	Lecturer, Department of Biological Chemistry and Molecular Pharmacology 201, Harvard Medical School
2012	Instructor, Division of Medical Sciences, Harvard Medical School Nanocourse, Immune System Molecules In Three Dimensions

Selected Lectures and Honors:

1990	Visiting Professor, University of Michigan
1991	Centennial Celebration-Scientific Symposium, Washington University School of Medicine
1991	Harvey Lecturer, William Harvey Research Institute, St. Bartholomew’s, London, England
1992	Keynote Address, joint Keystone Symposia on “Inflammation, Growth Regulatory Molecules, and Atherosclerosis”, and “The Molecular Biology of the Endothelial Cell”
1992	Ninth Zoltan Ovari Symposium Lecturer, The Honors Program, New York University Medical Center
1992	First Annual Invited Speaker, Pathology Department, Albert Einstein School of Medicine
1992	14th Annual Jim McGinnis Memorial Lecturer, Duke University Medical Center
1992	Lecturer, National Heart, Lung and Blood Institute Symposium on Atherosclerosis to Honor Gardner McMillian, Bethesda, Maryland
1992	Boehringer-Ingelheim Distinguished Lecturer in Biomedical Sciences, Vanderbilt University
1993	Lecturer, William B. Coley Symposium, Frontiers of Immunology and Cancer Immunology, Cancer Research Institute and Memorial Sloan-Kettering, New York, New York
1994	Lecturer, The Harvey Society, New York, New York
1994	Juan March Foundation Lecturer, Madrid, Spain

1994 Basic Science Lecturer, The American Association for Thoracic Surgery Annual Meeting, New York, New York

1994 Burroughs-Wellcome Visiting Professor, Royal Society of Medicine, London, Cambridge, Birmingham, and Oxford, England

1994 Second Annual Norman Heatley Lecturer, University of Oxford, Sir William Dunn School of Pathology, Oxford, England

1995 Second Daiichi Lecturer, University of California, San Francisco, "The effect of force on bond lifetimes: Are selectins and integrins specialized for high tensile strength?"

1995 Lecturer, Nobel Conference on "Cell Adhesion Molecules and Cell-Matrix Receptors in Vertebrate Tissues", Karolinska Institutet, Stockholm, Sweden

1995 Plenary Speaker and Symposium Co-Chair on Selectins, World Congress on Inflammation, Brighton, England

1996 Plenary Lecturer, Keystone Symposium, Exploring and Exploiting Antibody and Ig Superfamily Combining Sites, Taos, New Mexico

1996 Co-Organizer and Speaker, Vascular Endothelium and Regulation of Leukocyte Traffic Meeting, Instituto Juan March de Estudios e Investigaciones, Madrid, Spain

1997 Welcome Visiting Professor, Wayne State University, Detroit, Michigan

1998 Presidential Symposium Speaker on Integrin Receptors, American Society of Haematology, Miami, Florida.

1998 Keynote Lecturer, Third International Workshop on Signal Transduction in the Activation and Development of Mast Cells and Basophils, The National Institute of Health, Bethesda, Maryland.

1998 Keynote Address, "Integrins and G Proteins: Structurally Homologous Proteins that Regulate Interactions Outside and Inside the Cell Membrane", Society for Leukocyte Biology, Garda, Italy

1999 John T. Edsall Lecturer, Department of Molecular and Cellular Biology, Harvard University, Cambridge, Massachusetts

2000 Speaker, Crafoord Prize Symposia, The Royal Swedish Academy of Sciences, Sweden

2001 Keynote Address, Keystone Symposium, "Chemokine and Chemokine Receptors", Taos, New Mexico

2001 Keynote Speaker, NCI Center for Cancer Research, Fellows Symposium, Bethesda, Maryland

2003 Speaker, The Future of Structural Biology, New York Structural Biology Center, New York, New York

2003 Speaker, Dean's Lecture at Mount Sinai School of Medicine, New York, New York

2004 Speaker, President's Research Seminar Series, Memorial Sloan-Kettering Cancer Center, New York, New York

2006 12th Annual Edmond Alexandre Goidl Lectureship, on Immunology University of Maryland at Baltimore, School of Medicine, Baltimore, Maryland

2008 Keynote Speaker, "Transendothelial Migration and Bidirectional Signal Transmission in Integrins", Keystone Symposia, Keystone, CO

2008 Keynote Speaker, Beirne B. Carter Lecture in Immunology, University of Virginia, Charlottesville, VA

2009 Speaker, "Bidirectional Signaling through Integrins Reinforces Ligand and Cytoskeleton Engagement", Montana State University, Bozeman, MT.

2009 Eighth Annual Aster Lecture, "Interactions Between Platelets, von Willebrand Factor, and Hydrodynamic Shear Force", Blood Center of Wisconsin, Blood Research Institute, Milwaukee, WI.

2009 Physiology Course Lecturer, Woods Hole Marine Biological Laboratory, MA

2009 Guest Speaker, "Interactions Between Platelets, von Willebrand Factor, and Hydrodynamic Shear Force", D.E. Shaw Research, LLC (DESRES), New York, NY

2009 Speaker, "The Shear-Sensor Domain in the Ultra-Large Protein - von Willebrand Factor", PhysCell 2009, Primosten, Croatia

2009 Lecturer, Tri-Institutional Structural Biology Seminar Series, Memorial Sloan-Kettering Cancer Center and Weill Medical College, Rockefeller University, New York, NY

2009 Roon Visiting Lecturer, "Interactions Between Platelets, von Willebrand Factor, and Hydrodynamic Shear Force", The Scripps Research Institute, San Diego, CA

2010 Speaker, Molecular Biophysics Discussion group, UT Southwestern Medical Center, Dallas, TX

2010 Platform Speaker, Structural Analysis of Supramolecular Assemblies by Hybrid Methods Symposium, Lake Tahoe, CA

2010 Speaker, "The Flex-Bond, a Mechanically Stabilized Receptor-Ligand Bond Important in the Vasculature", University of Illinois, Cell and Developmental Biology Seminar, Urbana, IL

2010 Keynote Speaker, "The Traction Force Model for Integrin Activation", GRC Signaling by Adhesion Receptors, Colby College, Waterville, ME

2010 Speaker, "The Traction-Force Model for Integrin Activation", University of Aarhus, Department of Molecular Biology, Denmark

2011 Guest Lecturer, "The Traction Force Model for Integrin Activation", Immunology and Microbial Science Affinity group, The Scripps Research Institute, La Jolla, CA

2011 Speaker, "The Evidence of the Traction Force Model of Integrin Activation", Fibronectin, Integrins and Related Molecules Gordon Research Conference, Lucca, Italy

2011 Speaker, "Integrins and Tissue Inflammation", American Society of Transplantation Symposium, San Francisco, CA

2011 State of the Art Lecturer, "The Domain Architecture of VWF and Activation by Elongational Flow", XXIII Congress of the International Society on Thrombosis and Haemostasis, Kyoto, Japan

2011 Speaker, "Biology and Physics of von Willebrand Factor Concatamers", 17th International Biophysics Congress, Beijing, China

2011 Keynote Speaker "The Domain Architecture of VWF and Activation by Elongational Flow", 5th Mechanobiology Conference, Mechanobiology of Multi-cellular Systems, Singapore

2012 Poster presenter, "Structures of sporozoite sheath components CS and TRAP", Molecular Approaches to Malaria Conference Conference, Lorne, Victoria, Australia

2012 Speaker, "Structural Basis for Relay of Allostery in αI Integrins", CNIO Frontiers Meetings: Allosteric Regulation of Cell Signalling, Madrid, Spain

2012 Speaker, "Activation of A1 domain adhesiveness in VWF by elongational force", ASH Annual Meeting, Atlanta, GA

Postdoctoral Fellows Trained and Current Positions:

Konrad Kürzinger, M.D., Director and Head of Protein Chemistry, Roche Diagnostic GmbH, Research Center, Tutzing, West Germany; Alok Bhattacharya, M.Sc., M. Phil., Ph.D., Professor, Jawaharlal Nehru University, New Delhi, India; Carl Ware, Ph.D., Head, Division of Molecular Immunology, La Jolla Institute for Allergy and Immunology, CA; May-Kin Ho, Ph.D., Managing Director, Goldman Sachs, New York, New York; Francisco Sanchez-Madrid, Ph.D., Professor of Immunology, Hospital de la Princesa, Autonomous University of Madrid, Spain; Janice Nagy, Ph.D., Principal Associate of Pathology, Beth Israel Deaconess Hospital, Harvard Medical School, Boston, MA; Robert Rothlein, Ph.D., Senior Vice President, Biology, Transtech Pharma, High Point, NC,; Steven Marlin, Ph.D., Vice President of Business Development, Alliances in Government Affairs, Boehringer-Ingelheim, Ridgefield, CT; Elizabeth Robbins, M.D., Associate Clinical Professor, Pediatrics, UC-San Francisco; Marian L. Plunkett, Ph.D., Associate Director, Cell Biology, Attenuon, San Diego, CA; Leandro Sastre, Ph.D., Investigador Científico, Centro de Investigaciones Biológicas, Consejo Superior de Investigaciones Científicas, Madrid, Spain; Angel Corbi Lopez, Ph.D., Professor, Centro de Investigaciones Biológicas, Consejo Superior de Investigaciones Científicas, Madrid, Spain; Andrew Wardlaw, Professor of Respiratory Medicine, Director, Institute for Lung Health, University of Leicester, Leicester, England; Julio Garcia-Aguilar, M.D. and Ph.D., Professor of Surgery, University of California-San Francisco, CA; Periasamy Selvaraj, M.S., Ph.D., Associate Professor, Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, Georgia; Olli Carpen, M.D., Ph.D., Chair and Professor, Department of Pathology, University of Turku, Turku, Finland; Po-Ying Chan, Ph.D., Research Scientist, Amgen, Thousand Oaks, California; Margaret Hibbs, Ph.D., Assistant Member and Head, Signal Transduction Laboratory, Ludwig Institute for Cancer Research, Royal Melbourne Hospital, Victoria, Australia; Steven Stacker, Ph.D., Head, Angiogenesis Laboratory, Ludwig Institute for Cancer Research, Royal Melbourne Hospital, Victoria, Australia; Stephan Martin, M.D., Professor, German Diabetes Research Institute, and Heinrich Heine University, Duesseldorf, Germany; Donald Staunton, Ph.D., Director, Cell Adhesion Program, ICOS Corporation, Bothell, Washington; Michael Lawrence, Ph.D., Associate Professor, Department of Biomedical Engineering , University of Virginia, Charlottesville, Virginia; Caroline Bilsland, Ph.D., Clinical Research Associate, National Medical Research Corporation, Blue Bell, PA.; Yves St. Pierre, M.Sc., Ph.D., Professor, INRS-Institute Armand-Frappier, Institut National de la Recherche Scientifique, University of Quebec, Laval, Quebec, Canada; Akira Yokota, M.D., Ph.D., Director, Division of Allergy and Pheumatology, Osaka Prefectural Habiko Hospital, Japan; Hong Xu, M.D., Ph.D., Director, Licensing and Development, Pfizer, New London, CT; Lilli Petruzzelli, M.D., Ph.D., Associate Professor, Department of Internal Medicine, Division of Hematology Oncology, University of Michigan Medical Center, Ann Arbor, Michigan; Dennis Wong, M.D., Assistant Professor, Virginia Commonwealth University, Richmond, Virginia; John Luk, Ph.D., Associate Professor Department of Surgery, University of Hong Kong Medical Center, Pokfulam, Hong Kong; Ted Post, M.D., Deputy Editor, Up-to-Date, Inc., Wellesley, MA.; Tatsuo Kinashi, M.D., Ph.D., Professor, Department of Molecular Genetics, Institute of Biomedical Science, Kansai Medical University, Moriguchi, Osaka, Japan; Song Qing Na, Ph.D., Research Scientist, Cancer Inflammation and Cell Survival Research, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN; Lloyd B. Klickstein, M.D., Ph.D., Assistant Professor, Harvard Medical School and Brigham and Women's Hospital, Boston, MA; David Chang, M.D., Ph.D, Senior Director of Global Clinical Development, Oncology, AMGEN, Thousand Oaks, CA; Jean-Philippe Girard, Ph.D., Research Director, INSERM, Lab and Department Head, Institute of Pharmacology and Structural Biology CNRS, Toulouse, France; Antje Kirchhoff, M.D., Pediatric Nephrologist, Universitatskinderklinik, Wurberg, Germany; Ronen Alon, M.Sc., Ph.D., The Linda Jacobs Chair in Immune and Stem Cell Research, Weizmann Institute of Science, Israel; Thomas G. Diacovo, M.D., Assistant Professor of Pediatrics and Pathology, Columbia University Medical Center; Stephen J. Roth, M.P.H., M.D., Associate Professor of Pediatrics, Stanford University School of Medicine, Cardiovascular Intensive Care Unit, Division of

Pediatric Cardiology, Lucile Packard Children's Hospital, Palo Alto, CA; Robert Fuhlbrigge, M.D., Ph.D., Assistant Professor in Pediatrics, Harvard Medical School, Boston, MA; Kamal D. Puri, Ph.D., Research Scientist and Project Leader, Research, Drug Development Evaluation and Alliance, ICOS, Bothell, Washington; Chi Chi Huang, M.S., Ph.D. Centocor, Inc., Malvern, PA; Joji Kitayama, M.D., Ph.D., Associate Professor of Surgerical Oncology, University of Tokyo, Tokyo, Japan; Christian Weber, M.D., Senior Priv.-Doz, Institut für Prophylaxe und Epidemiologie der Kreislaufkrankheiten, Universität München, München, Germany; Jose Casasnovas, M.Sc., Ph.D., Associate Professor, Centro Nacional de Biotecnologia, Consejo Superior de Investitationes Cientificas, Campus Universidad Autonoma, Madrid, Spain; Conrad C. Bleul, M.D., Group Leader, Max-Planck-Institute for Immunobiology, Freiburg, Germany; Claus Oxvig, Ph.D., Associate Professor, Department of Molecular Biology, University of Aarhus, Aarhus, Denmark; Daniel Jones, Ph.D., Associate Professor, Department of Hematopathology, M.D. Anderson Cancer Center, Houston, Texas; Maarten de Château, M.D., Ph.D., Research Scientist, Department of Medical Biochemistry and Microbiology, Rudbeck Laboratory, Uppsala, Sweden; Aruto Yoshida, Ph.D., Senior Research Scientist, Central Laboratories for Frontier Technology, Kirin Brewery, Japan; Chafen Lu, Ph.D., Senior Scientist, Millennium Pharmaceuticals, Cambridge, MA; Qun Zang, Ph.D., Scientist, Department of Surgery, Southwestern Medical Center, Dallas, TX; Kunio Hieshima, M.D., Ph.D., Assistant Professor, Department of Microbiology, Kinki University School of Medicine, Osaka, Japan; In-Cheol Kang, Ph.D., Research Scientist, Protein Chip Research Center, Biotechnology Research Institute, Chungbuk National University, Cheongju, Korea; Eric Fedyk, Ph.D., Senior Scientist, Drug Safety Evaluation, Millennium Pharmaceuticals; Padmaja Yalamanchili, Ph.D., Senior Research Investigator, Discovery Biology, Bristol Myers Squib Medical Imaging, N. Billerica, MA; Chang-Duk Jun, Ph.D., Associate Professor, Department of Life Science, Gwangju Institute of Science and Technology, Korea; Melissa Swope Willis, Ph.D., Investigator, Vertex Pharmaceuticals, Cambridge, MA; Qing Ma, Ph.D., Assistant Professor, Section of Transplant Immunology, Center for Cancer Immunology/Department of Bone and Marrow Transplantation, University of Texas M.D. Anderson Cancer Center, Houston, TX; Holly Jing, Ph.D., Research Assistant Professor, Department of Biochemistry and Molecular Biology, University of Texas, Health Science Center at Houston; Junichi Takagi, Ph.D., Professor, Laboratory of Protein Synthesis and Expression, Institute for Protein Research, Osaka University, Osaka, Japan; Azucena Salas, Ph.D., Ramon y Cajal Investigator, Hospital Clinico, Servicio de Gastroenterologia, Barcelona, Spain, Motomu Shimaoka, M.D., Ph.D., Assistant Professor of Anesthesia, CBR Institute for Biomedical Research, Harvard Medical School, Boston, MA; Minsoo Kim, Ph.D., Assistant Professor of Microbiology & Immunology, University of Rochester Medical Center, Providence, RI., Thomas Vorup-Jensen, Ph.D., Associate Professor of Medical Microbiology and Immunology, University of Aarhus, Denmark; Doohun Kim, Ph.D., Assistant Professor, Department of Biotechnology, Ajou University, South Korea; Nathan Astrof, Ph.D., Research Fellow, Shimaoka Lab, CBR Institute for Biomedical Research, Harvard Medical School; Shuqi Chen, Ph.D., Chief Executive Officer, IQuum; Christopher Carman, Ph.D., Assistant Professor, Department of Medicine, Harvard Medical School/Beth Israel Deaconess; Audrey Ferrand, Ph.D., Research Scientist, Jeffrey Settleman Laboratory, Massachusetts General Hospital Cancer Center; Moonsoo Jin, Ph.D., Assistant Professor, Department of Biomedical Engineering, Columbia University; Guo-Hui Li, Ph.D., Research Scientist, Biogen; Uyen Phan, Ph.D., Research Scientist, Organon Research Center, Cambridge, MA; Tsan Xiao, Ph.D., Senior Research Scientist, Laboratory of Immunology, Structural Immunobiology Section, National Institutes of Health, Bethesda, MD; Wei Yang, Ph.D., Instructor, Department of Medicine, Beth Isreal Deaconess Medical Center, Harvard Medical School, Boston, MA; Joonil Seog, Ph.D., Assistant Professor, Department of Materials Science and Engineering and Fischell Department of Bioengineering, University of Maryland, College Park, MD, Jian Feng Chen, Ph.D., Professor, Institute of Biochemistry and Cell Biology, Shanghai Institute for Biological Sciences, Chinese Academy of Sciences, Shanghai, China, Xuehui Chen, Ph.D., Associate Professor, Institute of Biophysics, Chinese Academy of Science, Bing-Hao Luo, Ph.D., Assistant Professor, Department of Biological Sciences, Louisiana State University, Baton Rouge, LA, Noritaka Nishida, Ph.D., Assistant Professor, Division of Physical Chemistry, Graduate School of Pharmaceutical Sciences, University of Tokyo, Gang Song, Ph.D., Research Scientist, IQUUM, Marlborough, MA, Travis Waldron, Ph.D., Research Scientist, IDEXX Laboratories, Westbrook, ME, Jing Song, Ph.D., Principal Scientist, BioDuro, Beijing, China., Michael Grey, Ph.D., Health Science Policy Analyst, National Institutes of Health, Qing Zhang, Ph.D., Senior Scientist, GlaxoSmithKline, Shanghai China, Can Xie, Ph.D., Assistant Professor, Peking University, Beijing, China. Xing Chen, Assistant Professor, Peking University, Beijing, China. Benoit Smagghe, Staff Scientist, Minerva Biotechnologies, Waltham, MA, Cheng-Zhong Zhang, Staff Scientist, Broad Institute, Cambridge, MA, Jieqing Zhu, Associate Investigator, BloodCenter of Wisconsin, Milwaukee, WI, Ed Eng, Staff Scientist, Structural Biology Center, NY, Mark Blenner, Ph.D., Assistant Professor, Clemson University, Clemson, SC, Rui Wang, Senior Scientist II, Abbott Laboratories, Worcester, MA

Sabbatical Trainees:

Nurit Hollander, Ph.D., Professor, Sackler School of Medicine, Tel Aviv, Israel.
Yael Kaufmann, Ph.D., Former Senior Lecturer in Immunology, Sackler School of Medicine, Tel Aviv, Israel and Former Head of Cytomorphology Section, Hematology Institute, Chaim Sheba Medical Center.
James W. Goding, Ph.D., Professor and Chair, Department of Immunology and Pathology, Monash Medical School, Victoria, Australia.
Emanuela Handman, Ph.D., Member, Walter and Eliza Hall Institute, Royal Melbourne Hospital,Victoria, Australia.
Dorothy F. Bainton, M.D., Vice Chancellor of Academic Affairs and Professor, Department of Pathology, University of California, San Francisco, California.
Gabriele Weitz-Schmidt, Ph.D., Lecturer in Pharmacy, PharmaCenter University Basel, Switzerland.

Karen Vanhoorelbeke, Ph.D., Associate Professor, Chemistry Department, Campus Kortrijk, K.U. Leuven Belgium (Catholic University of Leuven)

Graduate Students Trained:

Linda Miller, Ph.D., US Executive Editor, Nature, New York, NY; Takashi Kei Kishimoto, Ph.D., Senior Director of Biology, Momenta Pharmaceuticals, Cambridge, MA; Richard S. Larson, M.D., Ph.D., Associate Professor of Pathology, University of New Mexico Health Sciences Center, Albuquerque, NM; Michael L. Dustin, Ph.D., Irene Diamond Associate Professor of Immunology, Skirball Institute of Molecular Medicine, New York University School of Medicine, NY; Michael Diamond, M.D., Ph.D., Associate Professor, Departments of Medicine, Molecular Microbiology, Pathology & Immunology, Washington University School of Medicine; Antonin de Fougerolles, Ph.D, Senior Director of Research, Alnylam Pharmaceuticals, Cambridge, MA; Michelle W. Carr, Ph.D., Instructor in Medicine, Department of Rheumatology, Immunology, and Allergy, Brigham and Women's Hospital, Boston, MA; Rachael A. Clark, M.D., Ph.D., Instructor in Dermatology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA; Erik Finger, Ph.D., Surgical Fellow, University of California at San Francisco, CA; Robert Vonderheide, M.D., Ph.D., Assistant Professor of Medicine, University of Pennsylvania, Philadelphia, PA, Amy Xu, M.D., Ph.D.

Fellows in Training:

Xianchi Dong, Ph.D., Debjayoti Dutta, Ph.D., Hongxia Fu, Ph.D., Nathan Hudson, Ph.D., Jongseong Kim, Ph.D., Adem Koksal, Ph.D., Fu-Yang, Lin, Ph.D., Li-Zhi Mi, Ph.D., Travis Moore, Ph.D., Pontus Nordenfelt, Thomas Schurpf, Ph.D., Gaojie Song, Ph.D., Mehmet Sen, Ph.D., Cornelis Van der Poel, Ph.D., Rui Wang, Ph.D., Wei Xia, Ph.D., Botao Xiao, Ph.D., Yamei Yu, Ph.D., Xiaoling Yu, Koichi Yuki, Ph.D., Zhao, Bo, Ph.D., Yanfeng Zhou, Ph.D., Jianghai Zhu, Ph.D

Publications (547):

1. Grey, H. M., R. T. Kubo, S. M. Colon, M. D. Poulik, P. Cresswell, T. A. Springer, M. Turner, and J. L. Strominger. (1973). The small subunit of HL-A antigens is B2-microglobulin. *J. Exp. Med. 138*:1608.
2. Springer, T. A., J. L. Strominger, and D. Mann. (1974). Partial purification of detergent solubilized HL-A antigen and its cleavage by papain. *Proc. Natl. Acad. Sci. USA 71*:1539.
3. Cresswell, P., T. Springer, J. L. Strominger, M. J. Turner, H. M. Grey, and R. T. Kubo. (1974). Immunological identity of the small subunit of HL-A antigens and B2-microglobulin and its turnover on the cell membrane. *Proc. Natl. Acad. Sci. USA 71*:2123.
4. Strominger, J. L., P. Cresswell, H. Grey, R. E. Humphreys, D. Mann, J. McCune, P. Parham, R. Robb, A. R. Sanderson, T. A. Springer, C. Terhorst, and M. J. Turner. (1974). The immunoglobulin-like structure of human histocompatibility antigens. *Transplant. Rev. 21*:126.
5. Strominger, J. L., L. Chess, H. C. Herrmann, R. E. Humphreys, D. Malenka, D. Mann, J. M. McCune, P. Parham, R. Robb, T. A. Springer, and C. Terhorst. (1975). Isolation of histocompatibility antigens and of several B-specific proteins from cultured human lymphocytes. In *Histocompatibility Testing 1975*. Kissmeyer-Nielsen, ed. Munksgaard, Copenhagen, p. 719.
6. Strominger, J. L., R. E. Humphreys, J. M. McCune, P. Parham, R. Robb, T. Springer, and C. Terhorst. (1976). The immunoglobulin-like structure of human histocompatibility antigens. *Federation Proc. 35*:1177.
7. Strominger, J. L., R. E. Humphreys, J. F. Kaufman, D. L. Mann, P. Parham, R. Robb, T. A. Springer, and C. Terhorst. (1976). The structure of products of the major histocompatibility complex in man. In *27.Mosbach Colloquium: The immune system*. F. Melchers and K. Rajewsky, eds. Springer-Verlag, Berlin, p. 202.
8. Springer, T. A. and J. L. Strominger. (1976). Detergent-soluble HLA antigens contain a hydrophilic region at the COOH-terminus and a penultimate hydrophobic region. *Proc. Natl. Acad. Sci. USA 73*:2481.
9. Strominger, J. L., L. Chess, R. E. Humphreys, D. Mann, P. Parham, R. Robb, S. Schlossman, T. Springer, and C. Terhorst. (1976). Isolation and structure of products of the human histocompatibility gene complex. In *Role of histocompatibility gene complex in immune responses.Proc.Internatl.Conf.at Brook Lodge, Mich*. D. Katz and B. Benacerraf, eds. Academic Press, New York, p. 621.
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