

Curriculum vitae - Shuai Tong, Ph.D.

CONTACT DETAILS

INSTITUTION	Dept. of Agricultural, Food, Environmental and Animal Sciences, University of Udine
CURRENT POSITION	PostDoc
OFFICE	Rizzi, B2. 28, Via delle Scienze 206, 33100 Udine (IT)
NATIONALITY	Chinese
BIRTH	10/02/1994

EDUCATION

01 OCTOBER 2020, PhD's degree in plant biology, University of Copenhagen (DK)
Thesis: The resilience journey of rice - Root traits, genome editing and silicon-mediated strategies for enhanced abiotic stress tolerance in rice
Supervised by Ole Pedersen(Professor)

01 SEPTEMBER 2017, Master's degree in agriculture, Chinese Academy of Agricultural Sciences (CHN)
Thesis: Diversity and activity of nitrogenase *nifh* gene from endophytic diazotrophs in rice and wheat
Supervised by Jianguang Sun (Professor)

01 SEPTEMBER 2013, Bachelor's degree in Bioengineering, Yangtze University (CHN)
Thesis: Irradiation effects on bacteria in soil
Supervised by Wenxiu Sun (Professor)

GRANTS AND AWARDS

Scholarship as a Ph.D. student in Denmark under the state scholarship fund (CHN), year 2020-2023

SCIENTIFIC SERVICES

Reviewer for the scientific journals:

Journal of Experimental Botany
Journal of Agronomy and Crop Science
Pest Management Science
Rhizosphere

THE APTITUDE FOR CARRYING OUT AND IMPLEMENTING THE RESEARCH PROJECT (FORMATION AND FUNCTIONS OF ROOT IRON PLAQUES IN WETLAND PLANTS)

- Research experience focusing on rice
- Knowledge and skills in the measurement of rice root traits and root architecture
- Expert microsensor user
- Good cooperation skills, supported by the collaborative papers with
Kosala Ranathunge and Lukasz Kotula at the University of Western Australia, Australia, on the effect of silicon on the formation of a barrier to radial O₂ loss;
Motoyuki Ashikari's group at Nagoya University, Japan, on *de novo* domestication of *O. longistaminata*;
Pieter Verboven's group at KU Leuven, Belgium, on O₂ distribution in various stages of tomato fruits;
Margret Sauter's group at the University of Kiel, Germany, on root traits in deepwater rice
- Good writing skills
- Basic microbiology and soil science background
- Ability to complete research independently, and excellent learning ability and a strong desire to learn

PUBLICATIONS

Tong S, Ranathunge K, Kotula L, Pellegrini E, Liu D, Pedersen O. **2023**. Silicon delays the formation of a barrier to radial O₂ loss during soil flooding, resulting in higher accumulations of Na⁺ and Cl⁻ in the xylem sap. *Journal of Experimental Botany*. (manuscript in preparation).

Tong S, Ashikari M, Nagai K, Pedersen O. **2023**. Can the wild perennial, rhizomatous rice species *Oryza longistaminata* be a candidate for de novo domestication? *Rice* 16, 13.

Tong S, Kjær JE, Peralta Ogorek LL, Pellegrini E, Song Z, Pedersen O, Herzog M. **2023**. Responses of key root traits in the genus *Oryza* to soil flooding mimicked by stagnant, deoxygenated nutrient solution. *Journal of Experimental Botany* 74, 2112-2126.

Tong S, Wang L, Sun Y, Khan MS, Gao J, Sun J. **2020**. *Paenibacillus apii* sp. nov., a novel *nifH* gene-harboring species isolated from the rhizospheres of vegetable plants grown in different regions of northern China. *International Journal of Systematic and Evolutionary Microbiology* 70, 5531-5538.

Gao J, Wang L, Xue J, **Tong S**, Peng G, Sun Y, Zhang X, Sun J. **2020**. *Rhizobium rhizophilum* sp. nov., an indole acetic acid-producing bacterium isolated from rape (*Brassica napus* L.) rhizosphere soil. *International Journal of Systematic and Evolutionary Microbiology* 70, 5019-5025.

Gao J, Xue J, Sun Y, Xue H, Wang E, Yan H, **Tong S**, Wang L, Zhang X, Sun J. **2020**. *Mesorhizobium rhizophilum* sp. nov., a 1-aminocyclopropane-1-carboxylate deaminase producing bacterium isolated from rhizosphere of maize in Northeast China. *Antonie Van Leeuwenhoek* 113, 1179-1189.

Ripa FA, **Tong S**, Cao W, Wang E, Wang T, Liu H, Gao J, Sun J. **2019**. *Paenibacillus rhizophilus* sp. nov., a nitrogen-fixing bacterium isolated from the rhizosphere of wheat (*Triticum aestivum* L.). *International Journal of Systematic and Evolutionary Microbiology* 69, 3689-3695. (co-first authors).

Gao J, Xue J, Yan H, **Tong S**, Sayyar Khan M, Wang L, Mao X, Zhang X, Sun J. **2019**. *Pantoea endophytica* sp. nov., novel endophytic bacteria isolated from maize planting in different geographic regions of northern China. *Systematic and Applied Microbiology* 42, 488-494.

Ripa FA, Cao W, **Tong S**, Sun J. **2019**. Assessment of plant growth promoting and abiotic stress tolerance properties of wheat endophytic fungi. *BioMed Research International*, 6105865.

Gao J, Sun P, Sun X, **Tong S**, Yan H, Han M, Mao X, Sun J. **2018**. *Caulobacter zae* sp. nov. and *Caulobacter radidis* sp. nov., novel endophytic bacteria isolated from maize root (*Zea mays* L.). *Systematic and Applied Microbiology* 41, 604-610.

ABSTRACTS AND PRESENTATIONS

Herzog M*, **Tong S**, Kjær JE, Konnerup D, Peralta Ogorek LL, Song Z, Pellegrini E & Pedersen O. Enhancing Flood Tolerance in Wheat (*Triticum aestivum*) and Rice (*Oryza sativa*): Identifying Key Physiological Traits. **2023**, p. 1. NordGen PPP Conference: Use of Genetic Resources in Breeding for Climate Change in the Nordic Region – Why Research and Innovation Do Matter.

Tong S*. A novel experimental approach to measure root tissue permeance to oxygen. **2022**. The 2nd CiFOOD conference.

Xiao H*, **Tong S**, Salagovic J, Pedersen O, Verboven P & Nicolai BM. Hypoxia in tomato fruit during ripening caused by contrasting tissue-specific diffusion resistance and respiration. **2022**, p. 48. 14th Conference of the International Society for Plant Anaerobiosis.

Peralta Ogorek LL*, **Tong S**, Kjær JE, Song Z, Bastegaard VK, Zonta F, Yamauchi T, de la Cruz Jiménez J, Takahashi H, Nakazono M, Herzog M, Pellegrini E & Pedersen O. The root barrier to radial oxygen loss: a jack of all trades. **2022**, p. 14. 14th Conference of the International Society for Plant Anaerobiosis.

POSTERS

Tong S*, Song Z, Pellegrini E, Herzog M & Pedersen O. Climate-smart rice in a changing world. 2021. PhD day in University of Copenhagen.

Tong S*, Kjær JE, Peralta Ogorek LL, Pellegrini E, Song Z, Pedersen O & Herzog M. How do root traits in rice respond to soil flooding? 2022. PhD day in University of Copenhagen.

Last update: 05 May 2025