

	GL leader	Martin Anger, DVM, PhD
1	CEIPEX RESEARCH TOPIC LEVEL2	Molecular Veterinary Medicine: Reproduction
2	RESEARCH GROUP	Mammalian Reproduction
3	TOPICS/FOCUS	Control of early embryonic development in mammals
4	SUMMARY	<p>Early embryonic development is characterised by dramatic changes of cellular behaviour within a relatively short time. Germ cells and blastomeres of developing embryos are shifting from haploid to diploid chromosomal content, from transcriptional repression to the activation to of the embryonic genome, from extremely large to smaller cells. All these changes make cells vulnerable to various errors, which frequently lead into embryo loss. Our research is focused on characterisation of cell cycle and chromosome segregation control mechanisms and how these pathways are involved in errors during early development. We use two animal model systems, mouse and cattle, to study the causes of termination of embryonic development and possibilities, how to prevent such situations.</p>
5	RG WEBPAGE/CONTACT	https://www.vri.cz/en/departments/genetics-and-reproductive-biotechnologies/