

Annex 1: Profiles of the Academic Specialists¹

Prof. CHEN Peng

Prof. Chen is now the Research Professor in the Yunnan Academy of Forestry.

Project opportunities for visiting scholars:

- *Biological control techniques for bark beetles, pine caterpillars, fruit flies and plant diseases*

Prof. Chen's work focuses on forest health management, dynamic research on laws related to forest health indicators and technologies to control forest health, the green management of economic forests, development and application of environmentally friendly biological control agents for forest pests and diseases, and risk analysis and assessments of forest health. The overall aim of his work is to build healthy forests.

Prof. Chen is now the Deputy Director of the Forest Protection Institute of the Yunnan Academy of Forestry and is the leader of the innovative team: "Green Prevention and Control of Forest Diseases and Pests" of the Yunnan Academy of Forestry. His team has twelve permanent staff members, including six senior members and five doctorate candidates. His team consists of professors who are engaged in forest protection from Yunnan University and Southwest Forestry University, who have made many achievements in the study of biological control techniques for bark beetles, pine caterpillars, fruit flies, plant diseases, amongst other areas. This has played an important scientific and technological role to support the management of pests and control of diseases in agriculture and forestry in Yunnan Province, China.

Prof. Chen is a board member of the Professional Committee of the Forest Insect Branch of China Forestry Society, the Standing Director of the Yunnan Plant Protection Society, a member of the expert committee of the Yunnan Nut Industry Association, Advisor of the Yunnan Forestry Pest Survey Technical Guiding Group and Director of the Yunnan Entomological Society.

Prof. Dr. ZHANG Jinfeng

Dr. Zhang is now the Research Professor in forest ecology and forest cultivation at the Kunming Arboretum, Yunnan Academy of Forestry.

Project opportunities for visiting scholars:

¹ Please kindly note that the project opportunities in this document is only a reference for applicant. The research group of visiting scholars will be determined by the accepted visiting scholar and professor depending on their research background after enrollment.

- *Development of and demonstration on high-efficiency cultivation technologies for major native timber species in tropical and sub-tropical Yunnan, China*
- *Technological development to improve forest quality precision for Pinus yunnannensis*

Dr. Zhang's work focuses on the development, cultivation and exploitation of indigenous tree species, particularly valuable timber species to improve the quality of forest stands at various spatiotemporal scales. This also includes the development of technological and management strategies to regenerate degraded forest land and develop the forestry industry by using native tree species, while protecting the genetic resources of valuable indigenous tree species at the same time.

The work of his team focuses on the Southeast Asian region, with special focus on tropical and temperate forest ecosystems in Southwest China.

Dr. Zhang is in charge of nine international cooperation projects, two key national projects on science and technology, two national forestry technology extension projects, two provincial science and technology research projects, two provincial forestry technology extension projects and four provincial forestry industry development projects. He has bred five cultivars, developed two national standards and published 34 research papers and eight books.

Prof. JING Yuebo

Ms. Jing is now the Research Fellow in the Institute of Forest Protection, Yunnan Academy of Forestry.

Project opportunities for visiting scholars:

- *Effects of tillage practices on AMF communities of Olive (*Olea europaea*) and phosphorus acquisition efficiency (funded by the National Natural Science Foundation of China) (2018.1-2021.12)*
- *Technology demonstration and extension on raising the mycorrhizal seedlings of precious timber species in tropical Yunnan (funded by the State Forestry Administration) (2018.1~2020.12)*
- *Walnut mycorrhizal inoculant development and application demonstration (funded by the Yunnan Provincial Department of Science and Technology) (2018.1~2020.12)*

Ms. Jing's work focuses on mycorrhiza in trees, including the ecological and physiological aspects of mycorrhizal symbiosis. Her aims are to explore the diversity and function of mycorrhizal fungi associated with important tree species, such as precious timber species, woody oil tree species and tree species that provide critical ecological functions.

The majority of her team's work focuses on arbuscular mycorrhiza in nut crops such as olive, walnut and macadamia, and on precious timber species in tropical Yunnan. This includes *Pterocarpus indicus*, *Aquilaria sinensis*, *Dalbergia odorifera* and *Mesua ferrea*, and the ecto-mycorrhiza of coniferous species such as *Pinus kesiya* and *Cunninghamia lanceolata*. Meanwhile, Ms. Jing and her team are developing mycorrhizal inoculants to improve the growth of seedlings and the fruiting of nut tree species.

Prof. Dr. LI Jiang

Dr. Li Jiang is now the Research Professor at the Key Lab of Yunnan Academy of Forestry.

Project opportunities for visiting scholars:

- *Forest carbon estimation, tree breeding, plantation management and degraded forest land rehabilitation*

Dr. Li's work focuses on improving natural forest and plantation management in tropical regions, to better meet the changing demand and management objectives of forests.

The work of his team focuses on Southern Yunnan and neighboring economies such as Myanmar. His research covers forest carbon estimation at the regional and stand levels, tree breeding, plantation management and degraded forest land rehabilitation.

Dr. Li holds the positions of Deputy Director of the Key Lab for Yunnan's Rare and Endangered Forest Plants Propagation and Protection at the State Forestry Administration, Deputy Director of the State Forestry Administration's Industry Technology Research Center of Simao Pine, and the Deputy Director of Yunnan Forest Plants Cultivation and Exploration. Dr. Li is the editing committee member of *West Forestry Science* and the paper reviewer for *China Soil and Water Conservation Science*.

He is actively engaged in capacity building and international exchange. He has organized conferences on degraded forest rehabilitation and approaches to sustainably manage rubber plantations. He has given training courses on forest carbon estimation, plantation establishment and management, and degraded forest rehabilitation for about 200 participants from over 20 economies.

Dr. WANG Yi

Dr. Wang is now the Associate Professor in the Key Laboratory of Rare and Endangered Forest Plants of the State Forestry Administration, Yunnan Academy of Forestry.

Project opportunities for visiting scholars:

- *Biosynthesis of bioactive compounds from medical fungi and plants*

Dr. Wang's work focuses on secondary metabolite biosyntheses in fungi and plants, such as polyketides and terpenes, and genetic engineering technologies to exploit forest plant genetic resources.

The work of his team focuses on the biosynthesis of bioactive compounds from medical fungi and plants, aimed to obtain bioactive compounds by heterologous expression in *Aspergillus* species.

He presided over a project under the National Natural Science Foundation and the Applied Basic Research Project of the Yunnan Province Grant. He has published over 50 research papers.

Prof. Dr. YANG Wenzhong

Dr. Yang Wenzhong is now the Research Professor of the Key Lab for Cultivation and Utilization of Forest Plants of Yunnan Province.

Project opportunities for visiting scholars: •

- *Resource investigation of rare and endangered plants*
- *Conservation of wild plant species with extremely small populations*
- *Plant nutrition and physiology*
- *Establishment and management of forest plantations*
- *Effective use of forest plants (natural products) and fungi*

Prof. Yang is the Director of the Key Lab of Rare and Endangered Plants of the State Forestry Administration, and the Director of the Key Lab for the Cultivation and Utilization of Forest Plants of Yunnan Province. His lab is affiliated with the Yunnan Academy of Forestry in Kunming in South-western China. The Key Labs are equipped with modern technologies and facilities for molecular biology, physiology, ecology and chemistry.

His research covers wild plant species conservation, forest plantation management and plant utilization. At present, his group is implementing more than ten projects from the National Natural Science Foundation of China, Ministry of Science and Technology, State Forestry Administration and the Forestry Department of Yunnan Province. These projects include investigations in resources found in rare and endangered plants, the conservation of wild plant species with extremely small populations, plant nutrition and physiology, the establishment and management of forest plantations and the effective use of forest plants (in natural products) and fungi.

He prefers hard-working candidates who are willing to engage in scientific research and technology development with an innovative spirit, creative thinking and ability to take up hands-on and practical tasks.