

# Joris Vriens

## List of Publications by Citations

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84  
papers

8,284  
citations

39  
h-index

91  
g-index

110  
ext. papers

9,456  
ext. citations

7.5  
avg, IF

5.69  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 84 | Anandamide and arachidonic acid use epoxyeicosatrienoic acids to activate TRPV4 channels. <i>Nature</i> , <b>2003</b> , 424, 434-8  | 50.4 | 795       |
| 83 | Heat-evoked activation of TRPV4 channels in a HEK293 cell expression system and in native mouse aorta endothelial cells. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 47044-51   | 5.4  | 501       |
| 82 | Cell swelling, heat, and chemical agonists use distinct pathways for the activation of the cation channel TRPV4. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 396-401                    | 11.5 | 497       |
| 81 | Activation of TRPV4 channels (hVRL-2/mTRP12) by phorbol derivatives. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 13569-77   | 5.4  | 473       |
| 80 | TRPM3 is a nociceptor channel involved in the detection of noxious heat. <i>Neuron</i> , <b>2011</b> , 70, 482-94   | 13.9 | 352       |
| 79 | TRPV4 calcium entry channel: a paradigm for gating diversity. <i>American Journal of Physiology - Cell Physiology</i> , <b>2004</b> , 286, C195-205   | 5.4  | 350       |
| 78 | Inhibition of the Glycolytic Activator PFKFB3 in Endothelium Induces Tumor Vessel Normalization, Impairs Metastasis, and Improves Chemotherapy. <i>Cancer Cell</i> , <b>2016</b> , 30, 968-985  | 24.3 | 325       |
| 77 | Pharmacology of vanilloid transient receptor potential cation channels. <i>Molecular Pharmacology</i> , <b>2009</b> , 75, 1262-79   | 4.3  | 322       |
| 76 | Modulation of the Ca <sup>2+</sup> permeable cation channel TRPV4 by cytochrome P450 epoxygenases in vascular endothelium. <i>Circulation Research</i> , <b>2005</b> , 97, 908-15   | 15.7 | 301       |
| 75 | Inhibition of the cation channel TRPV4 improves bladder function in mice and rats with cyclophosphamide-induced cystitis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 19084-9           | 11.5 | 298       |
| 74 | Deletion of the transient receptor potential cation channel TRPV4 impairs murine bladder voiding. <i>Journal of Clinical Investigation</i> , <b>2007</b> , 117, 3453-62   | 15.9 | 250       |
| 73 | Peripheral thermosensation in mammals. <i>Nature Reviews Neuroscience</i> , <b>2014</b> , 15, 573-89  | 13.5 | 230       |
| 72 | Molecular determinants of permeation through the cation channel TRPV4. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 33704-10   | 5.4  | 223       |
| 71 | TRPV4-mediated calcium influx regulates terminal differentiation of osteoclasts. <i>Cell Metabolism</i> , <b>2008</b> , 8, 257-65   | 24.6 | 222       |
| 70 | A TRP channel trio mediates acute noxious heat sensing. <i>Nature</i> , <b>2018</b> , 555, 662-666  | 50.4 | 203       |
| 69 | THE CONCISE GUIDE TO PHARMACOLOGY 2019/20: Ion channels. <i>British Journal of Pharmacology</i> , <b>2019</b> , 176 Suppl 1, S142-S228  | 8.6  | 200       |
| 68 | Role of caveolar compartmentation in endothelium-derived hyperpolarizing factor-mediated relaxation: Ca <sup>2+</sup> signals and gap junction function are regulated by caveolin in endothelial cells. <i>Circulation</i> , <b>2008</b> , 117, 1065-74 | 16.7 | 178       |

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|----|---|------|-----|
| 67 | Mutations in the gene encoding the calcium-permeable ion channel TRPV4 produce spondylometaphyseal dysplasia, Kozlowski type and metatropic dysplasia. <i>American Journal of Human Genetics</i> , <b>2009</b> , 84, 307-15 | 11   | 148 |
| 66 | Patient-derived organoids from endometrial disease capture clinical heterogeneity and are amenable to drug screening. <i>Nature Cell Biology</i> , <b>2019</b> , 21, 1041-1051  | 23.4 | 146 |
| 65 | Role of cytochrome P450-dependent transient receptor potential V4 activation in flow-induced vasodilatation. <i>Cardiovascular Research</i> , <b>2008</b> , 80, 445-52  | 9.9  | 141 |
| 64 | TRPM1 forms ion channels associated with melanin content in melanocytes. <i>Science Signaling</i> , <b>2009</b> , 2, ra21   | 8.8  | 139 |
| 63 | Herbal compounds and toxins modulating TRP channels. <i>Current Neuropharmacology</i> , <b>2008</b> , 6, 79-96  | 7.6  | 133 |
| 62 | The headache treeSvia umbellulone and TRPA1 activates the trigeminovascular system. <i>Brain</i> , <b>2012</b> , 135, 376-90  | 11.2 | 119 |
| 61 | Functional characterization of transient receptor potential channels in mouse urothelial cells. <i>American Journal of Physiology - Renal Physiology</i> , <b>2010</b> , 298, F692-701                                      | 4.3  | 117 |
| 60 | A novel function of capsaicin-sensitive TRPV1 channels: involvement in cell migration. <i>Cell Calcium</i> , <b>2007</b> , 42, 17-25  | 4    | 116 |
| 59 | The TRPV4 channel: structure-function relationship and promiscuous gating behaviour. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2003</b> , 446, 298-303   | 4.6  | 115 |
| 58 | Modulation of TRPV4 gating by intra- and extracellular Ca <sup>2+</sup> . <i>Cell Calcium</i> , <b>2003</b> , 33, 489-95  | 4    | 108 |
| 57 | Determinants of 4 alpha-phorbol sensitivity in transmembrane domains 3 and 4 of the cation channel TRPV4. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 12796-803   | 5.4  | 99  |
| 56 | TRPV channels and modulation by hepatocyte growth factor/scatter factor in human hepatoblastoma (HepG2) cells. <i>Cell Calcium</i> , <b>2004</b> , 36, 19-28  | 4    | 92  |
| 55 | Citral sensing by Transient [corrected] receptor potential channels in dorsal root ganglion neurons. <i>PLoS ONE</i> , <b>2008</b> , 3, e2082   | 3.7  | 83  |
| 54 | Dominant TRPV4 mutations in nonlethal and lethal metatropic dysplasia. <i>American Journal of Medical Genetics, Part A</i> , <b>2010</b> , 152A, 1169-77  | 2.5  | 71  |
| 53 | Activation of TRPM3 by a potent synthetic ligand reveals a role in peptide release. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E1363-72                    | 11.5 | 70  |
| 52 | Opening of an alternative ion permeation pathway in a nociceptor TRP channel. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 188-95   | 11.7 | 64  |
| 51 | Cholesterol loss during glutamate-mediated excitotoxicity. <i>EMBO Journal</i> , <b>2012</b> , 31, 1764-73  | 13   | 58  |
| 50 | TRPM3 in temperature sensing and beyond. <i>Temperature</i> , <b>2015</b> , 2, 201-13   | 5.2  | 45  |

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|----|---|------|----|
| 49 | The Sensory Coding of Warm Perception. <i>Neuron</i> , <b>2020</b> , 106, 830-841.e3  | 13.9 | 43 |
| 48 | Vascular hypoxic preconditioning relies on TRPV4-dependent calcium influx and proper intercellular gap junctions communication. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2012</b> , 32, 2241-9                    | 9.4  | 42 |
| 47 | Regulation of the transient receptor potential channel TRPM3 by phosphoinositides. <i>Journal of General Physiology</i> , <b>2015</b> , 146, 51-63  | 3.4  | 41 |
| 46 | Invertebrate TRP proteins as functional models for mammalian channels. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2004</b> , 449, 213-26  | 4.6  | 39 |
| 45 | TRP channel pores and local calcium signals. <i>Cell Calcium</i> , <b>2017</b> , 66, 19-24  | 4    | 32 |
| 44 | VAMP7 regulates constitutive membrane incorporation of the cold-activated channel TRPM8. <i>Nature Communications</i> , <b>2016</b> , 7, 10489  | 17.4 | 32 |
| 43 | TRPV1 is involved in stretch-evoked contractile changes in the rat autonomous bladder model: a study with piperine, a new TRPV1 agonist. <i>Neurourology and Urodynamics</i> , <b>2007</b> , 26, 440-50; discussion 451-3               | 2.3  | 31 |
| 42 | Functional expression of transient receptor potential channels in human endometrial stromal cells during the luteal phase of the menstrual cycle. <i>Human Reproduction</i> , <b>2015</b> , 30, 1421-36                                 | 5.7  | 29 |
| 41 | High-resolution contrast-enhanced microCT reveals the true three-dimensional morphology of the murine placenta. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 13927-13936 | 11.5 | 28 |
| 40 | Sensing the heat with TRPM3. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2018</b> , 470, 799-807   | 4.6  | 27 |
| 39 | TRPV4 participates in the establishment of trailing adhesions and directional persistence of migrating cells. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2015</b> , 467, 2107-19  | 4.6  | 24 |
| 38 | Functional expression of the mechanosensitive PIEZO1 channel in primary endometrial epithelial cells and endometrial organoids. <i>Scientific Reports</i> , <b>2019</b> , 9, 1779   | 4.9  | 22 |
| 37 | Urine of Preterm Neonates as a Novel Source of Kidney Progenitor Cells. <i>Journal of the American Society of Nephrology: JASN</i> , <b>2016</b> , 27, 2762-70  | 12.7 | 22 |
| 36 | THE CONCISE GUIDE TO PHARMACOLOGY 2021/22: Ion channels. <i>British Journal of Pharmacology</i> , <b>2021</b> , 178 Suppl 1, S157-S245  | 8.6  | 21 |
| 35 | Mutations in the voltage-sensing domain affect the alternative ion permeation pathway in the TRPM3 channel. <i>Journal of Physiology</i> , <b>2018</b> , 596, 2413-2432   | 3.9  | 17 |
| 34 | Isolation of Mouse Endometrial Epithelial and Stromal Cells for In Vitro Decidualization. <i>Journal of Visualized Experiments</i> , <b>2017</b> ,  | 1.6  | 17 |
| 33 | TRPV4 is associated with central rather than nephrogenic osmoregulation. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2016</b> , 468, 1595-607  | 4.6  | 17 |
| 32 | The functional expression of transient receptor potential channels in the mouse endometrium. <i>Human Reproduction</i> , <b>2017</b> , 32, 615-630  | 5.7  | 16 |

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| 31 | Functional expression and pharmacological modulation of TRPM3 in human sensory neurons. <i>British Journal of Pharmacology</i> , <b>2020</b> , 177, 2683-2695  | 8.6  | 15 |
| 30 | Definition of two agonist types at the mammalian cold-activated channel TRPM8. <i>ELife</i> , <b>2016</b> , 5,   | 8.9  | 15 |
| 29 | Gain of channel function and modified gating properties in TRPM3 mutants causing intellectual disability and epilepsy. <i>ELife</i> , <b>2020</b> , 9,   | 8.9  | 13 |
| 28 | Targeting TRP Channels - Valuable Alternatives to Combat Pain, Lower Urinary Tract Disorders, and Type 2 Diabetes?. <i>Trends in Pharmacological Sciences</i> , <b>2019</b> , 40, 669-683            | 13.2 | 11 |
| 27 | Testing of iatrogenic lingual nerve injury using a novel psychophysical method and oral reflexes. <i>International Journal of Oral and Maxillofacial Surgery</i> , <b>2007</b> , 36, 545-9           | 2.9  | 11 |
| 26 | TRPV1 dysfunction in cystinosis patients harboring the homozygous 57 kb deletion. <i>Scientific Reports</i> , <b>2016</b> , 6, 35395   | 4.9  | 11 |
| 25 | TRP Channel Cooperation for Nociception: Therapeutic Opportunities. <i>Annual Review of Pharmacology and Toxicology</i> , <b>2021</b> , 61, 655-677  | 17.9 | 11 |
| 24 | Establishing life is a calcium-dependent TRiP: Transient receptor potential channels in reproduction. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , <b>2018</b> , 1865, 1815-1829 | 4.9  | 10 |
| 23 | Heat sensing involves a TRiPlet of ion channels. <i>British Journal of Pharmacology</i> , <b>2019</b> , 176, 3893-3898   | 8.6  | 9  |
| 22 | Double-label immunohistochemistry to assess labyrinth structure of the mouse placenta with stereology. <i>Placenta</i> , <b>2020</b> , 94, 44-47   | 3.4  | 9  |
| 21 | Optimization of Endometrial Decidualization in the Menstruating Mouse Model for Preclinical Endometriosis Research. <i>Reproductive Sciences</i> , <b>2018</b> , 25, 1577-1588                       | 3    | 8  |
| 20 | Laparoscopic Surgery: A New Technique to Induce Endometriosis in a Mouse Model. <i>Reproductive Sciences</i> , <b>2016</b> , 23, 1332-9  | 3    | 8  |
| 19 | Functional Expression of TRP Ion Channels in Endometrial Stromal Cells of Endometriosis Patients. <i>International Journal of Molecular Sciences</i> , <b>2018</b> , 19,                             | 6.3  | 8  |
| 18 | Signature and Pathophysiology of Non-canonical Pores in Voltage-Dependent Cation Channels. <i>Reviews of Physiology, Biochemistry and Pharmacology</i> , <b>2016</b> , 170, 67-99                    | 2.9  | 7  |
| 17 | Transient Receptor Potential channels (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database. <i>IUPHAR/BPS Guide To Pharmacology CITE</i> , <b>2019</b> , 2019,                          | 1.7  | 6  |
| 16 | Upregulation of TRPM3 in nociceptors innervating inflamed tissue. <i>ELife</i> , <b>2020</b> , 9,  | 8.9  | 6  |
| 15 | Reply to: Heat detection by the TRPM2 ion channel. <i>Nature</i> , <b>2020</b> , 584, E13-E15  | 50.4 | 4  |
| 14 | Pharmacological properties of TRPM3 isoforms are determined by the length of the pore loop. <i>British Journal of Pharmacology</i> , <b>2020</b> ,   | 8.6  | 4  |

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| 13 | Transient receptor potential channel regulation by growth factors. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , <b>2021</b> , 1868, 118950                             | 4.9  | 4 |
| 12 | Mapping the expression of transient receptor potential channels across murine placental development. <i>Cellular and Molecular Life Sciences</i> , <b>2021</b> , 78, 4993-5014             | 10.3 | 4 |
| 11 | Transient Receptor Potential Channels in the Epithelial-to-Mesenchymal Transition. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,                                  | 6.3  | 4 |
| 10 | Of Mice and Women: A Laparoscopic Mouse Model for Endometriosis. <i>Journal of Minimally Invasive Gynecology</i> , <b>2018</b> , 25, 578-579   | 2.2  | 3 |
| 9  | Mimicking Sampson's Retrograde Menstrual Theory in Rats: A New Rat Model for Ongoing Endometriosis-Associated Pain. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21, | 6.3  | 3 |
| 8  | The TRPM3 ion channel mediates nociception but not itch evoked by endogenous pruritogenic mediators. <i>Biochemical Pharmacology</i> , <b>2021</b> , 183, 114310                           | 6    | 3 |
| 7  | TRPV4 IS LOCALISED ON UROTHELIUM: DOES IT PLAY A ROLE IN AFFERENT BLADDER SIGNALLING?. <i>European Urology Supplements</i> , <b>2007</b> , 6, 38   | 0.9  | 2 |
| 6  | Upregulation of TRPM3 drives hyperexcitability in nociceptors innervating inflamed tissue  |      | 1 |
| 5  | Partial Agonistic Actions of Sex Hormone Steroids on TRPM3 Function.. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,   | 6.3  | 1 |
| 4  | TRP channel expression correlates with the epithelial-mesenchymal transition and high-risk endometrial carcinoma.. <i>Cellular and Molecular Life Sciences</i> , <b>2021</b> , 79, 1       | 10.3 | 1 |
| 3  | A cellular pathway controlling functional plasma membrane incorporation of the cold sensor TRPM8. <i>Temperature</i> , <b>2016</b> , 3, 521-523  | 5.2  |   |
| 2  | In vivo and ex vivo imaging of nociceptor expression and activity. <i>Journal of Cellular Neuroscience and Oxidative Stress</i> , <b>2019</b> , 11, 3-3                                    | 0.3  |   |
| 1  | Molecular Determinants of the Trafficking of the Cold-activated Transient Receptor Potential Ion Channel Trpm8. <i>FASEB Journal</i> , <b>2015</b> , 29, 845.5                             | 0.9  |   |