

**Title** Molecular aspects of postharvest biology  
**Author** A.K. Hvoslef-Eide  
**Citation** ISHS Acta Horticulturae 847:67-74. 2009.  
**Keyword** senescence; abscission; poinsettia; pea

### **Abstract**

Postharvest is here defined as including both senescence and abscission. Since there is a recent review on senescence, where the authors were to present at the same meeting, readers are referred to their contributions in this volume and their review (van Doorn and Woltering, 2008). However, some of the early work in carnation is briefly described. More emphasis is given to abscission; the event where a plant organ is separated from the main body of the plant. A table lists the genes identified to be associated with abscission, with references. The rest of the paper gives a brief overview of the work in our own laboratory using poinsettia as a model plant for flower abscission. Pea was used as a reference plant for testing gene sequences from a differential display of abscission zone specific genes in poinsettia. RNA in situ hybridisation was used to test the gene sequences in both poinsettia as well as mutant and wild type pea. The method to induce abscission in poinsettia is described briefly, with the mention of a hypothesis regarding the hormonal balance in the flower bud. Other methods used in our group to elucidate abscission in poinsettia are immunohistochemistry and Fourier-Transform Infrared microspectroscopy.