

Research/art/teacher profile of a person

Name and surname	prof. RNDr. Ivan Poliaček, PhD.
Document type:	Research/art/teacher profile of a person
The name of the university	Comenius University Bratislava
The seat of the university	Šafárikovo námestie 6, 818 06 Bratislava
The name of the faculty	Jessenius Faculty of Medicine in Martin
The seat of the faculty	Malá Hora 10701/4A, 03601 Martin

I. - Basic information

I.1 - Surname	Poliaček
I.2 - Name	Ivan
I.3 - Degrees	Prof., RNDr., PhD.
I.4 - Year of birth	1965
I.5 - Name of the workplace	Department of Medical Biophysics
I.6 - Address of the workplace	Malá Hora 4, 03601 Martin
I.7 - Position	professor
I.8 - E-mail address	poliacek@jfmed.uniba.sk
I.9 - Hyperlink to the entry of a person in the Register of university staff	https://www.portalvs.sk/regzam/detail/3570
I.10 - Name of the study field in which a person works at the university	General Medicine
I.11 - ORCID iD	0000-0001-9945-9492

II. - Higher education and further qualification growth

II.1 - First degree of higher education

II.2 - Second degree of higher education

II.a - Name of the university or institution	Charles university, Faculty of Mathematics and Physics, Prague
II.b - Year	1989
II.c - Study field and programme	Biophysics and Chemical Physics, Biophysics

II.3 - Third degree of higher education

II.a - Name of the university or institution	Comenius university in Bratislava, FMFI, Bratislava
II.b - Year	2001
II.c - Study field and programme	Biophysics

II.4 - Associate professor

II.a - Name of the university or institution	Pavol Jozef Šafárik University in Košice, Faculty of Science, Košice
II.b - Year	2009
II.c - Study field and programme	Biophysics

II.5 - Professor

II.a - Name of the university or institution	Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin
II.b - Year	2018
II.c - Study field and programme	Medical Biophysics

II.6 - Doctor of Science (DrSc.)

III. - Current and previous employment

III.a - Occupation-position	III.b - Institution	III.c - Duration
Professor	Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, Department of Medical Biophysics	2018 - current
associate professor	Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, Department of Medical Biophysics	2009 - 2018
assistant professor and special assistant professor	Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, Department of Medical Biophysics	1990 - 2009

IV. - Development of pedagogical, professional, language, digital and other skills

IV.a - Activity description, course name, other	IV.b - Name of the institution	IV.c - Year
certificate - protection of animals used for scientific and educational purposes	Institute of Postgraduate Education of Veterinary Surgeons	2015
ASME course	AMEE	2014
independent researcher IIa	Slovak Academy of Science Bratislava	2009
postdoctoral associate	Dept. of Physiological Sciences, College of Veterinary Medicine, University of Florida, USA	2004
English Language Course	Academy of education Martin	1999

V. - Overview of activities within the teaching career at the university

V.1 - Overview of the profile courses taught in the current academic year according to study programmes

V.1.a - Name of the profile course	V.1.b - Study programme	V.1.c - Degree	V.1.d - Field of study
medical biophysics	General Medicine	I.+II.	General Medicine
medical biophysics 1	medical biophysics	III.	General Medicine
medical biophysics	Dentistry, Dental Medicine	I.+II.	Dentistry, Dental Medicine
medical biophysics	Nursing	I.	Nursing
medical biophysics	Public Health	I.	Public Health
medical biophysics	Midwifery	I.	Midwifery
medical biophysics 2	Medical Biophysics	III.	General Medicine

V.2 - Overview of the responsibility for the delivery, development and quality assurance of the study programme or its part at the university in the current academic year

V.2.a - Name of the study programme	V.2.b - Degree	V.2.c - Field of study
Medical Biophysics	III.	General Medicine

V.3 - Overview of the responsibility for the development and quality of the field of habilitation procedure and inaugural procedure in the current academic year

V.3.a - Name of the field of habilitation procedure and inaugural procedure	V.3.b - Study field to which it is assigned
Medical Biophysics	General Medicine

V.4 - Overview of supervised final theses

V.4.1 - Number of currently supervised theses

V.4.a - Bachelor's (first degree)	0
V.4.b - Diploma (second degree)	1
V.4.c - Dissertation (third degree)	0

V.4.2 - Number of defended theses

V.4.a - Bachelor's (first degree)	3
V.4.b - Diploma (second degree)	2
V.4.c - Dissertation (third degree)	3

VI. - Overview of the research/artistic/other outputs

VI.1 - Overview of the research/artistic/other outputs and the corresponding citations

VI.1.1 - Number of the research/artistic/other outputs

VI.1.a - Overall	233
VI.1.b - Over the last six years	47

VI.1.2 - Number of the research/artistic/other outputs registered in the Web of Science or Scopus databases

VI.1.a - Overall	73
VI.1.b - Over the last six years	20

VI.1.3 - Number of citations corresponding to the research/artistic/other outputs

VI.1.a - Overall	675
VI.1.b - Over the last six years	276

VI.1.4 - Number of citations registered in the Web of Science or Scopus databases

VI.1.a - Overall	675
VI.1.b - Over the last six years	276

VI.1.5 - Number of invited lectures at the international, national level

VI.1.a - Overall	3
VI.1.b - Over the last six years	1

VI.2 - The most significant research/artistic/other outputs

1	<p>The role of neuronal excitation and inhibition in the pre-Bötzinger complex on the cough reflex in the cat.</p> <p>Shen TY, Poliacek I, Rose MJ, Musselwhite MN, Kotmanova Z, Martvon L, Pitts T, Davenport PW, Bolser DC. J Neurophysiol. 2022 Jan 1;127(1):267-278. doi: 10.1152/jn.00108.2021. Epub 2021 Dec 8. PMID: 34879205 (cit. 1/1)</p>
2	<p>Microinjection of kynurenic acid in the rostral nucleus of the tractus solitarius disrupts spatiotemporal aspects of mechanically induced tracheobronchial cough.</p> <p>Poliacek I, Pitts T, Rose MJ, Davenport PW, Simera M, Veternik M, Kotmanova Z, Bolser DC. J Neurophysiol. 2017 Jun 1;117(6):2179-2187. doi: 10.1152/jn.00935.2016. Epub 2017 Mar 1. PMID: 28250153 (cit. 6/6)</p>

3	Blood pressure changes alter tracheobronchial cough: computational model of the respiratory-cough network and in vivo experiments in anesthetized cats. Poliacek I, Morris KF, Lindsey BG, Segers LS, Rose MJ, Corrie LW, Wang C, Pitts TE, Davenport PW, Bolser DC. J Appl Physiol (1985). 2011 Sep;111(3):861-73. doi: 10.1152/jappphysiol.00458.2011. Epub 2011 Jun 30. PMID: 21719729 (cit. 23/8)
4	Microinjection of codeine into the region of the caudal ventral respiratory column suppresses cough in anesthetized cats. Poliacek I, Wang C, Corrie LW, Rose MJ, Bolser DC. J Appl Physiol (1985). 2010 Apr;108(4):858-65. doi: 10.1152/jappphysiol.00783.2009. Epub 2010 Jan 21. PMID: 20093669 (cit. 23/7)
5	Neurogenesis of cough, other airway defensive behaviors and breathing: A holarchical system? Bolser DC, Poliacek I, Jakus J, Fuller DD, Davenport PW. Respir Physiol Neurobiol. 2006 Jul 28;152(3):255-65. doi: 10.1016/j.resp.2006.01.008. Epub 2006 May 24. PMID: 16723284 (cit. 70/17)

VI.3 - The most significant research/artistic/other outputs over the last six years

1	The role of neuronal excitation and inhibition in the pre-Bötzinger complex on the cough reflex in the cat. Shen TY, Poliacek I, Rose MJ, Musselwhite MN, Kotmanova Z, Martvon L, Pitts T, Davenport PW, Bolser DC. J Neurophysiol. 2022 Jan 1;127(1):267-278. doi: 10.1152/jn.00108.2021. Epub 2021 Dec 8. PMID: 34879205 (cit. 1)
2	Neurons in the dorsomedial medulla contribute to swallow pattern generation: Evidence of inspiratory activity during swallow. Pitts T, Poliacek I, Rose MJ, Reed MD, Condrey JA, Tsai HW, Zhou G, Davenport PW, Bolser DC. PLoS One. 2018 Jul 19;13(7):e0199903. doi: 10.1371/journal.pone.0199903. eCollection 2018. PMID: 30024913 (cit. 8)
3	Role of the dorsomedial medulla in suppression of cough by codeine in cats. Poliacek I, Simera M, Veternik M, Kotmanova Z, Bolser DC, Machac P, Jakus J. Respir Physiol Neurobiol. 2017 Dec;246:59-66. doi: 10.1016/j.resp.2017.07.011. Epub 2017 Aug 1. PMID: 28778649 (cit. 5)
4	Microinjection of kynurenic acid in the rostral nucleus of the tractus solitarius disrupts spatiotemporal aspects of mechanically induced tracheobronchial cough. Poliacek I, Pitts T, Rose MJ, Davenport PW, Simera M, Veternik M, Kotmanova Z, Bolser DC. J Neurophysiol. 2017 Jun 1;117(6):2179-2187. doi: 10.1152/jn.00935.2016. Epub 2017 Mar 1. PMID: 28250153 (cit. 6)
5	GABA-ergic neurotransmission in the nucleus of the solitary tract modulates cough in the cat. Kotmanova Z, Simera M, Veternik M, Martvon L, Misek J, Jakus J, Shen TY, Musselwhite MN, Pitts T, Bolser DC, Poliacek I. Respir Physiol Neurobiol. 2018 Nov;257:100-106. doi: 10.1016/j.resp.2018.02.009. Epub 2018 Feb 21. PMID: 29474953 (cit. 5)

VI.4 - The most significant citations corresponding to the research/artistic/other outputs

1	Bolser, Donald C. - Poliaček, Ivan [UKOLJ140] et al.: Neurogenesis of cough, other airway defensive behaviors and breathing: a holarchical system? In: Respir Physiol Neurobiol. 152(3), 2006:255-265. - ISSN (print) 1569-9048 [o1] 2016 Mazzone, S. B. - Undem, B. J.: Physiological Reviews, roč. 96, č. 3, 2016, s. 975-1024 - SCI ; SCOPUS - IF 37,31
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2	<p>Plevková, Jana [UKOLJ261] (60%) - Antosiewicz, Justyna (5%) - Varechová, Silvia (10%) - Poliaček, Ivan [UKOLJ140] (10%) et al.: Convergence of nasal and tracheal neural pathways in modulating the cough response in guinea pigs. <i>J Physiol Pharmacol.</i> 60(2), 2009:89-93. - ISSN (print) 0867-5910</p> <p>[o1] 2014 Dicipinigaitis, P. V. - Morice, A. H. - Birring, S. S. - McGarvey, L. - Smith, J. A. - Canning, B. J. - Page, C. P.: <i>Pharmacological Reviews</i>, roč. 66, č. 2, 2014, s. 468-512 - SCI ; SCOPUS - IF 25,47</p>
3	<p>Pitts, Teresa E. (40%) - Morris, Kendall F. (20%) - Lindsey, Bruce G. (15%) - Davenport, Paul W. (5%) - Poliaček, Ivan [UKOLJ140] (10%) - Bolser, Donald C. (10%): Co-ordination of cough and swallow in vivo and in silico. <i>Exp Physiol.</i> 97(4), 2012:469-473. - ISSN 0958-0670</p> <p>[o1] 2018 Ramirez, J. M. - Baertsch, N. A.: <i>Annual Review of Neuroscience</i>, roč. 41, 2018, s. 475-499 - SCI ; SCOPUS - iF 12,45</p>
4	<p>Poliaček, Ivan [UKOLJ140] (39%) et al.: Short reflex expirations (expiration reflexes) induced by mechanical stimulation of the trachea in anesthetized cats. <i>Cough [elektronický zdroj]</i> 4(1), 2008, [9 s.] [online]. - eISSN 1745-9974</p> <p>[o1] 2016 Mazzone, S. B. - Undem, B. J.: <i>Physiological Reviews</i>, roč. 96, č. 3, 2016, s. 975-1024 - SCI ; SCOPUS - IF 37,31</p>
5	<p>Buday, Tomáš [UKOLJ261] (5%) - Brozmanová, Mariana [UKOLJ261] (10%) - Biringerová, Zuzana (10%) - Gavliaková, Silvia (10%) - Poliaček, Ivan [UKOLJ140] (15%) et al.: Modulation of cough response by sensory inputs from the nose - role of trigeminal TRPA1 versus TRPM8 channels. <i>Cough [elektronický zdroj]</i> 8(1), čl. 11, 2012, [9 s.] [online]. - eISSN 1745-9974</p> <p>[o1] 2020 Talavera, K. - Startek, J. B. - Alvarez-Collazo, J. - Boonen, B. - Alpizar, Y. A. - Sanchez, A. - Naert, R. - Nilius, B.: <i>Physiological Review</i>, roč. 100, 2020, s. 725-803 - SCOPUS - IF 37,31</p>

VI.5 - Participation in conducting (leading) the most important research projects or art projects over the last six years

1	<p>Relations of central control of cough and breathing, 1/0092/20, VEGA, 2020-2023, principal investigator (https://www.minedu.sk/rozpis-dotacii-na-nove-a-pokracujuce-projekty-vega-na-rok-2021/)</p>
2	<p>Coordination of respiratory tract defensive mechanisms and cardiorespiratory functions in experimental animals, 1/0275/19, VEGA, 2019-2022, co-investigator</p>
3	<p>Functional mapping of peripheral and central circuits for airway protection and breathing NIH - 1OT2OD023854, Sept. 2016 - July 2021 (https://grantome.com/grant/NIH/OT2-OD023854-01S4), scientist focussing on central neuronal circuits of cough and similar reflexes using microinjections of neuromediators and neuronal recording</p>
4	<p>Central Neurochemical Modulation of Airway Defensive Mechanisms, 1/0072/16, VEGA, 2016-2019, principal investigator (https://www.minedu.sk/rozpis-dotacii-na-nove-a-pokracujuce-projekty-vega-na-rok-2019/)</p>
5	<p>Regulation of airway protective behaviors, NIH - 4R00HL111215-03, February 2013 - March 2018 (https://grantome.com/grant/NIH/R00-HL111215-03), scientist focussing on central neuronal circuits of reflexes using microinjections of neuromediators and neuronal recording</p>

VII. - Overview of organizational experience related to higher education and research/artistic/other activities

VII.a - Activity, position	VII.b - Name of the institution, board	VII.c - Duration
member of SkBS, committee member of SkBS	Slovak Biophysical Society	2019 - 2023
organizing international meeting Cough it up	JFM CU Martin	3 days in 2012, 2014, 2016, 2018, 2023
co-organizer of Days of Medical Biophysics 2018	JFM CU Martin	30. 5. - 1. 6. 2018
co-organizer of Martin Days of Respiration 2016	JFM CU Martin	23. 6. - 24. 6. 2016
co-organizer of Biophysical Symposium 2014	Slovak Biophysical Society	11. 3. - 13. 3. 2014

VIII. - Overview of international mobilities and visits oriented on education and research/artistic/other activities in the given field of study

VIII.a - Name of the institution	VIII.b - Address of the institution	VIII.c - Duration (indicate the duration of stay)	VIII.d - Mobility scheme, employment contract, other (describe)
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	2. 6. 2004 - 27. 6. 2006	prof. Bolser, postdoctoral associate
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	19. 5. 2007 - 1. 9. 2007	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	16. 3. 2009 - 13. 7. 2009	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	27. 6. 2010 - 11. 8. 2010	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	2. 5. 2011 - 2. 7. 2011	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	11. 4. 2012 - 24. 5. 2012	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	4. 4. 2013 - 1. 8. 2013	prof. Bolser, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	7. 5. 2014 - 9. 6. 2014	prof. Bolser, short term scholar
Department of Neurosurgery and Kentucky Spinal Cord Injury Research Center, College of Medicine, University of Louisville	511 South Floyd St., Louisville, KY 40202	6. 8. 2015 - 5. 9. 2015	prof. Pitts, short term scholar
Physiological Sciences, College of Veterinary Medicine, University of Florida	P.O. box 100144, 1333 Center Drive Gainesville, Florida, 32610-0144	1. 4. 2017 - 6. 6. 2017	prof. Bolser, short term scholar

IX. - Other relevant facts

IX.a - If relevant, other activities related to higher education or research/artistic/other activities are mentioned

longlasting cooperation with University of Florida, College of Veterinary Medicine, Physiological Sciences, prof. Bolser

