

Research into plant lipid metabolism

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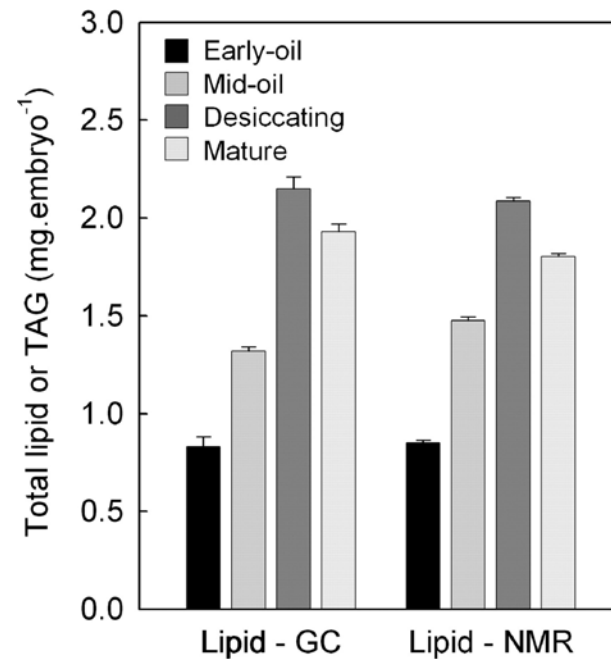


Research interests:

- Regulation of oil synthesis and breakdown
- Improving seed oil yield and composition

Oil breakdown influences oilseed yield

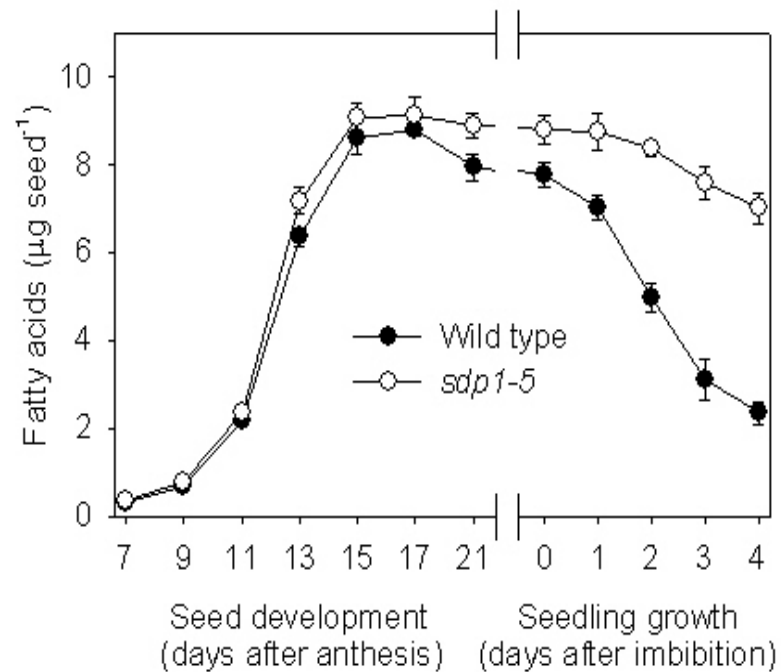
- Oilseed rape seeds lose some oil as they desiccate
- Preventing this loss could increase yield by 10-15%



Chia et al., (2005) J Exp Bot. 56: 1285

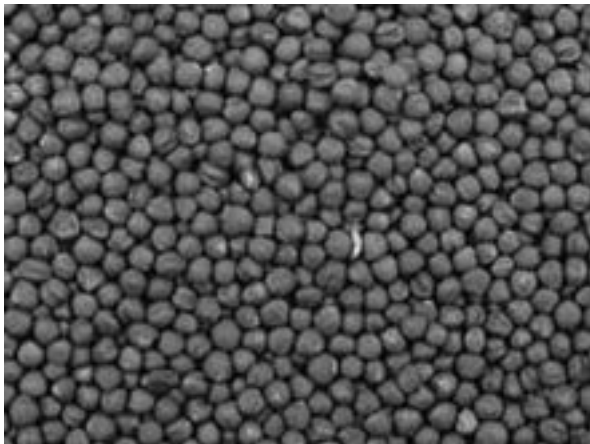
Blocking oil breakdown in Arabidopsis

- The lipase SDP1 governs oil breakdown in seeds
- Arabidopsis *sdp1* mutant seeds contain more oil

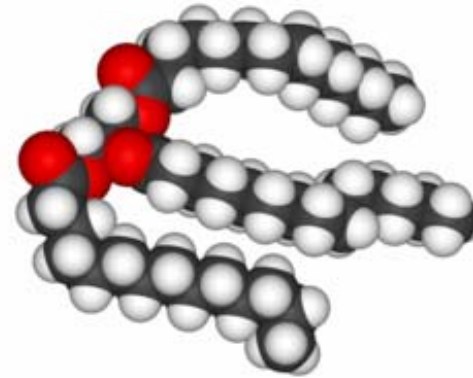
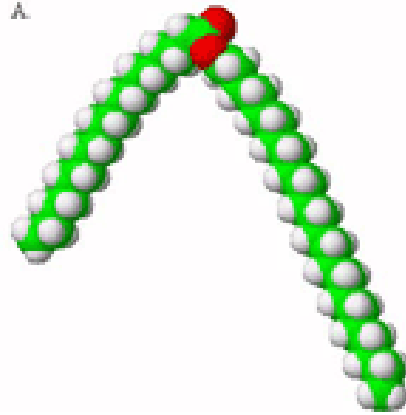


Technology transfer to oilseed rape

As part of BBSRC IPA grant we are trying to manipulate oil breakdown in transgenic oilseed rape in an attempt to increase oil content but also maintain seed viability.



ICON: making wax esters in Brassicas



Jojoba liquid wax esters are similar to spermaceti oil and have various industrial uses (e.g. lubricants, cosmetics) with a substantial global market.

