FOCUS ISSUE ON UBIQUITIN IN PLANT BIOLOGY

EDITORIALS

Focus on Ubiquitin in Plant Biology. Bonnie Bartel and Vitaly Citovsky

UPDATES

The Expanding Universe of Ubiquitin and Ubiquitin-Like Modifiers. Richard D. Vierstra

Ubiquitination during Plant Immune Signaling. Daniel Marino, Nemo Peeters, and Susana Rivas

The U-Box E3 Ligase SPL11/PUB13 Is a Convergence Point of Defense and Flowering Signaling in Plants. Jinting Liu, Wei Li, Yuese Ning, Gautam Shirsekar, Yuhui Cai, Xuli Wang, Liangying Dai, Zhilong Wang, Wende Liu, and Guo-Liang Wang

The COP9 Signalosome: Its Regulation of Cullin-Based E3 Ubiquitin Ligases and Role in Photomorphogenesis. Cynthia D. Nezames and Xing Wang Deng

Ubiquitin-Mediated Control of Plant Hormone Signaling. Dior R. Kelley and Mark Estelle

Ubiquitin on the Move: The Ubiquitin Modification System Plays Diverse Roles in the Regulation of Endoplasmic Reticulum- and Plasma Membrane-Localized Proteins. Damian D. Guerra and Judy Callis

The Role of the Ubiquitin-Proteasome System in Agrobacterium tumefaciens-Mediated Genetic Transformation of Plants. Shimpei Magori and Vitaly Citovsky

Ubiquitin and Plant Viruses, Let’s Play Together! Catherine Alcaide-Loridan and Isabelle Jupin

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Small Acidic Protein1 Acts with RUB Modification Components, the COP9 Signalosome, and AXR1 to Regulate Growth and Development of Arabidopsis. Akari Nakasone, Masayuki Fujitawa, Yoichiro Fukao, Kanal Kanti Biswas, Abidur Rahman, Maki Kawai-Yamada, Issay Narumi, Hirofumi Uchimiyah, and Yutaka Ono

A Ubiquitin Ligase of Symbiosis Receptor Kinase Involved in Nodule Organogenesis. Songli Yuan, Hui Zhu, Honglun Gou, Weiwei Fu, Lijing Liu, Tao Chen, Danxia Ke, Heng Kang, Qi Xie, Zongli Hong, and Zhongming Zhang

The Light-Response BTB1 and BTB2 Proteins Assemble Nuclear Ubiquitin Ligases That Modify Phytochrome B and D Signaling in Arabidopsis. Matthew J. Christians, Derek J. Gingerich, Zhuhua Hua, Timothy D. Lauer, and Richard D. Vierstra

On the Cover: The cover of this Focus Issue devoted to Ubiquitin in Plant Biology depicts the stylized ubiquitin/proteasome system, which attaches multiple ubiquitin residues to a substrate protein and is then degraded by the 26S proteasome. These events are shown against the background of a confocal scanning laser micrograph of a tobacco (Nicotiana tabacum) leaf that visualizes chloroplast autofluorescence (purple signal) and the nucleocytoplasmic partition of the transiently expressed cyan fluorescent protein fluorescent marker (blue signal). This issue highlights the roles of ubiquitin and ubiquitin-like modifiers in all different aspects of plant development and morphogenesis, hormonal and environmental responses, chromatin remodeling and histone modifications, and plant-pathogen interactions. Cover design by Stanislav V. Kozlovsky (Moscow State University, Russia) and Vitaly Citovsky (State University of New York, Stony Brook).
### REGULAR ISSUE

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*Peter V. Minorsky*

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[W] Indicates Web-only data.

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