

Curriculum Vitae

Name: Shengyi Liu

Permanent Address: Oil Crops Research Institute (OCRI) of Chinese Academy of Agricultural Science (CAAS), No2 Xudong Second Road, Wuhan 430062, P.R.China

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1. Education

09/1982 – 07/1986, B.Sc.

Huazhong Agriculture University, Wuhan, China

Major: Plant Genetics and Breeding

With a thesis titled: Evaluation of different maize CMS for fertility and resistance to leaf spot diseases

Advisors for research: Prof. Jiling Liu and Prof Jiansheng Li

09/1992 – 07/1995, M.Sc.

Graduate School of CAAS, Beijing, China

Major: Plant Pathology

Advisor: Prof. Biwen Zhou and Prof. Zeyong Xu

Thesis title: Physiological and biochemical mechanisms of resistance to *Sclerotinia* disease in *Brassica napus* L

09/1996 – 11/1999, Ph.D.

Graduate School of CAAS, Beijing, China

Major: Plant Pathology

Advisors: Prof. Zeyong Xu and Prof. Liyuan He

Thesis title: Inheritance and mechanisms of resistance to *Sclerotinia sclerotiorum* and Haploid Somatic Mutagenesis via Microspore Culture in *Brassica napus*

2. Professional Experience/Employment

07/1986 - 03/1988, Editorial office member of OCRI for Chinese Journal of Oil Crop Science

04/1988 - 12/1988, Trainee, International Crops Research Institute for Semi-Arid Tropics, India

01/1989 - 11/1996, Research Assistant

12/1996 - 11/1999, Associate professor and research group leader

11/1996 - 02/1998, Research Scientist, the State Key Lab for Biology of Plant diseases and Pests, Institute of Plant Protection, CAAS, Beijing, China

12/2000 - 05/2004, Professor in the grade IV

04/2001 - 12/2001, Visiting Scientist, USDA Beltsville Agricultural Research Center

04/2002 - 02/2004, Senior Postdoc Scholarship at Rothamsted Research, UK

06/2004 - Talent award position of CAAS

01/2008 - Professor in the grade/level II of CAAS

08/2007 - Lead Scientist for Plant Protection of Oilseed rape in China Agricultural Research System

08/2013 - Chief Scientist for Genomics and Disease Resistance Improvement of Oilseed Crops at CAAS

11/1996 -12/2003, Vice Head for Key Lab of Biology and Breeding of Oil Crops, the Ministry of Agriculture of PRC

01/2004 - 06/2015, Head for Key Lab of Biology and Breeding of Oil Crops, the Ministry of Agriculture of PRC

01/2004 - 09/2018, Head for Department of Functional Genomics and Molecular Biology of OCRI.

06/2004 - Adjunct Professor, South-central University For Nationalities

05/2008 - Adjunct Professor, Huazhong Agricultural University

05/2008 - Adjunct Professor, Hubei University

06/2018 - Adjunct Professor, Hebei Agricultural University

3. Main Awards

Awarded Talent Scientist of Chinese Academy of Agricultural Sciences and Hubei Province in 2004, respectively

Awarded the Rothamsted International Scholarship, 2003

The Wuhan Elite Young Scientist Award, 1998

The Second class prize for Science and Technology Progress Award by China Agriculture Ministry

4. Professional activities

Member of GCIRC (Global Council for Innovation in Rapeseed and Canola)

Standing Member of Chinese Society of Plant Pathology and vice chairman of Hubei Society of Plant Pathology

Vice chairman of Hubei Genetics Society

Memberships of American Society of Plant Biologists, British Society for Plant Pathology, Chinese Society of Genetics, Chinese Society of Plant Physiology, Chinese Society for Plant Protection

Associate editor of The Crop Journal

Members of the Review Panels for project review (project proposals in foreign countries, international organisations and various China national project applications and inspections); Reviewers for academic institution staff evaluation or promotion or PhD thesis (Chinese institutions, USDA, Australian universities, American universities, UK institutions etc.)

Members of the Assessment Panels for the China National Science and Technology Prize (since 2008) and different Provincial Science and Technology Prizes (since 2004)

Reviewers for manuscripts of Journals (Nature, Nature Genetics, Nature Biotechnology, Nature Communications, Molecular Plant, Current Biology, New Phytologist, Plant Journal, Plant Biotechnology Journal, Theoretical and Applied Genetics, Plant Pathology, European Journal of Plant Pathology, Molecular Plant Pathology, Molecular Plant-Microbe Interactions...)

Organiser or chair for various international academic conferences or sessions such as the International Rapeseed Congress, International Crucifer Genetics Workshop, the International Plant Protection Conference, the International Plant & Animal Genome Conference etc.

5. Publications

Over 200 papers published in referred journals and 4 books and 16 book chapters published by academic publishers.

Books in English

1. Shengyi Liu, Rod Snowdon, and Chitta Kole. 2021. *The Brassica Oleracea Genome*. Springer.
2. Shengyi Liu, Rod Snowdon, and Boulos Chalhoub. 2018. *The Brassica Napus Genome*. Springer.
3. Shengyi Liu, Guoqing Li, and Junbin Huang. 2007. *Proceedings of the 12th International Rapeseed Congress Vol IV Plant Protection*. Monmouth Junction, NJ 08852, USA.: Science Press USA Inc.

Research papers in referred journals (listed in the three categories: Genomics, Disease resistance and control, and The other traits and breeding by genome design)

On genomics

1. Meili Xie, Rong Zuo, Zetao Bai, Lingli Yang, Chuanji Zhao, Feng Gao, Xiaohui Cheng, Junyan Huang, Yueying Liu, Yang Li, Chaobo Tong, and Shengyi Liu. 2022. Genome-Wide Characterization of Serine/Arginine-Rich Gene Family and Its Genetic Effects on Agronomic Traits of Brassica napus. *Frontiers in Plant Science* 13:829668. doi: 10.3389/fpls.2022.829668.
2. Sarfraz Sehrish, Wahid Sumbal, Meili Xie, Chuanji Zhao, Rong Zuo, Feng Gao, and Shengyi Liu. 2022. Genome-Wide Identification and Characterization of SET Domain Family Genes in Brassica napus L. *International Journal of Molecular Sciences* 23(4):1936. doi: 10.3390/ijms23041936.
3. Sumbal Wahid, Meili Xie, Sehrish Sarfraz, Jie Liu, Chuanji Zhao, Zetao Bai, Chaobo Tong, Xiaohui Cheng, Feng Gao, and Shengyi Liu. 2022. Genome-Wide Identification and Analysis of Ariadne Gene Family Reveal Its Genetic Effects on Agronomic Traits of Brassica napus. *International Journal of Molecular Sciences* 23(11):6265. doi: 10.3390/ijms23116265.
4. Beibei Liu, Aiko Iwata-Otsubo, Diya Yang, Robert L. Baker, Chun Liang, Scott A. Jackson, Shengyi Liu, Jianxin Ma, and Meixia Zhao. 2021. Analysis of CACTA Transposase Genes Unveils the Mechanism of Intron Loss and Distinct Small RNA Silencing Pathways Underlying Divergent Evolution of Brassica Genomes. *The Plant Journal* 105(1):34–48. doi: 10.1111/tjp.15037.
5. Philipp E. Bayer, Armin Scheben, Agnieszka A. Golicz, Yuxuan Yuan, Sebastien Faure, HueyTyng Lee, Harmeet Singh Chawla, Robyn Anderson, Ian Bancroft, Harsh Raman, Yong Pyo Lim, Steven Robbens, Lixi Jiang, Shengyi Liu, Michael S. Barker, M. Eric Schranz, Xiaowu Wang, Graham J. King, J. Chris Pires, Boulos Chalhoub, Rod J. Snowdon, Jacqueline Batley and David Edwards. 2021. Modelling of Gene Loss Propensity in the Pangenomes of Three Brassica Species Suggests Different Mechanisms between Polyploids and Diploids. *Plant Biotechnology Journal* 19(12):2488–2500.
6. Rafaqat A. Gill, Federico Scossa, Graham J. King, Agnieszka A. Golicz, Chaobo Tong, Rod J. Snowdon, Alisdair R. Fernie, and Shengyi Liu. 2021. On the Role of Transposable Elements in the Regulation of Gene Expression and Subgenomic Interactions in Crop Genomes. *Critical Reviews in Plant Sciences* 40(2):157–89. doi: 10.1080/07352689.2021.1920731.
7. Xiong Zhang, Xiaohui Cheng, Lijiang Liu, and Shengyi Liu. 2021. Genome Sequence Resource for the Plant Pathogen Sclerotinia sclerotiorum WH6 Isolated in China. *Plant Disease* 105(11):3720–22. doi: 10.1094/PDIS-01-21-0146-A.
8. Xuequn Chen, Chaobo Tong, Xingtang Zhang, Aixia Song, Ming Hu, Wei Dong, Fei Chen, Youping Wang, Jinxing Tu, and Shengyi Liu. 2021. A High-Quality Brassica Napus Genome Reveals Expansion of Transposable Elements, Subgenome Evolution and

- Disease Resistance. *Plant Biotechnology Journal* 19(3):615–30.
9. Shengli Yao, Fan Liang, Rafaqat Ali Gill, Junyan Huang, Xiaohui Cheng, Yueying Liu, Chaobo Tong, and Shengyi Liu. 2020. A Global Survey of the Transcriptome of Allopolyploid *Brassica napus* Based on Single-Molecule Long-Read Isoform Sequencing and Illumina-Based RNA Sequencing Data. *The Plant Journal* 103(2):843–57. doi: 10.1111/tpj.14754.
 10. Qi Pan, Bin Zhu, Dawei Zhang, Chaobo Tong, Xianhong Ge, Shengyi Liu, and Zaiyun Li. 2019. Gene Expression Changes During the Allo-/Deallopolyploidization Process of *Brassica napus*. *Frontiers in Genetics* 10:1279. doi: 10.3389/fgene.2019.01279.
 11. Yan Li, Caihua Dong, Ming Hu, Zetao Bai, Chaobo Tong, Rong Zuo, Yueying Liu, Xiaohui Cheng, Mingxing Cheng, Junyan Huang, and Shengyi Liu. 2019. Identification of Flower-Specific Promoters through Comparative Transcriptome Analysis in *Brassica napus*. *International Journal of Molecular Sciences* 20(23):E5949. doi: 10.3390/ijms20235949.
 12. Fengming Sun, Guangyi Fan, Qiong Hu, Yongming Zhou, Mei Guan, Chaobo Tong, Jiana Li, Dezhi Du, Cunkou Qi, Liangcai Jiang, Weiqing Liu, Shunmou Huang, Wenbin Chen, Jingyin Yu, Desheng Mei, Jinling Meng, Peng Zeng, Jiaqin Shi, Kede Liu, Xi Wang, Xinfu Wang, Yan Long, Xinming Liang, Zhiyong Hu, Guodong Huang, Caihua Dong, He Zhang, Jun Li, Yaolei Zhang, Liangwei Li, Chengcheng Shi, Jiahao Wang, Simon Ming-Yuen Lee, Chunyun Guan, Xun Xu, Shengyi Liu, Xin Liu, Boulos Chalhou, Wei Hua, and Hanzhong Wang. 2017. The High-Quality Genome of *Brassica napus* Cultivar 'ZS11' Reveals the Introgression History in Semi-Winter Morphotype. *The Plant Journal*: 92(3):452–468. doi: 10.1111/tpj.13669.
 13. Jieli Wang, Minqiang Tang, Sheng Chen, Xiangfeng Zheng, Huixian Mo, Shengjun Li, Zheng Wang, Keming Zhu, Lina Ding, Shengyi Liu, Yunhai Li, and Xiaoli Tan. 2017. Down-Regulation of BnDA1, Whose Gene Locus Is Associated with the Seeds Weight, Improves the Seeds Weight and Organ Size in *Brassica napus*. *Plant Biotechnology Journal* 15(8):1024–33. doi: 10.1111/pbi.12696.
 14. Yue Guo, Jing Liu, Jiefu Zhang, Shengyi Liu, and Jianchang Du. 2017. Selective Modes Determine Evolutionary Rates, Gene Compactness and Expression Patterns in *Brassica*. *The Plant Journal* 91(1):34–44. doi: 10.1111/tpj.13541.
 15. Xuelan Guo, Caihua Dong, Li Cai, Hanzhong Wang, and Shengyi Liu. 2016. Gene Transformation by in Situ Pistil Delivery Method in *Brassica*. *Oil Crop Science* 1(3):13-23.
 16. Tao Ke, Jingyin Yu, Caihua Dong, Han Mao, Wei Hua, and Shengyi Liu. 2015. OcsESTdb: A Database of Oil Crop Seed EST Sequences for Comparative Analysis and Investigation of a Global Metabolic Network and Oil Accumulation Metabolism. *BMC Plant Biology* 15:19. doi: 10.1186/s12870-014-0399-8.
 17. Zhesi He, Feng Cheng, Yi Li, Xiaowu Wang, Isobel A. P. Parkin, Boulos Chalhou, Shengyi Liu, and Ian Bancroft. 2015. Construction of *Brassica* A and C Genome-Based Ordered Pan-Transcriptomes for Use in Rapeseed Genomic Research. *Data in Brief* 4:357–62. doi: 10.1016/j.dib.2015.06.016.
 18. Shengyi Liu, Yumei Liu, Xinhua Yang, Chaobo Tong, David Edwards, Isobel A. P. Parkin, Meixia Zhao, Jianxin Ma, Jingyin Yu, Shunmou Huang, Xiyin Wang, Junyi Wang, Kun Lu, Zhiyuan Fang, Ian Bancroft, Tae-Jin Yang, Qiong Hu, Xinfu Wang, Zhen Yue, Haojie Li, Linfeng Yang, Jian Wu, Qing Zhou, Wanxin Wang, Graham J. King, J. Chris Pires, Changxin Lu, Zhangyan Wu, Perumal Sampath, Zhuo Wang, Hui Guo, Shengkai Pan, Limei Yang, Jiumeng Min, Dong Zhang, Dianchuan Jin, Wanshun Li, Harry Belcram, Jinxing Tu, Mei Guan, Cunkou Qi, Dezhi Du, Jiana Li, Liangcai Jiang, Jacqueline Batley, Andrew G. Sharpe, Beom-Seok Park, Pradeep Ruperao, Feng Cheng, Nomar Espinosa Waminal, Yin Huang, Caihua Dong, Li Wang, Jingping Li, Zhiyong Hu, Mu Zhuang, Yi Huang, Junyan Huang, Jiaqin Shi, Desheng Mei, Jing Liu, Tae-Ho Lee, Jinpeng Wang, Huizhe Jin, Zaiyun Li, Xun Li, Jiefu Zhang, Lu Xiao, Yongming Zhou, Zhongsong Liu, Xuequn Liu, Rui Qin, Xu Tang, Wenbin Liu, Yupeng

- Wang, Yangyong Zhang, Jonghoon Lee, Hyun Hee Kim, France Denoeud, Xun Xu, Xinming Liang, Wei Hua, Xiaowu Wang, Jun Wang, Boulos Chalhoub, and Andrew H. Paterson. 2014. The Brassica oleracea Genome Reveals the Asymmetrical Evolution of Polyploid Genomes. *Nature Communications* 5:3930. doi: 10.1038/ncomms4930.
19. Boulos Chalhoub*, France Denoeud*, Shengyi Liu*, Isobel A. P. Parkin*, Haibao Tang, Xiyin Wang, Julien Chiquet, Harry Belcram, Chaobo Tong, Birgit Samans, Margot Corr  a, Corinne Da Silva, J  r  my Just, Cyril Falentin, Chu Shin Koh, Isabelle Le Clainche, Maria Bernard, Pascal Bento, Benjamin Noel, Karine Labadie, Adriana Alberti, Mathieu Charles, Dominique Arnaud, Hui Guo, Christian Daviaud, Salman Alamery, Kamel Jabbari, Meixia Zhao, Patrick P. Edger, Houda Chelaifa, David Tack, Gilles Lassalle, Imen Mestiri, Nicolas Schnel, Marie-Christine Le Paslier, Guangyi Fan, Victor Renault, Philippe E. Bayer, Agnieszka A. Golicz, Sahana Manoli, Tae-Ho Lee, Vinh Ha Dinh Thi, Smahane Chalabi, Qiong Hu, Chuchuan Fan, Reece Tollenaere, Yunhai Lu, Christophe Battail, Jinxiong Shen, Christine H. D. Sidebottom, Xinfu Wang, Aur  lie Canaguier, Aur  lie Chauveau, Aur  lie B  rard, Gwena  lle Deniot, Mei Guan, Zhongsong Liu, Fengming Sun, Yong Pyo Lim, Eric Lyons, Christopher D. Town, Ian Bancroft, Xiaowu Wang, Jinling Meng, Jianxin Ma, J. Chris Pires, Graham J. King, Dominique Brunel, R  gine Delourme, Michel Renard, Jean-Marc Aury, Keith L. Adams, Jacqueline Batley, Rod J. Snowdon, Jorg Tost, David Edwards, Yongming Zhou, Wei Hua, Andrew G. Sharpe, Andrew H. Paterson, Chunyun Guan, and Patrick Wincker. 2014. Early Allopolyploid Evolution in the Post-Neolithic Brassica napus Oilseed Genome. *Science* 345(6199):950–53. doi: 10.1126/science.1253435.
 20. Jayakodi Murukarthick, Perumal Sampath, Sang Choon Lee, Beom-Soon Choi, Natesan Senthil, Shengyi Liu, and Tae-Jin Yang. 2014. BrassicaTED - a Public Database for Utilization of Miniature Transposable Elements in Brassica Species. *BMC Research Notes* 7:379. doi: 10.1186/1756-0500-7-379.
 21. Jiaqin Shi, Shunmou Huang, Jiepeng Zhan, Jingyin Yu, Xinfu Wang, Wei Hua, Shengyi Liu, Guihua Liu, and Hanzhong Wang. 2014. Genome-Wide Microsatellite Characterization and Marker Development in the Sequenced Brassica Crop Species. *DNA Research* 21(1):53–68. doi: 10.1093/dnares/dst040.
 22. Linhai Wang, Sheng Yu, Chaobo Tong, Yingzhong Zhao, Yan Liu, Chi Song, Yanxin Zhang, Xudong Zhang, Ying Wang, Wei Hua, Donghua Li, Dan Li, Fang Li, Jingyin Yu, Chunyan Xu, Xuelian Han, Shunmou Huang, Shuaishuai Tai, Junyi Wang, Xun Xu, Yingrui Li, Shengyi Liu, Rajeev K. Varshney, Jun Wang, and Xiurong Zhang. 2014. Genome Sequencing of the High Oil Crop Sesame Provides Insight into Oil Biosynthesis. *Genome Biology* 15(2):R39. doi: 10.1186/gb-2014-15-2-r39.
 23. Chaobo Tong, Xiaowu Wang, Jingyin Yu, Jian Wu, Wanshun Li, Junyan Huang, Caihua Dong, Wei Hua, and Shengyi Liu. 2013. Comprehensive Analysis of RNA-Seq Data Reveals the Complexity of the Transcriptome in Brassica rapa. *BMC Genomics* 14:689. doi: 10.1186/1471-2164-14-689.
 24. Shunmou Huang, Linbin Deng, Mei Guan, Jiana Li, Kun Lu, Hanzhong Wang, Donghui Fu, Annaliese S. Mason, Shengyi Liu, and Wei Hua. 2013. Identification of Genome-Wide Single Nucleotide Polymorphisms in Allopolyploid Crop Brassica napus. *BMC Genomics* 14(1):1–10.
 25. Jiaqin Shi, Shunmou Huang, Donghui Fu, Jinyin Yu, Xinfu Wang, Wei Hua, Shengyi Liu, Guihua Liu, and Hanzhong Wang. 2013. Evolutionary Dynamics of Microsatellite Distribution in Plants: Insight from the Comparison of Sequenced Brassica, Arabidopsis and Other Angiosperm Species. *PloS One* 8(3):e59988. doi: 10.1371/journal.pone.0059988.
 26. Jingyin Yu, Meixia Zhao, Xiaowu Wang, Chaobo Tong, Shunmou Huang, Sadia Tehrim, Yumei Liu, Wei Hua, and Shengyi Liu. 2013. Bolbase: A Comprehensive Genomics Database for Brassica oleracea. *BMC Genomics* 14:664. doi: 10.1186/1471-2164-14-664.
 27. Meixia Zhao, Jianchang Du, Feng Lin, Chaobo Tong, Jingyin Yu, Shunmou Huang,

- Xiaowu Wang, Shengyi Liu, and Jianxin Ma. 2013. Shifts in the Evolutionary Rate and Intensity of Purifying Selection between Two Brassica Genomes Revealed by Analyses of Orthologous Transposons and Relics of a Whole Genome Triplication. *The Plant Journal* 76(2):211–22. doi: 10.1111/tpj.12291.
28. Perumal Sampath, Jayakodi Murukarthick, Nur Kholilatul Izzah, Jonghoon Lee, Hong-Il Choi, Kenta Shirasawa, Beom-Soon Choi, Shengyi Liu, Ill-Sup Nou, and Tae-Jin Yang. 2014. Genome-Wide Comparative Analysis of 20 Miniature Inverted-Repeat Transposable Element Families in Brassica rapa and B. oleracea. *PloS One* 9(4):e94499. doi: 10.1371/journal.pone.0094499.
 29. Jing Liu, Shunmou Huang, Meiyu Sun, Shengyi Liu, Yumei Liu, Wanxing Wang, Xiurong Zhang, Hanzhong Wang, and Wei Hua. 2012. An Improved Allele-Specific PCR Primer Design Method for SNP Marker Analysis and Its Application. *Plant Methods* 8(1):34. doi: 10.1186/1746-4811-8-34.
 30. Wanxing Wang, Shunmou Huang, Yumei Liu, Zhiyuan Fang, Limei Yang, Wei Hua, Suxia Yuan, Shengyi Liu, Jifeng Sun, Mu Zhuang, Yangyong Zhang, and Aisong Zeng. 2012. Construction and Analysis of a High-Density Genetic Linkage Map in Cabbage (Brassica oleracea L. var. capitata). *BMC Genomics* 13:523. doi: 10.1186/1471-2164-13-523.
 31. Ian Bancroft, Colin Morgan, Fiona Fraser, Janet Higgins, Rachel Wells, Leah Clissold, David Baker, Yan Long, Jinling Meng, Xiaowu Wang, Shengyi Liu, and Martin Trick. 2011. Dissecting the Genome of the Polyploid Crop Oilseed Rape by Transcriptome Sequencing. *Nature Biotechnology* 29(8):762–66. doi: 10.1038/nbt.1926.
 32. Feng Cheng, Shengyi Liu, Jian Wu, Lu Fang, Silong Sun, Bo Liu, Pingxia Li, Wei Hua, and Xiaowu Wang. 2011. BRAD, the Genetics and Genomics Database for Brassica Plants. *BMC Plant Biology* 11:136. doi: 10.1186/1471-2229-11-136.
 33. Tao Ke, Caihua Dong, Han Mao, Yingzhong Zhao, Hong Chen, Hongyan Liu, Xuyan Dong, Chaobo Tong, and Shengyi Liu. 2011. Analysis of Expression Sequence Tags from a Full-Length-Enriched CDNA Library of Developing Sesame Seeds (Sesamum Indicum). *BMC Plant Biology* 11:180. doi: 10.1186/1471-2229-11-180.
 34. Tao Ke, Caihua Dong, Han Mao, Yingzhong Zhao, Hongyan Liu, and Shengyi Liu. 2011. Construction of a Normalized Full-Length CDNA Library of Sesame Developing Seed by DSN and SMART™. *Agricultural Sciences in China* 10(7):1004–1009.
 35. Brassica rapa Genome Sequencing Project Consortium. 2011. The Genome of the Mesopolyploid Crop Species Brassica rapa. *Nature Genetics* 43(10):1035–39. doi: 10.1038/ng.919.
- The below is in Chinese journals with Figures, Tables and Abstract in English
36. Xu Zhang, Luqman Bin Safdar, Minqiang Tang, Yueying Liu, Yuanyuan Zhang, and Shengyi Liu. 2021. Genetic Dissection of Plant Architecture-Related Traits by GWAS with PCA in Brassica napus. *Chinese Journal of Oil Crop Sciences* 43(3):1–8. doi: 10.19802/j.issn.1007-9084.2020032.
 37. Tao Ke, Han Mao, Fengli Hui, Caihua Dong, Guohua Chai, and Shengyi Liu. 2020. Bioinformatics Analysis and Functional Annotation of Complete Expressed Sequence Tag Collection for Oil Crops. *China Journal of Bioinformatics* 8(2):165–74.
 38. Mingxing Cheng, Chaobo Tong, Xiaohui Cheng, Yueying Liu, Lijiang Liu, Guohua Chai, Junyan Huang, and Shengyi Liu. 2017. Characterization of Genome-Wide Variation in Mapping Population Parents and Dense QTL Region in Brassica napus. *Chinese Journal of Oil Crop Sciences* 39(4):427–36.
 39. Rongfang Zhou, Yuanyuan Zhang, Chaobo Tong, Junyan Huang, Xiaohui Cheng, Jingyin Yu, Caihua Dong, Yueying Liu, and Shengyi Liu. 2014. Identification and Evolution of VIT Gene Family between A and C Genomes in Brassica. *Chinese Journal of Oil Crop Sciences* 36(5):551–61.
 40. Wuzhou Yuan, Rongfang Zhou, Chaobo Tong, Xiaohui Cheng, Junyan Huang, Jingyin Yu, Caihua Dong, and Shengyi Liu. 2014. Genome-Wide Identification and Phylogenetic Analysis of SUC Gene Family in Brassica rapa, B. oleracea and B. napus. *Chinese*

Journal of Oil Crop Sciences 36(3):289–99.

41. Meixia Zhao, Biao Zhang, Shengyi Liu, and Jianxin Ma. 2013. Transposon Expression and Potential Effects on Gene Regulation of *Brassica rapa* and *B. oleracea* Genomes. *Hereditas* 35(8):1014–22. doi: 10.3724/SP.J.1005.2013.01014.
42. Tao Ke, Han Mao, Caihua Dong, Shuyuan Chen, Jingyin Yu, Yingzhong Zhao, Hongyan Liu, and Shengyi Liu. 2013. Development and Application of EST-Derived SSR Markers for Sesame. *Chinese Journal of Oil Crop Sciences* 35(1):043–047.
43. Zhihui Wang, Chaobo Tong, Wuzhou Yuan, Xuequn Liu, Xiaohui Cheng, Jingyin Yu, Caihua Dong, and Shengyi Liu. 2013. Bacterial-Type PEPC Genes Identification and Expression in Developing Seeds from Four Oil Crops. *Chinese Journal of Oil Crop Sciences* 35(1):008–016.
44. Haibo Sun, Zhihui Wang, Xuequn Liu, Junyan Huang, Caihua Dong, and Shengyi Liu. 2012. Modified RNA Extraction Method for Seeds of Rapeseed, Soybean, Peanut and Sesame. *Chinese Journal of Oil Crop Sciences* 34(4):353–58.
45. Caihua Dong, Haiheng Liu, Shengwu Hu, Shengyi Liu, and Junyan Huang. 2009. Optimization of High Quality Total Protein Extraction and Two-Dimensional Gel Electrophoresis System for Different *Brassica napus* Organs. *Chinese Journal of Oil Crop Sciences* 31(4):426–33.
46. Xiaohui Cheng, Chuanji Zhao, Lixia Gao, Lingyi Zeng, Yu Xu, Fan Liu, Junyan Huang, Lijiang Liu, Shengyi Liu, and Xiong Zhang. 2022. Alternative Splicing Reprogramming in Fungal Pathogen *Sclerotinia sclerotiorum* at Different Infection Stages on *Brassica napus*. *Frontiers in Plant Science* 13:1008665. doi: 10.3389/fpls.2022.1008665.

On disease resistance and control

47. Yizhou He, Zhiquan Yang, Minqiang Tang, Qing-Yong Yang, Yuanyuan Zhang, and Shengyi Liu. 2022. Enhancing Canola Breeding by Editing a Glucosinolate Transporter Gene Lacking Natural Variation. *Plant Physiology* 188(4):1848–51. doi: 10.1093/plphys/kiac021.
48. Lijiang Liu, Li Qin, Luqman Bin Safdar, Chuanji Zhao, Xiaohui Cheng, Meili Xie, Yi Zhang, Feng Gao, Zetao Bai, Junyan Huang, Rishikesh P. Bhalerao, Shengyi Liu, and Yangdou Wei. 2022. The Plant *Trans* -Golgi Network Component ECHIDNA Regulates Defense, Cell Death, and Endoplasmic Reticulum Stress. *Plant Physiology*. doi: 10.1093/plphys/kiac400.
49. Dian Wang, Guohua Chai, Li Xu, Kangkang Yang, Yamei Zhuang, Aiguo Yang, Shengyi Liu, Yingzhen Kong, and Gongke Zhou. 2022. Phosphorylation-Mediated Inactivation of C3H14 by MPK4 Enhances Bacterial-Triggered Immunity in *Arabidopsis*. *Plant Physiology* 190(3):1941–59. doi: 10.1093/plphys/kiac300.
50. Rong Zuo, Meili Xie, Feng Gao, Wahid Sumbal, Xiaohui Cheng, Yueying Liu, Zetao Bai, and Shengyi Liu. 2022. The Characterization of the Phloem Protein 2 Gene Family Associated with Resistance to *Sclerotinia sclerotiorum* in *Brassica napus*. *International Journal of Molecular Sciences* 23(7):3934. doi: 10.3390/ijms23073934.
51. Rong Zuo, Meili Xie, Feng Gao, Jie Liu, Minqiang Tang, Xiaohui Cheng, Yueying Liu, Zetao Bai, and Shengyi Liu. 2022. Genome-Wide Identification and Functional Exploration of the Legume Lectin Genes in *Brassica napus* and Their Roles in *Sclerotinia* Disease Resistance. *Frontiers in Plant Science* 13:963263. doi: 10.3389/fpls.2022.963263.
52. Li Yang, Chuanji Zhao, Zetao Bai, Lingli Yang, Michael Eric Schranz, Shengyi Liu, and Klaas Bouwmeester. 2022. Comparative Transcriptome Analysis of Compatible and Incompatible *Brassica napus* - *Xanthomonas Campestris* Interactions. *Frontiers in Plant Science*. doi: 10.3389/fpls.2022.960874.
53. Yizhou He, Yan Li, Zetao Bai, Meili Xie, Rong Zuo, Jie Liu, Jing Xia, Xiaohui Cheng, Yueying Liu, Chaobo Tong, Yuanyuan Zhang, and Shengyi Liu. 2022. Genome-Wide Identification and Functional Analysis of Cupin_1 Domain-Containing Members Involved in the Responses to *Sclerotinia Sclerotiorum* and Abiotic Stress in *Brassica napus*.

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