

Gabriela Pavlinkova

Campus Address:

Laboratory of Molecular Pathogenetics, Institute of Biotechnology CAS, BIOCEV, Průmyslová 595, Vestec
Phone: (+402) 734410682 E-mail: gpavlinkova@ibt.cas.cz

Education

- Ph.D. in Immunology (2000), Charles University, Prague, Czech Republic.
- RNDr. (Doctor of Natural Sciences) (1989), Immunology and Developmental Biology, Charles University, Prague, Czechoslovakia.

Current Position

since 2008 Head of Laboratory of Molecular Pathogenetics, Institute of Biotechnology Czech Academy of Sciences, Prague, Czech Republic

Prior Employment

2005-2008	Assistant Professor; Pediatrics Department, Department of Genetics, Cell Biology & Anatomy, University of Nebraska Medical Center, Omaha, NE
2002-2003	Instructor; Department of Radiation Oncology, University of Nebraska Medical Center, Omaha, NE
2001-2002	Visiting Professor; Dept. of Immunology, Hokkaido University, Sapporo, Japan
1998-2002	Instructor, Research Associate; Dept. of Pathology and Microbiology, University of Nebraska Medical Center, Omaha, NE
1991-1998	Senior Research Analyst, Microbiology and Immunology, University of Kentucky, Lexington, KY; Scientist, <i>Immpheron, Inc.</i> , Lexington, KY (1995-1996)
1989-1990	Research Assistant, Dept. of Pathology, Charles University Medical School, Prague, Czechoslovakia

Patents: U.S. # 5800991; Issue date: Sep 1, 1998; Assignee: University of Kentucky Research Foundation

Consulting Positions

1997-2001, Consultant, Immpheron, Inc., Lexington, KY

Honors and Awards

- 2009- Expert Evaluator of calls FP7-PEOPLE, FP7-Health, H20/20
- 2009- 2014 member of Rada Institute of Biotechnology AS CR, v.v.i.
- 2009- member of Rada Biocev and member of Správní Rada BIOCEV z.s.p.o
- 2015- Evaluator for Czech Grant Agency

Professional achievements:

38 publications, co-author of 3 book chapters, 1032 citations, h-index 19,

Funding: Czech Grant Agency (GAČR), FP7, NIH, U.S. Army, American Cancer Society

Main fields of research: Pathophysiological mechanisms of diabetes mellitus, transcriptional regulation in development and disease, epigenetics, molecular mechanisms of hypoxia and diabetes

SELECTED PROFESSIONAL PUBLICATIONS

1. Pavlinkova G*, Margaryan H, Zatecka E, Valaskova E, Elzeinova F, Kubatova A, Bohuslavova R, Peknicova J. Transgenerational inheritance of susceptibility to diabetes-induced male subfertility. *Scientific Reports*. 2017; 7: 4940.
2. Bohuslavova R, Cerychova R, Nepomucka K, Pavlinkova G*. Renal injury is accelerated by global hypoxia-inducible factor 1 alpha deficiency in a mouse model of STZ-induced diabetes. *BMC Endocrine Disorders*. 2017; 17: 48.

3. Bohuslavova R, Dodd N, Macova I, Chumak T, Horak M, Syka J, Fritzsche B, Pavlinkova G*. Pax2-Islet1 Transgenic Mice Are Hyperactive and Have Altered Cerebellar Foliation. *Molecular Neurobiology* 2017, 54(2): 1352–1368.
4. Dvorakova M, Jahan I, Macova I, Chumak T, Bohuslavova R, Syka J, Fritzsche B, Pavlinkova G*. Incomplete and delayed Sox2 deletion defines residual ear neurosensory development and maintenance. *Scientific Reports*. 2016, 6:38253.
5. Chumak T, Bohuslavova R, Macova I, Dodd N, Buckiova D, Fritzsche B, Syka J, Pavlinkova G*. Deterioration of the Medial Olivocochlear Efferent System Accelerates Age-Related Hearing Loss in Pax2-Is11 Transgenic Mice. *Molecular Neurobiology* 2016 May;53(4):2368-83.
6. Bohuslavova R, Skvorova L, Cerychova R, Pavlinkova G*. Gene expression profiling of changes induced by maternal diabetes in the embryonic heart. *Reprod Toxicol*. 2015 Nov;57:147-56. (Published image was selected for the journal cover.)
7. Ornoy A, Reece EA, Pavlinkova G, Kappen C, Miller RK. Effect of maternal diabetes on the embryo, fetus, and children: congenital anomalies, genetic and epigenetic changes and developmental outcomes. *Birth Defects Res C Embryo Today*. 2015 Mar;105(1):53-72.
8. Bohuslavova R, Kolar F, Sedmera D, Skvorova L, Papousek F, Neckar J, Pavlinkova G*. Partial deficiency of HIF-1 α stimulates pathological cardiac changes in streptozotocin-induced diabetic mice. *BMC Endocrine Disorders*. 2014;14:11.
9. Bohuslavova R1, Skvorova L, Sedmera D, Semenza GL, Pavlinkova G*. Increased susceptibility of HIF-1 α heterozygous-null mice to cardiovascular malformations associated with maternal diabetes. *J Molecular and Cellular Cardiology*. 2013 60:129-41.
10. Salbaum JM, Kruger C, Zhang X, Delahaye NA, Pavlinkova G, Burk DH, Kappen C. Altered gene expression and spongiotrophoblast differentiation in placenta from a mouse model of diabetes in pregnancy. *Diabetologia*. 2011 Jul;54(7):1909-20.
11. Bohuslavova R, Kolár F, Kuthanova L, Neckar J, Tichopad A, Pavlinkova G*. Gene expression profiling of gender differences in HIF1-dependent adaptive cardiac responses to chronic hypoxia. *J Appl Physiol*. 2010 Oct;109(4):1195-202.
12. Pavlinkova, G; Salbaum, JM; Kappen, C. Maternal Diabetes alters Transcriptional Programs in the Developing Embryo. *BMC Genomics* 2009, 10:274.
13. Pavlinkova, G; Salbaum, JM; Kappen, C. Wnt signaling in caudal dysgenesis and diabetic embryopathy. *Birth Defects Res A Clin Mol Teratol*. 82, 710-9, 2008.
14. Pavlinkova, G; Colcher, D; Booth, BJM; *et al*. Effects of humanization and gene shuffling on immunogenicity and antigen binding of anti-TAG-72 single-chain Fvs. *Int J Cancer*. 94(5):717-26, 2001.
15. Goel, A; Baranowska-Kortylewicz, J; Hinrichs, SH; Wisecarver, J; Pavlinkova, G; *et al*. 99mTc-labeled divalent and tetravalent CC49 single-chain Fv's: novel imaging agents for rapid in vivo localization of human colon carcinoma. *J Nuclear Med*. 42(10):1519-27, 2001.
16. Goel, A; Augustine, S; Baranowska-Kortylewicz, J; Colcher, D; Booth, BJM; Pavlinkova, G; Tempero, M; Batra, S K. Single-Dose versus fractionated radioimmunotherapy of human colon carcinoma xenografts using 131I-labeled multivalent CC49 single-chain fvs. *Clin Cancer Res*. 7(1):175-84, 2001.
17. Goel, A; Colcher, D; Baranowska-Kortylewicz, J; Augustine, S; Booth, BJM; Pavlinkova, G; Batra, S K. Genetically engineered tetravalent single-chain Fv of the pancarcinoma monoclonal antibody CC49: improved biodistribution and potential for therapeutic application. *Cancer Res*. 60(24):6964-71, 2000.
18. Pavlinkova, G; Booth, BJM; Batra, SK; Colcher, D. Radioimmunotherapy of human colon cancer xenografts using dimeric single-chain Fv antibody construct. *Clin Cancer Res* 5:2613-2619, 1999.
19. Pavlinkova, G; Beresford, G; *et al*. Engineering, pharmacokinetics and biodistribution of single chain antibody constructs of monoclonal antibody CC49. *J Nuclear Med* 40:1536-1546, 1999.
20. Pavlinkova, G; *et al*. Pharmacokinetics and biodistribution of engineered single-chain antibody constructs of MAb CC49 in colon carcinoma xenografts. *J Nuclear Med* 40:9, 1536-1546, 1999.
21. Beresford, GW; Pavlinkova, G; Booth, BJM; Batra, SK; Colcher, D. Binding characteristics and tumor targeting of a covalently-linked divalent CC49 single-chain antibody. *Int J Cancer* 81:911-917, 1999.
22. Rajagopalan, K*; Pavlinkova, G*; Levy, S; Pokkuluri, PR; Schiffer, M; Haley, B; Kohler, H. Novel unconventional binding site in the variable region of immunoglobulins. *Proc Natl Acad Sci USA* 93:6019-6024, 1996. (* both these authors have equal contribution).