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❶ INFORMATION

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🎓 EDUCATION

> **PhD** Student in Metabolomics and Bioinformatics (Advisor: Dr. Zheng-Jiang Zhu)
>
> *Aug. 2013 – Dec. 2018*, **Chinese Academy of Sciences (CAS)**.

> **BSs** in Biotechnology   *Aug. 2009 - Jun. 2013*, **Inner Mongolia University**.

⚗ RESEARCH

> Mass Spectrometry-based Large-Scale Metabolomics.

> Metabolomics Data Processing Methods and Software Development.

> Biomarker Discovery for Diseases.

🏆 HONORS AND AWARDS

> **Student Travel Award for Oral Presentation**
>
> The International Metabolomics Society (2018).

> **International Conference Travel Award**   The *Metabolites* Journal (2018).

> **China National Scholarship**   Ministry of Education of the People's Republic of China (2017).

> **Award for Outstanding Youth Report**
>
> The 3th China Mass Spectrometry Analysis Conference (2017).

> **Merit Student**   University of Chinese Academy of Sciences (2016).

> **Award for Outstanding Youth Report**
>
> The 34th China Mass Spectrometry Society Conference (2016).

> **Inner Mongolia Outstanding Graduate**   Inner Mongolia Autonomous Region (2013).

> **National Encouragement Scholarship**   Inner Mongolia University (2011).

📄 PUBLICATIONS

> Z. Wang, B. Cui, F. Zhang, Y. Yang, **X. Shen**, Z. Li, W. Zhao, Y. Zhang, K. Deng, Z. Rong, K. Yang, X. Yu, K. Li, P. Han, and Z.-J. Zhu, Development of A Correlative Strategy to Discover Colorectal Tumor Tissue Derived Metabolite Biomarkers in Plasma Using Untargeted Metabolomics, ***Analytical Chemistry***, 2018, in press, 10.1021/acs.analchem.8b05177. 🔗

> **X. Shen**, R. Wang, X. Xiong, Y. Yin, Y. Cai, J. Ma, N. Liu and Z.-J. Zhu, Large-scale Metabolite Identification for Untargeted Metabolomics Using Metabolic Reaction Network, ***Nature Communications***, 2019, in revision.

> **X. Shen** and Z.-J. Zhu, MetFlow: An interactive and integrated workflow for metabolomics data cleaning and differential metabolite discovery, ***Bioinformatics***, 2019, in press, https://doi.org/10.1093/bioinformatics/bty1066. 🔗

> Z. Zhou, **X. Shen**, X. Chen, J. Tu, X. Xiong, and Z.-J. Zhu, LipidIMMS Analyzer: Integrating Multi-dimensional Information to Support Lipid Identification in Ion Mobility–Mass Spectrometry based Lipidomics, ***Bioinformatics***, 2018, in press, https://doi.org/10.1093/bioinformatics/bty661. 🔗

> H. Jia, **X. Shen (Co-first author)**, Y. Guan, M. Xu, M. Mo, J. Zhu and Z.-J. Zhu, Assessment of The Response to Neoadjuvant Chemo-Radiation in Rectal Cancer Patients based on A Metabolomics Approach, ***Radiotherapy and Oncology***, 2018, 128, 548-556. 🔗

> Z. Zhou, J. Tu, X. Xiong, **X. Shen**, and Z.-J. Zhu, LipidCCS: Prediction of Collision Cross-Section Values for Lipids with High Precision to Support Ion Mobility-Mass Spectrometry based Lipidomics, ***Analytical Chemistry***, 2017, 89, 9559–9566. 🔗

> Z. Zhou, **X. Shen**, J. Tu, and Z.-J. Zhu, Large-Scale Prediction of Collision Cross-Section Values for Metabolites in Ion Mobility - Mass Spectrometry, ***Analytical Chemistry***, 2016, 88, 11084-11091. 🔗

> J. Wang, T. Zhang, **X. Shen (Co-first author)**, J. Liu, D. Zhao, Y. Sun, L. Wang, Y. Liu, X. Gong, Y. Liu, Z.-J. Zhu, F. Xue,* Serum Metabolomics for Early Diagnosis of Esophageal Squamous Cell Carcinoma by UHPLC-QTOF/MS, ***Metabolomics***, 2016, 12: 116. 🔗

> **X. Shen**, X. Gong, Y. Cai, Y. Guo, J. Tu, H. Li, T. Zhang, J. Wang, F. Xue, and Z.-J. Zhu, Normalization and Integration of Large-Scale Metabolomics Data Using Support Vector Regression, ***Metabolomics***, 2016, 12: 89. 🔗

📊 ORAL PRESENTATIONS

> Metabolic Reaction Network-based Recursive Metabolite Identification for Untargeted Metabolomics. **The 14th International Conference of the Metabolomics Society**, June, 2018, Seattle, USA.

> Assessment of the Response to Neoadjuvant Chemo-Radiation in Rectal Cancer Patients based on a Metabolomics Approach. **The 3th China Mass Spectrometry Analysis Conference**, December, 2017, Xiamen, China. 🔗

> Normalization and Integration of Large-Scale Mass Spectrometry-based Metabolomics Data Using Support Vector Regression. **The 34th China Mass Spectrometry Society Conference**, September, 2016, Xining, China.

> Normalization and Integration of Large-Scale Mass Spectrometry-based Metabolomics Data Using Support Vector Regression. **The 64th American Society for Mass Spectrometry Conference**, June, 2016, San Antonio, USA.

POSTERS PRESENTATION

> Metabolic Reaction Network based Metabolite Annotation in Untargeted Metabolomics. **The 13th International Conference of the Metabolomics Society**, June, 2017, Brisbane, Austria.

TECHNICAL STRENGTH

- **Languages:** Mandarin (Very fluent), English (Fluent).
- **Mass Spectrometry Analysis:** Agilent QT0F 6550, Agilent QQQ 6495, 6460, Agilent IMMS 6560, AB sciex Triple TOF 5600, 6600.
- **Programming Languages:** R, Python.
- **Bioinformatic Tools:** Agilent MassHunter work station, AB sciex PeakView, XCMS, MS-DIAL.
- **Other Skills:** Markdown, Photoshop, Illustrator, Linux (Ubuntu and CentOS), GitHub, Shiny.