PETER(YUNLIANG) LI

Dr. Peter (Yunliang) Li is a seasoned researcher specializing in molecular biology and environmental microbiome. His early work focused on gene function and regulatory networks. In subsequent research, he applied amplicon and shotgun metagenomic sequencing methods to investigate the role of microbiomes in farming systems and petroleum-contaminated soil remediation.

EDUCATION

Jul. 2014 | Sept. 2009

Ph.D. in Developmental Biology
University of Chinese Academy of Sciences — Beijing, China

Jul. 2009 | Sept. 2005

M.S. in Developmental Biology
University of Chinese Academy of Sciences — Beijing, China

Jul. 2005 | Sept. 2001

B.S. in Biotechnology
Shandong Agricultural University — Shandong, China

RESEARCH EXPERIENCE

Current | Jun. 2019

Postdoctoral Researcher & Research Associate
University of Saskatchewan — Saskatoon, SK

- Proficiently prepared DNA libraries for amplicon metagenomic sequencing
- Developed efficient pipelines for processing shotgun and amplicon metagenomic sequencing data.
- Skillfully processed and analyzed microbiome sequencing data utilizing various bioinformatic and biostatistical tools.
- Optimized the qPCR reaction system for amplifying genes associated with nitrogen metabolism in soil.

Apr. 2018 | Apr. 2015

Postdoctoral Researcher
Agriculture and Agri-Food Canada — Swift Current, SK & Quebec, QC

- Conducted next-generation sequencing of the root-associated microbiome using the Illumina sequencing platform.
- Expertly processed and analyzed amplicon and shotgun metagenomic sequencing data.

Mar. 2015 | Nov. 2014

Postdoctoral Researcher
McGill University — Montreal, QC

- Modified potato disease-related gene (WRKY1) using CRISPR/Cas9 system
- Optimized transient transformation systems of potato and wheat leaf protoplasts

CONTACT

liyunliang81@gmail.com
github
LinkedIn

SKILLS

Molecular biology
Bioinformatics
Statistics

LANGUAGES

R
Python
Bash
C++

*Made with the R package **pagedown**.*

The source code is available on github.com/Yunliang/cv.

Last updated on 2024-01-14.

Jul. 2014 | Sept. 2005

M.S. and Ph.D. student

Institute of Botany, Chinese Academy of Sciences — Beijing, China

- Conducted gene function studies and deciphered gene regulatory network using molecular biological techniques, including gene cloning, vector construction, qPCR, protein-DNA interaction assays, protein-protein interaction analysis, and sub-cell localization using protein-GFP fusion

SELECTED PUBLICATIONS

2024 | 2024

Characteristics of root-associated microbiome across the development of wheat cultivars over 100 years using a simple and effective sampling method

University of Saskatchewan

- **Yunliang Li**, Steven D. Mamet, Bobbi L. Helgason, Curtis J. Pozniak, Andrew G. Sharpe, Steven D Siciliano
- Ready for submission

2023 | 2023

Contrasting nitrogen fertilization and Brassica napus (canola) variety development impact recruitment of the root-associated microbiome

University of Saskatchewan

- **Yunliang Li**, Sally Lynne Vail, Melissa M. Arcand, and Bobbi Helgason
- **Journal**: Phytobiomes Journal 7(1): 125-137
- https://doi.org/10.1094/PBIOMES-07-22-0045-R

2023 | 2023

Root and rhizosphere fungi associated with the yield of diverse Brassica napus genotypes

University of Saskatchewan

- **Yunliang Li**, Navid Bazghaleh, Sally Vail, Steven D. Mamet, Steven D. Siciliano, and Bobbi Helgason
- **Journal**: Rhizosphere p.100677
- https://doi.org/10.1016/j.rhisph.2023.100677

2021 | 2021

Effect of arbuscular mycorrhizal inoculation and crop sequence on root associated microbiome, crop productivity and nutrient uptake in wheat-based and flax-based cropping systems

University of Saskatchewan

- **Yunliang Li**, Mario Laterriere, Chih-Ying Lay, Rim Klabi, Jacynthe Masse, Marc St-Arnaud, Etienne Yergeau, Newton Z. Lupwayi, Yantai Gan, and Chantal Hamel
- **Journal**: Applied Soil Ecology 168: 104136
- https://doi.org/10.1016/j.apsoil.2021.104136

2020 | 2020

Long-term effects of nitrogen and phosphorus fertilization on soil microbial community structure and function under continuous wheat production

University of Saskatchewan

- **Yunliang Li**, Julien Tremblay, Luke Bainard, Barbara Cade-Menun, Chantal Hamel
- **Journal**: Environmental microbiology 22(3): 1066-1088
- https://doi.org/10.1111/1462-2920.14824

2019 | 2019

Influence of introduced arbuscular mycorrhizal fungi and phosphorus sources on plant traits, soil properties, and rhizosphere microbial communities in organic legume–flax rotation

Agriculture and Agri-Food Canada

- **Yunliang Li**, Yantai Gan, Newton Lupwayi, and Chantal Hamel
- **Journal**: Plant and Soil 443(1-2):87-106
- https://doi.org/10.1007/s11104-019-04213-8

2019 | 2019

Site specificity in establishment of a commercial arbuscular mycorrhizal fungal inoculant

Agriculture and Agri-Food Canada

- Vasilis Kokkorisa, **Yunliang Li**, Chantal Hamel, Keith Hanson, Miranda Harta
- **Journal**: Science of The Total Environment 660:1135-1143
- https://doi.org/10.1016/j.scitotenv.2019.01.100

2015 | 2015

Transcription factor StWRKY1 regulates phenylpropanoid metabolites conferring late blight resistance in potato

McGill University

- Yogendra, Kalenahalli N., Arun Kumar, Kobir Sarkar, **Yunliang Li**, Doddaraju Pushpa, Kareem A.Mosa, Raj Duggavathi, and Ajjamada C. Kushalappa
- **Journal**: Journal of Experimental Botany 660:1135-1143
- https://doi.org/10.1093/jxb/erv434

2014 | 2014

Arabidopsis VQ-motif- containing protein 29 represses seedling de-etiolation by interacting with PIF1

University of Chinese Academy of Sciences

- **Yunliang Li**, Yanjun Jing, Junjiao Li, Gang Xu and Rongcheng Lin
- **Journal**: Plant Physiology 164: 2068- 2080
- https://doi.org/10.1104/pp.113.234492

2013 | 2013

Arabidopsis Chromatin Remodeling Factor PICKLE Interacts with Transcription Factor HY5 to Regulate Hypocotyl Cell Elongation

University of Chinese Academy of Sciences

- Yanjun Jing, Dong Zhang, Xin Wang, Weijiang Tang, Wanqing Wang, Junling Huai, Gang Xu, Dongqin Chen, **Yunliang Li** and Rongcheng Lin
- **Journal**: Plant Cell 25: 242-256
- https://doi.org/10.1105/tpc.112.105742