

Press release

For immediate release

Four HKU academics awarded RGC Senior Research Fellow and Research Fellows 2022/23

September 8, 2022



Four academics from the University of Hong Kong (HKU) have been awarded under the Research Fellow Scheme (RFS) and Senior Research Fellow Scheme (SRFS) 2022/23 of the Research Grants Council (RGC), for their distinguished research achievements and significant contributions to the higher education sector.

The four HKU recipients are:

RGC Senior Research Fellow Scheme

Professor Alice Sze Tsai WONG

Professor in the School of Biological Sciences, Director (Interim) of the School of Biological Sciences, Faculty of Science

RGC Research Fellow Scheme

Dr HEW, Khe Foon

Associate Dean (Research Higher Degrees), and Associate Professor in the Academic Unit of Human Communication, Development, and Information Sciences, Faculty of Education

Dr YASUHARA Moriaki

Associate Professor of the School of Biological Sciences and the Swire Institute of Marine Science, Faculty of Science

Dr ZHANG, Shizhong

Associate Head and Associate Professor, Department of Physics, Faculty of Science

The two schemes seek to provide sustained support and relief from teaching and administrative duties to exceptionally outstanding researchers at Associate Professor or full Professor ranks at University Grants Committee (UGC)-funded universities in Hong Kong. Each Senior Research Fellow will receive a grant of around HK\$7.8 million and each Research Fellow a grant of around HK\$5.2 million, over a period of 60 months.

An introduction of their work and biographies:

Professor Alice Sze Tsai WONG, Professor in the School of Biological Sciences, Director (Interim) of the School of Biological Sciences, Faculty of Science

Project title: Exploiting Glycosylation in Metastatic Cancer Cells as New Theranostics

This project explores the unsolved mystery of cell interaction in tumour metastasis. Particularly, it looks at the level of glycosylation – the attachment of carbohydrates to the backbone of a protein through an enzymatic reaction, required for successful cancer cell colonisation. Taking both *in vitro* and *in vivo* approaches and utilising multiple cutting-edge technologies, the research will bring great translational implications in actionable patient stratification and highly targeted immune-oncology theranostics. (Please [click here](#) for Professor Alice Sze Tsai Wong's biography)

Dr HEW, Khe Foon, Associate Dean (Research Higher Degrees), and Associate Professor in the Academic Unit of Human Communication, Development, and Information Sciences, Faculty of Education

Project title: Towards a Chatbot Supported Self-regulated Learning (SRL) Recommender System in Online Learning Activities

The project proposes to develop an innovative chatbot-supported recommender system to support student self-regulated learning and social presence in online activities. To offer tailor-made self-regulated learning prompts, the chatbot interacts with students by asking questions and offering personalized suggestions to each student according to the student's response. As social presence plays an important role in online group learning and affects learning and social outcomes, the chatbot employs specific communication strategies, such as affective, interactive or cohesive, to project a sense of connectedness into its interaction with students.

Additionally, the recommender system would analyze students' log data in online learning activities and propose personalized suggestions accordingly. (Please [click here](#) for Dr Khe Foon Hew's biography)

Dr YASUHARA, Moriaki, Associate Professor, School of Biological Sciences and the Swire Institute of Marine Science, Faculty of Science

Project title: Time Machine Biology and the Development of AI-based Automatic Identifications in Hong Kong: Paleobiology to Better Understand Biodiversity of Marine Ecosystems

Direct observations of marine ecosystems are inherently limited in their temporal scope. To break through the barriers, this project will conduct "Time Machine Biology", a synthetic palaeobiological research to understand the past ecosystem and biodiversity in Hong Kong. The research employs a deep-learning automation system that could expedite the identification process needed in the fields of paleoecology, historical ecology and paleoclimatology. The HKU research team is the first in Southeast Asia to develop this automated imaging and identification system. (Please [click here](#) for Dr Moriaki Yasuhara's biography)

Dr Shizhong ZHANG, Associate Head and Associate Professor, Department of Physics, Faculty of Science

Project title: Quantum Gases with High Partial-Wave Scattering

The project aims to investigate a host of new phenomena in p-wave and high-partial wave Fermi and Bose gas, with an emphasis on the role of anisotropic and momentum-dependent scattering. It specifically looks into the possibility of novel ground states induced by p-wave interaction in a two-component Bose gas that is fundamentally different from the standard Bose-Einstein condensate – a state of matter that is typically formed when a gas of bosons at very low densities is cooled to temperatures close to absolute zero. Additionally, the research investigates the transport properties of the gases, such as shear and bulk viscosities. (Please [click here](#) for Dr Shizhong Zhang's biography)

About the RGC Research Fellow Scheme (RFS) and RGC Senior Research Fellow Scheme (SRFS)

The RGC Research Fellow Scheme (RFS) / RGC Senior Research Fellow Scheme (SRFS) is a yearly competitive exercise that provides sustained support and relief from teaching and administrative duties to exceptionally outstanding researchers at Associate Professor rank (or full Professor rank) at UGC-funded universities in Hong Kong.

Both the RFS and SRFS provide ten places across all academic disciplines and are subject to assessment by one of two selection panels: (i) Science, Technology, Engineering and Mathematics (STEM); and (ii)

Humanities, Social Sciences and Business Studies (HSSB). Besides the exceptional qualifications and research capability of the researchers, the RFS and SRFS also take into consideration the contribution and potential impact of their proposed research project, including knowledge transfer and research impact. The stringent assessment criteria enable the awardees to dedicate fully to research and development, and help universities attract and retain research talent.

About the Senior Research Fellow Scheme Awardees:

https://www.ugc.edu.hk/doc/eng/rgc/rrfs/SRFS_awardees2223.pdf

About the Research Fellow Scheme Awardees:

https://www.ugc.edu.hk/doc/eng/rgc/rrfs/RFS_awardees2223.pdf

More information about the RGC Research Fellow Scheme (RFS) and RGC Senior Research Fellow Scheme (SRFS): https://www.ugc.edu.hk/eng/rgc/funding_opport/rrfs/index.html

For media enquiries, please contact Ms Casey To, External Relations Officer (tel: 3917 4948; email: caseyto@hku.hk) / Ms Cindy Chan, Assistant Director of Communications of HKU, Faculty of Science (tel: 3917 5286; email: cindycst@hku.hk).

Image download and caption: <https://www.scifac.hku.hk/press>