附件 1：会议注册回执

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| 工作单位名称 |  | 单位纳税人识别号 |  |
| 联系人 |  | 手机号 |  | E-mail |  |
| 联系地址 |  |
| 参会代表信息 |
| 序号 | 姓名 | 性别 | 职务/职称 | 手机号 | E-mail | 是/否提交摘要 | 摘要题目 | 缴费信息 | 是/否住宿 |
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注：1. 会议回执参会人员每人填写一份，或以课题组为单位，写明参会人数及名单，于2024年7月10日之前发送至1973367945@qq.com。务必请在电子邮件主题中注明“长江流域五省（市）遗传学会联会”。

1. 请参加会议人员务必发回回执，以便会议安排。
2. 随行非参会人员，如需随会就餐的，费用与学生等同。
3. 恩施州华龙城大酒店为会议协议住宿酒店。客房参考价格：（见会议第二轮通知）。请在“是/否住宿”栏备注标间或单间以及其他关于住宿方面要向会务组备注的信息。

附件 2：论文摘要格式模板

中文摘要一概用宋体，英文摘要用罗马字体

标题：标黑，四号，（ 一倍行距）

空一行

作者：五号

*单位：五号，*通讯作者：五号

如有共同作者，放于此。

（一倍行距）

空一行

正文：小四号，1.5 倍行距； 内容长度尽可能在 1 页 A4 纸内。

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关键词：“关键词”三个字标黑，小四号；关键词一般 3～8个，小四号。

**A homolog of ETHYLENE OVERPRODUCER, OsETOL1, reversely regulates drought and submergence tolerance in rice**

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Submergence and drought are major limiting factors for crop production.  However, very limited studies have been reported on the distinct or overlapping mechanisms of plants in response to the two water extremes.  Here we report an *ETHYLENE OVERPRODUCER 1*-like gene (*OsETOL1)* that reversely regulates drought and submergence tolerance in rice (*Oryza sativa* L.). Two allelic mutants of *OsETOL1* showed increased resistance to drought stress at the panicle development stage*.*Interestingly, the mutants exhibited a significantly slower growth rate under submergence stress at both the seedling and panicle development stages. Over-expression (OE) of *OsETOL1* in rice resulted in reverse phenotypes when compared to the mutants. The *OsETOL1*transcript was strongly induced by abiotic stresses. OsETOL1 was found to interact with OsACS2, a homolog of ACS which acts as a rate-limiting enzyme for ethylene biosynthesis. In the *osacs2* mutant and *OsETOL1*-OE plants, ACC and ethylene content were significantly decreased, and exogenous ACC restored the phenotype of*osetol1* and *OsETOL1*-OE under submergence stress, implying a negative regulation role for OsETOL1 in ethylene biosynthesis. The expression of genes related to energy metabolism, such as carbohydrate catabolism and fermentation showed significant changes in the *osetol1* and *OsETOL1*-OE plants, implying that OsETOL1 may function as a regulator of energy metabolism. These results suggest that *OsETOL1* plays distinct roles in both drought and submergence stress responses partially by regulating energy metabolism. Expression and functional comparison of three ETOL family members in rice further supported the specific role of OsETOL1 in the regulation of the two water stresses.

**Keywords:** *Oryza sativa*, drought, submergence, ethylene, energy metabolism, 1-aminocyclopropane-1-carboxylic acid