

## **CURRICULUM VITAE**

Pei-Yong Shi, PhD  
(March 8, 2021)

### **Personal Data**

Current address: Department of Biochemistry & Molecular Biology, University of Texas Medical Branch

E-mail: peshi@utmb.edu

Citizenship: USA

### **Education**

Postdoctoral training, 1996-1998  
Department of Molecular Biophysics and Biochemistry  
Yale University School of Medicine  
New Haven, USA

Ph.D. Molecular Virology and Biochemistry, 1995  
Department of Biology  
Georgia State University  
Atlanta, USA

B.S. Biology, 1989  
Department of Biology  
Nanjing Normal University, China

### **Positions and Employment**

October 15, 2015 – Present

**John Sealy Distinguished Chair in Innovations in Molecular Biology** (September 1, 2020 – present)

**I.H. Kempner Professor of Human Genetics** (October 15, 2015 – present)

**Vice Chair for Innovation and Commercialization** (April 1, 2016 – Present)

Department of Biochemistry & Molecular Biology, University of Texas Medical Branch, Galveston, Texas, USA

Subject: Virology and antiviral/vaccine development

November 1, 2010 – September 15, 2015

**Executive Director** - Disease Biology, Novartis Institute for Tropical Diseases, Singapore

Subject: Biology research and therapeutics development for dengue, malaria, and other tropical diseases

August 13, 2008 – October 31, 2010

Senior Unit Head, Dengue Unit, Novartis Institute for Tropical Diseases, Singapore

Subject: Dengue drug discovery and flavivirus research

October 15, 2008 – Present

Adjunct Full Professor, Duke-National University of Singapore, Graduate Medical School, Singapore  
Subject: Emerging Infectious Diseases

September 2007 – Present  
Honorary Professor, the Wuhan Institute of Virology, Chinese Academy of Sciences, China  
Subject: Virology, vaccine, and drug discovery

July 24, 2000 – August 13, 2008  
Research Scientist [tenured permanent position; May 27, 2008 – August 13, 2008, Grade 35 (equivalent to Full Professor); September 1, 2005 – May 26, 2008, Grade 31 (equivalent to Associate Professor); July 24, 2000 - August 31, 2005, Grade 27 (equivalent to Assistant Professor)], Director of Flavivirus Replication and antiviral Program, Laboratory of Virology, Division of Infectious Diseases, Wadsworth Center, New York State Department of Health, Albany, New York, USA  
Subject: Flavivirus replication, packaging, diagnosis, and antiviral therapy.

April 1, 1998 - July 23, 2000  
Principal Investigator, Department of Infectious Diseases, Bristol-Myers Squibb Pharmaceutical Research Institute, Wallingford, Connecticut, USA  
Subject: Anti-HIV and Hepatitis C virus drug discovery.

March 15, 1996 - March 30, 1998  
Postdoctoral associate, Department of Molecular Biophysics and Biochemistry, Yale University School of Medicine, New Haven, Connecticut, USA  
Subject: RNA-protein recognition, enzymology, and molecular evolution.

January 1, 1996 - March 14, 1996.  
Postdoctoral associate, Departments of Biology and Chemistry, Georgia State University, Atlanta, Georgia, USA  
Subject: RNA folding - a pseudoknot structure formed by the 3' terminal sequence of flavivirus genomic RNA.

January 1992 - December 1995  
Ph.D. program in molecular virology, Department of Biology, Georgia State University.  
Subject: Host protein binding to stem-loop structures formed by the terminal sequence of flavivirus RNA.

### **Professional Awards and Honors**

- **Fellow, American Academy of Microbiology, 2018**
- **Highly Cited Researcher in the field of Cross-Field, top 0.1% most cited researcher in 2019, 2020**
- National Collegiate Natural Sciences Awards of 1994, USA.
- Excellent Graduate Student Travel Award, 1996, the 4th International Positive Strand RNA Virus Symposium, Utrecht, the Netherlands.
- President Award, 2000, Bristol-Myers Squibb Pharmaceutical Research Institute.
- Pangborn Award, 2007, Wadsworth Center

- Medical Virology Club Travel Award, American Society for Virology 21st Annual Meeting, Lexington, KY, July 20-24, 2002.
- Plenary Speaker: West Nile virus: diagnosis and replication. American Society of Veterinary Laboratory Diagnosticians Annual Conference, San Diego, October 11, 2003.
- Keynote Lecture: Flavivirus drug discovery. The 6th Annual Symposium on Antiviral Drug Resistance. Chantilly, Virginia, November 13-16, 2005.
- Plenary Speaker: Identifying inhibitors of flaviviruses. The 7<sup>th</sup> Asia-Pacific Congress of Medical Virology. New Delhi, India, November 13-15, 2006.
- Plenary Speaker: Structure and function of flavivirus methyltransferase. The 8th International Symposium on Positive Strand RNA Viruses. Washington DC, May 26-30, 2007.
- Plenary Speaker: Flavivirus methyltransferase: a novel antiviral target. The 4th Annual Meeting for Northeast Regional Center for Biodefense and Emerging Infectious Disease Research. West Point, New York, October 7-9, 2007.
- Wadsworth Center “Pangborn Award”, 2007.
- Chairman of Organizing Committee, the 1<sup>st</sup> Novartis Institute for Tropical Diseases Dengue Symposium, Manila, Philippines, August 31 – September 4, 2009.
- Organizing Committee Member, the Duke-NUS Emerging Infectious Diseases Inauguration Symposium, the 4<sup>th</sup> Asian Dengue Research Network Meeting, and the Disease Modeling Meeting, Singapore, December 8–11, 2009.
- Plenary Speaker: Flavivirus antiviral development. The 9th International Symposium on Positive Strand RNA Viruses. Atlanta, Georgia, May 17-21, 2010.
- Plenary Speaker: Flavivirus antiviral development. NIAID/NIH RCE Workshop on Dengue Virus Infection & Immunity. Portland, Oregon, August 24-25, 2010.
- Plenary Speaker: Flavivirus replication and antiviral development. Cold Spring Harbor Conference: Emerging Infectious Diseases. Suzhou, China, October 18-22, 2010.
- Plenary Speaker, NIH/CDC workshop on a re-emerging challenge in the Americas: Opportunities for dengue research collaboration. San Juan, Puerto Rico, USA. February 15-18, 2011.
- Plenary Speaker: The 19th Federation Meeting of Korean Basic Medical Scientists, Seoul, Korea, May 13-14, 2011.
- Chairman, Symposium on Flaviviruses, the XV International Congress of Virology, Sapporo, Japan, September 11-16, 2011.
- Chairman of Organizing Committee, the 2<sup>nd</sup> Novartis Institute for Tropical Diseases Dengue Symposium, Sao Paulo, Brazil, September 16-20, 2012
- Chairman of Organizing Committee and Plenary Speaker: Viral RNA methylation for antiviral and vaccine development, the 5<sup>th</sup> Symposium on Emerging Viral Diseases, Wuhan, China, October 24-27, 2012
- Plenary Speaker, Dengue virus drug discovery, the 2<sup>nd</sup> Antivirals Congress, Cambridge, Massachusetts, November 11-13, 2012.
- Plenary Speaker: Antiviral and vaccine for dengue, Singapore International Conference on Dengue and Emerging Infections, Singapore, November 21-13, 2012
- Plenary Speaker: Flavivirus RNA methylation for vaccine development, Keystone Symposium on Positive Strand RNA Viruses, Boston, Massachusetts, April 28 – May 3, 2013
- Plenary Speaker: Targeting viral RNA methylation for antiviral and vaccine development, Gordon Research Conference on Viruses and Cells, Lucca (Barga), Italy, May 5 – 10, 2013

- Keynote Speaker: Drug discovery at NITD. European SILVER Progress Reporting Meeting, Rotterdam, Netherlands, June 12-14, 2013
- Plenary Speaker: Dengue drug discovery. The First International Symposium on Human Vector-borne Diseases, Hawaii, December 12-13, 2013
- Chairman of Organizing Committee and Plenary Speaker: A lesson learned from the clinical trial of Balapiravir in dengue patients. The 6<sup>th</sup> international symposium on emerging viral disease control, Wuhan, China, October 29-31, 2014
- Novartis Diversity & Inclusion Award 2014. This award was to recognize the scientific and operational leadership that had been provided to Novartis-Eijkman-Hasanuddin Clinical Research Initiative from 2008 to 2014. This partnership has helped Indonesia institutions to build up the capacity for dengue and tuberculosis diagnosis and research.
- Keynote speaker: Drug discovery at Novartis Institute for Tropical Diseases. The 4<sup>th</sup> international symposium on infectious disease and signal transduction. Tainan, Taiwan, November 1-2, 2014
- Plenary Speaker: Flavivirus Drug Discovery. Microbiology Society Annual Conference 2016, Liverpool, United Kingdom, March 21-24, 2016
- Invited Speaker and Panelist. Overview of Flavivirus Therapeutics. Zika Virus in the Americas: An HHS Expert Consultation to Accelerate the Development of Countermeasures, Washington DC, March 28-29, 2016.
- Plenary Speaker: Dengue antivirals on the horizon. The 29<sup>th</sup> Conference on Antiviral Research, La Jolla, California, April 17-21, 2016.
- Invited Speaker: ASM Conference on What Does the Biology of Flaviviruses Tell Us About Zika: The Importance of Fundamental Virus Biology. Washington, D.C. June 1, 2016.
- Keynote Speaker: Zika virus replication and vaccine. National Symposium on Zoonosis Research, Berlin, Germany, October 13-14, 2016
- Dean's Annual Seminar at University of Texas of Medical Branch, Galveston, Texas, October 21, 2017
- San Luis Salute Award for innovative Zika research, February 24, 2017
- Invited Speaker: The Global Challenges Roundtable Series: Facing the Zika Crisis, Washington, D.C., April 14, 2017.
- Keynote Speaker: Zika virus antiviral and vaccine development. The 30<sup>th</sup> Conference on Antiviral Research, Atlanta, Georgia, USA, May 21-25, 2017.
- Keynote Speaker and Richard H. Clemons Memorial Lecture: Antiviral Drug Discovery: Effort, Approach, and Luck, Alabama Drug Discovery Alliance Symposium, Birmingham, Alabama, October 26, 2017
- Invited Speaker: Talk I: State of Zika Vaccine; Talk II: The effects of evolutionary mutations on Zika virus transmission and pathogenesis. US-Japan Cooperative Medical Sciences Program 20<sup>th</sup> International Conference on Emerging Infectious Diseases in the Pacific Rim. Shenzhen, China, January 8-11, 2018
- Keynote Speaker: Zika virus: emergence and vaccine development. The 8<sup>th</sup> International Symposium of Emerging viral Diseases, Wuhan, China, October 20-22, 2018
- Keynote Speaker: Zika virus: Emergence, Vaccine, and Glioblastoma Therapy. The 6<sup>th</sup> ICGEB Workshop on Human RNA viruses, Shanghai, China, October 26-28, 2018
- Invited Speaker: Spike mutation D614G alters SARS-CoV-2 fitness and neutralization susceptibility, COVID-19/SARS-CoV-2 Rapid Research Reports, Cold Spring Harbor Conferences Asia, November 2 – 4, 2020
- Invited speaker and panel moderator. Preclinical Tools for SARS-CoV-2 Drug Discovery. NIH SARS-CoV-2 Antiviral Therapeutic Summit. Virtual Meeting. November 6, 2020

- Invited speaker. The 3<sup>rd</sup> Symposium (virtual) of Association of Chinese Virologists in America (ACVA), Society of Chinese Bioscientists America (SCBA), December 30-31, 2020
- Global Impact Award, Galveston Chamber of Commerce, February 26, 2021
- Invited speaker. SARS-CoV-2 biology and countermeasure development. International Society for Antiviral Research, March 22-26, 2021
- Invited speaker. SARS-CoV-2 biology and countermeasure development. Sealy Structural Biology symposium, May 6-7, 2021
- Invited speaker. SARS-CoV-2 biology and countermeasure development. Keystone Symposia on Positive-Strand RNA Viruses, Keystone Resort in Keystone, Colorado, June 18-23, 2021