

Seznam publikací a jiných výsledků vědecké práce

Viktorie Vlachová

(Publikace jsou seřazeny inverzně chronologicky, IF, impakt faktor pro rok vydání, od roku 1997)

1. recenzované články v mezinárodních časopisech (cizojazyčné)

- 1) Moparthi, L., V. Sinica, V.K. Moparthi, M. Kreir, T. Vignane, M. Filipovic, **V. Vlachova**, and P.M. Zygmunt. 2022. The human TRPA1 intrinsic cold and heat sensitivity involves separate channel structures beyond the N-ARD domain. *Nature Communications*. doi: 10.1101/2021.07.31.454589, Přijato. (IF (2021)= 17.694)
- 2) Ptakova, A., M. Mitro, L. Zimova, and **V. Vlachova**. 2022. Cellular context determines primary characteristics of human transient receptor potential canonical 5 as a cold-activated channel. *Journal of Cellular Physiology*. doi: 10.1002/jcp.30821. (IF (2021)= 6.513)
- 3) Zimova, L., A. Ptakova, M. Mitro, J. Krusek, and **V. Vlachova**. 2022. Activity dependent inhibition of TRPC1/4/5 channels by duloxetine involves voltage sensor-like domain. *Biomedicine & Pharmacotherapy*. 152:113262. (IF (2021)= 7.419)
- 4) Bernal, L., P. Sotelo-Hitschfeld, C. Konig, V. Sinica, A. Wyatt, Z. Winter, A. Hein, F. Touska, S. Reinhardt, A. Tragl, R. Kusuda, P. Wartenberg, A. Sclaroff, J.D. Pfeifer, F. Ectors, A. Dahl, M. Freichel, **V. Vlachova**, S. Brauchi, C. Roza, U. Boehm, D.E. Clapham, J.K. Lennerz, and K. Zimmermann. 2021. Odontoblast TRPC5 channels signal cold pain in teeth. *Science Advances*. 7 (13):eabf5567. (IF (2021)= 14.972)
- 5) Nadezhdin, K.D., A. Neuberger, Y.A. Trofimov, N.A. Krylov, V. Sinica, N. Kupko, **V. Vlachova**, E. Zakharian, R.G. Efremov, and A.I. Sobolevsky. 2021. Structural mechanism of heat-induced opening of a temperature-sensitive TRP channel. *Nat Struct Mol Biol*. 28:564-572. (IF (2021)= 18.361)
- 6) Sinica, V., and **V. Vlachova**. 2021. Transient receptor potential ankyrin 1 channel: An evolutionarily tuned thermosensor. *Physiological Research*. 70:363-381. (IF (2021)= 2.139)
- 7) Barvikova, K., I. Barvik, V. Sinica, L. Zimova, and **V. Vlachova**. 2020. Phospho-Mimetic Mutation at Ser602 Inactivates Human TRPA1 Channel. *International Journal of Molecular Sciences*. 21. (IF (2020)= 5.924)
- 8) Zimova, L., K. Barvikova, L. Macikova, L. Vyklicka, V. Sinica, I. Barvik, and **V. Vlachova**. 2020. Proximal C-Terminus Serves as a Signaling Hub for TRPA1 Channel Regulation via Its Interacting Molecules and Supramolecular Complexes. *Frontiers in Physiology*. 11:189. (IF (2020)= 4.566)
- 9) Macikova, L., V. Sinica, A. Kadkova, S. Villette, A. Ciaccafava, J. Faherty, S. Lecomte, I.D. Alves, and **V. Vlachova**. 2019a. Putative interaction site for membrane phospholipids controls activation of TRPA1 channel at physiological membrane potentials. *FEBS Journal*. 286:3664-3683. (IF (2020)= 5.542)

- 10) Macikova, L., L. Vyklicka, I. Barvik, A.I. Sobolevsky, and **V. Vlachova**. 2019b. Cytoplasmic Inter-Subunit Interface Controls Use-Dependence of Thermal Activation of TRPV3 Channel. *International Journal of Molecular Sciences*. 20. (IF (2020)= 5.924)
- 11) Sinica, V., L. Zimova, K. Barvikova, L. Macikova, I. Barvik, and **V. Vlachova**. 2019. Human and Mouse TRPA1 Are Heat and Cold Sensors Differentially Tuned by Voltage. *Cells*. 9. (IF (2020)= 6.600)
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- 14) Zimova, L., V. Sinica, A. Kadkova, L. Vyklicka, V. Zima, I. Barvik, and **V. Vlachova**. 2018. Intracellular cavity of sensor domain controls allosteric gating of TRPA1 channel. *Science Signaling*. 11. (IF (2018)= 6.565)
- 15) Kadkova, A., V. Synytsya, J. Krusek, L. Zimova, and **V. Vlachova**. 2017. Molecular basis of TRPA1 regulation in nociceptive neurons. A review. *Physiological Research*. 66:425-439. (IF (2017)= 1.324)
- 16) Marsakova, L., I. Barvik, V. Zima, L. Zimova, and **V. Vlachova**. 2017. The First Extracellular Linker Is Important for Several Aspects of the Gating Mechanism of Human TRPA1 Channel. *Frontiers in Molecular Neuroscience*. 10:16. (IF (2017)= 3.902)
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- 21) Zima, V., K. Witschas, A. Hynkova, L. Zimova, I. Barvik, and **V. Vlachova**. 2015. Structural modeling and patch-clamp analysis of pain-related mutation TRPA1-N855S reveal inter-subunit salt bridges stabilizing the channel open state. *Neuropharmacology*. 93:294-307. (IF (2015)= 4.936)
- 22) Boukalova, S., F. Touska, L. Marsakova, A. Hynkova, L. Sura, S. Chvojka, I. Dittert, and **V. Vlachova**. 2014. Gain-of-function mutations in the transient receptor potential channels TRPV1 and TRPA1: how painful? *Physiological Research*. 63 Suppl 1:S205-213. (IF (2014)= 1.293)

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- 27) Vetter, I., F. Touska, A. Hess, R. Hinsbey, S. Sattler, A. Lampert, M. Sergejeva, A. Sharov, L.S. Collins, M. Eberhardt, M. Engel, P.J. Cabot, J.N. Wood, **V. Vlachova**, P.W. Reeh, R.J. Lewis, and K. Zimmermann. 2012. Ciguatoxins activate specific cold pain pathways to elicit burning pain from cooling. *EMBO Journal*. 31:3795-3808. (IF (2012)= 9.822)
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2. recenzované články v národních časopisech (psané v češtině či slovenštině)

- 1) Navratil, L., I. Dylevsky, J. Prucha, J. Krusek, I. Dittert, and **V. Vlachova**. 2019. Studium buněčných mechanismů působení vysokoindukčního elektromagnetického pole na periferní senzorké neurony. *Československá fyziologie.* 68:16-21.
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3. vědecké monografie

N/A

4. kapitoly v monografiích

- 1) Paleček, J., R. Vejsada, P. Hník, T. Soukup, **V. Vlachová**, and G. Asmussen. 1988. Functional Properties of Atypical Muscle Spindles after Nerve Crush in Newborn Rats. *Mechanoreceptors - Development, Structure, and Function*. 149-154. ISBN: 978-1-4899-0814-8
- 2) **Vlachova, V.**. 2015. TRP iontové kanály – molekulární detektory bolesti. In Bolest a regenerace v medicíně. R. Rokyta and C. Hoschl, editors. Axonite CZ, Praha. 37-40. ISBN 978-80-88046-03-5
- 3) **Vlachova, V.**, and L. Vyklicky. 2012. Buněčné a molekulární mechanizmy nocicepce In Bolest. Monografie algeziologie. Přepracované doplněné vydání. R. Rokyta, M. Kršiak and J. Kozák, editors. Tigris s.r.o., Praha. 48-65. ISBN: 978-80-87323-02-1
- 4) **Vlachova, V.**, and L. Vyklicky. 2006. Buněčné a molekulární mechanizmy nocicepce. In Bolest: monografie algeziologie.. R. Rokyta, M. Kršiak and J. Kozák, editors. Tigris s.r.o., Praha. 42-57. ISBN: 80-23500000-0-0

5. práce v recenzovaných sbornících

N/A

6. učebnice a učební texty

N/A

7. zvané přednášky

Invited speaker/chair:

13th European Biophysics Conference (EBSA) 24-28.7.2021, Vienna, Austria. spolu-předseda sekce "Channels and Ca²⁺ signalling"

42nd Symposium on Hormones and Cell Regulation; 4.-7.10. 2017; Alsace, France, „Polymodal regulation of TRPA1 by calcium“

56th Annual Meeting of The Biophysical Society, San Diego, California., 25.-29.2.2012. "Searching for voltage sensors in thermosensitive TRP channels",

Universitätsklinikum Aachen, Institut für Physiologie, Aachen, Germany. 05.06.2012, "Functional and structural complexity of thermo-TRP channel gating"

FENS Forum; 12.-16.7.2008; Geneva, „Contribution of the putative inner-pore region to the gating of TRPV1 channel“.

3rd Meeting of European Neuroscience, 27.6.-1.7. 1998; Berlin, Germany, Heat-induced membrane currents in cultured capsaicin sensitive nociceptive primary sensory neurons.

8. patenty národní a zahraniční

N/A

9. jiné výsledky aplikovaného výzkumu

2015-2016, formou smluvního výzkumu s firmou Bionorica SE (Neumarkt, Německo) byl zkoumán mechanismus působení klinicky využívaného léčivého přípravku Tonsipret®. Podařilo se potvrdit, že aktivní substance produktu desenzitizuje TRPV1 kanál exprimovaný in vitro v lidských ledvinných buňkách v tkáňové kultuře. Tento výsledek je molekulárním podkladem vysvětlujícím anestetický účinek uvedeného bylinného léčiva, které je běžně využíváno při bolesti a zánětu v krku (<https://bionorica.com/products/respiratory-tract/tonsipret.html>). Výsledky byly prezentovány na konferenci 9th Joint Meeting of AFERP, ASP, GA, JSP, PSE and SIF 2016 (Dánsko): DOI: 10.1055/s-0036-1596908

10. kvalifikační práce

1991 CSc., biofyzika: "Biofyzikální vlastnosti iontových kanálů aktivovaných excitačními aminokyselinami", Biofyzikální ústav ČSAV, Brno

2001 DrSc., normální a patologická fyziologie: „Buněčné a molekulární mechanismy akutní bolesti“ Doktor přírodních věd, 1. Lékařská fakulta Univerzity Karlovy, Praha

11. řešení grantů

Hlavní řešitel:

GA ČR 22-13750S, Signální dráhy ovlivňující funkci lidského TRPC5 receptoru: predikce jejich vztahu k bolesti při revmatoidní artritidě, 2022-2024, hlavní řešitel

GA ČR 19-03777S, Molekulární mechanismy regulace teplotně citlivých TRP iontových kanálů v nociceptivních neuronech, 2019-2021, hlavní řešitel (hodnocen jako „vynikající“)

GA ČR 15-15839S, Regulační mechanismy nociceptivních 'transient receptor potential' iontových kanálů, 2015-2017, hlavní řešitel, (hodnocen jako „vynikající“)

GA305/09/0081, Aktivační a regulační mechanismy TRP iontových kanálů specifických pro nociceptory: fyziologická úloha v akutní a chronické bolesti, 2009-2013, hlavní řešitel, (hodnocen jako „vynikající“)

GA305/06/0319, Molekulární a funkční charakterizace TRP iontových kanálů specifických pro nociceptory: fyziologická úloha v akutní a chronické bolesti, hlavní řešitel, 2006 – 2008 (hodnocen jako „vynikající“)

GA305/03/0802, Transdukce bolestivých signálů na primárních nociceptivních neuronech: buněčné a molekulární mechanismy, hlavní řešitel, 2003 – 2005 (hodnocen jako „vynikající“)

Spoluřešitel:

NV16-28784A, MZO - Ministerstvo zdravotnictví, Ovlivnění příznaků degenerativních onemocnění pohybového aparátu vysokoindukční magnetickou stimulací: spoluřešitel, 2016 – 2019, (hodnocen jako „vynikající“)

Garant:

- GAUK č. 49709, Grantová agentura Univerzity Karlovy, Účinek tramadolu na aktivitu teplocitlivých TRP iontových kanálů účastnících se přenosu bolestivých podnětů, 2008 –2010, garant (řešitel Š. Boukalová)
- GAUK č. 25409, Grantová agentura Univerzity Karlovy, Mechanizmy aktivace a modulace TRP receptorů: vztah struktury a funkce, 2009-2012, garant (řešitel F. Touška)
- GAUK č. 26110, Grantová agentura Univerzity Karlovy, Strukturální determinanty polymodální aktivace vaniloidních receptorů, 2010-2012, garant (řešitel Š. Boukalová)
- GAUK č. 500512, Grantová agentura Univerzity Karlovy, Mechanismus inhibičního působení protonů na aktivitu teplotně citlivých TRP receptorů, 2012-2014, garant (řešitel Š. Boukalová)
- GAUK č. 888513, Grantová agentura Univerzity Karlovy, Funkční úloha S4-S5 oblasti ankyrinového receptoru TRPA1, 2013-2016, garant (řešitel A. Kádková)
- GAUK č. 365215, Grantová agentura Univerzity Karlovy, Funkční úloha transmembránových reaktivních cysteinů v aktivaci a desenzitizaci TRPA1 iontového kanálu, 2015-2017, garant (řešitel V.Sinica)
- GAUK č. 74417, Grantová agentura Univerzity Karlovy, Molekulární podstata teplotní a chemické senzitivace TRPV3 receptoru, 2017-2019, garant (řešitel L. Máčiková)
- GAUK č. 1236218, Grantová agentura Univerzity Karlovy, Studium funkce a struktury TRP ankyrinového receptoru 1: úloha senzorové domény v nociceptním převodu chemických, teplotních a mechanických podnětů, 2018-2020, garant (řešitel V.Sinica)
- GAUK č. 406119, Grantová agentura Univerzity Karlovy, Molekulární mechanismy teplotní aktivace lidského TRPV3 iontového kanálu, 2019-2021, garant (řešitel L. Máčiková - V.Sinica)
- GAUK č. 297921, Grantová agentura Univerzity Karlovy, Studium úlohy TRPC5 iontového kanálu v mechanismech vzniku periferní bolesti indukované platinovými cytostatiky, 2021- 2022, garant (řešitel A. Ptáková)

12. Jiné závažné práce

Recenze v odborných časopisech:

Brain, Neuroscience, European Journal of Neuroscience, Journal of Neuroscience Methods, Physiological Research, Expert Opinion in Drug Discovery, Neuroscience Letters, Advances in Experimental Medicine and Biology, Cell Biochem Biophys, PlosONE, International Journal of Molecular Sciences, Hindawi, Antioxidants & Redox Signaling, BioMed Research International, Interface Focus, Bioscience Reports, Scientific Reports, Molecules, Cell Calcium, Biomedicines, Neuropharmacology, Frontiers in Pharmacology, Biomolecules, BBA – Biomembranes, Journal of Anatomy, Life, Archives of Oral Biology, Biochemistry and Biophysics Reports, Cells, Marine Drugs, Communications Biology, Nature Communications

13. Ostatní publikace

N/A

14. Abstrakta z mezinárodních konferencí

1. Zimova L, Ptakova A, Mitro M, Loudova L, Vlachova V. Potent direct inhibition of TRPC5 by an antidepressant and analgesic drug duloxetine. *European Biophysics Journal with Biophysics Letters*. 2021;50(Suppl 1):96.
2. Ptakova A, Mitro M, Zimova L, Vlachova V. Basic characteristics of TRPC5 as a cold-activated channel. *The 4th International TRP Meeting 2021 15-17 Sep., 2021; Leuven, Belgium*.
3. Zimova L, Sinica V, Barvikova K, Vlachova V. Identification of a putative region critical for cold sensitivity of TRPA1. *European Biophysics Journal with Biophysics Letters*. 2019;48:S167.
4. Macikova L, Sinica V, Kadkova A, Villette S, Ciaccafava A, Faherty J, et al. Putative interaction site for membrane phospholipids controls activation of TRPA1 channel at physiological membrane potentials. *European Biophysics Journal with Biophysics Letters*. 2019;48:S170.
5. Dittert I, Prucha J, Krusek J, Sinica V, Kadkova A, Vlachova V. Acute exposure to high-induction electromagnetic field affects activity of model peripheral sensory neurons. *FASEB J*; April 6 - 9, 2019; Orlando, FL2019.
6. Vyklicka L, Barvik I, Zima V, Zimova L, Vlachova V. In-silico opening of TRPA1 channel points to first extracellular linker as an open-state stabilizer. *19th IUPAB and 11th EBSA Congress in Edinburgh, UK, 16-20 July 2017; 2017*.
7. Vlachova V, editor. Polymodal regulation of TRPA1 by calcium. Invited Lecture. *42nd Symposium on Hormones and Cell Regulation Ion Channel in Hormonal Homeostasis: Transient Receptor Potential Channels and Calcium Signaling; 2017; Mont Ste Odile, Alsace, France. Oct 4-7, 2017*.
8. Synytsya V, Zimova L, Kadkova A, Vyklicka L, Zima V, Barvik I, et al.. The sensor domain of TRPA1 channel regulates gating through a putative phosphoinositide-binding site. *19th IUPAB and 11th EBSA Congress in Edinburgh, UK, 16-20 July 2017; 2017*.
9. Macikova L, Marsakova L, Boukalova S, Chvojka S, Vlachova V. ERK modulates TRPV3 channel activity through direct phosphorylation of threonine T2642017; *19th IUPAB and 11th EBSA Congress in Edinburgh, UK, 16-20 July 2017*.
10. Winter Z, Touska F, Vlachova V, Larsen J, Zimmermann K. Comprehensive thermal preference phenotyping in mice using a novel automated circular gradient assay. *16th World Congress on Pain; 2016 September 26-30, 2016; Yokohama, Japan*.
11. Werthmüller N, Vlachova V, Chvojka S, Mähler N, Gückel E, Ammendola A, et al. TRPV1 desensitization by *Capsicum annuum* as a potential mode of action of the medicinal product Tonsipret. *Planta Med*. 2016;81(S 01):P901.

12. Touska F, Starobova H, Vlachova V, Turnquist B, Reeh PW, Zimmermann K. Heat-resistant action potentials in nociceptors require tetrodotoxin (TTX)-resistant sodium channel subtypes Nav1.8 and Nav1.9. 16th World Congress on Pain; 2016 September 26-30, 2016; Yokohama, Japan.
13. Synytsya V, Hynkova A, Zimova L, Vlachova V. Transmembrane cysteines differentially contribute to TRPA1 activation. Gordon Research Conference, Ion Channels (Molecular Basis for Electrical Signaling in the Nervous System and Beyond); 2016 July 10-15, 2016; Mount Holyoke College, South Hadley, MA, USA.
14. Marsakova L, Boukalova S, Chvojka S, Vlachova V. TRPV3 channel can be regulated through the MAPK signaling pathway via ERK kinase phosphorylation at T264. 10th FENS Forum of Neuroscience; 2016 July 2-6, 2016; Copenhagen, Denmark.
15. Zimova L, Synytsya V, Witschas K, Hynkova A, Zima V, Barvik I, et al.. The S4-S5 Linker of Transient Receptor Potential Ankyrin 1 as a Precise Stimuli Integrator. 10th European Biophysics Congress 18-22 July 2015, Dresden, Germany; 2015.
16. Hynkova A, Vaskova J, Marsakova L, Vlachova V. Differential regulation of TRPA1 receptor by the N-terminal ankyrin repeats. 10th European Biophysics Congress 18-22 July 2015, Dresden, Germany; 2015.
17. Zima V, Sura L, Witschas K, Marsakova L, Hynkova A, Barvik I, et al.. On the track of TRPA1 gating mechanisms. ISMB/ECCB 2013; 2013 July 21-23, 2013; Berlin, Germany.
18. Witschas K, Sura L, Zima J, Hynkova A, Barvik I, Vlachova V. S4-S5 linker is involved in voltage-dependent gating of human transient receptor potential ankyrin 1 channel 2013 Biophysical Society 57th Annual Meeting; 2013 February 2-6, 2013 Philadelphia.
19. Hynkova A, Witschas K, Zima J, Sura L, Barvik I, Vlachova V. Identification of functional microdomains within the S4-S5 linker of human TRPA1 Neuroscience 2013; 2013 Nov 9-13, 2013; San Diego, California, USA.
20. Boukalova S, Teisinger J, Vlachova V. The role of alanine residues in the first transmembrane region of TRPV1 channel. 11th Annual Ion Channel Retreat; 2013 June 24 - 26, 2013; Vancouver BC, Canada.
21. Sura L, Zima V, Marsakova L, Hynkova A, Barvik I, Vlachova V. Identification of the C-terminus as a critical molecular determinant of calcium-sensitivity in human TRPA1 channel. International Workshop on Transient Receptor Potential (TRP) Channels September 12-14, 2012; 2012; Valencia, Spain.
22. Boukalova S, Teisinger J, Vlachova V. Protons stabilize the closed conformation of gain-of-function mutants of the TRPV1 channel. International Workshop on Transient Receptor Potential (TRP) Channels September 12-14, 2012; 2012; Valencia, Spain.
23. Zima V, Sura L, Barvik I, Vlachova V. Clues to understanding the voltage regulation of TRPA1. European Biophysics Journal with Biophysics Letters. 2011;40:174-.

24. Sura L, Samad A, Benedikt J, Teisinger J, Vlachova V. The C-terminal basic residues contribute to the polymodal activation of TRPA1. XV School of Pure and Applied Biophysics: Protein Stability and Pathways of Self-Assembly"; 2011 24.-28.1.2011; Benátky, Itálie.
25. Marsakova L, Touska F, Krusek J, Vlachova V. Camphor activates TRPV1 through the pore helix domain. Ion Channel Signaling Mechanisms: From Basic Science to Clinical Application; 2011 October 31st - November 4th 2011; Marrakesh, Morocco.
26. Boukalova S, Teisinger J, Vlachova V. The TRPV1 channel with a mutation at the conserved glycine G563 is spontaneously active. Ion Channel Signaling Mechanisms: From Basic Science to Clinical Application; 2011 October 31st - November 4th 2011; Marrakesh, Morocco.
27. Sura L, Samad A, Benedikt J, Ettrich R, Minofar B, Teisinger J, et al.. Identification of C-terminal basic residues involved in the chemical and voltage-dependent activation of TRPA1. 8th Annual Ion Channel Retreat; 2010 28. - 30.6.2010; Vancouver BC, Canada.
28. Marsakova L, Krusek J, Touška F, Vlachova V. A comparison of camphor and capsaicin as TRPV1 channel agonists and desensitizing compounds. Neuroscience 2010; 2010 13.-17.11.2010; San Diego, USA.
29. Boukalova S, Teisinger J, Marsakova L, Vlachova V. Conserved residues within the putative S4-S5 region subserve distinct functions among the thermosensitive TRPV channels. Neuroscience 2010; 2010 13.-17.11.2010; San Diego, USA.
30. Krusek J, Touska F, Marsakova L, Vlachova V. A comparative study of the temperature sensitivity of fluorescent proteins fused to temperature-activated TRP channel subunits. 6th International Conference Structure and Stability of Biomacromolecules; 2009 September 9 - 11, 2009; Košice.
31. Vlachova V, Susankova K, Ettrich R, Vyklicky L, Teisinger J. Contribution of the putative inner-pore region to the gating of TRPV1 channel. FENS Forum; 2008 12-16 July 2008; Geneva.
32. Boukalova S, Vyklicky L, Vlachova V. Effects of tramadol on native and recombinant vanilloid receptor TRPV1 channel. 12th World Congress on Pain; 2008; Glasgow.
42. Samad A, Benedikt J, Vyklicky L, Teisinger J, Vlachova V. The changes in phosphatidyl inositol 4,5 biphosphate (PIP₂) levels related to the TRPA1 channel activity. Mechano-transduction and Nociception; August 25-30, 2007; Bucharest: The Programme of European Neuroscience Schools, an IBRO-FENS collaboration; 2007.
44. Benedikt J, Novakova-Tousova K, Susankova K, Samad A, Vyklicky L, Teisinger J, et al.. Possible role of the Ca²⁺/Calmodulin dependent kinase II phosphorylation site T704 in acute desensitization of the vanilloid receptor TRPV1. The Transient Receptor Potential Ion Channel Superfamily (Keystone Symposia); 2007 September 18 - 23, 2007 Breckenridge, Colorado
45. Benedikt J, Novakova-Tousova K, Susankova K, Samad A, Vyklicky L, Teisinger J, et al.. Possible role of the Ca²⁺/Calmodulin dependent kinase II phosphorylation site T704 in acute desensitization of the vanilloid receptor TRPV1. Mechano-transduction and Nociception; 2007 August 25-30, 2007; Bucharest: The Programme of European Neuroscience Schools, an IBRO-FENS collaboration.

47. Tousova K, Susankova K, Benedikt J, Teisinger J, Vyklicky L, Vlachova V. MECHANISMS OF ACUTE CA2+-DEPENDENT DESENSITIZATION OF TRPV1 (CAPSAICIN) RECEPTOR. *European Journal of Pain*. 2006;10(Supplement 1):S49.
48. Samad A, Mrazikova V, Jindrova E, Teisinger J, Vlachova V, Ettrich R. Structural and functional study on cytoplasmic tails of vanilloid receptor TRPV1. *Biochemical Society Meeting, BioScience2006*; 2006; Glasgow, UK.
49. Benedikt J, Teisinger J, Vyklicky L, Vlachova V. Ethanol inhibits cold-menthol receptor TRPM8 by modulating its interaction with membrane phosphatidylinositol 4,5-bisphosphate. *Neuroscience* 2006; 2006 Oct 17; Atlanta, Georgia.
50. Susankova K, Teisinger J, Vyklicky L, Viana F, Ettrich R, Vlachova V. Mapping of the pore structure of the vanilloid receptor channel TRPV1. *Materials Structure in Chemistry, Biology, Physics and Technology*. 2005;12(1):40.
51. Mrazikova V, Jindrova E, Vlachova V, Ettrich R, Teisinger J. Determination of structure and functional properties of cytoplasmic terminus of vanilloid receptor TRPV1. *Materials Structure in Chemistry, Biology, Physics and Technology*. 2005;12(1):29.
52. Benedikt J, Dittert I, Vyklicky L, Vlachova V. Functional characterization of temperature-gated ion channels using an improved technique for rapid heating and cooling of superfusing solutions in patch-clamp experiments. *30th FEBS Conference and 9th IUBMB Conference, The Protein World*; 2005 July 2-7, 2005; Budapest, Hungary.
53. Tousova K, Vyklicky SL, Susankova K, Teisinger J, Vlachova V. Oxidizing reagent copper-o-phenanthroline is an open channel blocker of the vanilloid receptor TRPV1. *International Workshop in Cell Physiology*; 2004; Sain-Petersburg, Russia, 13-17 October, 2004.
54. Dittert I, Susankova K, Vlachova V, Vyklicky SL. A technique for rapid heating and cooling of superfusing solutions in patch clamp experiments. *4th Forum of the Federation of European Neuroscience Societies*; 2004 July 10-14, 2004; Lisbon, Portugal.
55. Vlachova V, editor. Activation of nociceptors by heat stimuli. *4th European Congress of European Federation of IASP Chapters*; 2003 September 2-6, 2003; Prague.
56. Vlachova V, editor. Structural basis of heat sensitivity of cloned rat vanilloid receptor TRPV1. *Satellite meeting to the 6th Congress of the International Brain Research Organization IBRO, Cellular and Molecular Mechanisms of Pain*; 2003 July 7-9, 2003; Prague.
57. Susankova K, Teisinger J, Lyfenko A, Ettrich R, Vyklicky L, Vlachova V. Heat sensitivity of rat vanilloid receptor 1 (TRPV1) is regulated by C-terminal cytoplasmic domain. *4th European Congress of European Federation of IASP Chapters*; 2003 September 2-6, 2003; Prague.
58. Susankova K, Teisinger J, Lyfenko A, Ettrich R, Vyklicky L, Vlachova V. C-terminal domain regulates the heat sensitivity of rat vanilloid receptor (TRPV1). *Satellite meeting to the 6th Congress of the International Brain Research Organization IBRO, Cellular and Molecular Mechanisms of Pain*; 2003 July 7-9, 2003; Prague.

60. Susankova K, Lyfenko A, Vlachova V, Teisinger J, Vyklicky L. Reducing agent dithiothreitol facilitates activity of the capsaicin receptor VR-1. 78th Physiological days of the Slovak and Czech Physiological Societies; 2002 February 5-8, 2002; Piestany, Slovak Republic.
61. Lyfenko A, Vlachova V, Susankova K, Teisinger J, Vyklicky L. The effects of excessive heat on sensitivity to temperature and capsaicin in rat DRG neurones and in VR1 transfected HEK293 cells. 10th World Congress on Pain; 2002 August 17-22, 2002; San Diego, CA, USA: IASP Press.
62. Vlachova V, editor. Encoding of noxious stimuli as membrane currents in primary nociceptive neurons. Deutscher Schmerzkonferenz; 2001; Berlin.
63. Vyklicky L, Jr., Abdrakhmanova G, Vlachova V, Teisinger J. Functional and molecular properties of NMDA receptors in rat axotomized motoneurons. European Journal of Neuroscience. 2000;12(S 11):396.
64. Vlachova V, Lyfenko A, Vyklicky L. Differential effects of noxious heat on capsaicin induced membrane currents in cultured DRG neurones. European Journal of Neuroscience. 2000;12(S 11):434.
65. Vyklicky L, Vlachova V, Lyfenko A, Szoke E. Membrane currents induced by noxious heat and capsaicin in cultured DRG neurons. The Primary Nociceptive Neuron; 1999 August 28-30, 1999; Prague.
66. Vyklický L, Vlachová V. Membrane currents induced by noxious heat in DRG neurons. The Fifth IBRO World Congress of Neuroscience; 1999; 11th-15th of July 1999 Jerusalem Israel.
67. Vlček K, Tureček R, Vlachová V, Vyklický Jr. L. Intracellular spermine inhibits NMDA receptors. Second FEPS Congress, June 29 - July 4, 1999; 1999; Prague, Czech Republic.
68. Vlachova V, Vyklicky L. Temperature coefficient (Q₁₀): when and why to use it for characterizing the noxious-heat-induced membrane current. The Primary Nociceptive Neuron; 1999 August 28-30, 1999; Prague.
69. Dittert I, Vlachová V, Knotková H, Vitásková Z, Vyklický L. A technique for fast control of temperature of solutions applied to cultured neurones. 4th International Conference on Cellular Engineering; 1999 30.11. - 3.12.1999; Nara-Japan.
70. Abdrakhmanova G, Vlachová V, Vyklický Jr. L. Effects of peripheral nerve injury on properties of glutamate receptors in rat spinal cord motoneurons. Second FEPS Congress, June 29 - July 4, 1999; 1999; Prague, Czech Republic.
71. Vyklický L, Vlachová V, Vitásková Z, Reeh PW, Kress M. Acidic inflammation mediators activate capsaicin receptors. European Journal of Neuroscience. 1998;10(Supplement 10):80.
73. Vlachová V, Vitásková Z, Kabát M, Vyklický L. Heat-induced membrane currents in small sensory neurones. European Journal of Neuroscience. 1998;10(Supplement 10):80.
75. Abdrachmanova G, Vlachová V, Palecek J, Vyklický LJ. Properties of postsynaptic AMPA and NMDA receptors in rat spinal cord motoneurons. European Journal of Neuroscience. 1998;10(Supplement 10):129.

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78. Vyklicky L, Jr, Vlachova V, Krusek J. The effect of external pH changes on responses to excitatory amino acids in mouse hippocampal neurones. Arch Int Physiol Biochem Biophys. 1991;99: A166.
79. Vyklicky L, Jr, Vlachova V, Krusek J. Influence of pH changes on currents induced by N-methyl-D-aspartate in mouse hippocampal neurones. Regional Meeting of the IUPS, Abstracts. 1991:126.
80. Vyklicky L, Jr, Vlachova V, Krusek J. The effect of external pH changes on responses to excitatory amino acids in mouse hippocampal neurones. Reunion Commune, Abstract. 1990;2-5, 7:175.
81. Zemkova H, Vyskocil F, Borecky J, Tolar M, Vlachova V. Single-channel conductance of potassium channels during skeletal muscle development. Abstract 14th Int Congress of Biochemistry, Praha, 10-15, 7, 1988, MO: 309. 1988:136.

V Praze, 7.9.2022

Viktorie Vlachová