Ian C Zachary

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Signaling transduction mechanisms mediating biological actions of the vascular endothelial growth factor family. Cardiovascular Research, 2001, 49, 568-581. | 1.8 | 572 |
| 2 | The vascular endothelial growth factor (VEGF) family: angiogenic factors in health and disease. Genome Biology, 2005, 6, 209. | 13.9 | 489 |
| 3 | Focal adhesion kinase (p125FAK): A point of convergence in the action of neuropeptides, integrins, and oncogenes. Cell, 1992, 71, 891-894. | 13.5 | 457 |
| 4 | Vascular Endothelial Growth Factor Stimulates Tyrosine Phosphorylation and Recruitment to New Focal Adhesions of Focal Adhesion Kinase and Paxillin in Endothelial Cells. Journal of Biological Chemistry, 1997, 272, 15442-15451. | 1.6 | 427 |
| 5 | Role of Angiogenesis in Cardiovascular Disease. Circulation, 2005, 112, 1813-1824. | 1.6 | 413 |
| 6 | Neuropilins: structure, function and role in disease. Biochemical Journal, 2008, 411, 211-226. | 1.7 | 338 |
| 7 | Basic Fibroblast Growth Factor Upregulates the Expression of Vascular Endothelial Growth Factor in Vascular Smooth Muscle Cells. Circulation, 1995, 92, 11-14. | 1.6 | 332 |
| 8 | Signaling mechanisms mediating vascular protective actions of vascular endothelial growth factor. American Journal of Physiology - Cell Physiology, 2001, 280, C1375-C1386. | 2.1 | 270 |
| 9 | Vascular endothelial growth factor stimulates prostacyclin production and activation of cytosolic phospholipase A2in endothelial cells via p42/p44 mitogen-activated protein kinase. FEBS Letters, 1997, 420, 28-32. | 1.3 | 239 |
| 10 | Neuroprotective Role of Vascular Endothelial Growth Factor: Signalling Mechanisms, Biological Function, and Therapeutic Potential. NeuroSignals, 2005, 14, 207-221. | 0.5 | 236 |
| 11 | Correlation of Increased Vascular Endothelial Growth Factor With Neovascularization and Permeability in Ischemic Central Vein Occlusion. JAMA Ophthalmology, 2002, 120, 1644. | 2.6 | 213 |
| 12 | VEGF Gene Transfer Reduces Intimal Thickening via Increased Production of Nitric Oxide in Carotid Arteries. Human Gene Therapy, 1997, 8, 1737-1744. | 1.4 | 196 |
| 13 | Angiogenesis-Dependent and Independent Phases of Intimal Hyperplasia. Circulation, 2004, 110, 2436-2443. | 1.6 | 172 |
| 14 | Src mediates stimulation by vascular endothelial growth factor of the phosphorylation of focal adhesion kinase at tyrosine 861, and migration and anti-apoptosis in endothelial cells. Biochemical Journal, 2001, 360, 255-264. | 1.7 | 171 |
| 15 | VEGF binding to NRP1 is essential for VEGF stimulation of endothelial cell migration, complex formation between NRP1 and VEGFR2, and signaling via FAK Tyr407 phosphorylation. Molecular Biology of the Cell, 2011, 22, 2766-2776. | 0.9 | 170 |
| 16 | Small Molecule Inhibitors of the Neuropilin-1 Vascular Endothelial Growth Factor A (VEGF-A) Interaction. Journal of Medicinal Chemistry, 2010, 53, 2215-2226. | 2.9 | 168 |
| 17 | Intrinsic Tyrosine Kinase Activity is Required for Vascular Endothelial Growth Factor Receptor 2 Ubiquitination, Sorting and Degradation in Endothelial Cells. Traffic, 2006, 7, 1270-1282. | 1.3 | 165 |
| 18 | Hypoxia and platelet-derived growth factor-BB synergistically upregulate the expression of vascular endothelial growth factor in vascular smooth muscle cells. FEBS Letters, 1995, 358, 311-315. | 1.3 | 150 |

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|----|---|-----|-----------|
| 19 | Vascular Endothelial Growth Factor–Regulated Gene Expression in Endothelial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2003, 23, 2002-2007. | 1.1 | 148 |
| 20 | Vascular Protection. Arteriosclerosis, Thrombosis, and Vascular Biology, 2000, 20, 1512-1520. | 1.1 | 140 |
| 21 | Src mediates stimulation by vascular endothelial growth factor of the phosphorylation of focal adhesion kinase at tyrosine 861, and migration and anti-apoptosis in endothelial cells. Biochemical Journal, 2001, 360, 255. | 1.7 | 127 |
| 22 | Therapeutic angiogenesis for cardiovascular disease: biological context, challenges, prospects. Heart, 2011, 97, 181-189. | 1.2 | 127 |
| 23 | Ligandâ€Stimulated VEGFR2 Signaling is Regulated by Coâ€Ordinated Trafficking and Proteolysis. Traffic, 2010, 11, 161-174. | 1.3 | 124 |
| 24 | Neuropilin-1 mediates PDGF stimulation of vascular smooth muscle cell migration and signalling via p130Cas. Biochemical Journal, 2011, 435, 609-618. | 1.7 | 121 |
| 25 | Characterization of a Bicyclic Peptide Neuropilin-1 (NP-1) Antagonist (EG3287) Reveals Importance of Vascular Endothelial Growth Factor Exon 8 for NP-1 Binding and Role of NP-1 in KDR Signaling. Journal of Biological Chemistry, 2006, 281, 13493-13502. | 1.6 | 118 |
| 26 | Vascular endothelial growth factor. International Journal of Biochemistry and Cell Biology, 1998, 30, 1169-1174. | 1.2 | 105 |
| 27 | Neuropilin 1 (NRP1) hypomorphism combined with defective VEGF-A binding reveals novel roles for NRP1 in developmental and pathological angiogenesis. Development (Cambridge), 2014, 141, 556-562. | 1.2 | 101 |
| 28 | VASCULAR ENDOTHELIAL GROWTH FACTOR INDUCES PROTEIN KINASE C (PKC)-DEPENDENT Akt/PKB ACTIVATION AND PHOSPHATIDYLINOSITOL 3â€2-KINASE-MEDIATED PKCÎ′ PHOSPHORYLATION: ROLE OF PKC IN ANGIOGENESIS. Cell Biology International, 2002, 26, 751-759. | 1.4 | 100 |
| 29 | Neuropilin-1 Signaling through p130 ^{Cas} Tyrosine Phosphorylation Is Essential for Growth Factor-Dependent Migration of Glioma and Endothelial Cells. Molecular and Cellular Biology, 2011, 31, 1174-1185. | 1.1 | 94 |
| 30 | Vascular endothelial growth factor-induced prostacyclin production is mediated by a protein kinase C (PKC)-dependent activation of extracellular signal-regulated protein kinases 1 and 2 involving PKC-δ and by mobilization of intracellular Ca2+. Biochemical Journal, 2001, 353, 503-512. | 1.7 | 90 |
| 31 | NRP1 Regulates CDC42 Activation to Promote Filopodia Formation in Endothelial Tip Cells. Cell Reports, 2015, 11, 1577-1590. | 2.9 | 88 |
| 32 | Nitric oxide modulation of focal adhesions in endothelial cells. American Journal of Physiology - Cell Physiology, 1999, 276, C1271-C1281. | 2.1 | 86 |
| 33 | Chondroitin sulphateâ€modified neuropilin 1 is expressed in human tumour cells and modulates 3D invasion in the U87MC human glioblastoma cell line through a p130Casâ€mediated pathway. EMBO Reports, 2008, 9, 983-989. | 2.0 | 74 |
| 34 | p130Cas: A key signalling node in health and disease. Cellular Signalling, 2013, 25, 766-777. | 1.7 | 74 |
| 35 | Vascular Endothelial Growth Factor (VEGF)-D and VEGF-A Differentially Regulate KDR-mediated Signaling and Biological Function in Vascular Endothelial Cells. Journal of Biological Chemistry, 2004, 279, 36148-36157. | 1.6 | 70 |
| 36 | Uteroplacental Adenovirus Vascular Endothelial Growth Factor Gene Therapy Increases Fetal Growth Velocity in Growth-Restricted Sheep Pregnancies. Human Gene Therapy, 2014, 25, 375-384. | 1.4 | 67 |

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|----|---|-----|-----------|
| 37 | Platelet-derived growth factor-BB (PDGF-BB) regulation of migration and focal adhesion kinase phosphorylation in rabbit aortic vascular smooth muscle cells: roles of phosphatidylinositol 3-kinase and mitogen-activated protein kinases. Cardiovascular Research, 1999, 41, 708-721. | 1.8 | 66 |
| 38 | Rab GTPase Regulation of VEGFR2 Trafficking and Signaling in Endothelial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 1119-1124. | 1.1 | 65 |
| 39 | Small Molecule Neuropilin-1 Antagonists Combine Antiangiogenic and Antitumor Activity with Immune Modulation through Reduction of Transforming Growth Factor Beta (TGFβ) Production in Regulatory T-Cells. Journal of Medicinal Chemistry, 2018, 61, 4135-4154. | 2.9 | 65 |
| 40 | Neuropilins: Role in Signalling, Angiogenesis and Disease. Chemical Immunology and Allergy, 2014, 99, 37-70. | 1.7 | 64 |
| 41 | How neuropilin-1 regulates receptor tyrosine kinase signalling: the knowns and known unknowns. Biochemical Society Transactions, 2011, 39, 1583-1591. | 1.6 | 63 |
| 42 | Vascular endothelial growth factor-induced prostacyclin production is mediated by a protein kinase C (PKC)-dependent activation of extracellular signal-regulated protein kinases 1 and 2 involving PKC-δ and by mobilization of intracellular Ca2+. Biochemical Journal, 2001, 353, 503. | 1.7 | 58 |
| 43 | Endothelial C-Type Natriuretic Peptide Is a Critical Regulator of Angiogenesis and Vascular Remodeling. Circulation, 2019, 139, 1612-1628. | 1.6 | 58 |
| 44 | Endosome-to-Plasma Membrane Recycling of VEGFR2 Receptor Tyrosine Kinase Regulates Endothelial Function and Blood Vessel Formation. Cells, 2014, 3, 363-385. | 1.8 | 56 |
| 45 | Cysteine-Rich and Basic Domain HIV-1 Tat Peptides Inhibit Angiogenesis and Induce Endothelial Cell Apoptosis. Biochemical and Biophysical Research Communications, 2001, 283, 469-479. | 1.0 | 54 |
| 46 | Gene Therapy for Cardiovascular Disease. Hypertension, 2001, 38, 1210-1216. | 1.3 | 54 |
| 47 | Vascular endothelial growth factor regulates Stanniocalcin-1 expression via Neuropilin-1-dependent regulation of KDR and synergism with fibroblast growth Factor-2. Cellular Signalling, 2008, 20, 569-579. | 1.7 | 54 |
| 48 | Ablation of Neuropilin 1 from glioma-associated microglia and macrophages slows tumor progression. Oncotarget, 2016, 7, 9801-9814. | 0.8 | 53 |
| 49 | Nuclear Localization and Apoptotic Regulation of an Amino-Terminal Domain Focal Adhesion Kinase Fragment in Endothelial Cells. Biochemical and Biophysical Research Communications, 2000, 276, 1068-1074. | 1.0 | 50 |
| 50 | Prolactin stimulates the JAK2 and focal adhesion kinase pathways in human breast carcinoma T47-D cells. Biochemical Journal, 1997, 324, 231-236. | 1.7 | 45 |
| 51 | Peptides Encoded by Exon 6 of VECF Inhibit Endothelial Cell Biological Responses and Angiogenesis Induced by VEGF. Biochemical and Biophysical Research Communications, 2001, 283, 164-173. | 1.0 | 44 |
| 52 | VEGFR1 receptor tyrosine kinase localization to the Golgi apparatus is calcium-dependent. Experimental Cell Research, 2009, 315, 877-889. | 1.2 | 44 |
| 53 | VEGF-A isoforms program differential VEGFR2 signal transduction, trafficking and proteolysis. Biology Open, 2016, 5, 571-583. | 0.6 | 43 |
| 54 | Receptor Tyrosine Kinase Ubiquitination and De-Ubiquitination in Signal Transduction and Receptor Trafficking. Cells, 2018, 7, 22. | 1.8 | 43 |

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|----|--|------------------|---------------------|
| 55 | The focal adhesion kinase amino-terminal domain localises to nuclei and intercellular junctions in HEK 293 and MDCK cells independently of tyrosine 397 and the carboxy-terminal domain. Biochemical and Biophysical Research Communications, 2002, 299, 62-73. | 1.0 | 40 |
| 56 | Anti-chemorepulsive Effects of Vascular Endothelial Growth Factor and Placental Growth Factor-2 in Dorsal Root Ganglion Neurons Are Mediated via Neuropilin-1 and Cyclooxygenase-derived Prostanoid Production. Journal of Biological Chemistry, 2004, 279, 30654-30661. | 1.6 | 40 |
| 57 | Neuropilins 1 and 2 mediate neointimal hyperplasia and re-endothelialization following arterial injury. Cardiovascular Research, 2015, 108, 288-298. | 1.8 | 39 |
| 58 | Vascular Endothelial Growth Factor Gene Transfer Inhibits Neointimal Macrophage Accumulation in Hypercholesterolemic Rabbits. Arteriosclerosis, Thrombosis, and Vascular Biology, 2004, 24, 1074-1080. | 1.1 | 35 |
| 59 | VEGF-A isoforms differentially regulate ATF-2–dependent VCAM-1 gene expression and endothelial–leukocyte interactions. Molecular Biology of the Cell, 2014, 25, 2509-2521. | 0.9 | 35 |
| 60 | Peri- and Postnatal Effects of Prenatal Adenoviral VEGF Gene Therapy in Growth-Restricted Sheep1. Biology of Reproduction, 2016, 94, 142. | 1.2 | 35 |
| 61 | VEGF (Vascular Endothelial Growth Factor) Induces NRP1 (Neuropilin-1) Cleavage via ADAMs (a) Tj ETQq1 1 0.7 Regulate Angiogenic Signaling. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 1845-1858. | 84314 rgB 1.1 | T /Overlock] 34 |
| 62 | Differential regulation of extracellular signal-regulated protein kinases (ERKs) 1 and 2 by cAMP and dissociation of ERK inhibition from anti-mitogenic effects in rabbit vascular smooth muscle cells. Biochemical Journal, 1999, 342, 407-414. | 1.7 | 32 |
| 63 | The role of neuropilins in cell signalling. Biochemical Society Transactions, 2009, 37, 1171-1178. | 1.6 | 32 |
| 64 | Vascular Endothelial Growth Factor: How It Transmits Its Signal. Nephron Experimental Nephrology, 1998, 6, 480-487. | 2.4 | 31 |
| 65 | Maternal Therapy with Ad.VEGF-A ₁₆₅ Increases Fetal Weight at Term in a Guinea-Pig Model of Fetal Growth Restriction. Human Gene Therapy, 2016, 27, 997-1007. | 1.4 | 31 |
| 66 | Local Over-Expression of VEGF-DΔNΔC in the Uterine Arteries of Pregnant Sheep Results in Long-Term Changes in Uterine Artery Contractility and Angiogenesis. PLoS ONE, 2014, 9, e100021. | 1.1 | 31 |
| 67 | Placental growth factor induces FosB and c-Fos gene expression via Flt-1 receptors. FEBS Letters, 2004, 557, 93-98. | 1.3 | 28 |
| 68 | A peptide encoded by exon 6 of VEGF (EG3306) inhibits VEGF-induced angiogenesis in vitro and ischaemic retinal neovascularisation in vivo. Biochemical and Biophysical Research Communications, 2003, 302, 793-799. | 1.0 | 26 |
| 69 | Architecture and hydration of the arginineâ€binding site of neuropilinâ€1. FEBS Journal, 2018, 285, 1290-1304. | 2.2 | 26 |
| 70 | Vascular Endothelial Growth Factor (VEGF) Promotes Assembly of the p130Cas Interactome to Drive Endothelial Chemotactic Signaling and Angiogenesis. Molecular and Cellular Proteomics, 2017, 16, 168-180. | 2.5 | 25 |
| 71 | Neuropilin 1 mediates epicardial activation and revascularization in the regenerating zebrafish heart. Development (Cambridge), 2019, 146, | 1.2 | 25 |
| 72 | Nâ€Terminal Modification of VEGFâ€A C Terminusâ€Derived Peptides Delineates Structural Features Involved in Neuropilinâ€1 Binding and Functional Activity. ChemBioChem, 2014, 15, 1161-1170. | 1.3 | 24 |

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|----|--|-----|-----------|
| 73 | Neuropilin 1 Is Essential for Gastrointestinal Smooth Muscle Contractility and Motility in Aged Mice. PLoS ONE, 2015, 10, e0115563. | 1.1 | 24 |
| 74 | Gene Targeting to the Uteroplacental Circulation of Pregnant Guinea Pigs. Reproductive Sciences, 2016, 23, 1087-1095. | 1.1 | 16 |
| 75 | Production of Soluble Human Vascular Endothelial Growth Factor VEGF-A165-Heparin Binding Domain in Escherichia coli. PLoS ONE, 2013, 8, e55690. | 1.1 | 16 |
| 76 | Critical role for DOK1 in PDGF-BB stimulated glioma cell invasion via p130Cas and Rap1 signalling. Journal of Cell Science, 2014, 127, 2647-58. | 1.2 | 15 |
| 77 | Structural studies of neuropilinâ€2 reveal a zinc ion binding site remote from the vascular endothelial growth factor binding pocket. FEBS Journal, 2016, 283, 1921-1934. | 2.2 | 13 |
| 78 | Signal transduction in angiogenesis. , 2005, , 267-300. | | 7 |
| 79 | Smooth muscle cell-specific knockout of neuropilin-1 impairs postnatal lung development and pathological vascular smooth muscle cell accumulation. American Journal of Physiology - Cell Physiology, 2019, 316, C424-C433. | 2.1 | 6 |
| 80 | Comparison of Efficiency and Function of Vascular Endothelial Growth Factor Adenovirus Vectors in Endothelial Cells for Gene Therapy of Placental Insufficiency. Human Gene Therapy, 2020, 31, 1190-1202. | 1.4 | 6 |
| 81 | Vascular endothelial growth factor and anti-angiogenic peptides as therapeutic and investigational molecules. IDrugs: the Investigational Drugs Journal, 2003, 6, 224-31. | 0.7 | 6 |
| 82 | A crucial role for DOK1 in PDGF-BB-stimulated glioma cell invasion through p130Cas and Rap1 signalling. Journal of Cell Science, 2014, 127, 3397-3397. | 1.2 | 5 |
| 83 | <i>Bcar1</i> /p130Cas is essential for ventricular development and neural crest cell remodelling of the cardiac outflow tract. Cardiovascular Research, 2022, 118, 1993-2005. | 1.8 | 4 |
| 84 | Peptides Derived from Vascular Endothelial Growth Factor B Show Potent Binding to Neuropilinâ€1. ChemBioChem, 2022, 23, e202100463. | 1.3 | 3 |
| 85 | Protein kinase D in vascular biology and angiogenesis. IUBMB Life, 2011, 63, spcone-spcone. | 1.5 | 1 |
| 86 | Yin Yangâ€l Inhibits Intimal Thickening by Repressing p21WAF1/Cip1 Transcription and p21WAF1/Cip1â€Cdk4â€Cyclin D1 Assembly. FASEB Journal, 2007, 21, A69. | 0.2 | 0 |
| 87 | The Role of the Neuropilins in Tumour Angiogenesis and Tumour Progression. , 2017, , 163-186. | | 0 |
| 88 | Monitoring VEGF-Stimulated Calcium Ion Flux in Endothelial Cells. Methods in Molecular Biology, 2022, 2475, 113-124. | 0.4 | 0 |