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联系方式

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研究方向

寄生植物与寄主的分子互作机制

学习经历

2007.10-
2013.03

基础生物学专业, 硕博连读

日本综合研究大学院大
学 国立基础生物学研究
所, 导师: 西村幹夫

2003.09-
2007.07

生物工程, 学士

哈尔滨工业大学

工作经历

2022-10 至 今, 中国科学院昆明植物研究所, 资源植物与生物技术, 研究员。

2021-01 至 2022-09, 日本奈良先端科学技术大学院大学, 生物学部门, 助教。

2019-04 至 2020-12, 日本奈良先端科学技术大学院大学, 生物学部门, 特任助教。

2016-04 至 2019-03, 日本奈良先端科学技术大学院大学, 博士后。

2013-08 至 2016-03, 日本理化学研究所, 博士后。

2013-04 至 2013-07, 日本综合研究大学院大学, 国立基础生物学研究所, 研究员

发表文章

1. #Aoki N, #Cui S, Ito C, Kumaishi K, Kobori S, Ichihashi Y, Yoshida S (2022) Phenolic signals for prehaustorium formation in *Striga hermonthica*. *Front. Plant Sci.* 13 (#co-first authors) (Research paper)
2. N. Aoki, S. Cui, S. Yoshida (2022) Cytokinins Induce Prehaustoria Coordinately with Quinone Signals in the Parasitic Plant *Striga hermonthica*. *Plant Cell Physiol* 63, 1446-1456. (Research paper)
3. Ogawa S, Cui S, White ARF, Nelson DC, Yoshida S, Shirasu K (2022) Strigolactones are chemoattractants for host tropism in Orobanchaceae parasitic plants. *Nat Commun* 13: 4653 (Research paper)
4. Kokla A, Leso M, Zhang X, Simura J, Serivichyaswat PT, Cui S, Ljung K, Yoshida S, Melnyk CW (2022) Nitrogen represses haustoria formation through abscisic acid in the parasitic plant *Phtheirospermum japonicum*. *Nat. Commun.* 13, 2976. (Research paper)
5. Furuta KM, Xiang L, Cui S, Yoshida S (2021) Molecular dissection of haustorium development in Orobanchaceae parasitic plants. *Plant Physiol.* 186: 1424-1434 (Review)
6. Masumoto N, Suzuki Y, #Cui S, Wakazaki M, Sato M, Kumaishi K, Shibata A, Furuta KM, Ichihashi Y, Shirasu K, Toyooka K, Sato Y, #Yoshida S (2021) Three-dimensional reconstructions of haustoria in two parasitic plant species in the Orobanchaceae. *Plant Physiol.* 185: 1429-1442 (# co-corresponding authors) (Research paper)
7. Mutuku JM, Cui S, Yoshida S, Shirasu K (2021) Orobanchaceae parasite-host interactions. *New Phytol.* 230: 46-59 (Review)
8. Cui S, Yoshida S (2021) Roles of ethylene in parasitic plant haustorium formation and host invasion. *BSJ-Review*: 102-111 (Review)
9. Cui S, Kubota T, Nishiyama T, Ishida JK, Shigenobu S, Shibata TF, Toyoda A, Hasebe M, Shirasu K, Yoshida S (2020) Ethylene signaling mediates host invasion by parasitic plants. *Sci. Adv.* 6 (Research paper)
10. Kurotani K, Wakatake T, Ichihashi Y, Okayasu K, Sawai Y, Ogawa S, Cui S, Suzuki T, Shirasu K, Notaguchi M (2020) Host-parasite tissue adhesion by a secreted type of β -1,4-glucanase in the parasitic plant *Phtheirospermum japonicum*. *Commun. Bio.* 3 (Research paper)
11. Yoshida, S., Kim, S., Wafula, E. K., Tanskanen, J., Kim, Y. M., Honaas, L., Yang, Z., Spallek, T., Conn, C. E., Ichihashi, Y., Cheong, K., Cui, S., Der, J. P., Gundlach, H., Jiao, Y., Hori, C., Ishida, J. K., Kasahara, H., Kiba, T., Kim, M. S., Koo, N., Laohavisit, A., Lee, Y. H., Lumba, S., McCourt, P., Mortimer, J. C., Mutuku, J. M., Nomura, T., Sasaki-Sekimoto, Y., Seto, Y., Wang, Y., Wakatake, T., Sakakibara, H., Demura, T., Yamaguchi, S., Yoneyama, K., Manabe, R. I., Nelson, D. C., Schulman, A. H., Timko, M. P., dePamphilis, C. W., Choi, D., and Shirasu, K. (2019) Genome sequence of *Striga asiatica* provides insight into the evolution of plant parasitism. *Curr. Biol.* 29, 3041-3052 e3044 (Research paper)

12. Goyet, V., Wada, S., **Cui, S.**, Wakatake, T., Shirasu, K., Montiel, G., Simier, P., Yoshida, S. (2019) Haustorium inducing factors for parasitic Orobanchaceae. *Front. Plant Sci.* 10, 1056 (Review)
13. Wada, S., **Cui, S.**, and Yoshida, S. (2019) Reactive oxygen species (ROS) generation is indispensable for haustorium formation of the root parasitic plant *Striga hermonthica*. *Front. Plant Sci.* 10, 328 (Research paper)
14. #Mutuku, J.M., #**Cui, S.**, Hori, C., Takeda, Y., Tobimatsu, Y., Nakabayashi R., Mori, T., Saito, K., Demura, T., Umezawa, T., Yoshida, S. and Shirasu, K. (2019). Structural integrity of lignin deposited at the site of infection is crucial for resistance against *Striga hermonthica* parasitism in rice. *Plant Physiol.* 179, 1796-1809 (#co-first authors) (Research paper)
15. **Cui, S.**, Suzaki, T., Tominaga-Wada, R., and Yoshida, S. (2018) Regulation and functional diversification of root hairs. *Semin. Cell Dev. Biol.* 83, 115-122 (Review)
16. **Cui, S.**, Wada, S., Tobimatsu, Y., Takeda, Y., Saucet, S. S., Takano, T., Umezawa, T., Shirasu, K., Yoshida, S. (2018). Host lignin composition affects haustorium induction in the parasitic plants *Phtheirospermum japonicum* and *Striga hermonthica*. *New Phytol.* 218, 710-723. (Research paper)
17. **Cui, S.**, Wakatake, T., Hashimoto, K., Saucet, S.B., Toyooka, K., Yoshida, S., and Shirasu, K. (2016). Haustorial hairs are specialized root hairs that support parasitism in the facultative parasitic plant *Phtheirospermum japonicum*. *Plant Physiol.* 170, 1492-1503. (Research paper)
18. Yoshida, S., **Cui, S.**, Ichihashi, Y., and Shirasu, K. (2016). The haustorium, a specialized invasive organ in parasitic plants. *Annu. Rev. Plant Biol.* 67, 643-667. (Review)
19. **Cui, S.**, Hayashi, Y., Otomo, M., Mano, S., Oikawa, K., Hayashi, M., and Nishimura, M. (2016). Sucrose production mediated by lipid metabolism suppresses physical interaction of peroxisomes and oil bodies during germination of *Arabidopsis thaliana*. *J. Biol. Chem.* 291, 38. (Research paper)
20. **Cui, S.**, Fukao, Y., Mano, S., Yamada, K., Hayashi, M., and Nishimura, M. (2013). Proteomic analysis reveals that the Rab GTPase RabE1c is involved in the degradation of the peroxisomal protein receptor PEX7 (peroxin 7). *J. Biol. Chem.* 288, 6014-6023. (Research paper)
21. **Cui, S.**, Mano, S., Yamada, K., Hayashi, M., and Nishimura, M. (2013). Novel proteins interacting with peroxisomal protein receptor PEX7 in *Arabidopsis thaliana*. *Plant Signal Behav* 8, e26829. (Review)

会议报告

Lignification occurs after perceiving haustorium inducing factors to facilitate prehaustorium induction in *Striga hermonthica*

第 16 届国际寄生植物学术会议 16th World Congress on Parasitic Plants, Nairobi 内罗毕, 2022-7-3 至 2022-7-8

The roles and functions of lignin in parasitic plant-host interaction
第 15 届国际寄生植物学术会议 15th World Congress on Parasitic Plants, Amsterdam, The Netherlands, 阿姆斯特丹, 2019-6-30 至 2019-7-5

Ethylene is involved in plant parasitism by modulating development and function of the haustorium, an invasive organ in parasitic plants
第 11 届国际植物激素乙烯学术会议 The XI International Symposium on the Plant Hormone Ethylene, Crete 克里特岛, 2018-6-2 至 2018-6-6

The role of ethylene signaling in the haustorium development in the facultative root parasitic plant *Phtheirospermum japonicum*
第 14 届国际寄生植物学术会议 14th World Congress on Parasitic Plants, 太平洋格罗夫阿西洛马会议中心, 2017-6-26 至 2017-6-30

The role of ethylene signaling in the haustorium development in the facultative root parasitic plant *Phtheirospermum japonicum*
冷泉港会议 Cold Spring Harbor, Latest Advances in Plant Development and Environmental Response, Awaji, 2016-11-29 至 2016-12-2

Haustorial hairs are controlled by root hair genes and involved in parasitism
第 13 届国际寄生植物学术会议 13th World Congress on Parasitic Plants, 昆明, 2015-7-5 至 2015-7-10

Proteomic analysis reveals that the Rab GTPase RabE1c is involved in the degradation of the peroxisomal protein receptor PEX7 (peroxin 7)
第一届日本国立基础生物学研究所-普林斯顿大学学术交流会议 1st NIBB-Princeton Symposium, Okazaki 冈崎, 2011-11-1 至 2011-11-2

科研奖励

生物学部门科研梅园赏

科学图像奖

国际生植物会议最佳发表奖

综合研究大学院大学院长授予奖