

Nejvýznamnější práce uchazeče

1. Lafon-Placette C*, Hatorangan MR*, Steige K, Cornille A, Lascoux M, Slotte T and Köhler C (2018). Paternally expressed imprinted genes associate with hybridization barriers in *Capsella*. *Nature Plants* **4:352–357**. *both authors contributed equally. (IF: 11.471; citations: 34)

Featured in “News and Views” by Tetsu Kinoshita, “A parental Tug-of-War”, Nature Plants 4:329–330.

This article is the first to propose a molecular scenario underlying the “endosperm balance number” hypothesis, a theoretical concept coined in the 1980s to explain hybrid seed lethality in potato breeding, and expands it to other taxa (Capsella).

2. Lafon-Placette C*, Johannessen IM*, Hornslien KS*, Ali MF, Bjerkan KN, Bramsiepe J, Glöckle BM, Rebernig CA, Brysting AK, Grini PE and Köhler C (2017). Endosperm-based hybridization barriers explain the pattern of gene flow between *Arabidopsis lyrata* and *Arabidopsis arenosa* in Central Europe. *PNAS*, doi: **10.1073/pnas.1615123114**. * authors contributed equally. (IF: 9.661; citations: 65)

This paper gives an alternative to the well-accepted theory suggesting that polyploidization in plants establishes hybridization barriers, and proposes instead that polyploidization can loosen hybridization barriers between separated species.

3. Lafon Placette C* (2020). Endosperm genome dosage, hybrid seed failure and parental imprinting: sexual selection as an alternative to parental conflict. *Am J Bot* **107(1): 1–3 (invited article)**. * corresponding author. (IF: 2.841; citations: 3)

As part of “On the Nature of Things” series, aiming at reconciling old scientific ideas with current data, I propose in this essay that sexual selection in plants may act at different and unexpected levels, such as post-fertilization (endosperm). I then suggest that the evidence classically interpreted as a manifestation of parental conflict (hybrid seed lethality, endosperm dosage sensitivity) can be re-evaluated in the light of sexual selection.