**Curriculum vitae**

**Personal information**

Family name, First name: Bábíčková, Janka, MSc., PhD.

Date of birth: 28.04.1987

Contact: jana.babickova@gmail.com; +47 458 42 150; +421 903 754 873

ORCID: 0000-0001-7859-9242, Researcher ID: M-5809-2015

URL: https://publons.com/researcher/2353282/janka-babickova/

**Professional experience**

**01/09/2021 –** Researcher, Department of Clinical Medicine, University of Bergen, Norway

**01/09/2019 – 31/08/2021 -** VisitingResearch fellow, Vanderbilt University Medical Center, Nashville, Tennessee, USA

**01/03/2017 – 31/08/2019 -** Postdoctoral Fellow, Department of Clinical Medicine, University of Bergen, Norway

**01/09/2015 – 28/02/2017 -** Postdoctoral researcher, Institute of Molecular Biomedicine, Faculty of Medicine, Comenius University, Bratislava

**Education**

**2011 - 2015** PhD. in Normal and Pathological Physiology, Faculty of Medicine, Comenius University, Bratislava

1. **- 2011** MSc. in Molecular Biology, Faculty of Natural Sciences, Comenius University, Bratislava

**2006 - 2009** BSc. in Biology, Faculty of Natural Sciences, Comenius University, Bratislava

**Publications overview**

Co-author of 42 peer-reviewed CC/IF accepted publications (6 as the first author, 1 as the last author), of which 34 are original papers and 5 are review manuscripts, 1 book chapter.

**Mobility & international working experience**

**07/03/2012 – 31/08/2013** Division of Nephrology & Institute of Pathology, RWTH University of Aachen,

 Aachen, Germany (18 months)

**01/05/2018 – 31/06/2018** National Institute for Health and Medical Research**,** Unité Mixte de Recherche-S1155, Batiment Recherche, Tenon Hospital, Paris, France (2 months)

**01/09/2019 – 31/08/2021** Vanderbilt University Medical Center, Nashville, Tennessee, USA (24 months)

**Language skills**

|  |  |
| --- | --- |
| Mother tongue(s) |  Slovak |
|  |  |
| Other language(s) | UNDERSTANDING | SPEAKING | WRITING |
| Listening | Reading | Spoken interaction | Spoken production |  |
| **English** | C2 | C2 | C2 | C2 | C2 |
| **Norwegian[[1]](#footnote-1)** | C2 | C2 | C2 | C2 | C2 |
| **German** | B2 | B2 | B2 | B2 | B2 |
|  |  |

**Student Supervision & team management experience**

Hassan Elsaid (PhD, 2017-2022), Anne Kipp (MSc, 2018-2019), Kristina Tormova (MD, 2016-2017), Andrej Poljovka (BSc, 2016-2017), Jordanka Homolova (MSc, 2015-2017).

**Project management: Design and delivery**

**2021-** Project: ‘Single cell sequencing in archival biopsies in patients with minimal change’

 Ongoing project aimed at identification of novel signaling pathways and disease markers in podocytes of patients with minimal change disease.

**2019-** Project: ‘Tubular injury and its consequences for subsequent glomerular injury’

Ongoing project investigating the relationship between injury to different nephron parts. In cooperation with Prof. Fogo from the Vanderbilt University Medical Center, Nashville, Tennessee**.**

* Project participant via Marie Skłodowska Curie stipend (No. 842619-DIE\_CKD)

**2019-** Project: ‘Establishment of zebrafish model of Fabry disease’

Ongoing project usingCRISPR/Cas9 in zebrafish in order to establish a novel animal model of Fabry disease.

* Project initiator & participant
* Main supervisor of PhD student Hassan Elsaid responsible for the project

**2018-** Project:‘Establishment of cellular model of Fabry disease in human podocytes’

Ongoing project using CRISPR/Cas9 and siRNA for knockout/knockdown of α-galactosidase to establish a cellular model of hereditary Fabry disease.

* Project leader

**2015- 2017** Project: “The role of extracellular DNA in the pathophysiology of renal disease”

 Supported by the Comenius University Grant for PhD students and young scientists: „Extracellular DNA and the kidneys: concentration and the role in the pathophysiology of renal diseases (UK/374/2016)”, total amount: 1000 €

* Project leader, supervision of 1 MSc student (graduated 2017)

**2014- 2016** Project: “The role of steroid hormones and their receptors in the pathophysiology of colitis”

 (Included in publication: Bábíčková et al. Sex Differences in Experimentally Induced Colitis in Mice: A Role for Estrogens. Inflammation. 38(5): 1996-2006)

 Supported by the following Comenius University Grant for PhD. students and young scientists: “The role of estradiol and estrogen receptors in colitis (UK/315/2015)”, total amount: 1000 €

* Project leader

**2015- 2016** Project: “Colitis in pregnancy” Financed by own funds of the laboratory.

 (project still on-going, publication foreseen in 2018)

**Skills and expertise:**

***Laboratory skills:***

**Molecular biology**: Isolation of nucleic acids, PCR, real-time PCR, gel electrophoresis, molecular cloning, electroporation, working with bacteriophages and phage display screening.

**Microbiology and biochemistry**: Cultivation and propagation of bacteria, ELISA, pyrogallol red protein assay, Jaffe reaction, MPO activity.

**Histology and histopathological evaluation**: Standard immunohistochemistry and immunofluorescence including troubleshooting, evaluation of tissue damage.

**Electron microscopy**: Evaluation of transmission and scanning electron photomicrographs.

**Cell culture**: Standard cell culture methods, siRNA KD experiments.

**Working with experimental animals:**

Approvals:

- In 2015, certificate from the Slovak Veterinary and Food Association for completion of the course: “Animal welfare and protection of animals used for scientific purposes”**,** that provides the approval to work with experimental animals.

- In 2020: certificate from Institutional Animal Care and Use Committee

Practical Skills:

**Anaesthesia** (inhalative and chemical), **Blood collection** (retro-orbital plexus, jugular vein, tail vain, abdominal aorta), including i.v. injections).

**Surgical procedures:** Nephrectomy (uni- or bilateral; 5/6), ureteral obstruction (uni or bilateral), ischemia-reperfusion injury (uni- or bilateral), caecal ligation and puncture (sepsis model), bile duct ligation (liver fibrosis), orchiectomy, ovariectomy, caesarean section, and adrenalectomy.

**Software proficiency:**

Adobe Acrobat & Photoshop & Illustrator, ImageJ, NDP.view, Aperio Image Scope, Microsoft Office Word & Excel & PowerPoint, GraphPad Prism, SPSS, EndNote.

**Publications**

Accepted CC/IF peer-reviewed publications: 42; Submitted CC/IF publications: 5

- Original work: 37 (4 as thefirst author, 1 as the last author, 5 in Q1 Journals)

- Reviews: 5 (2 as the first author, 1 in Q1 Journals)

- SCI citations: 759 (excluding self-citations), **h-index: 15**

**-** Book chapter: 1

1. Elsaid HOA, Tjeldnes H, Rivedal M, Serre C, Eikrem Ø, Svarstad E, Tøndel C, Marti HP, Furriol J, **Bábíčková J:** Gene Expression Analysis in gla-Mutant Zebrafish reveals Enhanced Ca2+ Signaling Similar to Fabry Disease. **Int J Mol Sci**, 2022, Dec 26;24(1):358, IF = 5.924.
2. Kovalcikova GA, Janovicova L, Hodosy J, **Bábíčková J,** Vavrincová-Yaghi D, Vavrinec P, Boor P, Podracká Ľ, Šebeková K, Celec P, Tóthová Ľ: Extracellular DNA concentrations in various aetiologies of acute kidney injury. **Sci Rep**, 2022 Oct 7;12(1):16812, IF = 4.997.
3. Jancuska A, Potocarova A, Kovalcikova AG, Podracka L, **Bábíčková J,** Celec P, Tothova L: Dynamics of Plasma and urinary extracellular DNA in Acute Kidney Injury. **Int J Mol Sci**, 2022, Mar 21;23(6):3402, IF = 5.924.
4. Elsaid HOA, Furriol J, Blomqvist M, Diswall M, Leh S, Gharbi N, Anonsen JH, **Bábíčková J**,Tøndel C**,** Svarstad E,Marti HP, Krause M: Reduced α-galactosidase A activity in zebrafish (*Danio rerio*) mirrors distinct features of Fabry nephropathy phenotype. **Mol Genet Metab Rep**, 2022, 31:100851, IF = 1.83.
5. Eikrem Ø, Kotopoulis S, Popa M, Safont MM, Fossan KO, Leh S, Landolt L, **Bábíčková J**,GudbrandsenOA, Riedel B, Schjøtt J, McCormack E, Marti HP: Ultrosound and Microbubbles Enhance Uptake of Doxorubicin in Murine Kidneys. **Pharmaceutics**, 2021, 13(12):2038, IF = 5.875.
6. Tulinska J, Krivošíková Z, Líšková A, Mikušová ML, Masanova V, Rollerova E, Stefikova K, Wsolova L, Babelova A, Tóthová Ľ, Busova M, **Bábíčková J**, Uhnakova I, Alacova R, Dusinska M, Horvathova M, Szabova M, Vecera Z, Mikuska P, Coufalik P, Krumal K, Alexa L, Piler P, Thon V, Docekal B: Six-week inhalation lead oxide nanoparticles in mice affects antioxidant defence, immune response, kidneys, intestine and bones. **Environmental Science: Nano**, 2021, doi:[10.1039/D1EN00957E](https://doi.org/10.1039/D1EN00957E), IF = 8.131.
7. Hoel A, Osman T, Hoel F, Elsaid H, Chen T, Landolt L, **Bábíčková J,** Tronstad K, Lorens J,Gausdal G, Marti HP and Furriol J: Axl-inhibitor bemecentinib alleviates mitochondrial dysfunction in the unilateral ureter obstruction murine model. **J Cell Mol Med**, 2021, 25(15):7407-7417, IF = 5.31.
8. Konečná B, Chobodová P, Janko J, Baňasová L, **Bábíčková J**, Celec P, Tóthová Ľ: The Effect of Melatonin on Periodontitis. **Int J Mol Sci**, 2021, 22(5):2390, IF = 4.556.
9. Homolová J, Janovičová Ľ, Konečná B, Vlková B, Celec P, Tóthová Ľ, **Bábíčková J**: Plasma Concentrations of Extracellular DNA in Acute Kidney Injury. **Diagnostics** (Basel), 10(3):152, 2020; IF = 2.489.
10. Vráblicová Z, Tomová K, Tóthová Ľ, Bábíčková J, Gromová B, Konečná B, Lipták R, Hlavatý T, Gardlík R: Nuclear and Mitochondrial Cell-Free DNA is Increased in Patients with Inflammatory Bowel Disease in Clinical Remission. **Front Med** (Lausanne), 2020 Dec 14;7:593316. doi: 10.3389/fmed.2020.593316. eCollection 2020; IF = 3.9.
11. Gyurászová M, Gurecká R, **Bábíčková J**, Tóthová Ľ: Oxidative Stress in the Pathophysiology of Kidney Disease: Implications of Noninvasive Monitoring and Identification of Biomarkers. **Oxid Med Cell Longev**, 2020:5478708, 2020, IF = 4.580.
12. Liskova A, Tulinska J, Mikusova ML, Rollerova E, Krivosikova Z, Stefikova K, Masanova V, Uhnakova I, Ursinyova M, **Babickova J**, Babelova A, Busova M, Tothova L, Wsolova L, Dusinska M, Alacova R, Vecera Z, Mikuska P, Coufalik P, Krumal K, Capka L, Docekal B: Six weeks inhalation of CdO nanoparticles: the effect on immune response, oxidative stress, antioxidative defence, fibrotic response and bones in mice. **Food Chem Toxicol**, 136:110954, 2020, IF = 3.775.
13. Landolt L, Furriol J, **Babickova J**, Ahmed L, Eikrem Ø, Skogstrand T, Suliman S, Leh S, Lorens JB, Gausdal G, Marti HP, Osman T: AXL targeting reduces fibrosis development in experimental ureteral obstruction. **Physiol Rep**, 7(10):e14091, 2019; IF = 1.324
14. Baues M, Klinkhammer BM, Ehling J, Gremse F, van Zandvoort MAMJ, Reutelingsperger CPM, Daniel C, Amann K, **Babickova J**, Kiessling F, Floege J, Lammers T, Boor P: Collagen-specific molecular imaging of renal fibrosis. **Kidney Int**, 97(3):609-614., 2019; IF= 8.306; **Q1**[[2]](#footnote-2)#
15. Gyurászová M**,** Gaal KA,Domonkos E, Kmetova K, Celec P, **Bábíčková J,** Tothova L: Oxidative stress in animal models of acute and chronic renal failure. **Disease markers**, Feb 11;2019:8690805, 2019; IF = 2.949
16. **Bábíčková J,** Čonka J,Janovičová L, Boriš M, Konečná B, Gardlík R: Extracellular DNA as a Prognostic and Therapeutic Target in Mouse Colitis under DNase I Treatment. **Folia Biol (Praha)**, 64(1):10-15, 2018; IF = 0.939
17. **Bábíčková J**, Klinkhammer BM, Buhl EM, Djudjaj S, Hoss M, Heymann F, Tacke F, Floege J, Becker, Boor P: Ultrastructural and functional alterations of peritubular capillaries in progressiverenal disease. **Kidney Int**, 91(1):70-85, 2017; IF = 8.395[[3]](#footnote-3)\*; **Q1**[[4]](#footnote-4)#
18. Borbélyová V, Domonkos E, **Bábíčková J**,Tothova L, Kačmárová M, Uličná O, Ostatníková D, Hodosy J, Celec P: Does long-term androgen deficiency lead to metabolic syndrome in aged rats? **Experimental Gerontology**, 98: 38-46, 2017, IF = 3.340
19. Lauková L, Konečná B, **Bábíčková J**, Wagnerová A, Melišková V, Celec P, Vlková B: Exogeneous deoxyribonuclease has a protective effect in a mouse model of sepsis. **Biomed Pharmacother**, 93:8-16, 2017; IF = 2.759
20. Vokálová, Lauková L, Čonka J, Melišková V, Borbélyová V, **Bábíčková J**, Tóthová L, Hodosy J, Vlková B, Celec P: Deoxyribonuclease partially ameliorates thioacetamide-induced hepatorenal injury. **Am J Physiol Gastrointest Liver Physiol**, 312(5):G457-G463, 2017; IF = 3.468
21. Borbélyová V Domonkos E, **Bábíčková J**, Tóthová Ľ, Bosý M, Hodosy J, Celec P: No effect of testosterone on behavior in aged Wistar rats. **Aging**,8(11):2848-2861, 2016; IF = 6.432
22. Wagnerová A, **Bábíčková J**, Lipták R, Celec P, Gardlík R: Beneficial effects of live and death Salmonella-based vector strain on the course of colitis in mice. **Lett Appl Microbiol,** 63(5):340-346, 2016; IF = 1.749
23. Wagnerová A, **Bábíčková J,** Lipták R, Celec P, Vlková B, Gardlík R: Sex differences in the effect of Resveratrol on DSS-Induced Colitis in Mice. **Gastroenterol Res Pract**, Epub 2017 Mar 29; IF = 1.863
24. Buhl EM, Djudjaj S, **Bábíčková J**, Klinkhammer BM, Folestad E, Borkham-Kamphorst E, Weiskirchen R, Hudkins K, Alpers CE, Eriksson U, Floege J, Boor P: The role of PDGF-D in healthy and fibrotic kidney. **Kidney Int**, 89 (4): 848-61, 2016; IF = 8.395[[5]](#footnote-5)\*; SJR: **Q1**[[6]](#footnote-6)#
25. Ehling J, **Bábíčková J**, Gremse F, Klinkhammer BM, Baetke S, Knuechel R, Kiessling F, Floege J, Lammers T, Boor P: Quantitative Micro-Computed Tomography Imaging of Vascular Dysfunction in Progressive Kidney Diseases. **J Am Soc Nephrol**, 27 (2): 520-32, 2016; IF = 9.343\*; **Q1**[[7]](#footnote-7)$
26. Janšáková K, **Bábíčková J**, Havrlentova M, Hodosy J, Kraic J, Celec P, Tothova L: The effects of anthocyanin-rich wheat diet on the oxidative status and behavior of rats. **Croat Med J**, 57 (2): 119-29, 2016; IF = 1.783
27. Boor P, **Bábíčková J**, Steegh F, Hautvast P, Martin IV, Djudjaj S, Nakagawa T, Ehling J, Gremse F, Bucher E, Eriksson U, van Roeyen CR, Eitner F, Lammers T, Floege J, Peutz-Kootstra CJ, Ostendorf T: Role of Platelet-Derived Growth Factor-CC in Capillary Rarefaction in Renal Fibrosis. **Am J Pathol**, 185 (8): 2132-42, 2015; IF = 4.206\*; **Q1**[[8]](#footnote-8)†
28. **Bábíčková J**, Tóthová Ľ, Lengyelová E, Bartoňová A, Hodosy J, Gardlík R, Celec P: Sex Differences in Experimentally Induced Colitis in Mice: a Role for Estrogens. **Inflammation**, 38(5):1996-2006, 2015; IF = 2.618
29. **Bábíčková J**, Borbélyová V, Tóthová L, Kubišová K, Janega P, Hodosy J, Celec P: The renal effects of prenatal testosterone in rats. **J Urol**, 193(5):1700-8, 2015; IF = IF = 4.700; Q1 = 2.259[[9]](#footnote-9)+
30. Filova B, Malinova M, **Bábíčková J**, Tothova L, Ostatnikova D, Celec P, Hodosy J**:** Effects of testosterone and estradiol on anxiety and depressive-like behavior via a non-genomic pathway. **Neurosci Bull**, 31(3):288-96, 2015; IF = 2.322
31. Filová B, Domonkos, Borbélyová V, **Bábíčková J**, Tóthová Ľ, Ostatníková D, Celec P, Hodosy J. Does the non-genomic effect of testosterone on social anxiety require the presence of a classical steroid receptor? **Acta Neurobiol Exp (Wars)**, 75(4): 457-61, 2015; IF = 2.244
32. Tothova L, **Bábíčková J**, Borbelyova V, Filova B, Sebekova K, Hodosy J: Chronic renal insufficiency does not induce behavioral and cognitive alteration in rats. **Physiol Behav**, 138: 133-140, 2015; IF = 2.461\*
33. Janšáková K, **Bábíčková J**, Filová B, Lengyelová E, Havrlentová M, Kraic J, Celec P, Tóthová Ľ: Anthocyanin – Rich Diet in Chemically Induced Colitis in Mice. **Folia Biol (Praha)**, 61(3): 104-109, 2015; IF = 1.000
34. Tothova L, Hodosy J, Mettenburg K, Fabryova H, Wagnerova A, **Bábíčková J**, Okuliarova M, Zeman M, Celec P: No harmful effect of different Coca-cola beverages after 6 months of intake on rat testes. **Food Chem Toxicol**, 31 (62): 343-348, 2013; IF = 2.610
35. Tothova L, **Bábíčková J**, Celec P: Phage Survival: the biodegradability of M13 phage display library in vitro. **Biotechnol Appl Biochem**, 59: (6) 490-494, 2012; IF = 1.429
36. Tothova L, **Bábíčková J**, Celec P: The effects of antioxidative additives on electroporation efficacy. **Gene Ther Mol Biol**, 14: 42-48, 2012; IF = 0.429
37. Tothova L, Celec P, **Bábíčková J**, Gajdosova J, Al-Alami H, Kamodyova N, Drahovska H, Liptakova A, Turna J, **Hodosy J**: Phage therapy of Cronobacter-induced urinary tract infection in mice. **Med Sci Monit**, 17 (7): 173-178, 2011; IF = 1.358

**Reviews:**

1. **Bábíčková J**, Gardlik R: Pathological and therapeutic interactions between bacteriophages, microbes and the host in inflammatory bowel disease. **World J Gastroenterol**, 21 (40): 11321-30, 2015; IF = 2.369[[10]](#footnote-10)\*
2. **Bábíčková J**, Tothova L, Boor P, Celec P: In vivo phage display - A discovery tool in molecular biomedicine. **Biotechnol Adv**, 31 (8): 1247-1259, 2013; IF = 8.905; **Q1**[[11]](#footnote-11)®
3. Celec P, Vlková B**,** Lauková L, **Bábíčková J**, Boor P: Extracellular DNA – role in pathophysiology and as a biomarker in kidney diseases. Expert Rev Mol Med, 20:e1, 2018, IF=4.405
4. Gyurászová M, Kovalčíková A, Bábíčková J, Hodosy J, Tóthová Ľ: Cell free nucleic acids in urine as potential biomarkers of kidney disease; **Journal of Applied Biomedicine**, 16(3): 157-164, 2018, IF = 1.433
5. Gyurászová M, Gurecká R, **Bábíčková J**, Tóthová Ľ: Oxidative Stress in the Pathophysiology of Kidney Disease: Implications of Noninvasive Monitoring and Identification of Biomarkers. **Oxid Med Cell Longev**, 2020:5478708, 2020, IF = 4.580.

**Book chapter:**

**Bábíčková J,** Yang H, Fogo AB: Injury and regeneration in renal aging. In Book: **Regenerative Nephrology**, doi: 10.1016/B978-0-12-823318-4.00032-9.

**Reviewer activity**

**Academic journals:** Nature communication, Renal failure, Coatings, Clinical Epidemiology, Clinics and Practice, Pharmaceutics, Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, Antioxidants, Environmental Research and Public Health, Biomedicines, International Journal of Molecular Sciences, Phytotherapy Research, Nutrients, Canadian Journal of Physiology and Pharmacology, Biochemistry & Biophysics Methods, Molecules, Metabolites, PLoS One, Nutrition & Metabolism, Scientific reports, Pharmaceutical Journal, Advances in Medical Sciences, Gastroenterology and Hepatology open access, Tissue and Cell, Computer methods and programs, Molecular and cellular biochemistry, Digestive Diseases and Sciences, Life Sciences, Medical Science Monitor, Medical Science Review, Biotechnology and Applied Biochemistry

**Grant evaluation: Expert evaluator for the European commission**:

2021 - 2022 HORIZON-EIC-2021-PATHFINDERCHALLENGES/EISMEA (The European Innovation Council and SME Executive Agency)

2022 HORIZON-EIC-2022-PATHFINDERCHALLENGES/EISMEA (The European Innovation Council and SME Executive Agency)

2023 HORIZON-EIC-2023\_PATHFINDERCHLLENGES/EISMEA (The European Innovation Council and SME Executive Agency)

**Grants and Awards**

**2013** Award from the dean of the Faculty of Medicine for the best publication of a PhD. Student

**2018** Era-EDTA Young Fellowship Winner

**2019** Marie Skłodowska-Curie Global fellowship: DIE\_CKD 842619

In Bergen, March 9, 2023



Janka Bábíčková, PhD.

1. Norskkurs TRIN3 (Universitetet i Bergen) [↑](#footnote-ref-1)
2. # 2nd ranked journal in the category “Nephrology” [↑](#footnote-ref-2)
3. \* published without the PhD. supervisor as a co-author [↑](#footnote-ref-3)
4. # 2nd ranked journal in the category “Nephrology” [↑](#footnote-ref-4)
5. \*published without the PhD. supervisor as a co-author [↑](#footnote-ref-5)
6. # 2nd out of 58 journals in the category “Nephrology” [↑](#footnote-ref-6)
7. $ 1st out of 58 journals in the category “Nephrology” [↑](#footnote-ref-7)
8. † 5th out of 196 journals in the category “Pathology and Forensic Medicine” [↑](#footnote-ref-8)
9. + 2nd out of 95 journals in the category “Urology” [↑](#footnote-ref-9)
10. \*published without the PhD. supervisor as a co-author [↑](#footnote-ref-10)
11. ® 12th out of 270 journals in the category “Biotechnology“ [↑](#footnote-ref-11)