

## CURRICULUM VITAE

**Fu-Tong Liu, MD, PhD**

**Current Position** Vice President  
Academia Sinica  
Taipei, Taiwan

### Education

National Taiwan University, Taipei, Taiwan, R.O.C., 1966-1970  
B.S. in Chemistry, 1970  
The University of Chicago, Chicago, Illinois, 1971-1975  
Ph.D. in Chemistry, 1976  
The University of Miami School of Medicine (Ph.D. to M.D. Program), 1985-1987.  
M.D., 1987

### Professional Record

Research Associate, Department of Chemistry, The University of Illinois,  
Urbana, Illinois, 1975-1977  
Research Fellow, Department of Cellular and Developmental Immunology,  
Research Institute of Scripps Clinic, La Jolla, California, 1977-1979  
Assistant Member, Department of Cellular and Developmental Immunology,  
Research Institute of Scripps Clinic, La Jolla, California, 1979-1982  
Associate Member (1982-1987), Member (1987-1990), Medical Biology Institute,  
La Jolla, California  
Quidel, San Diego, 1982-1985.  
Intern, Internal Medicine, Long Beach Memorial VA, Long Beach, California, 1988-  
1989  
Resident, Division of Dermatology, Department of Medicine, University of  
California, San Diego, California, 1990-1993  
Associate Member/Head, Allergy Research Section, Department of Molecular and  
Experimental Medicine, The Scripps Research Institute,  
La Jolla, California, 1990-1996  
Member, Division of Dermatology and Cutaneous Surgery, Scripps Clinic Medical  
Group, La Jolla, California, 1993-2001  
Member/Head, Division of Allergy, La Jolla Institute for Allergy and Immunology,  
San Diego, California, 1996-2001  
Professor and Chair (2001-2010), Distinguished Professor (2011-2012), Professor  
Emeritus (2012-present), Department of Dermatology, University of  
California, Davis, School of Medicine, Sacramento, California  
Distinguished Research Fellow and Director (2010-2017), Distinguished Research  
Fellow (2017-2018), Institute of Biomedical Sciences, Academia Sinica,  
Taiwan  
Professor (joint appointment), National Taiwan University, College of Medicine,  
Department of Dermatology, Graduate Institute of Immunology and Division  
of Microbiology, Taiwan, 2011-present

Adjunct Professor, Institute of Clinical Medicine, National Yang-Ming University,  
College of Medicine, 2011-present  
Vice President, Academia Sinica, Taiwan, 2016-present

### **Awards and Honors**

National Research Service Award, 1979-1980  
Leukemia Society of America Scholar Award, 1982-1987  
Elected to membership in American Society for Clinical Investigation, 1988  
Dermatology Foundation Research Award, 1994 and 1995  
Associate Editor, Journal of Clinical Investigation, 1993-1997  
Member, Allergy and Immunology Study Section, National Institutes of Health, 1985-1989  
Member, Allergy, Immunology and Transplantation Research Committee, National Institutes of Health, 1993-1997  
Elected to membership in Association of American Physicians, 2004  
Member, American Skin Association Medical/Scientific Advisory Committee, 2004-present  
Joan Oettinger Memorial Award, UC Davis, 2005  
Lu Yau-Chin Memorial Lectureship, Taiwanese Dermatological Association, 2006  
Elected to membership in American Dermatological Association, 2011  
Honorary member, Taiwanese Dermatological Association, 2011  
Elected to Academician, Academia Sinica, Taiwan, 2012  
Elected to American Association for the Advancement of Science (AAAS) Fellow, 2013  
Chair Professor, Kaohsiung Medical University, 2013-present  
Chair Professor, China Medical University, 2014-present  
Chair Professor, Tzu Chi University, 2015-present  
Distinguished Chair Professor, I-Shou University School of Medicine, 2016-present  
President, Taiwanese Society for Investigative Dermatology, 2015-2018  
Khwarizmi International Award, 2015  
President Shih-Liang Chien Lectureship, Academia Sinica, 2016  
Distinguished Scholar Award, the Phi Tau Phi Scholastic Honor Society, 2017  
President, Chinese Society of Immunology, Taiwan, 2018-present

### **Major Current Administrative Responsibilities**

Program Director, Taiwan Biobank, 2012-2018  
Director, Translational Medicine Degree Program, Academia Sinica, 2012-present  
Program Director, National Glycoscience Program, Ministry of Science and Technology, 2014-present  
Board of Directors, National Health Research Institutes, 2016-present  
Chair, Board of Directors, Pacific Science Association (PSA)-Republic of China Chapter, 2017-present  
Director, Taiwan Animal Core Consortium (for phenotyping and drug evaluation), 2017-2018  
Chair, Joint Governing Board, National Biotech Research Park, 2017-present

### **Research Interests**

Allergic inflammation, Glycobiology (Galectins: roles in immunity, inflammation, cancer, and adiposity), and Dermatology

### **Board Certification**

The American Board of Dermatology, 1993 (renewed 2003, 2013)

### **Editorial Boards**

Associate Editor, Journal of Clinical Investigation, 1993-1997

Section Editor, Journal of Dermatological Science, 2005-2018

Editorial Board, Clinical Reviews in Allergy and Immunology, 2005-present

Editorial Board, Journal of Medicinal Food, 2007-present

Reviewer Board, Journal of Allergy and Clinical Immunology, 2008-present

Editorial Board, Experimental Dermatology, 2013-present

Advisory Editorial Board, Kaohsiung Journal of Medical Sciences, 2014-present

Editorial Board, Glycobiology, 2016-present

### **Professional Organizations**

American Academy of Dermatology

American Association for the Advancement of Science

American Association of Immunologists

American Chemical Society

American Dermatologic Association

American Society for Clinical Investigation

American Society for Investigative Pathology

Association of American Physicians

Chinese Society of Cell and Molecular Biology

Chinese Society of Immunology

Society for Investigative Dermatology

Taiwan Society for Biochemistry and Molecular Biology

Taiwanese Dermatological Association (Honorary)

Taiwanese Society for Investigative Dermatology

### **Advisory Panels/Committees/Consultant**

#### **National/International**

#### **Grant reviews (NIH)**

Member, Allergy and Immunology Study Section, National Institutes of Health, 1985-1989

Member, Allergy, Immunology and Transplantation Research Committee, National Institutes of Health, 1993-1997

NIH, Ad hoc review committees, 1992, 1994, 1996, 1998 (2), 2002 (2), 2003, 2004, 2005 (2), 2007 (3), 2009 (3), 2010

NIH, review panel for “Atopic Dermatitis Research Network (ADRN) and the ADRN Statistical and Clinical Coordinating Center” (Chairperson), 2010

NIH, reviewer, NIH Director’s Early Independence Awards (DP5), 2014

NIH, reviewer, Special Emphasis Panel (ZRG1 IMM-D) related to hypersensitivity and immune-mediated diseases, 2015

**Grant review (Taiwan)**

National Health Research Institutes, Extramural Grant Scientific Review Committee, Taiwan, 2001- 2009

National Research Program for Genomic Medicine, National Science Council, Taiwan, 2002, 2005-2009

Program project grant reviewer, National Genome Center, Academia Sinica, Taipei, Taiwan, 2004

Reviewer, National Research Program for Biopharmaceuticals, 2011

Reviewer, NHRI-KMU co-operative project progress review, 2011

Member, Research Proposal Review Committee, Translational Research Program, Academia Sinica, 2010-present (Chair 2013-present)

Ad Hoc Reviewer, National Research Program for Biopharmaceuticals, 2012-2016

Ad Hoc Reviewer, National Science Council (Ministry of Science and Technology), 2012-present

Reviewer, National Health Research Institute, Intramural program, 2014

Reviewer, Evaluation of Institute of Molecular Medicine, College of Medicine, National Taiwan University, 2015

Reviewer, Program Projects, Kaohsiung Medical University, 2016

Member, the International Consultant Board for the Lipid Science and Aging Research Center (LSARC) at Kaohsiung Medical University, 2017-present

**Grant reviews (other funding agencies)**

Grant review panel, Allergy and Asthma Foundation of America, 1996

Reviewer, Broad Medical Research Program, The Broad Foundation, 2004, 2005, 2006, 2007

Reviewer, Wellcome Trust, UK, 2005, 2006

Reviewer, UK Cancer Research, 2005

Reviewer, National Science Foundation Grant Awards, 2005

Reviewer, Medical Research Scotland, UK, 2006, 2007

Reviewer, Austrian Science Fund, 2007

Reviewer, Research Grant Council, Hong Kong, 2010

Reviewer, the Austrian Science Fund, 2012

Dutch Cancer Society, grant reviewer, 2014

Reviewer, The Canadian Glycomics Network (GlycoNet), a recently established Canadian Networks of Centres of Excellence, 2015

Reviewer, The Canadian Glycomics Network (GlycoNet), 2018

**Societies/Associations/Programs**

Vice Chair, Dermatology Foundation, California Chapter, 1997

Chair, Dermatology Foundation, California Chapter, 2003-2009

Member, American Skin Association Medical/Scientific Advisory Committee, 2004-present

Member, University of Southern California, NIH Ultrasound Transducer Resource, Advisory Committee, 2008-2010

**Intramural (US)**

Member, Advisory Committee, General Clinic Research Center, Scripps Clinic and Research Foundation, 1995-2001

Chairman, Institutional Review Board for Human Subjects, La Jolla Institute for Allergy and Immunology, 1996-2001

Vice Chair, Institutional Biosafety Committee, La Jolla Institute for Allergy and Immunology, 1996-2001

Council of Chairs, UC Davis Health System, 2001-2012

Medical Staff Executive Committee, UC Davis Health System, 2001-2010

Internal Advisory Board, UC Davis Cancer Center, 2003-2012

Member, Institutional Research Grant Review Committee, 2006, 2008

Executive Committee, NCI/NIH-funded training program (T32) in Oncogenic Signals and Chromosome Break, UC Davis, 2006-present

Cancer Center Executive Committee, 2007-2010

Member, Finance Committee, Practice Management Board, UC Davis Health System, 2007-2012

**Intramural/Extramural (Taiwan)**

Committee member, Evaluation of Institute of Immunology, College of Medicine, National Taiwan University, 2005

Advisory Council, National Taiwan University, College of Medicine, 2010-present

Scientific Advisory Board, Genomic Research Center, Academia Sinica, 2011-2013

Member, Research Specialist Evaluation Committee, Academia Sinica, 2010-2013

Member, Integrity in Administration Evaluation Committee, Academia Sinica, 2010-2011

Advisory Committee, Incubation Center, Genomic Research Center, Academia Sinica, 2011-present

Advisory Council, National Synchrotron Radiation Research Center, Taiwan, 2011-present

Appointment and promotion committee for technical track scientists, Academia Sinica, 2011-present

Member, Environment, Safety, Health Management Committee, Academia Sinica, 2010-2013

Member, Board of Directors, Chinese Cell and Molecular Biology Society, 2011-present

Member, Board of Directors, Taiwanese Society of Investigative Dermatology, 2011-present

Principle Investigator, Taiwan Biobank, 2012-2018

Member, Bioimaging Advisory Council, National Synchrotron Radiation Research Center, 2011-2014

Member, Administrative and Technical Staff Evaluation Committee, Academia Sinica, 2011-2014

Member, Research Development Administration Committee, Academia Sinica, 2012-2014

Organizing leader, Animal models of human diseases, National Research Program for Biopharmaceuticals, 2012-2017

Advisory Board, Show Chwan Health Care System, 2012-2016

Member, Curriculum Development Committee, Taiwan International Graduate Program, Academia Sinica, 2012-2015

Member, Campus Design Committee, Academia Sinica, 2012-2014

Associate Director, Translational Medicine Graduate Program, Academia Sinica, 2012-present

Coordinator, Core Facilities, National Biotechnology Research Campus Design Committee, 2012-2017

Advisory Board, I-Shou University, 2012-2013

Member, Nano Program Task Force, Academia Sinica, 2013-2016

Member, Medical Center Evaluation Committee, Ministry of Health and Welfare, 2013

Member, Academic Research Performance Evaluation Committee, Academia Sinica, 2013-2014

Member, Executive Committee, the Tang Prize (Asian Equivalent of the Nobel Prize), 2013-present

Member, Organizing Committee, Academician Quarterly Meetings, Academia Sinica, 2013-2014

Member, Review Committee, Young Scholar Outstanding Scholarly Work, Academia Sinica, 2013-2015

Member, Director Selection Committee, Institute of Biological Chemistry, Academia Sinica, Taiwan, 2015-2016

Director, National Glycoscience Program funded by Ministry of Science and Technology, Taiwan, 2014-2018

Advisory Board, Infectious Disease and Cancer Research Center, Kaohsiung Medical University, 2014- present

Advisory Board, Biomarker and Biotechnology Development Center, Kaohsiung Medical University, 2014- present

Member, Board of Directors, Taiwan Antibody Association, 2014-present

Co-Director, International Collaborations, National Research Program for Biopharmaceuticals, 2015-2017

President, Taiwanese Society for Investigative Dermatology, 2015-2018

Member, Director Selection Committee, Genomics Research Center, Academia Sinica, Taiwan, 2015-2016

Director, Program Office, Resource Centers, National Research Program for Biopharmaceuticals, 2016-2017

Chair, Committee for Evaluation of Professional School of Veterinary Medicine, National Taiwan University, 2016

Chair or co-Chair of 22 Committees at Academia Sinica, as Vice President of the organization, 2016-present.

Director, Taiwan Animal Core Consortium, 2017-2018

Chair, Joint Governing Board, National Biotech Research Park, 2017-present

### **Teaching Activities/Programs (US)**

Faculty, Scripps/Green Hospital Allergy and Immunology Fellowship Program, 1993-2001

Volunteer Clinical Faculty, Division of Dermatology, University of California San Diego, 1994-2001

Director, Postdoctoral Training Program in Molecular and Cell Biology of Allergy (funded by NIAID, NIH), 1994-2001

Program Director, Asthma and Allergic Diseases Research Center, "Signaling in Allergic Inflammation" (funded by NIAID, NIH), 1997-2001

Faculty, Advanced Course in Immunology, organized by Federation of Immunological Societies in Asia-Oceania, Hong Kong, June, 1998

Program Organizer, International Symposium in Galectins and Cancer, Chieti, Italy, 1999

Member, Glycobiology Research and Training Center, University of California, San Diego, 1999-present

Participating Investigators of the Consortium for Functional Glycomics, 2000-present

Faculty, Graduate Group in Immunology, UC Davis, 2001-present

Faculty, Dermatology 420 Course (2<sup>nd</sup> year medical students), UC Davis, School of Medicine, 2003-2009

Faculty, Topics in Immunology (IMM296) (graduate course of the Graduate Group in Immunology), UC Davis, 2004, 2006, 2008

Faculty, NCI/NIH-funded training program (T32) in Oncogenic Signals and Chromosome Break, UC Davis, 2006-present

Member, Recruitment and Professional Development Committee, Graduate Group in Immunology, 2007- 2009

Faculty, Principles and Practical Dermatology for the Primary Care Practitioner, CME course, 2007, 2008, 2009, 2011

Organizer, Cancer Biology Research Seminar Series, UC Davis Cancer Center, Winter Quarter, 2008

### **Teaching Activities/Programs (Taiwan)**

Faculty, Glycoimmunology Course, National Yang-Ming University, Taiwan, 2010

Faculty, Molecular Medicine Program, Academia Sinica, Taiwan, 2010-present

Faculty, Taiwan International Graduate Program, Academia Sinica, 2010-present

Faculty, Graduate Institute of Immunology, National Taiwan University, College of Medicine, 2011-present

Faculty, Institute of Clinical Medicine, National Yang-Ming University, 2011-present

Chair, Organizing Committee, International Conference on Inflammation and Disease, Academia Sinica, 2011

Member, Education Committee, Graduate Institute in Life Sciences, National Defense Medical Center, 2010- present

Chair, Admission Committee, Translational Medicine Graduate Program, 2012-present

Chair, Organizing Committee, 2012 International Sialoglyco Conference, Academia Sinica, 2012

Member, Award Selection Committee, TienTe Lee Medical Foundation, 2012-present  
 Chair, Organizing Committee, NHRI/IBMS International Conference of  
 Inflammation, Cancer, and Metabolic Syndromes, Academia Sinica, 2012  
 Member of Board of Director, The Chinese Society of Cell and Molecular Biology,  
 2013-present  
 Consultant, TienTe Lee Award Laureate Club, 2013-2016  
 Faculty, Glycomedicine Course, National Yang-Ming University, 2014  
 Faculty and Director, Glycoscience Workshop, Ministry of Science and Technology,  
 Academia Sinica, 2014  
 Faculty, Translational Medicine, Translational Medicine Degree Program, Academia  
 Sinica, 2014  
 Faculty, Introduction to Life Science, National Defense Medical Center, 2014  
 Chair, Organizing Committee, NHRI/IBMS International Conference of  
 Inflammation and Disease, 2014  
 Co-Chair, Organizing Committee, Glycoscience Symposium (Glycoimmunology),  
 Academia Sinica, 2014  
 Faculty and Director, Glycoscience Workshop, Ministry of Science and Technology,  
 Academia Sinica, 2014  
 Co-Chair, Organizing Committee, Japan-Taiwan Nanomedicine Symposium,  
 Academia Sinica, 2015  
 Faculty and Director, Glycoscience Workshop, Ministry of Science and Technology,  
 Academia Sinica, 2015  
 Co-Chair, Organizing Committee, Glycoscience Symposium (Chemical Biology),  
 Academia Sinica, 2015  
 Convener, Theme 4 (Health), Pacific Science Conference, Taipei, Taiwan, 2016  
 Faculty and Director, Glycoscience Workshop, Ministry of Science and Technology,  
 Academia Sinica, 2016

**Journal Reviews (since 1996 listed)** (The number in parenthesis indicates the number of articles reviewed for the journal in the year)

- 1996 International Immunology, Journal of Allergy and Clinical Immunology, Journal of Biological Chemistry (2), Journal Clinical Investigation, Journal of Immunology (2), Journal of Leukocyte Biology (2), Nutrition Research
- 1997 Biochemistry, Journal of Allergy and Clinical Immunology (3), Journal of Clinical Investigation, Journal of Experimental Medicine, Journal of Immunology (2), Proceeding National Academy Science USA
- 1998 Biochemistry, FASEB Journal, FEBS Letters, Journal of Allergy and Clinical Immunology, Journal of Clinical Investigation, Journal of Immunology (8), Journal of Leukocyte Biology, Nutrition
- 1999 Cancer Research, Cell Biology International, Cell Death and Differentiation, Clinical Cancer Research, Journal of Allergy and Clinical Immunology, Journal of Clinical Investigation (2), Journal of Immunology (10), Journal of Leukocyte Biology, Prostate
- 2000 Biochemistry, Cellular Immunology, Clinical and Experimental Allergy, Experimental Cell Research, Immunopharmacology, International Immunology, Journal of Biological Chemistry, Journal of Immunology (6), Nutrition Research

- 2001 Cancer Research, Clinical Cancer Research, FEBS Letters, Journal of Immunology (5), Journal of Leukocyte Biology (2), Laboratory Investigation, Nutrition
- 2002 American Journal of Pathology (2), American Journal of Physiology, Cancer Research, Clinical Cancer Research, Genes and Immunity, European Journal of Biochemistry, Journal of Immunology (4), Journal of Allergy and Clinical Immunology (2), Leukemia Journal
- 2003 Biochimica et Biophysica Acta, Blood, European Journal of Immunology, Glycobiology, In vitro Cellular and Developmental Biology, Journal of Allergy and Clinical Immunology (6), Journal of Immunology (5), Molecular and Cell Biology, Oncology.
- 2004 American Journal of Pathology (2), Annals of the Rheumatic Diseases, Biochimica et Biophysica Acta, European Journal of Cancer, Experimental Cell Research, Journal of American Academy of Dermatology, Journal of Allergy and Clinical Immunology (12), Journal of Biomedical Science, Journal of Cell Biology, Journal of Cell Science, Journal of Histochemistry and Cytochemistry, Journal of Immunology (7), Journal of Leukocyte Biology, Journal of Pharmaceutical Science, Molecular and Cellular Biology, Oncogene (2).
- 2005 American Journal of Pathology (3), Blood, Cancer Research, Cytometry, FEBS Letters, Glycobiology (2), Inflammatory Research, Investigative Ophthalmology and Visual Science, Journal of Allergy and Clinical Immunology (9), Journal of Biomedical Sciences (2), Journal of Cell Science, Journal of Clinical Investigation, Journal of Histochemistry and Cytochemistry, Journal of Immunology (6), Microbial Pathogenesis, Molecular and Cell Biology, Nature Methods, Nature Reviews Cancer, Proceeding of National Academy of Science.
- 2006 American Journal of Pathology (3), American Journal of Physiology, American Journal of Respiratory and Critical Care Medicine, Biology of the Cell, Glycobiology (3), Journal of Allergic and Clinical Immunology (6), journal of Autoimmunity (3), Journal of Biological Chemistry, Journal of Cell Biology, Journal of Dermatological Sciences (8), Journal of Immunology (3), Journal Medicinal Food.
- 2007 American Journal of Pathology (2), BBA General Subjects, BBA Molecular Cell Research, Blood, Cancer Research, Clinical Cancer Research, Experimental Biology and Medicine, Experimental Dermatology (2), Glycobiology (2), Hemophilia, Infection and Immunity, Inflammation Research, International Immunopharmacology, Journal of Allergic and Clinical Immunology (10), Journal of Biological Chemistry, Journal of Cell Biology (2), Journal of Dermatological Sciences (12), Journal of Immunology (5), Journal of Investigative Dermatology, Journal of Medical Food (2), Proceeding National Academy of Science, Toxicology and Applied Pharmacology, the Open Dermatology Journal.
- 2008 Acta Haematologica, American Journal of Pathology (2), American Journal Physiology, Biochimica et Biophysica Acta, Cancer Cell, Experimental Cell Research, Experimental Dermatology (2), American Journal of Respiratory and Critical Care Medicine, Blood, European Journal Cell Biology, Frontiers in Bioscience, Glycobiology, Journal of Allergic and Clinical Immunology (10), journal of Autoimmunity (2), Journal of Dermatological Science (12), Journal of Immunological Methods, Journal of Immunology (3), Journal of Investigative Dermatology (2), Journal of Leukocyte Biology, Journal of Medical Food (3), Journal

- of Pharmacy and Pharmacology, Molecular Biology of Cell, Molecular and Cell Biology, Mucosal Immunology, Proceeding National Academy of Science.
- 2009 American Journal of Pathology (2), Antioxidant and Redox Signaling, Cancer Science, Carcinogenesis, Journal of Allergic and Clinical Immunology (9), Journal of Autoimmunity (6), Journal of Biological Chemistry, Journal of Biomedical Sciences, Journal of Dermatological Science (10), Journal of Immunology (2), Journal of Investigative Dermatology (2), Journal of Medical Food (3), Journal of Pharmacy and Pharmacology, Nature Reviews Immunology, Proteins.
- 2010 American Journal of Pathology, Cancer Research, Dermatology Online Journal (2), European Academy of Dermatology and Venereology, FAEB Journal, Future Cardiology, Glycobiology (2), Journal of Autoimmunity (6), Journal of Dermatological Science (20), Journal of Immunology (3), Journal of Allergy and Clinical Immunology (7), Journal of Cellular and Molecular Medicine, Journal of Medical Food (2), Molecular Immunology, Neurosurgery, Oncogene.
- 2011 American Journal of Pathology (3), Angiogenesis, Arch Oral Biology, Biochimica et Biophysica Acta, Clinical and Experimental Allergy, FASEB Journal, Frontiers in T Cell Biology, Journal of Autoimmunity (4), Journal of Allergy and Clinical Immunology (8), Journal of Dermatological Science (15), Journal of Immunology (3), Journal of Investigative Dermatology, Journal Leukocyte Biology (2), Journal of Medicinal Food (2), Journal of Molecular Medicine, Journal of Oncology, Life Sciences.
- 2012 Acta Histochemica Review, BMC Cancer, Cancer Immunology Research, Carcinogenesis, Clinical Cancer Research, European Journal of Immunology, Experimental Dermatology, Glycobiology (3), Immunity, Journal of Allergy and Clinical Immunology (8), Journal of Biological Chemistry, Journal of Carbohydrate Chemistry, Journal of Dermatological Science (16), Journal of Immunology (2), Journal of Investigative Dermatology, Journal of Medicinal Food, Journal Medical Science, Pigmented Cell and Melanoma, PLoS One (2), Proceeding National Academy of Science USA.
- 2013 American Journal of Pathology, Arthritis Research & Therapy, Breast Cancer Research and Treatment, Carcinogenesis, Dermatology Online Journal, Experimental Dermatology (2), Experimental Lung Research, Future Cardiology, Glycobiology (2), Journal of Allergy and Clinical Immunology (6), Journal of Biomedical Sciences, Journal of Dermatological Science (16), Journal of Immunology (2), Lung Cancer, Nature Communications, PLoS One, Proceeding National Academy of Science USA, Respiratory Research, Trends in Endocrinology & Metabolism.
- 2014 Apoptosis, Cancer Immunology Research, Cellular Microbiology, Cellular Physiology and Biochemistry, Experimental Dermatology (2), Frontiers in Immunology, Glycobiology, Journal of Allergy and Clinical Immunology (13), Journal of Autoimmunity, Journal of Biomedical Science, Journal of Dermatological Science (11), Journal of Immunology (2), Journal of Molecular Medicine, Leukemia and Lymphoma, Neoplasia, Oncotarget (3), PLoS One, Veterinary Sciences.
- 2015 American Journal of Pathology, BMC Immunology, Carcinogenesis, Clinical Medicine Insights: Oncology, eLife, Experimental Biology and Medicine, Experimental Dermatology (3), Fish and Shellfish Immunology, Glycobiology, International Journal of Cosmetic Science, Journal of Allergy and Clinical

- Immunology (7), Journal of Biomedical Science, Journal of Dermatological Science (10), Journal of Immunology (3), Journal of Investigative Dermatology, Journal of Leukocyte Biology, Molecular and Cellular Biochemistry, Nature Communications, Oncotarget (2), Vascular Pharmacology.
- 2016 Current Medicinal Chemistry, Experimental Dermatology (3), Journal of Allergy and Clinical Immunology (5), Journal of Autoimmunity, Journal of Dermatological Science (12), Journal of Investigative Dermatology (2), Journal of Medicinal Food, Mediators of Inflammation, PLoS One, Proceeding National Academy Science USA, World Allergy Organization Journal.
- 2017 American Journal of Pathology, Cell Physiol and Biochem, Experimental Dermatology (3), Glycobiology (4), Journal of Allergy and Clinical Immunology (8), Journal of Allergy and Clinical Immunology In Practice (2), Journal of Autoimmunity, Journal of Dermatological Science (2), Journal of Immunology, Journal of Investigative Dermatology, Mediators of Inflammation, Nature Communications, Oncotarget, Proceeding National Academy Science USA, Scientific Reports (2).
- 2018 American Journal of Pathology (2), Archive Dermatology Research, British Journal of Dermatology, Cancer Research, Experimental Dermatology, Glycobiology, iScience, Journal of Allergy and Clinical Immunology (11), Journal of Biomedical Science, Journal of Immunology (2), Journal of Dermatological Science.
- 2019 Scientific Reports, Journal of Autoimmunity, Journal of Allergy and Clinical Immunology, Journal Medicinal Food, Nature Communications.

#### **Invited Lectures (1994-present listed)**

- 1994 Cornell University, Ithaca, NY  
Allergy and Immunology Conference. Scripps Clinic and Research Foundation, La Jolla, CA  
Cancer Affinity Group Seminar, The Scripps Research Institute, La Jolla, CA  
British Biochemical Society, University of Sussex, UK
- 1995 Sandoz, Hanover, NJ  
La Jolla Institute for Allergy and immunology, La Jolla, CA  
Dermatology Branch, National Cancer Institute, NIH, Bethesda, MD
- 1996 Department of Dermatology, University of Michigan, Ann Arbor, MI  
Tanabe Research Lab., San Diego, CA  
University of Missouri, Kansas City, MO  
National Yang-Ming University, Taiwan  
ASBMB/ASIP/AAI Joint Meeting, New Orleans, LA
- 1997 Immunology Affinity Group Seminar, The Scripps Research Institute, La Jolla, CA.  
The Medical Biology Institute, La Jolla, CA  
National Tsing-Hua University, School of Life Science, Taiwan
- 1998 San Diego Glycobiology Symposium, San Diego, CA  
International Symposium in Lectins, Ligands and Cancer, Chieti, Italy  
Institute of Endocrinology, University of Rome, Rome, Italy  
Department of Dermatology, U Texas Southwestern Medical Center, Dallas, TX  
Institute of Biomedical Sciences, Academia Sinica, Taiwan

- Advanced Course and Conference “From Basic to Applied Immunology”, Plenary lecture, Federation of Immunological Societies in Asia-Oceania, Hong Kong
- Ontogen Corporation, Carlsbad, CA
- UCSD School of Medicine, Division of Dermatology, Grand Rounds
- Chinese Academy of Medical Sciences, Cancer Institute, Beijing, China
- Medical Biology Forum Seminar on Galectins, Kyoto University, Japan
- Medinox, Inc. San Diego, CA
- 1999 Keystone Symposium on Cytokines, Lake Tahoe, CA
- San Diego Glycobiology Symposium
- American Academy of Allergy Asthma and Immunology, 55<sup>th</sup> Annual Meeting, Orlando, FL
- Experimental Biology '99 (Co-Chair, Block Symposium, Allergic Inflammation), Washington D.C., MD
- First International Conference on Galectins and Cancer (Co-Organizer), Chieti, Italy.
- National Health Research Institutes, Taiwan
- 2000 San Diego Glycobiology Symposium
- American Academy of Allergy Asthma and Immunology, 56<sup>th</sup> Annual Meeting, San Diego, CA
- German Society of Cell Biology, Symposium on Glycosciences, Karlsruhe, Germany
- Institute of Anatomy, Faculty of Medicine, Charles University, Prague, Czech Republic
- Institute of General and Experimental Pathology, University of Vienna, Vienna, Austria
- Kagawa Medical School, Kagawa, Japan
- 2001 San Diego Glycobiology Symposium
- American Academy of Allergy Asthma and Immunology, 57<sup>th</sup> Annual Meeting, New Orleans, LA
- University of California, Davis, CA
- National Institute of Allergy and Infectious Diseases, Asthma Research Centers Meeting, NIH, Bethesda, MD
- Society of Chinese Bioscientists in America, 9<sup>th</sup> International Symposium, Taipei, Taiwan
- 2002 American Academy of Allergy Asthma and Immunology, 58<sup>th</sup> Annual Meeting, New York, NY
- University of Sao Paulo, Brazil
- Brazilian Federation of Experimental Biology Societies, Salvador, Brazil (Plenary lecture and symposium speaker)
- University of California, San Francisco, Department of Dermatology, Grand Rounds
- 2003 6<sup>th</sup> Annual San Diego Glycobiology Symposium, San Diego, CA
- American Academy of Allergy Asthma and Immunology, 59<sup>th</sup> Annual Meeting, Denver, CO
- UC Davis Center for Healthy Aging Lecture Series, Sacramento, CA
- 2004 American Academy of Allergy Asthma and Immunology, 60<sup>th</sup> Annual Meeting, San Francisco, CA
- University of Vienna, Vienna, Austria

- Ludwig-Maximilians University Munich, Munich, Germany  
 21<sup>st</sup> International Lectin Symposium, Shonan Village Center, Japan  
 Research Center for Allergy and Immunology, Riken Institute, Yokohama, Japan  
 Genome Research Center, Academia Sinica, Taiwan  
 Chang-Gung University, Taiwan
- 2005 University of California, San Diego, Department of Dermatology, Grand Rounds  
 American Academy of Allergy Asthma and Immunology, 61<sup>st</sup> Annual Meeting, San Antonio, TX  
 Society of Investigative Dermatology, Annual Meeting, St Louis, MO  
 School of Medicine, National Taiwan University, Taipei, Taiwan  
 Annual Meeting of Society for Glycobiology, Boston, MA
- 2006 American Academy of Allergy Asthma and Immunology, 62<sup>st</sup> Annual Meeting, Miami, FL  
 American River College, Sacramento, CA  
 12<sup>th</sup> National Congress of Dermatology and Venereology, Hefei, Anhui, China  
 Zhejiang University, School of Medicine, Hangzhou, Zhejiang, China  
 Professor Lu Yau-Chin Memorial Lectureship at the 32<sup>nd</sup> Annual Meeting of the Taiwanese Dermatological Association, Taipei, Taiwan  
 School of Medicine, National Taiwan University, Taipei, Taiwan  
 School of Public Health, National Taiwan University, Taipei, Taiwan
- 2007 Texas A & M University, School of Animal Sciences, College Station, TX  
 Chinese American Medical Association of California, Sacramento  
 UC San Diego, School of Medicine, La Jolla, CA  
 International Symposium on Molecular Immunology of complex carbohydrates-III, Taipei, Taiwan  
 Kaohsiung Medical University, Kaohsiung, Taiwan  
 Institute of Pediatric Regenerative Medicine, Shriners Hospital, Sacramento, CA  
 Galectin Symposium, Annual Meeting of American Chemical Society, Boston, MA  
 Workshop” A Sweet challenge for the future: Glycomics of the immune response”, 13<sup>th</sup> International Congress in Immunology, Rio Brazil  
 Grand rounds seminar series, Department of Dermatology, UC Davis, School of Medicine  
 CME course “Principles and Practical Dermatology for the Primary Care Practitioner”
- 2008 Grand rounds presentation, UCLA Division of Dermatology, LA, CA  
 Molecular Medicine Seminar Series, PSTP Program, UC Davis, CA  
 Johns Hopkins School of Medicine, Immunology Council Series, Baltimore, MD  
 Allergy Symposium, San Diego, CA  
 Aichi Cancer Center, Nagoya, Japan  
 Cancer Therapeutics Program Meeting, UC Davis Cancer Center  
 Emerging Challenges in Microbiology and Immunology Interdisciplinary Research, UC Davis, CA  
 2008 Immunology Symposium, School of Dentistry, Chung Shan Medical University, Taiwan  
 Genomic Research Center, Academia Sinica, Taiwan  
 4<sup>th</sup> Congress of the Federation of Immunology Societies of Asia-Oceania

- (FIMSA 2008), Taiwan  
 Department of Microbiology and Immunology, University of Nevada, Reno  
 Grand rounds seminar series, Department of Family Practice, UC Davis, School of  
 Medicine  
 CME course “Principles and Practical Dermatology for the Primary Care  
 Practitioner”
- 2009 Department of Dermatology, University of Southern California, Los Angeles, CA  
 Department of Dermatology, National Taiwan University, College of Medicine (four  
 lectures)  
 Kaohsiung Medical University, Kaohsiung, Taiwan  
 Chang Gung Memorial Hospital, Kaohsiung, Taiwan  
 Chung Shan Medical University, Taichung, Taiwan  
 Chang Gung Memorial Hospital, Linko, Taiwan  
 Graduate Institute of Immunology, National Taiwan University, College of Medicine,  
 Taipei, Taiwan  
 Department of Life Sciences, Chang Gung University, Linko, Taiwan  
 Institute of Biomedical Sciences, Academia Sinica, Taiwan  
 7<sup>th</sup> National Congress on Trauma Mainland and Taiwan Forum in Trauma 2009,  
 Chongqing, China  
 Department of Dermatology, Third Military Medical University, Chongqing, China  
 CME course “Principles and Practical Dermatology for the Primary Care  
 Practitioner”
- 2010 Department of Dermatology, Harbor-UCLA, Los Angeles, CA  
 San Diego Glycobiology Symposium, San Diego, CA  
 Cincinnati Dermatology Society, Cincinnati, OH  
 University of Cincinnati, Department of Dermatology grand rounds, Cincinnati, OH  
 Workshop on Recognition of host and pathogen glycans by mammalian GBPs and  
 Mammalian GBPs in immune cell communication, Bethesda, MD  
 Molecular Medicine Program, Institute of Biomedical Sciences and National Yang-  
 Ming University  
 Global Chinese Dermatologist Summit, Suzhou, China  
 Asian Consortium of Glycobiology and Glycotechnology, Taiwan  
 International Conference of Inflammation, Cardiometabolic Diseases and Cancer  
 National Yang-Ming University, Taiwan  
 Formosa Medical Association Annual Meeting, Taiwan  
 Taiwanese Dermatological Association Annual Meeting, Taiwan  
 China Medical University, Taichung, Taiwan
- 2011 Kaohsiung Medical University, Kaohsiung, Taiwan  
 Keystone Symposium: New Frontiers at the Interface of Immunity and Glycobiology,  
 Lake Louise, Alberta, Canada  
 Agricultural Biotechnology Research Center, Academia Sinica, Taiwan  
 Chang Gung Memorial Hospital, Linko, Taiwan  
 National Defense Medical University, Taipei  
 Taipei Medical University, Taipei  
 Veterans Administration Hospital, Taichung, Taiwan  
 Chung-Shan University, Taiwan

- Central Taiwan University of Science and Technology, College of Health Science,  
Taichung, Taiwan
- Taiwan-Swiss Joint Symposium, Chiau Shi, Taiwan
- Frontiers in Biomedical Sciences, Academia Sinica-Kaohsiung Medical University  
Joint Symposium, Kaohsiung, Taiwan
- 2011 Symposium on Frontiers of Biomedical Sciences, Chinese Medical University,  
Taiwan
- The Second Cross Strait Immunology Conference, Taiwan
- International Symposium on Inflammation and Disease (on Cardiovascular Disease,  
Neurological Disease, and Cancer), Institute of Biomedical Sciences, Academia  
Sinica, Taiwan
- Japanese Society of Allergology annual meeting, Tokyo, Japan
- 2012 Twentieth Symposium on Recent Advances in Cellular and Molecular Biology, The  
Chinese Society of Cell and Molecular Biology
- 15<sup>th</sup> San Diego Glycobiology Symposium, San Diego, CA
- Industrial Technology Research Institute, Taiwan
- 18<sup>th</sup> Users' Meeting and Workshops o X-ray Bioimaging and Powder Diffraction  
Galectins and Galectin Therapeutics, Boston
- Third Cross Strait Immunology Conference, Hefei, An-Hui, China
- Life Sciences Across the Strait Conference, Beijing, China
- Rheumatology Association, R.O.C Annual Meeting, Tainan, Taiwan
- 2013 National Taiwan University College of Medicine, Research Forum
- Institute of Physics, Academia Sinica, Taiwan
- Riken-Academia Sinica Joint Conference on Chemical Biology, Taiwan
- Research Center for Applied Science, Academia Sinica, Taiwan
- Tzu-chi University, College of Medicine, Taiwan
- Taipei Medical University, Taiwan
- Cross-strait Immune Cell Biology Conference, Xingjiang, China
- Annual meeting of Taiwan Genomic Medicine and Biomarker Society, Taiwan
- 4<sup>th</sup> Drug Development Conference and Animal Pharmacology Operation Workshop,  
Taiwan
- Institute of Clinical Medicine, Cheng Kung University, School of Medicine, Taiwan
- Academia Sinica – UC Davis Joint Conference on Chemical Biology, Davis, CA
- Asia Pacific Congress on Allergy, Asthma and Clinical Immunology (APCAACI)  
(Plenary Lecture), Taiwan
- 2014 Taiwanese Society of Investigative Dermatology, Winter Retreat
- Taiwan-Japan Symposium on Nanomedicine, Nagoya, Japan
- Department of Dermatology, Kyoto University, Kyoto, Japan
- Chinese Immunology Society, Winter Conference, Taiwan
- National Taiwan University, College of Medicine, Research Seminar, Taiwan
- San Diego Glycobiology Symposium, San Diego, CA
- Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan
- National Health Research Institutes, Chu-Nan, Taiwan
- 4<sup>th</sup> Cross-Strait Immunology Conference, Taipei, Taiwan
- From Bench to Bedside: Understanding Translational Research, Development Center  
for Biotechnology

The Future Perspective of Translational Medicine and Biotechnology, National  
 Taiwan University, Taiwan  
 Symposium for the Newly Elected Academicians, Academia Sinica, Taiwan  
 12th Taiwan International Symposium on Statistical Physics and Complex  
 Systems  
 Keynote lecture, Retreat, Molecular Medicine Graduate Program, National Yang-  
 Ming University-Institute of Biomedical Sciences, Academia Sinica  
 5<sup>th</sup> Drug Development Conference and Animal Pharmacology Operation  
 Workshop, Taiwan  
 National Cheng Kung University, School of Medicine, Tainan, Taiwan  
 Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan  
 Kaohsiung Medical University, Center for infectious Disease and Cancer Research,  
 Kaohsiung, Taiwan  
 National Defense Medical Center, Taipei, Taiwan  
 National Taiwan University, College of Life Science, Taipei, Taiwan  
 Glycoimmunology Symposium, Academia Sinica, Taiwan  
 China Medical University, Tai-Chung, Taiwan  
 2015 6<sup>th</sup> Taiwan-Japan Symposium on Nanomedicine, Academia Sinica, Taiwan  
 17<sup>th</sup> International Conference on Emerging Infectious Diseases, Academia Sinica,  
 Taiwan  
 Tokyo University-National Taiwan University Frontier Bioscience Joint Symposium,  
 Taiwan  
 SNUCRI Cancer Symposium: Innovative Approaches to Explore Novel Druggable  
 Targets, Hwasun-gun, Jeollanam-do, Korea  
 National Taiwan University Veterinary Hospital, Taiwan  
 2015 Taiwanese Allergy Asthma and Clinical Immunology Society Annual Meeting,  
 Taiwan  
 Chung-Shan Medical University, College of Life Sciences, Taichung, Taiwan  
 2015 Taiwan-US Biotech Business Forum, Philadelphia, PA  
 Merck Research Laboratories, Boston, MA  
 Department of Chemistry, University of California-Davis, Davis, CA  
 EMBO Workshop on Cell Biology of Animal Lectins, Weizmann Institute, Israel  
 University of Michigan Medical School-Taiwan Bilateral Meeting, Academia Sinica,  
 Taiwan  
 15<sup>th</sup> SCBA International Symposium of the Society of Chinese Bioscientists in  
 America, Academia Sinica, Taiwan  
 Glyco<sup>23</sup>: 23<sup>rd</sup> International Symposium on Glycoconjugates, Split, Croatia  
 Tzu Chi University. Frontier of Medical Science: From Translational Medicine to  
 Epidemiology, Hualien, Taiwan  
 Bilateral Workshop, Academia Sinica-Institute for Glycomics, Griffith University,  
 Australia  
 2nd International Conference of Traditional and Complementary Medicine on  
 Health, Taiwan  
 Mini-Symposium on Soft X-ray Tomography in Biomedical Sciences, Academia  
 Sinica, Taiwan  
 Tzu Chi University, Chair Professor Lecture

- 2016 Tzu Chi University, Chair Professor Lecture  
 Taiwan-Japan Nanomedicine Symposium, Kyoto, Japan  
 Genentech, San Francisco  
 Professor Tung-Bi Lo 90<sup>th</sup> Birthday Symposium, Academia Sinica, Taiwan.  
 President Shih-Liang Chien Lectureship, Academia Sinica, Taiwan  
 Academic Research Organization, Tokyo, Japan  
 AS IBMS-RIKEN IMS Joint Workshop, RIKEN, Yokohama, Japan  
 26<sup>th</sup> Annual Meeting of the Korean Society for Investigative Dermatology, Seoul  
 Korea  
 Taiwan Rheumatology Association, Annual Spring Meeting, Taiwan  
 National Central University, Department of Biomedical Sciences, Distinguished  
 Lecture Series, Chung-Li, Taiwan  
 Formosa Medical Association Spring Meeting, Taiwan  
 2016 IMMUNOLOGY (AAI annual meeting) Chinese Society of Immunology,  
 Taiwan (CSIT) Symposium  
 9<sup>th</sup> International Conference and Commemorate Lecture of Pin-Wen Lin of  
 Pancreatic Cancer, National Cheng-Kung University, Tainan, Taiwan  
 International Conference on Biomedical Sciences, China Medical University,  
 Taichung, Taiwan  
 7<sup>th</sup> Annual Institutes of Clinical Medicine Joint Research and Teaching  
 Workshop  
 TienTe Lee Award Laureate Club  
 International Advanced Immunology Summer School, China Medical University,  
 Taichung, Taiwan  
 Asia ARO Network Workshop, Osaka, Japan  
 Post-HUPO Glyco mini-symposium, Academia Sinica, Taiwan  
 第十二屆海峽兩岸三地植物分子生物學與生物技術學術研討會  
 EMBO Workshop, Transducing Glycan Information into Function: Lessons from and  
 for Galectins, Nice France.
- 2017 Tzu Chi University, Chair Professor Lecture  
 Wang-Fang Hospital, Taipei, Taiwan  
 I-Shou University, Kaohsiung, Taiwan  
 Mackay Medical College, New Taipei, Taiwan  
 Tri-Service General Hospital, Taipei, Taiwan  
 Changhua Christian Hospital, Changhua, Taiwan  
 Taichung Armed Forces General Hospital, Tai-Chung, Taiwan  
 12<sup>th</sup> Jenner Glycobiology and Medicine Symposium, Dubrovnik, Croatia  
 23<sup>rd</sup> Annual Meeting of Chinese Society of Dermatology, Chongqing, China  
 1<sup>st</sup> Taiwan-Germany Bilateral Symposium on Cancer Biology, Academia Sinica,  
 Taiwan  
 Mini-symposium on Autophagy, Academia Sinica, Taipei, Taiwan  
 The Phi Tau Phi Scholastic Honor Society (Distinguished Scholar Award), Tainan,  
 Taiwan.  
 Academia Sinica-U Michigan Medical School Bilateral Symposium, Ann Arbor,  
 Michigan

- 2017 Grand Future of Biotechnology Forum—the Grand Future of Biomedical Industry  
Tzu Chi University, Chair Professor Lecture  
2017 Bio Tech Talent Symposium, Tainan, Taiwan
- 2018 Academia Sinica-UC Davis Bilateral Joint Symposium (Genome, Glycome, and Microbiome of Plants and Animals)  
The 2<sup>nd</sup> Asian Microbiome Conference  
Academician Cheng-Wen Wu Lecture, the 33<sup>rd</sup> Biomedical Societies Joint Annual Meeting  
Kyushu University Hospital, Kyushu, Japan  
Current Biomedical Sciences Lectureship, China Medical University  
6<sup>th</sup> Biologics World Taiwan 2018  
The 11<sup>th</sup> International Symposium on Glycosyltransferases, Qingdao, China  
國防醫學院生命科學研究所 第 18 屆研究生論文研討會  
2018 台灣過敏氣喘暨臨床免疫醫學會  
Kaohsiung Medical University, Center for infectious Disease and Cancer Research, Kaohsiung, Taiwan  
2018 NCKU International Symposium on Immunity in Infectious Diseases/NTU Immunology Symposium/Taiwan-Japan Joint Symposium on Cell Signaling and Gene Regulation  
NSRRC annual Users' Meeting & Workshops  
China Medical University Molecular Medicine Forum  
Kaohsiung Chang Gung Memorial Hospital  
Tzu Chi University, College of Medicine
- 2019 Taipei Medical University, Moon-Shan Biomedical Research Forum  
The ICAM-NCTS Annual Meeting and Frontiers of Condensed Matter Workshop  
Keystone Symposium on Innate Immune Receptors: Role in Immunology and Beyond (co-organizer), Academia Sinica, Taiwan

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## Patents

Patent Title	Inventor	Patent no.	Issue Date	Assignee
DNA encoding IgE-binding protein with repetitive sequence and homology with IgG receptor	Fu-Tong Liu	US 5,260,434	11/9/93	The Scripps Research Institute; Lidak Pharmaceuticals
Methods for the separation of biological materials	Lih-Bin Shih; Sow-Hsin Chen; Fu-Tong Liu; Khushroo Gandhi	US 5,888,365	3/30/99	Applied Hydrogel Technology
Galectin-11 polypeptides	Jian Ni; Fu-Tong Liu; Reiner L. Gentz; Craig A. Rosen	US 6,605,699	8/12/03	Human Genome Sciences, Inc.; La Jolla Institute for Allergy and Immunology
Monocyte chemoattractant activity of galectin-3	Fu-Tong Liu; Hideki Sano; Daniel K. Hsu	US 7,186,681	3/6/07	La Jolla Institute for Allergy and Immunology
Galectin 11	Jian Ni; Fu-Tong Liu; Reiner L. Gentz; Craig A. Rosen	US 7,041,803	5/9/06	Human Genome Sciences, Inc.
Reducing galectin-12 activity to influence the cell	Fu-Tong Liu; Wei-Chen Hsieh; Ri-Yao Yang	US 9,121,021	9/1/15	Academia Sinica
Small interfering RNA and pharmaceutical composition and method for inhibiting galectin-12 expression and/or enhancing lipolysis containing the same	Yen-Ju Lin; Jui-Wen Huang; Fu-Tong Liu; Huan-Yuan Chen; Wei-Chen Hsieh	US 9,777,273	10/3/17	Industrial Technology Research Institute; Academia Sinica