

# 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; 3. LF UK Praha)

Ivánek Robert DNA microarrays and bioinformatics in biomedical research

(Supervisors: Jiří Forejt, Stanislav Kmoch; PřF UK Praha)

Krejčiříková Veronika Structural studies of mouse galectin-4

(Supervisor: Jiří Brynda; PřF UK Praha)

Mihola Ondřej Positional cloning of Hst1 gene (Hybrid sterility 1) and molecular

analysis of candidate genes

(Supervisors: Zdeněk Trachtulec, Jiří Forejt; PřF UK Praha)

**Růžičková Jana** Eye evolution and development: an insight from jellyfish and mouse

(Supervisor: Zbyněk Kozmik; PřF UK Praha)

#### 2010

Huranová Martina Assembly and recycling of functional splicing complexes in vivo

(Supervisor: David Staněk; PřF UK Praha)

Krejčík Zdeněk Taurine-nitrogen utilized by bacteria: a diverse set of phenomena

(Supervisor: Václav Pačes; VŠCHT, Praha)

Mader Pavel Structure, function and inhibition of human carbonic anhydrases

(Supervisor: Jiří Brynda; 1. LF UK Praha)

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; 1. LF UK Praha)

Nováková Zora Cytokine expression in chemically-induced senescence

(Supervisor: Zdeněk Hodný; PřF UK Praha)



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; PřF UK Praha)

Vopálenský Pavel Evolution of photoreceptors

(Supervisor: Zbyněk Kozmik; PřF UK Praha)

2011

**Brauer Rena** Key role for matrix metalloproteinases-19 and -28 in maintenance of

intestinal homeostasis

(Supervisor: Radislav Sedláček; lékařská fakulta, Universita v Kielu)

**Dráber Peter** Mechanisms of signal transduction by leUKocyte surface receptors

and transmembrane adaptor proteins (Supervisor: Tomáš Brdička; PřF UK Praha)

**Dupačová Naoko** The role of Wnt signaling in embryonic development

(Supervisor: Zbyněk Kozmik; PřF UK Praha)

**Dzijak Rastislav** Nuclear dynamics and interactions of myosin 1c

(Supervisor: Pavel Hozák; PřF UK Praha)

**Grekov Igor** Experimental murine leishmaniasis and its application for drug

discovery and study of pathogen-host interactions

(Supervisor: M. Lipoldová; 3. LF UK Praha)

Hnilicová Jarmila Regulation of splicing in the context of the cell nucleus

(Supervisor: David Staněk; PřF UK Praha)

Hořejší Barbora Tubulin isotypes in cancerogenesis

(Supervisor: Pavel Dráber; PřF UK Praha)

Klíma Martin Molecular and functional characterization of the death receptor 6

(Supervisor: Ladislav Anděra; PřF UK Praha)

**Kobets Tetyana** Methods for *Leishmania* parasites detection and quantification as a

tool for study of pathogen-vector-host interactions (Supervisor: Marie Lipoldová; 3. LF UK Praha)

Matoušková Magda Mechanisms of endogenous retrovirus control in the host cell

(Supervisor: Jiří Hejnar; PřF UK Praha)



**Novotný Ivan** Formation of spliceosomal snRNPs in the cell nucleus

(Supervisor: David Staněk; PřF UK Praha)

Ormsby Tereza Studies on immunoreceptor signaling molecules

(Supervisor: Václav Hořejší; PřF UK Praha)

**Procházková Jana** The role of cytokines in development and differentiation of

regulatory T cells

(Supervisor: Vladimír Holáň; PřF UK Praha)

**Rohožková Jana** Molecular determination of plant/Potyvirus interaction.

(Supervisor: Milan Navrátil; přírodovědecká fakulta, Univerzita

Palackého, Olomouc)

**Štěpánek Ondřej** Regulation of signal transduction by leUKocyte surface proteins

(Supervisor: Tomáš Brdička; PřF UK Praha)

2012

**Fafílek Bohumil** Adjusting Wnt signalling – new regulatory mechanisms of the Wnt

pathway

(Supervisor: Vladimír Kořínek; PřF UK Praha)

**Flemr Matyáš** mRNA stability and microRNA activity in mouse oocytes.

(Supervisor: Petr Svoboda; PřF UK Praha)

Homolka David Meiotic sex chromosome inactivation in mouse spermatogenesis

(Supervisor Petr Jansa; PřF UK Praha)

Hrdinka Matouš The role of membrane microdomains and transmembrane adaptor

proteins PRR7 and SCIMP in the regulation of immunoreceptor

signaling

(Supervisor: Karel Drbal; PřF UK Praha)

**Hroudová Miluše** Study of homeobox genes of the sweet water medusa *Craspedacusta* 

sowerbyi

(Supervisor: Václav Pačes; VŠCHT Praha)

Hubáčková Soňa DNA damage and signalling pathways in cellular senescence

(Supervisor: Zdeněk Hodný; PřF UK Praha)



**Kumpošt Jiří** Metabotropic glutamate receptors and their associated proteins

involved in signaling

(Supervisor: Jaroslav Blahoš; PřF UK Praha)

Moserová Irena Molecular mechanisms of apoptosis induced by photodynamic

activation in cancer cells

(Supervisor: Jarmila Králová, PřF UK Praha)

Moudrý Pavel Posttranslational modifications in DNA damage response

(Supervisor: Zdeněk Hodný; PřF UK Praha)

**Neuwirth Aleš** Defensins and autoimmunity: emerging  $\alpha$ -defensin based models to

study mechanisms underpinning autoimmune processes

(Supervisor: Dominik Filipp; PřF UK Praha)

**Pajer Petr** From the search for new oncogenes to the effort of redefining the

cancerogenesis phenomenon

(Supervisor: Michal Dvořák, PřF UK Praha)

**Pokorná Kateřina** Pre-clinical model of acute promyelocytic leukemia: Study of the

anti-leUKemic effect induced by ATRA and DNA vaccination

(Supervisor: Vladimír Holáň; PřF UK Praha)

Pospíchalová Vendula Regulatory mechanisms of Wnt signalling

(Supervisor: Vladimír Kořínek; PřF UK Praha)

**Tůmová Magda** Regulatory functions of the transmembrane adaptor protein NTAL in

activation of mast cells

(Supervisor: Petr Dráber; PřF UK Praha)

Vinopal Stanislav Functional characterization of selected microtubule regulatory

proteins

(Supervisor: Pavel Dráber; PřF UK Praha)



#### 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, Instanbul 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)

Yahya Sohrabi Leishmania tropica: immunopathology and genetic control

(Supervisor: Marie Lipoldová, Third faculty of Medicine, Charles

University in Prague)

Hozeifi Samira Regulation of alternative splicing via chromatin modifications

(Supervisor: David Staněk, Faculty of Science, Charles University in

Prague)

Kozáková (Dušková) Eva Role of promoter in the regulation of alternative splicing

(Supervisor: David Staněk, Faculty of Science, Charles University in

Prague)

Krausová Michaela Molecular mechanisms and components controlling the Wnt

signalling pathway output

(Supervisor: Vladimír Kořínek, Faculty of Science, Charles University

in Prague)

Janečková Lucie Wnt signalling in intestinal homeostasis and tumorigenesis

(supervisor: Vladimír Kořínek, Faculty of Science, Charles University in

Prague)

Polakovičová Iva 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)

**Pachl Petr** Structural and inhibition study of 5'(3')-nucleotidases

(Supervisor: Jiří Brynda, The Institute of Chemical Technology,

Prague)

Košař Martin Mechanisms of replicative, drug- and oncogene-induced cellular

senescence

(Supervisor: Jiří Bartek, First faculty of Medicine, Charles University

in Prague)

**Burdová Kamila** Molecular mechanisms underlying maintenance of genome stability

(Supervisor: Pavel Janščák, Faculty of Science, Charles University in

Prague)



Pombinho António 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

ofcentral 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)

**Bruštíková 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)