

## PhD Theses

### 2009

- Gusareva Elena** Impact of genetic and environmental factors on development of atopy and allergic diseases in Czech and Russian populations (Supervisor: Marie Lipoldová; 3rd Faculty of Medicine, Charles University in Prague)
- Ivánek Robert** DNA microarrays and bioinformatics in biomedical research (Supervisors: Jiří Forejt; Stanislav Kmoch; Faculty of Science, Charles University in Prague)
- Krejčířiková Veronika** Structural studies of mouse galectin-4 (Supervisor: Jiří Brynda; Faculty of Science, Charles University in Prague)
- Mihola Ondřej** Positional cloning of Hst1 gene (Hybrid sterility 1) and molecular analysis of candidate genes (Supervisors: Zdeněk Trachtulec, Jiří Forejt; Faculty of Science, Charles University in Prague)
- Růžičková Jana** Eye evolution and development: an insight from jellyfish and mouse (Supervisor: Zbyněk Kozmik; Faculty of Science, Charles University in Prague)

### 2010

- Huranová Martina** Assembly and recycling of functional splicing complexes *in vivo* (Supervisor: David Staněk; Faculty of Science, Charles University in Prague)
- Krejčík Zdeněk** Taurine-nitrogen utilized by bacteria: a diverse set of phenomena (Supervisor: Václav Pačes; University of Chemistry and Technology, Prague)

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- Mader Pavel** Structure, function and inhibition of human carbonic anhydrases  
(Supervisor: Jiří Brynda; 1st Faculty of Medicine, Charles University in Prague)
- Manning Jasper** Epigenetic agents induce MHC class I surface expression on tumor cells and reexpress an aberrantly silent marker of myeloid neoplasms  
(Supervisor: Milan Reiniš; 1st Faculty of Medicine, Charles University in Prague)
- Nováková Zora** Cytokine expression in chemically-induced senescence  
(Supervisor: Zdeněk Hodný; Faculty of Science, Charles University in Prague)
- Sedlák David** Panels of steroid receptor reporter cell lines for compound profiling and development of selective ligands for oestrogen receptor  $\alpha$  and  $\beta$   
(Supervisor: Petr Bartůňek; Faculty of Science, Charles University in Prague)
- Vopálenský Pavel** Evolution of photoreceptors  
(Supervisor: Zbyněk Kozmik; Faculty of Science, Charles University in Prague)

## 2011

- Brauer Rena** Key role for matrix metalloproteinases-19 and -28 in maintenance of intestinal homeostasis  
(Supervisor: Radislav Sedláček; Faculty of Medicine, Kiel University)
- Dráber Peter** Mechanisms of signal transduction by leUKocyte surface receptors and transmembrane adaptor proteins  
(Supervisor: Tomáš Brdička; Faculty of Science, Charles University in Prague)
- Dupačová Naoko** The role of Wnt signaling in embryonic development  
(Supervisor: Zbyněk Kozmik; Faculty of Science, Charles University in Prague)
- Dzijak Rastislav** Nuclear dynamics and interactions of myosin 1c  
(Supervisor: Pavel Hozák; Faculty of Science, Charles University in Prague)

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<b>Grekov Igor</b>	Experimental murine leishmaniasis and its application for drug discovery and study of pathogen-host interactions (Supervisor: Marie Lipoldová; 3rd Faculty of Medicine, Charles University in Prague)
<b>Hnilicová Jarmila</b>	Regulation of splicing in the context of the cell nucleus (Supervisor: David Staněk; Faculty of Science, Charles University in Prague)
<b>Hořejší Barbora</b>	Tubulin isotypes in cancerogenesis (Supervisor: Pavel Dráber; Faculty of Science, Charles University in Prague)
<b>Klíma Martin</b>	Molecular and functional characterization of the death receptor 6 (Supervisor: Ladislav Anděra; Faculty of Science, Charles University in Prague)
<b>Kobets Tetyana</b>	Methods for <i>Leishmania</i> parasites detection and quantification as a tool for study of pathogen-vector-host interactions (Supervisor: Marie Lipoldová; 3rd Faculty of Medicine, Charles University in Prague)
<b>Matoušková Magda</b>	Mechanisms of endogenous retrovirus control in the host cell (Supervisor: Jiří Hejnar; Faculty of Science, Charles University in Prague)
<b>Novotný Ivan</b>	Formation of spliceosomal snRNPs in the cell nucleus (Supervisor: David Staněk; Faculty of Science, Charles University in Prague)
<b>Ormsby Tereza</b>	Studies on immunoreceptor signaling molecules (Supervisor: Václav Hořejší; Faculty of Science, Charles University in Prague)
<b>Procházková Jana</b>	The role of cytokines in development and differentiation of regulatory T cells (Supervisor: Vladimír Holáň; Faculty of Science, Charles University in Prague)
<b>Rohožková Jana</b>	Molecular determination of plant/Potyvirus interaction. (Supervisor: Milan Navrátil; Faculty of Science, Palacký University Olomouc)

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**Štěpánek Ondřej** Regulation of signal transduction by leUKocyte surface proteins  
(Supervisor: Tomáš Brdička; Faculty of Science, Charles University in Prague)

## 2012

**Fafílek Bohumil** Adjusting Wnt signalling – new regulatory mechanisms of the Wnt pathway  
(Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)

**Flemr Matyáš** mRNA stability and microRNA activity in mouse oocytes.  
(Supervisor: Petr Svoboda; Faculty of Science, Charles University in Prague)

**Homolka David** Meiotic sex chromosome inactivation in mouse spermatogenesis  
(Supervisor Petr Jansa; Faculty of Science, Charles University in Prague)

**Hrdinka Matouš** The role of membrane microdomains and transmembrane adaptor proteins PRR7 and SCIMP in the regulation of immunoreceptor signaling  
(Supervisor: Karel Drbal; Faculty of Science, Charles University in Prague)

**Hroudová Miluše** Study of homeobox genes of the sweet water medusa *Craspedacusta sowerbyi*  
(Supervisor: Václav Pačes; University of Chemistry and Technology, Prague)

**Hubáčková Soňa** DNA damage and signalling pathways in cellular senescence  
(Supervisor: Zdeněk Hodný; Faculty of Science, Charles University in Prague)

**Kumpošt Jiří** Metabotropic glutamate receptors and their associated proteins involved in signaling  
(Supervisor: Jaroslav Blahoš; Faculty of Science, Charles University in Prague)

**Moserová Irena** Molecular mechanisms of apoptosis induced by photodynamic activation in cancer cells

(Supervisor: Jarmila Králová; Faculty of Science, Charles University in Prague)

**Moudrý Pavel**

Posttranslational modifications in DNA damage response  
(Supervisor: Zdeněk Hodný; Faculty of Science, Charles University in Prague)

**Neuwirth Aleš**

Defensins and autoimmunity: emerging  $\alpha$ -defensin based models to study mechanisms underpinning autoimmune processes  
(Supervisor: Dominik Filipp; Faculty of Science, Charles University in Prague)

**Pajer Petr**

From the search for new oncogenes to the effort of redefining the cancerogenesis phenomenon  
(Supervisor: Michal Dvořák; Faculty of Science, Charles University in Prague)

**Pokorná Kateřina**

Pre-clinical model of acute promyelocytic leukemia: Study of the anti-leUKemic effect induced by ATRA and DNA vaccination  
(Supervisor: Vladimír Holář; Faculty of Science, Charles University in Prague)

**Pospíchalová Vendula**

Regulatory mechanisms of Wnt signalling  
(Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)

**Tůmová Magda**

Regulatory functions of the transmembrane adaptor protein NTAL in activation of mast cells  
(Supervisor: Petr Dráber; Faculty of Science, Charles University in Prague)

**Vinopal Stanislav**

Functional characterization of selected microtubule regulatory proteins  
(Supervisor: Pavel Dráber; Faculty of Science, Charles University in Prague)

## 2013

**Lukáš Jan**

Molecular mechanisms of Wnt signalling in mammalian cells  
(Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)

- Bugajev Viktor** Identification and functional characterization of signalling microdomains important for mast cell activation  
(Supervisor: Petr Dráber; Faculty of Science, Charles University in Prague)
- Horová Vladimíra** Mechanism, regulation and use of TRAIL-induced apoptosis in cancer cells  
(Supervisor: Ladislav Anděra; Faculty of Science, Charles University in Prague)
- Nejepínská Jana** The effects of long double-stranded RNA expression in mammalian cells  
(Supervisor: Petr Svoboda; Faculty of Science, Charles University in Prague)
- Kozmiková Iryna** Bmp signaling in the evolution of chordate axial patterning  
(Supervisor: Zbyněk Kozmik; Faculty of Science, Charles University in Prague)
- Kosla Jan** Molecular mechanisms of fibroblastoid cell phenotype transitions: dedifferentiation of myofibroblasts and influencing of invasiveness and metastasis of sarcoma  
(Supervisor: Michal Dvořák; Faculty of Science, Charles University in Prague)
- Čermák Vladimír** Regulation of transcription by proteins of the Early growth response and Myb families  
(Supervisor: Michal Dvořák; Faculty of Science, Charles University in Prague)
- Yildirim Sukriye** Myosin-PIP2 interaction in the cell nucleus  
(Supervisor: Pavel Hozák; Istanbul University)
- Venit Tomáš** Myosin 1c isoforms and their functions in the cell nucleus and in the cytoplasm  
(Supervisor: Pavel Hozák; Faculty of Science, Charles University in Prague)
- 2014**
- Balounová Jana** Toll like receptors and myeloid cells in development and disease  
(Supervisor: Dominik Filipp; Faculty of Science, Charles University in Prague)

<b>Yahya Sohrabi</b>	Leishmania tropica: immunopathology and genetic control (Supervisor: Marie Lipoldová; 3rd faculty of Medicine, Charles University in Prague)
<b>Hozeifi Samira</b>	Regulation of alternative splicing via chromatin modifications (Supervisor: David Staněk; Faculty of Science, Charles University in Prague)
<b>Kozáková (Dušková) Eva</b>	Role of promoter in the regulation of alternative splicing (Supervisor: David Staněk; Faculty of Science, Charles University in Prague)
<b>Krausová Michaela</b>	Molecular mechanisms and components controlling the Wnt signalling pathway output (Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)
<b>Janečková Lucie</b>	Wnt signalling in intestinal homeostasis and tumorigenesis (supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)
<b>Polakovičová Iva</b>	Multiple regulatory roles of the transmembrane adaptor protein NTAL in gene transcription and mast cell physiology (Supervisor: Petr Dráber; Faculty of Science, Charles University in Prague)
<b>Pachl Petr</b>	Structural and inhibition study of 5'(3')-nucleotidases (Supervisor: Jiří Brynda; The Institute of Chemical Technology, Prague)
<b>Košař Martin</b>	Mechanisms of replicative, drug- and oncogene-induced cellular senescence (Supervisor: Jiří Bartek; First faculty of Medicine, Charles University in Prague)
<b>Burdová Kamila</b>	Molecular mechanisms underlying maintenance of genome stability (Supervisor: Pavel Janščák; Faculty of Science, Charles University in Prague)
<b>Pombinho António</b>	High-throughput screening for the discovery of small molecules modulating cell fate (Supervisor: Petr Bartůněk; Faculty of Science, Charles University in Prague)

**Kalendová Alžběta** Functions of actin and myosin 1c in the cell nucleus and in the cytoplasm  
(Supervisor: Pavel Hozák; Faculty of Science, Charles University in Prague)

**Philimonenko Anatoly** Development of ultrastructural methods and their application in studies of the cell nucleus  
(Supervisor: Pavel Hozák; Faculty of Science, Charles University in Prague)

## 2015

**Dobeš Jan** The role of enteric alpha-defensin expression in the establishment of central and peripheral tolerance  
(Supervisor: Dominik Filipp; Faculty of Science, Charles University in Prague)

**Stejskalová Eva** Formation of splicing machinery in the context of the cell nucleus  
(Supervisor: David Staněk; Faculty of Science, Charles University in Prague)

**Marášek Pavel** Localization matters: function of paxillin and phospholipids in the cell nucleus  
(Supervisor: Pavel Hozák; The Institute of Chemical Technology, Prague)

**Bruščíková Kateřina** Development of chemical regulators of microRNA and RNAi pathways (Supervisor: Petr Svoboda; Faculty of Science, Charles University in Prague)

**Škerlová Jana** Understanding the interaction of antibodies and transcription factors with their ligands through structural biology  
(Supervisor: Pavlína Řezáčová; Faculty of Science, Charles University in Prague)

**Drobek Aleš** Regulation of leukocyte signal transduction by adapter proteins with special focus on Csk anchoring proteins  
(Supervisor: Tomáš Brdička; Faculty of Science, Charles University in Prague)



**Kyjacová Lenka** Mechanismus nádorové rezistence  
(Supervisor: Zdeněk Hodný; Faculty of Science, Charles University in Prague)

**Svoboda Ondřej** Nové regulátory směřování do megakaryocytární a erythroidní linie  
(Supervisor: Petr Bartůněk; Faculty of Science, Charles University in Prague)

## 2019

**Zuzana Krchňáková** Determinants of the splice site selection in protein-coding and long non-coding RNAs  
(Supervisor: David Staněk; Charles University in Prague)

**Alena Moudrá** Pathophysiological development and differentiation of cells during hematopoiesis  
(Supervisor: Ondřej Štěpánek; Charles University in Prague)

**Yahya Sohrabi** Genetic regulation of Leishmania infection  
(Supervisor: Marie Lipoldová; Faculty of Science, Charles University in Prague)

**Oľga Babošová** Molecular basis of clonal heterogeneity of hematological diseases  
(Supervisor: Lucie Láníková; Faculty of Science, Charles University in Prague)

**Dušan Hrčkulák** The role of TCF4 transcription factor in intestinal epithelial stem cells and tumors  
(Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)

**Monika Šťastná** The role of the Msx1 transcription factor in the intestinal epithelia and colorectal cancer  
(Supervisor: Vladimír Kořínek; Faculty of Science, Charles University in Prague)

**Terezie Imrichová** Cell response to genotoxic stress-based anti-cancer therapies  
(Supervisor: Zdeněk Hodný; Charles University in Prague)

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<b>Blanka (Gabajová) Mázková</b>	L1CAM and its role in cellular senescence (Supervisor: Zdeněk Hodný; Charles University in Prague)
<b>Veronika Grešáková</b>	Functional analyses of dual role of Fam208a protein (Supervisor: Radislav Sedlacek; Palacký University Olomouc)
<b>Shohag Bhargava</b>	The role of Fam208a during mouse embryogenesis (Supervisor: Kallayane Chawengsaksophak; Charles University in Prague)
<b>Kateřina Jeřábková</b>	The roles of Trim15 and UCHL3 in the ubiquitin-mediated cell cycle regulation (Supervisor: Kallayane Chawengsaksophak; Charles University in Prague and Universite de Strasbourg (dual degree))
<b>Miroslava Kardošová</b>	Regulatory mechanisms in normal and malignant granulopoiesis (Supervisor: M. Alberich Jorda; Faculty of Science, Charles University in Prague)
<b>Sravya Ganesh</b>	Long Non-Coding RNAs in Oocyte-to-Embryo Transition (Supervisor: Petr Svoboda; Charles University in Prague)
<b>Radim Žídek</b>	Wnt/ $\beta$ -catenin signalling in the development of the marine annelid <i>Platynereis dumerilii</i> (Supervisor: Zbyněk Kozmik; Charles University in Prague)
<b>Dalibor Miklík</b>	Integration site distribution of expressed proviruses (Supervisor: Jiří Hejnar; Charles University in Prague)
 <b>2020</b>	
<b>Václav Gergelits</b>	Meiotic homologous recombination and hybrid sterility (Supervisor: Jiří Forejt; Charles University in Prague)
<b>Tomas Paulenda</b>	The role of ORMDL proteins in mast cell signaling (Supervisor: Petr Dráber; Charles University in Prague)
<b>Simon Borna</b>	Regulation of leukocyte signal transduction by membrane adapter proteins and kinases (Supervisor: Tomáš Brdička; Charles University in Prague)

<b>Veronica Biddle</b>	Analysis of functional interactions of phospholipids in the cell nucleus (Supervisor: Pavel Hozak; Charles University in Prague)
<b>Olga Žbodáková</b>	The role of ADAM17 and other metalloproteases in liver pathological processes (Supervisor: Radislav Sedláček; Charles University in Prague)
<b>Matouš Vobořil</b>	AIRE-expressing cells in immune tolerance in health and disease (Supervisor: Dominik Filipp; Charles University in Prague)
<b>Iva Šplíchalová</b>	The utility of Toll-like receptor 2 in defining progenitors of definitive embryonic hematopoiesis (Supervisor: Dominik Filipp; Charles University in Prague)
<b>Ivan Čmelo</b>	Computational approaches for chemical space exploration (Supervisor: Daniel Svozil; University of Chemistry and Technology Prague)
<b>Jana Oltová</b>	The role of Kit ligands in hematopoiesis of <i>Danio rerio</i> (Supervisor: Petr Bartunek; Palacký University Olomouc)