# Listă de publicaţii – Prof. dr. Alexandru Babeş

1. Oprita, G., Meyer, M.J.A., Rudolf, D., Pombeiro Stein, I.C.A., Deuis, J.R., Tran, H.N.T., Durek, T., Tabea, K., Sina, J., Waxman, S.G., Dib-Hajj, S.D., **Babes, A.**, Vetter, I., Leffler, A. (2026), „The Excelsatoxin A-Receptor TMEM233 Modulates Nav1.8." *FASEB Journal*, **40(6)**:e71706. **IF** = 4.2

2. Selescu, T., Bivoleanu, R.A., Caragea, V.M., Carstens, M.I., Manolache, A., Huțanu, D.E., Meerupally, R., Wei, E.T., Carstens, E., Zimmermann, K., **Babes, A.** (2025), „Cold- and TRPM8-dependent shaking in mammals and birds." *Communications Biology*, **9(1)**:101. **IF** = 5.1

3. Oprita, G., Domocos, D., Selescu, T., Paduraru, A., Tunaru, S., Leffler, A., **Babes, A.***, Babes, R.M. (2025), "Statins activate temperature-gated transient receptor potential ion channels", *European Journal of Pharmacology*, **1006:**178206. **IF** = 4.7 (* autor correspondent)

4. Stratulat, T., **Babes, A.**, Tunaru, S. (2025), "Orphan G-protein coupled receptor 75 (GPR75), a unique and controversial potential therapeutic target", *Journal of Receptor and Signal Transduction Research*, **45(5)**:251-258. **IF** = 2.3

5. Giosan, I.M., Serafini, R.A., Ramakrishnan, A., Tuffy, M.J., Zimering, J., **Babes, A.**, Shen, L., Zachariou, V. (2025), "HDAC6 inhibition ameliorates sensory hypersensitivity and reduces immune cell signatures in the dorsal root ganglia in murine chronic pain models" *Molecular Pharmacology*, **107(5)**:100034. **IF** = 3.2

6. Piciu, F., Domocos, D., Chiritoiu, G., Chiritoiu-Butnaru, M., Mernea, M., Popescu, C.G., Mihai, D.P., Galateanu, B., Hudita, A., **Babes, A.**, Cucu, D. (2024), "Transient Receptor Potential Ankyrin 1 (TRPA1) Modulation by 4-Hydroxynonenal (4-HNE) in Pancreatic Adenocarcinoma Cell Lines: Putative Roles for Therapies", *Pharmaceuticals (Basel)*, **17(3)**:344. **IF** = 4.3

7. Lee, S., Wei, E.T., Selescu, T., **Babes, A.**, Park, J., Kim, J., Chung, B., Park, C., Kim, H. (2024), "Histamine- and Pruritogen-induced Itch is Inhibited by a TRPM8 Agonist in Humans: A Randomized, Vehicle-controlled Trial.", British Journal of Dermatology, **190(6)**:885-894. **IF** = 10.3

8. Trif, C., Banica, AM., Manolache, A., Anghel, S.A., Huţanu, D.E., Stratulat, T., Badea, R., Oprita, G., Selescu, T., Petrescu, S.M., Sisignano, M., Offermanns, S., **Babes, A.***, Tunaru, S.* (2024), "Inhibition of TRPM8 function by prostacyclin receptor agonists requires coupling to Gq/11 proteins", *British Journal of Pharmacology*, **181(9)**:1438-1451. **IF** = 9.47 (* autori corespondenţi)

9. Becker, A.K., **Babes, A.**, Düll, M.M., Khalil, M., Kender, Z., Gröner, J., Namer, B., Reeh, P.W., Sauer, S.K. (2023), "Spontaneous activity of specific C-nociceptor subtypes from diabetic patients and mice: Involvement of reactive

dicarbonyl compounds and (sensitized) transient receptor potential channel A1", *Journal of the Peripheral Nervous System*, **28(2)**:202-225. IF = 5.18

10. Huţanu, D.E., Oprita, G., Domocos, D., Selescu, T., Manolache, A., Stratulat, T., Sauer, S.K., Tunaru, S., **Babes, A.***, Babes, R.M. (2023), "The antimalarial artemisinin is a non-electrophilic agonist of the transient receptor potential ankyrin type 1 receptor-channel", *European Journal of Pharmacology*, **939**: 175467. IF = 5.12. (* autor corespondent)

11. Hoffmann, T., Klemm, F., I Kichko, T., Sauer, S.K., Kistner, K., Riedl, B., Raboisson, P., Luo, L., **Babes, A.**, Kocher, L., Carli, G., Fischer, M.J.M., Reeh P.W. (2022) "The formalin test does not probe inflammatory pain but excitotoxicity in rodent skin" Physiological Reports, **10(6)**:e15194. IF = 2.26.

12. Manolache, A., **Babes, A.***, Babes R.M. (2021) "Mini-review: The nociceptive sensory functions of the polymodal receptor Transient Receptor Potential Ankyrin Type 1 (TRPA1)", *Neuroscience Letters*, **764**:136286. IF = 3.05 (* autor corespondent)

13. Cojocaru, F., Şelescu, T., Domocoş, D., Măruţescu, L., Chiritoiu, G., Chelaru, N-R., Dima, S., Mihăilescu, D., **Babes, A.***, Cucu, D.* (2021) "Functional expression of the transient receptor potential ankyrin type 1 channel in pancreatic adenocarcinoma cells", *Scientific Reports*, **11(1)**:2018. IF = 3.99 (* autor corespondent)

14. **Babes, A.**, Kichko, T.I., Selescu, T., Manolache, A., Neacsu, C., Gebhardt, L., Reeh, P.W. (2021) "Psoralens activate and photosensitize Transient Receptor Potential channels Ankyrin type 1 (TRPA1) and Vanilloid type 1 (TRPV1)", *European Journal of Pain*, **25(1)**:122-135. IF = 3.19

15. Domocos, D., Selescu, T., Ceafalan, L.C., Iodi Carstens, M., Carstens, E., **Babes, A.** (2020) "Role of 5-HT1A and 5-HT3 receptors in serotonergic activation of sensory neurons in relation to itch and pain behavior in the rat" *Journal of Neuroscience Research*, **98(10)**:1999-2017. IF = 4.70

16. Paschou, M., Maier, L., Papazafiri, P., Selescu, T., Dedos, S.G., **Babes, A.**, Doxakis, E. (2020) "Neuronal microRNAs modulate TREK two-pore domain K+ channel expression and current density", *RNA Biology*, **17(5)**:651-662. IF = 5.21

17. Manolache, A., Selescu, T., Maier, G.L., Mentel, M., Ionescu, A.E., Neacsu, C., **Babes, A.***, Szedlacsek, S.E.* (2020) "Regulation of TRPM8 channel activity by Src-mediated tyrosine phosphorylation", *Journal of Cellular Physiology*, **235(6)**:5192-5203. IF = 4.52 (* autor corespondent)

18. Dux, M., **Babes, A.**, Manchen, J., Sertel-Nakajima, J., Vogler, B., Schramm, J., Messlinger, K. (2020) "High-dose phenylephrine increases meningeal blood flow through TRPV1 receptor activation and release of calcitonin gene-related peptide", *European Journal of Pain*, **24(2)**:383-397. IF = 3.18

19. Neacsu, C., Sauer, S.K., Reeh, P.W., **Babes, A.** (2020) "The phospholipase C inhibitor U73122 is a potent agonist of the polymodal transient receptor potential ankyrin type 1 (TRPA1) receptor channel", *Naunyn Schmiedeberg's Archives of Pharmacology,* **393(2)**:177-189. IF = 2.23

20. Babes, R.M., Selescu, T., Domocos, D., **Babes, A.** (2017) "The anthelminthic drug praziquantel is a selective agonist of the sensory transient receptor potential melastatin type 8 channel", *Toxicology and applied pharmacology*, **336**:55-65. IF = 3.79

21. **Babes, A.***, Ciotu, C.I.*, Hoffmann, T., Kichko, T.I., Selescu, T., Neacsu, C., Sauer, S.K., Reeh, P.W., Fischer, M.J.M. (2017) "Photosensitization of TRPA1 and TRPV1 by 7-dehydrocholesterol: implications for the Smith-Lemli-Opitz syndrome", *Pain*, **158(12)**:2475-86. IF = 5.45 (* autori cu contribuţie egală)

22. Kistner, K.*, Siklosi, N.*, **Babes, A.***, Khalil, M., Selescu, T., Zimmermann, K., Wirtz, S., Becker, C., Neurath, M.F., Reeh, P.W., Engel, M.A. (2016) "Systemic desensitization through TRPA1 channels by capsazepine and mustard oil - a novel strategy against inflammation and pain", *Scientific Reports*, **6**:28621. IF = 5.58 (* autori cu contribuţie egală)

23. **Babes, A.**, Sauer, S.K., Moparthi, L., Kichko, T.I., Neacsu, C., Namer, B., Filipovic, M., Zygmunt, P.M., Reeh, P.W., Fischer, M.J. (2016), "Photosensitization in Porphyrias and Photodynamic Therapy Involves TRPA1 and TRPV1", *Journal of Neuroscience*, **36(19)**:5264-78. IF = 6.34

24. Khalil, M., **Babes, A.**, Lakra, R., Försch, S., Reeh, P.W., Wirtz, S., Becker, C., Neurath, M.F., Engel, M.A. (2016), "Transient receptor potential melastatin 8 ion channel in macrophages modulates colitis through a balance-shift in TNF-alpha and interleukin-10 production", *Mucosal Immunology*, **9(6)**:1500-1513. IF = 7.37

25. Ciobanu, A.C., Selescu, T., Gasler, I., Soltuzu, L., **Babes, A.** (2016), "Glycolytic metabolite methylglyoxal inhibits cold and menthol activation of the transient receptor potential melastatin type 8 channel", *Journal of Neuroscience Research*, **94(3)**:282-94. IF = 2.59

26. Eberhardt, M., Dux, M., Namer, B., Miljkovic, J., Cordasic, N., Will, C., Kichko, T.I., de la Roche, J., Fischer, M., Suárez, S.A., Bikiel, D., Dorsch, K., Leffler, A., **Babes, A.**, Lampert, A., Lennerz, J.K., Jacobi, J., Martí, M.A., Doctorovich, F., Högestätt, E.D., Zygmunt, P.M., Ivanovic-Burmazovic, I., Messlinger, K., Reeh, P., Filipovic, M.R. (2014), "H2S and NO cooperatively regulate vascular tone by activating a neuroendocrine HNO-TRPA1-CGRP signalling pathway", *Nature Communications*, **5**: 4381. **FI**: 11.47

27. Cucu, D., Chiritoiu, G., Petrescu, S., **Babes, A.**, Stanica, L., Duda, D. G., Horii, A., Dima, S. O., Popescu, I. (2014), "Characterization of Functional Transient Receptor Potential Melastatin 8 Channels in Human Pancreatic Ductal Adenocarcinoma Cells", *Pancreas*, **43(5)**: 795-800. **FI**: 2.96

28. Selescu, T., Ciobanu, A. C., Dobre, C., Reid, G., **Babes, A.** (2013), "Camphor activates and sensitizes transient receptor potential melastatin 8 (TRPM8) to cooling and icilin", *Chemical Senses*, **38(7)**: 563-575. **FI**: 3.16

29. **Babes, A.**, Fischer, M. J., Filipovic, M., Engel, M. A., Flonta, M. L, Reeh, P. W. (2013), "The anti-diabetic drug glibenclamide is an agonist of the transient receptor potential Ankyrin 1 (TRPA1) ion channel", *European Journal of Pharmacology*, **704(1-3)**: 15-22. **FI**: 2.53

30. Bierhaus, A., Fleming, T., Stoyanov, S., Leffler, A., **Babes, A.**, Neacsu, C., Sauer, S. K., Eberhardt, M., Schnölzer, M., Lasischka, F., Neuhuber, W. L., Kichko, T. I., Konrade, I., Elvert, R., Mier, W., Pirags, V., Lukic, I. K., Morcos, M., Dehmer, T., Rabbani, N., Thornalley, P.J., Edelstein, D., Nau, C., Forbes, J., Humpert, P. M., Schwaninger, M., Ziegler, D., Stern, D. M., Cooper, M. E., Haberkorn, U., Brownlee, M., Reeh, P. W., Nawroth, P. P. (2012), "Methylglyoxal modification of $Na_v1.8$ facilitates nociceptive neuron firing and causes hyperalgesia in diabetic neuropathy", *Nature Medicine*, **18(6):** 926-933. **FI**: 27.36

31. Engel, M. A., Leffler, A., Niedermirtl, F., **Babes, A.**, Zimmermann, K., Filipović, M. R., Izydorczyk, I., Eberhardt, M., Kichko, T. I., Mueller-Tribbensee, S. M., Khalil, M., Siklosi, N., Nau, C., Ivanović-Burmazović, I., Neuhuber, W. L., Becker, C., Neurath, M. F., Reeh, P. W. (211), "TRPA1 and substance P mediate colitis in mice", *Gastroenterology*, **141(4)**: 1346-1358. **FI**: 16.71

32. **Babes, A.**, Ciobanu, A. C., Neacsu, C., Babes, R. M. (2011), "TRPM8, a Sensor for Mild Cooling in Mammalian Sensory Nerve Endings", *Current Pharmaceutical Biotechnology*, **12(1)**: 78-88. **FI**: 2.51

33. Neacsu, C., **Babes, A.** (2010), "The M-channel blocker linopirdine is an agonist of the capsaicin receptor TRPV1", *Journal of Pharmacological Sciences*, **114(3)**: 332-340. **FI**: 2.36

34. **Babes, A.**, Fischer, M.J., Reid, G., Sauer, K., Zimmermann, K., Reeh, PW. (2010), "Electrophysiological and neurochemical techniques to investigate sensory neurons in analgesia research", *Methods in Molecular Biology*, **617**:237-259.

35. Neacsu, C., Ciobanu, C., Barbu, I., Toader, O., Szegli, G., Kerek, F., **Babes, A**. (2010), "Substance MCS-18 isolated from Helleborus purpurascens is a potent antagonist of the capsaicin receptor, TRPV1, in rat cultured sensory neurons", *Physiological Research*, **59**:289-298. **FI**: 1.29

36. Ciobanu, C., Reid, G., **Babes, A.** (2009), "Acute and chronic effects of neurotrophic factors BDNF and GDNF on responses mediated by thermo-sensitive TRP channels in cultured rat dorsal root ganglion neurons", *Brain Research*, **1284**:54-67. **FI**: 2.84

37. Zimmermann, K., Leffler, A., **Babes, A.**, Cendan, C. M., Carr, R. W., Kobayashi, J., Nau, C., Wood, J. N., Reeh, P. (2007), "Sensory neuron sodium channel Nav1.8 is essential for pain at low temperatures", *Nature*, **447**:855-859. **FI**: 41.46

38. Leffler, A., Linte, R., Nau, C., Reeh, P., **Babes, A.** (2007), "A high-threshold heat-activated channel in cultured rat dorsal rot ganglion neurons resembles TRPV2 and is blocked by gadolinium", *European Journal of Neuroscience*, **26**:12-22. **FI**: 3.81

39. Linte, R.M., Ciobanu, C., Reid, G., **Babes, A.** (2007), "Desensitization of cold- and menthol-sensitive rat dorsal root ganglion neurones by inflammatory mediators", *Experimental Brain Research*, **178(1)**: 89-98. **FI**: 2.04

40. **Babes, A.**, Zorzon, D., Reid, G. (2006), "A novel type of cold-sensitive neurone in rat dorsal root ganglia with rapid adaptation to cooling stimuli", *European Journal of Neuroscience*, **24(3)**: 691-698. **FI**: 3.81

41. **Babes, A.**, Zorzon, D., Reid, G. (2004), "Two populations of cold sensitive neurones in rat dorsal root ganglia and their modulation by nerve growth factor", *European Journal of Neuroscience*, **20**: 2276-2282. **FI**: 3.81

42. Reid, G., **Babes, A.**, Pluteanu, F. (2002), "A cold- and menthol-activated current in rat dorsal root ganglion neurones: properties and role in cold transduction", *Journal of Physiology*, **545 (2)**: 595-614. **FI**: 5.04

43. Marden, M. C., Cabanes, M., **Babes, A**., Kiger, L., Griffon, N., Poyart, C., Boyiri, T., Safo, M. K., Abraham, D. J. (2002) "Control of the allosteric equilibrium of hemoglobin by crosslinking agents", *Protein Science*, **11**: 1376-1383. **FI**: 2.85

44. **Babes, A**., Amuzescu, B., Krause, U., Scholz, A., Flonta, M.-L., Reid, G., (2002), "Cooling inhibits capsaicin-induced currents in cultured rat dorsal root ganglion neurones", *Neuroscience Letters*, **317**(3): 131-134. **FI**: 2.03

45. **Babes, A**., Lorinczi, E., Ristoiu, V., Flonta, M.-L., Reid G., (2001), "Slowing of inactivation at positive potentials in a rat axonal $K^+$ channel is not due to preferential closed-state inactivation", *Physiological Research,* **50**: 557-565. **FI**: 1.29

46. **Babes, A.**, Fendler K., (2000), "$Na^+$ transport and the $E_1P$-$E_2P$ conformational transition of the $Na^+/K^+$-ATPase", *Biophysical Journal*, **79**: 2557-2571. **FI**: 3.97

47. Ganea, C., **Babes, A.**, Lupfert, C., Grell, E., Fendler, K., Clarke, R. J., (1999), "Hofmeister effects of anions on the kinetics of partial reactions of the $Na^+$,$K^+$-ATPase", *Biophysical Journal,* **77**: 267-281. **FI**: 3.97

1. **CNCSIS A 27694/2005 (2005-2006)** „*Neuroni senzitivi sensibili la frig cu adaptare rapidă la stimuli de temperatură scăzută: caracterizare farmacologică și moleculară*” (Cold-sensitive neurons with rapid adaptation to cold stimuli: pharmacological and molecular characterization). Director proiect

**Data: 26/05/2026**

Prof. dr. Alexandru Babeş