

SFB 960-/BZR – Kolloquium

11. Juli 2019, 11.00 Uhr (Sondertermin)

H52



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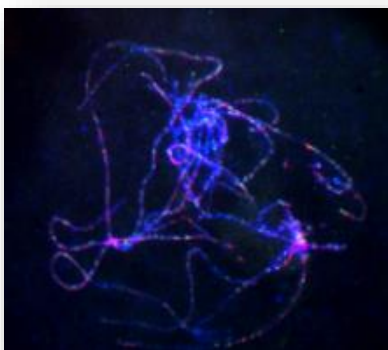
“Sequencing-based analysis of male meicytes in *Zea mays* indicates functions of mitochondria and phasiRNAs in meiosis”

Meiosis and proper pollen development in monocot crops such as maize (*Zea mays*) and rice (*Oryza sativa*) are essential for breeding and yield. However, these processes are poorly understood in the grasses.

By sequencing RNAs and sRNAs from isolated male meicytes in early prophase I, we found new clues for probably important meiotic functions of mitochondria and of a special kind of small RNAs, phasiRNAs.

An abundance of mitochondria transcripts pointed to (i) a novel polyA regulation process of mitochondrial transcripts, and (ii) towards specific products needed for energy production.

Similarly, an abundance of phasiRNAs in meicytes and the detected DNA methylation of their genomic origin regions gave intriguing hints for a probable function in meiosis.



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