

Contact Information:

Petr Kaspárek
Institute of Molecular Genetics of CAS
Laboratory of Transgenic models of diseases
Videnska 1083, 142 20, Prague, Czech Republic

Email: kasperek.cz@gmail.com

Work Experience

06/2017 – present Head of Targeting Unit, Deputy head of Transgenic and Archiving Unit,
Institute of Molecular Genetics, Prague
04/2017 – present postdoctoral fellow, Institute of Molecular Genetics, Laboratory of
Transgenic models of diseases
10/2010 – 04/2017 PhD student, Laboratory of Transgenic models of diseases, Institute of
Molecular Genetics, Prague
10/2008 – 07/2010 Undergraduate student, Laboratory of Transgenic models of diseases,
Institute of Molecular Genetics, Prague

Education

10/2010 – 04/2017 PhD studies, Charles University in Prague, Faculty of Natural Sciences
Institute of Molecular Genetics, Prague
Laboratory of Transgenic models of diseases
10/2008 – 02/2010 Master studies, Charles University in Prague
Cellular and Developmental biology
10/2006 – 07/2008 Bachelor studies
Charles University in Prague, Faculty of Natural Sciences

Teaching Experience

- Lectures on Programmable nucleases at Charles University, Prague/Institute of Molecular Genetics, Prague, Course - Advances in Molecular Biology (2013)
- Lecture on TALEN technology at the University of South Bohemia, Advances in Molecular Biology (2014)
- Lecture at Biocentre Oulu, Finland, Programmable nucleases in Mouse Models (2014)
- Lecture on TALEN and CRISPR/Cas9 technology at Charles University, Prague/Institute of Molecular Genetics, Prague, Course - Advances in Molecular Biology (2015)

Publications:

Wald T, Spoutil F, Osickova A, Prochazkova M, Benada O, **Kasperek P**, Bumba L, Klein OD, Sedlacek R, Sebo P, Prochazka J, Osicka R. "Intrinsically disordered proteins drive enamel formation via an evolutionarily conserved self-assembly motif." *Proc Natl Acad Sci U S A*, **2017**, 114(9):E1641-E1650

Kasperek P, Ileninova Z, Zbodakova O, Kanchev I, Benada O, Chalupsky K, Brattsand M, Beck I, Sedlacek R. "KLK5 and KLK7 ablation fully rescues lethality of Netherton Syndrome-like phenotype" *PLOS Genetics*, **2017**, 13(1)

Seipold L, Damme M, Prox J, Rabe B, **Kasperek P**, Sedlacek R, Altmeyden H, Willem M, Boland B, Glatzel M, Saftig P. "Tetraspanin 3: A central endocytic membrane component regulating the expression of ADAM10, presenilin and the amyloid precursor protein" *Biochimica et Biophysica Acta (BBA) Molecular Cell Research*, **2017**, 1864(1): 217-230

Kasperek P, Ileninova Z, Haneckova R, Kanchev I, Jenickova I, Sedlacek R. "A viable mouse model for Netherton syndrome based on mosaic inactivation of Spink5 gene" *Biological Chemistry*, **2016**, 397(12): 1287-1292

Brauer R, Tureckova J, Kanchev I, Khoylou M, Skarda J, Prochazka J, Spoutil F, Beck IM, Zbodakova O, **Kasperek P**, Korinek V, Chalupsky K, Karhu T, Herzig KH, Hajdich M, Gregor M, Sedlacek R. "MMP-19 deficiency causes aggravation of colitis due to defects in innate immune cell function" *Mucosal Immunology*, **2016**, 9(4):974-85

Kasperek P, Krausova M, Haneckova R, Kriz V, Zbodakova O, Korinek V, Sedlacek R. "Efficient gene targeting of the Rosa26 locus in mouse zygotes using TALE nucleases" *FEBS Letters*, **2014**, 588(21):3982-8

Kasperek P, Krenek P, Buryova H, Suchanova S, Beck IM, Sedlacek R. "Transgenic mouse model expressing tdTomato under involucrin promoter as a tool for analysis of epidermal differentiation and wound healing" *Transgenic research*, **2012** 21(3): 683-689

Conference Contributions – Oral Communications:

Workshop on Innovative Mouse Models, 2013, Leiden, Netherlands

Mouse Model Workshop, 2014, Oulu, Finland

6th International Symposium on Kallikreins and Kallikrein-Related Peptidases, 2015, Brisbane, Australia – best oral presentation Award

13th Transgenic Technology meeting, 2016, Prague, Czech Republic

GRC Barrier Function of mammalian skin, 2017, Waterville Valley, USA

ISK2017, 2017, Tours, France

Fellowships and Awards

- 6th International Symposium on Kallikreins and Kallidrein-Related Peptidases 2015, Brisbane – Best oral presentation award
- Neuron Impuls (Biology) for young researchers (Neuron Foundation), 2017