

TWAS Elects One Academia Sinica Academician as Member, One Taiwan Scholar Receives TWAS Prize, and One Researcher Becomes TWAS Young Affiliate

The World Academy of Sciences (TWAS) announced the election of one Academia Sinica Academician among its 2015 list of new members on November 20. In addition, one Taiwan scholar received a TWAS Prize, and one research fellow was elected a TWAS Young Affiliate. The announcement of the conferral of the accolades was made at TWAS's 26th General Meeting held from November 17 to 21 in Vienna, Austria.

The new TWAS member is Academician Jing Yu, Chair Professor and Professor of the Mathematics Department, National Taiwan University, and the new TWAS prize winner in the field of Chemistry is Chair Professor and Professor of the Chemistry Department, National Taiwan University, Dr. Pi-Tai Chou. In addition, Dr. Yun-Ru Ruby Chen, Associate Research Fellow of the Genomics Research Center, Academia Sinica, was elected a 2015 TWAS Young Affiliate, an honor awarded annually to exceptional scientists below the age of 40.

Academician Jing Yu was elected to the area of Mathematical Sciences. His research focuses on number theory and arithmetic geometry. He has built up the field of positive characteristic transcendence theory. The program he initiated leads successfully to the determination of all algebraic relations for special zeta values, gamma values, and periods in the positive characteristic world. The theory goes much further than what is possible with classical number theory.

Dr. Pi-Tai Chou has conducted fundamental ground-breaking work in electronically excited-state reactions/relaxation for organic and organometallic materials in condensed phases. He invented the first generation of excited-state intramolecular proton transfer (ESIPT) lasers, and opened up a new research area to explore the chemistry of excited-state proton coupled electron transfer reaction. Exploiting the fundamentals of ESIPT, he then developed novel Green-Fluorescence-Protein core chromophores and tryptophan analogues, which, for the first time, map out the water environment in proteins. With more than 430 SCI publications, around 16,000 citations and a Hirsch index of 66 he is counted as one of the most successful photochemists worldwide. The Hirsch index, or H-index, is a metric that measures the productivity and citation impact of the publications of a researcher.

Dr. Yun-Ru Ruby Chen's research focuses on understanding the mechanism of protein misfolding in neurodegenerative diseases. She has contributed significant works in elucidating folding and misfolding mechanisms of A β in Alzheimer's disease, discovering TDP-43 oligomers and generating its specific antibody for translational development. She has received several awards including the Junior Faculty Award at the International Conference on Alzheimer's Disease and Parkinson's Disease (2015), the Junior Research Investigators Award of Academia Sinica (2015), The 13th Y.Z. Hsu Scientific Paper Award (2015), the Promising Women in Science Award from the Wu Chien-shiung Education Foundation (2014) and the Young Investigator Award from the Biophysical Society of R.O.C. (2013).

TWAS has more than 1,000 members from 90 countries, more than 85% of whom are citizens of the South. The main mission of the academy is to promote scientific excellence and capacity in the South for science-based sustainable development.