

**21/11/2013**

THURSDAY

**start 14.00**Seminar room 1.32, pavilion A11  
University campus BohuniceCEITEC STRUCTURAL  
BIOLOGY SEMINAR  
SERIES*You are cordially invited to the lecture***„The real RNAi - a Tale of Naughty Mice“***delivered by***Dr. Petr SVOBODA**

Institute of Molecular Genetics of the ASCR, v. v. i.

**Abstract:**

Our earlier study revealed robust production of short interfering RNAs (siRNAs) in the oocyte but not in somatic tissues in the mouse. We now report that growing mouse oocytes express a unique, N-terminally truncated isoform of Dicer, the small RNA-producing enzyme. Our data show that this Dicer isoform is responsible for increased production of endogenous siRNAs in the oocyte. The oocyte-specific Dicer isoform is the first evidence for molecular divergence of mammalian miRNA and RNAi mechanisms. Notably, production of oocyte-specific Dicer is controlled by a rodent-specific retrotransposon. This fact has interesting implications regarding evolution and conservation of RNA silencing pathways in animals.

