

## CURRICULUM VITAE

Shin-Ru Shih (施信如)

Research website: <http://rcevi.cgu.edu.tw/>

### DEMOGRAPHIC INFORMATION

#### **Current Appointments:**

**Director/Professor**, Research Center for Emerging Viral Infections, Chang Gung University

**Faculty** in the Department of Medical Biotechnology and Laboratory Science & Graduate Program of Biomedical Sciences, Chang Gung University

**Medical Director**, Clinical Virology Laboratory, Department of Clinical Pathology, Chang Gung Memorial Hospital

#### **Personal Data:**

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#### **Education:**

1991-1995 Ph.D. Graduate Program in Molecular Biology and Biochemistry,  
Rutgers University, the State University of New Jersey  
New Brunswick, New Jersey, U.S.A.

1989-1991 M.S. Department of Biochemistry,  
National Taiwan University  
Taipei, Taiwan, R.O.C.

1984-1988 B.S. Department of Medical Technology  
National Taiwan University

#### **Medical Technologist Licensure**

Taiwan

#### **Research and Professional Positions/Appointments:**

1995-1996 Postdoctoral Fellow Department of Microbiology  
Center for Advanced Biotechnology and Medicine of  
New Jersey,

		New Brunswick, NJ, USA
1996-1997	Lecturer	School of Medical Technology Chang Gung University (CGU), Tao-Yuan, Taiwan
1997-2004	Associate Professor	School of Medical Technology & Institute of Basic Medicine, CGU
2003-2009	Chair	Department of Medical Biotechnology and Laboratory Science, CGU
2004-2012	Adjunct Investigator	Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes
2012-2014	Chair	Study section of Microbiology and Medical Biotechnology, Ministry of Science and Technology
2004-present	Professor	Department of Medical Biotechnology and Laboratory Science/Graduate Program of Biomedical Science, CGU
1999-present	Medical Director	Clinical Virology Laboratory Chang Gung Memorial Hospital
2003-present	Member	Committee of Preparedness for Influenza Pandemic, Department of Health (gov.), Taiwan
2006-present	Chair	Clinical Virology, Professional & Technical Examinations (National) for Medical Technologists, Ministry of Examination, Taiwan
2009-present	Director	Research Center for Emerging Viral Infections

### **Teaching Experience:**

*Certificate of Competence – competent in teaching courses of expertise in English*

### **Courses:**

Clinical Virology

Advanced Virology

Molecular Biology

Advanced Biotechnology

Scientific Methods

### **Supervisory experience**

#### **Graduated Ph.D. students: 20 persons**

Dr. Shih-Cheng Chang (Research Director, Department of Clinical Pathology, CGMH); Dr. Jing-Yi Lin (Assistant Professor, Department of Laboratory Science and Medical Biotechnology, National Taiwan University); Dr. Tzu-Chun-Chen (Research Associate,

Stanford University); Dr. Chiayn Chiang (Project Leader, Taigen Biotech); Dr. Kuo-Feng Weng (Research Associate, Stanford University), Dr. Chi-Jene Chen (Assistant Professor, China Medical University); Dr. Sherry Hsieh (Researcher, Medigen Vaccinology Corp.); Dr. Peng-Nien Huang (Assistant Researcher/Professional Manager for Industrial Cooperation, CGU); Dr. Lilien Chen (FDA), Dr. CH Huang (Assistant Professor, National Defense Medical University); Dr. Chee-Keng Mok (Researcher at National University of Singapore); Dr. Yen-Chin Lui (postdoc, University of Hong Kong; postdoc, RCEVI); Arul Balaji Velu (Chief Scientific Officer, Hive Serene PVT.LTD); Dr. Yi-Hsiang Chen, (Manager, Far East Bio-Tec Co. Ltd.) Dr. Yu-An Kung (postdoc, RCEVI); Dr. Chuan-Tien Hung (postdoc, Icahn School of Medicine at Mount Sinai); Dr. Cheng-Kai-Chang (postdoc, National Taiwan University). ; Dr. Po-Tien Hsieh (Medigen Vaccinology Corp.); Dr. Chung-Guei Huang (Director, Department of Clinical Pathology, CGMH); Dr. Sheng-Yu Huang (postdoc, RCEVI)

**Trainee in postdoctoral program:**

Dr. Mei-Feng Chen (Assistant Researcher, CGMH); Dr. Shu-Ming Kuo (Associate Professor, Pasteur Institute, Shanghai); Dr. Kuo-Ming Lee (Assistant Researcher, RCEVI, CGU); Dr. Yen-Ron Fu; Dr. Hsin-Ping Chiu; Dr. Ami Shih;

**Graduated Master students: 35 persons**

Current postdoctoral fellows: 4 persons

Current Ph.D students: 5 persons

Current Master students: 3 persons

**Students' Awards:**

Kuo-Feng Weng: Outstanding Master Thesis Award (CGU), 2004

Chiayn Chiang: Outstanding Ph.D. Thesis Award (NSC), 2008

Peng-Nien Huang, Outstanding Master Thesis Award (the first place, CGU), 2008

Chia-Ron Tsai, Creative Research Award for student (NSC, 2011)

Chee-Keng Mok, Outstanding Ph. D. Thesis Award (CGU), 2011

Li-Ting Lin, Outstanding Master Thesis Award (the first place, CGU), 2011

Peng-Nien Huang, Outstanding Ph.D. Thesis Award (CGU), 2112

Shiou-Wen Chen, Outstanding Master Thesis Award (CGU), 2012

Chun-Tien Hung, Outstanding Thesis Award (CGU), 2013

Chien-Shun Lee, Outstanding Master Thesis Award (CGU), 2013

Po-Ting Hsieh, Oral Presentation Award (The second place, The 12<sup>th</sup> Chinese Biomedical Science Symposium, Shanghai), 2013

Hsin-Ju Wang, Outstanding Master Thesis Award (the first place, CGU), 2014

Nien-Shin Shih, Presentation Award, (Taiwanese Association of Medical Technology), 2015  
Shen-Yu Huang, Presentation Award (Taiwanese Society for Virology Annual Meeting),  
2017

Chuan-Tien Hung, Outstanding Paper Award (Taiwanese Society for Microbiology), 2017.

Sheng-Yu Huang, Outstanding Research Award for Ph.D. students (the second place, CGU,  
2018)

Yu-An Kung, Outstanding Paper Award (Taiwanese Society for Microbiology), 2018.

Jeff KT Liu, Outstanding Master Thesis Award (the second place, CGU), 2019.

Rei-Ping Wang, Outstanding Master Thesis Award (CGU), 2019

### **Interviews by TV and press**

Science 101 (Da-Ai TV, Taiwan)

Influenza viruses (National TV, Taiwan)

Cross reactivity of SARS and HTLV (Bloomberg News)

Enteroviruses (National TV, Taiwan)

Human infection by avian influenza virus (Vardfokus -[www.vardfokus.se](http://www.vardfokus.se), Sweden)

### **Grant Supports (currently):**

Source: Ministry of Science and Technology, Taiwan  
Title: To investigate the role of species-associated splicing  
regulators in influenza virus replication  
Role: Principle Investigator  
Period: 8/1/2018- 7/31/2021

Source: Ministry of Education & Ministry of Science and Technology  
Title: Center for Excellence (Research Center for Emerging Viral  
Infections)  
Role: Principle Investigator  
Period: 1/1/2018- 12/31/2022

Source: National Health Research Institutes, Taiwan  
Title: Orthogonal integration of virus-host interactions to develop  
broad-spectrum antivirals  
Role: Principle Investigator  
Period: 1/1/2019- 12/31/2021

### **Editor of Journal**

1997-2006	Assistant Editor, Journal of Biomedicine and Laboratory Science (Taipei)
2003-2006	Executive Guest Editor, Current Pharmaceutical Design (Netherlands)
2005-present	Member of the Editorial Board, Biomedical Journal (Taiwan)
2012-2014	Section Editor (positive stranded RNA viruses), Virology Journal (UK)
2009-present	Member of the Editorial Board, Microbes and Infection (Paris, France)
2018-present	Associate Editor, PLoS Pathogens (USA)

### **Expert Reviewer**

PLoS Pathogens, Journal of Virology; Virology; Journal Medical Virology; Journal of Virological Methods; Journal of General Virology; Archives of Virology  
FEBS Letter; Nucleic Acids Research; Cellular Microbiology; Journal of Biomedical Sciences  
Lancet, Emerging Infectious Diseases; Journal of Infectious Diseases; International Journal of Infectious Diseases; Journal of Clinical Microbiology  
Antiviral Research; Microbial Pathogenesis; Emerging Microbes and Infections  
Nature Communications, PNAS ; Trends in Microbiology; mBio; Science, Nature

### **Societies and Memberships:**

American Society for Microbiology  
American Society of Virology  
International Society for Antiviral Research  
Society of Medical Technologists in Taiwan  
Society of Microbiology in Taiwan

### **International Speeches (invited):**

1. Sequence Analysis of the Entire Genome of Enterovirus 71 Isolated from the 1998 Outbreak in Taiwan. In 3rd International Symposium on Viral and Chlamydial Infections. 1999.
2. Molecular virology study of enterovirus 71 isolated in an epidemic in Chinese Taipei, 1998. In APEC Enteroviral Watch Program for Children Symposium – Enterovirus 71 Epidemic in Asia Pacific Area. 2000.
3. The 3C protease activity of enterovirus 71 induced human neural cell apoptosis. In the 9th SCBA International Symposium. 2001.

4. Development of anti-EV71 drugs. The Symposium of Enterovirus 71 in Taiwan, Past and Future. Taoyuan, Taiwan. 2003.
5. Pyridyl Imidazolidinones: a novel capsid-binder against enterovirus 71. Bio/Pharm 2003 – Opportunities across the Asia Pacific. King of Prussia, Pennsylvania, USA. 2003.
6. Epidemiology of influenza in Taiwan. International Conference on Influenza and the Resurgence of Severe Acute Respiratory Syndrome (SARS). Taipei, Taiwan. 2003.
7. Surveillance and genetic analysis of human influenza viruses in Taiwan. In APEC Conference on Avian Influenza, Taichung, 2005.
8. Sequence variations of influenza A viruses. First Taiwan-Netherlands Workshop on Pathogenomics. Amsterdam, Netherlands, 2006.
9. Plasticity of influenza viral genome. Pasteur/NHRI/CDC symposium on re-emerging virus infections. Tainan. 2006;
10. Plasticity of influenza viral genome. Pasteur-Asia Virology Course, Hong Kong, 2007. .
11. Consensus and diversity of influenza viral RNP genes and their functions. Orchid Meeting, Pasteur Institute, Paris, France, 2008.
12. Research on emerging RNA Viruses. Pasteur Institute, Shanghai, China, 2008.
13. Molecular diagnosis of influenza viruses. The 15<sup>th</sup> Chinese Laboratory Medicine Conference, Hong Kong, 2009.
14. **Convener of the session “Positive Strand RNA Viruses and Host Proteins Interactions”.** Annual Meeting of “American Society for Virology”, Vancouver, Canada, 2009
15. Genomic signatures of pandemic (H1N1) 2009 influenza virus. Workshop Taiwan-Japan “Host-Pathogen Interaction”. Japan Science and Technology Institute. Kyoto, Japan, 2009.
16. Dissecting viral host interactions by an emerging virus - enterovirus 71. 2011 International Symposium on Infectious Diseases, Tainan, 2011.
17. **Convener of the session “Picornaviruses”.** Annual Meeting of “American Society for Virology”, Madison, Wisconsin, USA, 2012.
18. Molecular targets for anti-enterovirus 71 drug development. Keynote speaker, The 16<sup>th</sup> Annual Meeting of Society for Neurovirology, Japan, 2012.
19. Viral host interplay in enterovirus 71 infection. Keynote speaker, Frontiers in Biomedical Research, the University of Hong Kong, HK, 2012.
20. Viral host interaction in EV71 – infected cells. The 12<sup>th</sup> Chinese Biomedical Science Symposium, Shanghai, 2013.
21. Plasticity of influenza virus. The 31<sup>st</sup> World Congress Biomedical Laboratory Science, Taipei.2015
22. Host factors involved in enterovirus 71 infection, Keystone Symposia (positive strand RNA viruses), Texas, USA, 2016
23. Novel machinery for regulation of enterovirus viral translation. HFMD international conference, Singapore, 2016.

24. New emerging enterovirus infections, Europic, Geneva, Switzerland, 2016. (Keynote speaker)
25. Epidemiology and viral host interactions, enterovirus workshop, NIAID, NIH, USA, 2017.
26. Enterovirus A-71: from basic to clinical research, Seminar in CIID, University of Washington, Seattle, USA.
27. Genome translation and replication of EV-A71, Europic, Netherlands, 2018 (Keynote speaker)

### **Scientific Function**

Scientific committee for APCMV-2015, Board in Taiwanese Society of Virology, Biosecurity Officer for CGMH BSL3 Laboratory  
President, Taiwanese Society for Virology, 2019 – 2021.

### **Awards**

1. *The Best Poster Presentation Award*. The 3rd Chinese Laboratory Medicine Conference, Hong Kong. 1997.
2. *Outstanding Research Award*. Chang Gung University, Taiwan. 2002.
3. *The National Medal for Outstanding Young People*, (93年中華民國青年獎章), Taiwan, 2004.
4. *Outstanding Teaching Award*. Chang Gung University, Taiwan. 2011.
5. *Most Valuable Article Award*, Journal of Formosan Medical Association, (臺灣醫學會雜誌年度最有價值論文獎) Taiwan, 2011.
6. 國科會特殊優秀人才獎勵 (2010-2014); 教育部優良教授獎勵(2011-2104).
7. *Outstanding Research Award*. Chang Gung University, Taiwan. 2012.
8. *Outstanding Research Award*. National Science Council (Ministry of Science and Technology), (101 國科會傑出研究獎) Taiwan. 2013.
9. **Research Grant Award, Human Frontier Science Program (HFSP)**. International, 2015-2018.
10. *Outstanding Award for Industrial Cooperation*, Chang Gung University. (技合獎) 2016.

11. *Wang Ming-Ning Award, from Wang Ming-Ning Memorial Foundation.* 『第 26 屆王民寧獎』  
『學術研究成果對醫藥科技發展、國民健康和國家社會傑出貢獻獎』 【基礎醫學類】得獎人,  
2016.
12. *Outstanding Research Award.* Ministry of Science and Technology, (105 科技部傑出研究獎)  
Taiwan. 2017.
13. *Futuristic Breakthrough Technology Award (Inventor),* 2018-Ministry of Science and  
Technology, Taiwan, 2018