

**Offer of topics for Ph.D. study projects in Third Faculty of Medicine, Charles University in Prague**

Project:	<b>Epistatic control of development of infectious disease</b>
Mentor (Advisor):	<b>Assoc. Prof. Marie Lipoldova, PhD.</b>
Department:	<b>Institute of Immunology/Institute of Molecular Genetics, AS CR</b>
Contact information:	<b>lipoldova@img.cas.cz; 224310195</b>
Project Narrative: ( <i>max. 500 characters including spaces</i> ):	<b>Epistasis plays an essential role in development of most diseases, but most interacting genes are unknown. We developed mouse model with a strong epistatic effect on susceptibility to leishmaniasis. <i>Leishmania</i>-susceptible B10.O20 mice carry 4% and 96% genes, respectively, of resistant strains O20 and C57BL/10. To define functional basis of this epistatic control we will map the O20 genes causing B10.O20 susceptibility and measure gene and pathway expression patterns in control and infected mice.</b>
Requirements for student applicants: ( <i>specify your requirements such as degrees or period after degree was granted</i> )	<b>M.Sc. degree or equivalent in genetics, molecular or cellular biology, parasitology, biomedicine, strong interest in basic research and experimental work, good English</b>