



DR. JUNE KWAK

Cellular Precision in Plants' Decision to Separate

Organ abscission is a pivotal process in plants, by which leaves, fruits, flowers, and seeds are shed by developmental programs or environmental cues. Abscission occurs along the specialized cell files called the abscission zone, composed of residuum cells (RECs) and secession cells (SECs). Our previous study has shown that precision abscission is crucial for surface integrity and plant fitness. Additionally, our study has suggested that RECs undergo transdifferentiation into epidermal cells whose identity was thought to be determined in early embryogenesis. However, it remains to be determined how the transdifferentiation of RECs into epidermal cells is accomplished. Furthermore, it is undefined why plants elaborate de novo accumulation of a cuticle layer to protect the newly formed surface on the receptacle

rather than adopting the wound healing process in which suberin and lignin are assembled to protect the exposed surface at wound sites. The current progress will be presented.

Fall 2023 PSLA

LECTURE

SERIES

September 18, 2023

**PLS Building RM
2107/2109**

Time:

12PM

[UMD Zoom](#)

**Graduate student
lunch w/ speaker**

1PM

PLS 2107/2109

June Kwak is a Professor in the Department of New Biology at Daegu Gyoungbuk Institute of Science and Technology-Republic of Korea. Dr. Kwak received his Ph. D. from POSTECH. He was an HFSP postdoctoral fellow at University of California, San Diego. He was an associate professor with tenure at the University of Maryland, College Park from which he relocated his lab to DGIST in 2014.



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