# George E Davis

## List of Publications by Citations

**Source:** https://exaly.com/author-pdf/3137145/george-e-davis-publications-by-citations.pdf
**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

| | | | |
|---|---|---|---|
| 94 papers | 9,610 citations | 50 h-index | 95 g-index |
| 95 ext. papers | 10,627 ext. citations | 6.5 avg, IF | 6.26 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 94 | Endothelial extracellular matrix: biosynthesis, remodeling, and functions during vascular morphogenesis and neovessel stabilization. *Circulation Research*, **2005**, 97, 1093-107 | 15.7 | 920 |
| 93 | Proteolytic exposure of a cryptic site within collagen type IV is required for angiogenesis and tumor growth in vivo. *Journal of Cell Biology*, **2001**, 154, 1069-79 | 7.3 | 409 |
| 92 | Pericyte recruitment during vasculogenic tube assembly stimulates endothelial basement membrane matrix formation. *Blood*, **2009**, 114, 5091-101 | 2.2 | 408 |
| 91 | Endothelial tubes assemble from intracellular vacuoles in vivo. *Nature*, **2006**, 442, 453-6 | 50.4 | 405 |
| 90 | Regulation of tissue injury responses by the exposure of matricryptic sites within extracellular matrix molecules. *American Journal of Pathology*, **2000**, 156, 1489-98 | 5.8 | 349 |
| 89 | An alpha 2 beta 1 integrin-dependent pinocytic mechanism involving intracellular vacuole formation and coalescence regulates capillary lumen and tube formation in three-dimensional collagen matrix. *Experimental Cell Research*, **1996**, 224, 39-51 | 4.2 | 314 |
| 88 | Affinity of integrins for damaged extracellular matrix: alpha v beta 3 binds to denatured collagen type I through RGD sites. *Biochemical and Biophysical Research Communications*, **1992**, 182, 1025-31 | 3.4 | 294 |
| 87 | Differential gene expression during capillary morphogenesis in 3D collagen matrices. *Journal of Cell Science*, **2001**, 114, 2755-2773 | 5.3 | 292 |
| 86 | Consensus guidelines for the use and interpretation of angiogenesis assays. *Angiogenesis*, **2018**, 21, 425-532 | 13.2 | 285 |
| 85 | The cerebral cavernous malformation signaling pathway promotes vascular integrity via Rho GTPases. *Nature Medicine*, **2009**, 15, 177-84 | 50.5 | 280 |
| 84 | Cellular and molecular mechanisms of vascular lumen formation. *Developmental Cell*, **2009**, 16, 222-31 | 10.2 | 269 |
| 83 | RGD-dependent vacuolation and lumen formation observed during endothelial cell morphogenesis in three-dimensional fibrin matrices involves the alpha(v)beta(3) and alpha(5)beta(1) integrins. *American Journal of Pathology*, **2000**, 156, 1673-83 | 5.8 | 242 |
| 82 | Coregulation of vascular tube stabilization by endothelial cell TIMP-2 and pericyte TIMP-3. *Journal of Cell Biology*, **2006**, 175, 179-91 | 7.3 | 241 |
| 81 | Angiogenesis. *Cold Spring Harbor Perspectives in Biology*, **2011**, 3, a005090 | 10.2 | 207 |
| 80 | Molecular basis of endothelial cell morphogenesis in three-dimensional extracellular matrices. *The Anatomical Record*, **2002**, 268, 252-75 | | 207 |
| 79 | Endothelial-derived PDGF-BB and HB-EGF coordinately regulate pericyte recruitment during vasculogenic tube assembly and stabilization. *Blood*, **2010**, 116, 4720-30 | 2.2 | 200 |
| 78 | The Mac-1 and p150,95 beta 2 integrins bind denatured proteins to mediate leukocyte cell-substrate adhesion. *Experimental Cell Research*, **1992**, 200, 242-52 | 4.2 | 191 |

| | | | |
|---|---|---|---|
| 77 | The Cdc42 and Rac1 GTPases are required for capillary lumen formation in three-dimensional extracellular matrices. *Journal of Cell Science*, **2002**, 115, 1123-1136 | 5.3 | 188 |
| 76 | Endothelial cell lumen and vascular guidance tunnel formation requires MT1-MMP-dependent proteolysis in 3-dimensional collagen matrices. *Blood*, **2009**, 114, 237-47 | 2.2 | 182 |
| 75 | The Cdc42 and Rac1 GTPases are required for capillary lumen formation in three-dimensional extracellular matrices. *Journal of Cell Science*, **2002**, 115, 1123-36 | 5.3 | 167 |
| 74 | In vitro three dimensional collagen matrix models of endothelial lumen formation during vasculogenesis and angiogenesis. *Methods in Enzymology*, **2008**, 443, 83-101 | 1.7 | 159 |
| 73 | Modulation of calcium current in arteriolar smooth muscle by alphav beta3 and alpha5 beta1 integrin ligands. *Journal of Cell Biology*, **1998**, 143, 241-52 | 7.3 | 159 |
| 72 | Cdc42- and Rac1-mediated endothelial lumen formation requires Pak2, Pak4 and Par3, and PKC-dependent signaling. *Journal of Cell Science*, **2008**, 121, 989-1001 | 5.3 | 157 |
| 71 | The neuropilin 1 cytoplasmic domain is required for VEGF-A-dependent arteriogenesis. *Developmental Cell*, **2013**, 25, 156-68 | 10.2 | 154 |
| 70 | MMP-1 activation by serine proteases and MMP-10 induces human capillary tubular network collapse and regression in 3D collagen matrices. *Journal of Cell Science*, **2005**, 118, 2325-40 | 5.3 | 153 |
| 69 | Endothelial cell-pericyte interactions stimulate basement membrane matrix assembly: influence on vascular tube remodeling, maturation, and stabilization. *Microscopy and Microanalysis*, **2012**, 18, 68-80 | 0.5 | 147 |
| 68 | Molecular basis for endothelial lumen formation and tubulogenesis during vasculogenesis and angiogenic sprouting. *International Review of Cell and Molecular Biology*, **2011**, 288, 101-65 | 6 | 135 |
| 67 | Sphingosine-1-phosphate markedly induces matrix metalloproteinase and integrin-dependent human endothelial cell invasion and lumen formation in three-dimensional collagen and fibrin matrices. *Biochemical and Biophysical Research Communications*, **2003**, 312, 903-13 | 3.4 | 123 |
| 66 | Blood vessel tubulogenesis requires Rasip1 regulation of GTPase signaling. *Developmental Cell*, **2011**, 20, 526-39 | 10.2 | 122 |
| 65 | Mechanisms controlling human endothelial lumen formation and tube assembly in three-dimensional extracellular matrices. *Birth Defects Research Part C: Embryo Today Reviews*, **2007**, 81, 270-85 | | 108 |
| 64 | Endothelial lumen signaling complexes control 3D matrix-specific tubulogenesis through interdependent Cdc42- and MT1-MMP-mediated events. *Blood*, **2010**, 115, 5259-69 | 2.2 | 106 |
| 63 | Vascular smooth muscle alpha v beta 3 integrin mediates arteriolar vasodilation in response to RGD peptides. *Circulation Research*, **1996**, 79, 821-6 | 15.7 | 104 |
| 62 | Microtubule depolymerization rapidly collapses capillary tube networks in vitro and angiogenic vessels in vivo through the small GTPase Rho. *Journal of Biological Chemistry*, **2004**, 279, 11686-95 | 5.4 | 98 |
| 61 | VEGF and FGF prime vascular tube morphogenesis and sprouting directed by hematopoietic stem cell cytokines. *Blood*, **2011**, 117, 3709-19 | 2.2 | 96 |
| 60 | Mutations in 2 distinct genetic pathways result in cerebral cavernous malformations in mice. *Journal of Clinical Investigation*, **2011**, 121, 1871-81 | 15.9 | 95 |

| | | | |
|---|---|---|---|
| 59 | State-of-the-Art Methods for Evaluation of Angiogenesis and Tissue Vascularization: A Scientific Statement From the American Heart Association. *Circulation Research*, **2015**, 116, e99-132 | 15.7 | 90 |
| 58 | Extracellular matrix mediates a molecular balance between vascular morphogenesis and regression. *Current Opinion in Hematology*, **2008**, 15, 197-203 | 3.3 | 85 |
| 57 | Molecular balance of capillary tube formation versus regression in wound repair: role of matrix metalloproteinases and their inhibitors. *Journal of Investigative Dermatology Symposium Proceedings*, **2006**, 11, 44-56 | 1.1 | 85 |
| 56 | MT1-MMP- and Cdc42-dependent signaling co-regulate cell invasion and tunnel formation in 3D collagen matrices. *Journal of Cell Science*, **2009**, 122, 4558-69 | 5.3 | 84 |
| 55 | Identification of dual alpha 4beta1 integrin binding sites within a 38 amino acid domain in the N-terminal thrombin fragment of human osteopontin. *Journal of Biological Chemistry*, **2001**, 276, 13483-9 | 5.4 | 82 |
| 54 | Capillary morphogenesis during human endothelial cell invasion of three-dimensional collagen matrices. *In Vitro Cellular and Developmental Biology - Animal*, **2000**, 36, 513-9 | 2.6 | 80 |
| 53 | Tumor cell invasion of collagen matrices requires coordinate lipid agonist-induced G-protein and membrane-type matrix metalloproteinase-1-dependent signaling. *Molecular Cancer*, **2006**, 5, 69 | 42.1 | 75 |
| 52 | Formation of endothelial lumens requires a coordinated PKCepsilon-, Src-, Pak- and Raf-kinase-dependent signaling cascade downstream of Cdc42 activation. *Journal of Cell Science*, **2009**, 122, 1812-22 | 5.3 | 74 |
| 51 | Molecular mechanisms controlling vascular lumen formation in three-dimensional extracellular matrices. *Cells Tissues Organs*, **2012**, 195, 122-43 | 2.1 | 69 |
| 50 | Cdc42 is required for cytoskeletal support of endothelial cell adhesion during blood vessel formation in mice. *Development (Cambridge)*, **2015**, 142, 3058-70 | 6.6 | 67 |
| 49 | ETS-related gene (ERG) controls endothelial cell permeability via transcriptional regulation of the claudin 5 (CLDN5) gene. *Journal of Biological Chemistry*, **2012**, 287, 6582-91 | 5.4 | 64 |
| 48 | RhoJ is an endothelial cell-restricted Rho GTPase that mediates vascular morphogenesis and is regulated by the transcription factor ERG. *Blood*, **2011**, 118, 1145-53 | 2.2 | 62 |
| 47 | Coordinate induction of the actin cytoskeletal regulatory proteins gelsolin, vasodilator-stimulated phosphoprotein, and profilin during capillary morphogenesis in vitro. *Experimental Cell Research*, **1999**, 249, 22-32 | 4.2 | 59 |
| 46 | An Integrin and Rho GTPase-Dependent Pinocytic Vacuole Mechanism Controls Capillary Lumen Formation in Collagen and Fibrin Matrices. *Microcirculation*, **2003**, 10, 27-44 | 2.9 | 58 |
| 45 | An integrin and Rho GTPase-dependent pinocytic vacuole mechanism controls capillary lumen formation in collagen and fibrin matrices. *Microcirculation*, **2003**, 10, 27-44 | 2.9 | 55 |
| 44 | Matricryptic sites control tissue injury responses in the cardiovascular system: relationships to pattern recognition receptor regulated events. *Journal of Molecular and Cellular Cardiology*, **2010**, 48, 454-60 | 5.8 | 46 |
| 43 | Dynamic regulation of the cerebral cavernous malformation pathway controls vascular stability and growth. *Developmental Cell*, **2012**, 23, 342-55 | 10.2 | 40 |
| 42 | Molecular control of capillary morphogenesis and maturation by recognition and remodeling of the extracellular matrix: functional roles of endothelial cells and pericytes in health and disease. *Connective Tissue Research*, **2015**, 56, 392-402 | 3.3 | 36 |

| | | | |
|---|---|---|---|
| 41 | EB1, p150Glued, and Clasp1 control endothelial tubulogenesis through microtubule assembly, acetylation, and apical polarization. *Blood*, **2013**, 121, 3521-30 | 2.2 | 34 |
| 40 | CDP-diacylglycerol synthetase-controlled phosphoinositide availability limits VEGFA signaling and vascular morphogenesis. *Blood*, **2012**, 120, 489-98 | 2.2 | 34 |
| 39 | Cdc42 and k-Ras Control Endothelial Tubulogenesis through Apical Membrane and Cytoskeletal Polarization: Novel Stimulatory Roles for GTPase Effectors, the Small GTPases, Rac2 and Rap1b, and Inhibitory Influence of Arhgap31 and Rasa1. *PLoS ONE*, **2016**, 11, e0147758 | 3.7 | 33 |
| 38 | Hematopoietic stem cell cytokines and fibroblast growth factor-2 stimulate human endothelial cell-pericyte tube co-assembly in 3D fibrin matrices under serum-free defined conditions. *PLoS ONE* , **2013**, 8, e85147 | 3.7 | 32 |
| 37 | Aligned human microvessels formed in 3D fibrin gel by constraint of gel contraction. *Microvascular Research*, **2013**, 90, 12-22 | 3.7 | 31 |
| 36 | Rasip1-Mediated Rho GTPase Signaling Regulates Blood Vessel Tubulogenesis via Nonmuscle Myosin II. *Circulation Research*, **2016**, 119, 810-26 | 15.7 | 28 |
| 35 | Formation of stress fibres in human endothelial cells infected with Bartonella bacilliformis is associated with altered morphology, impaired migration and defects in cell morphogenesis. *Cellular Microbiology*, **2001**, 3, 169-80 | 3.9 | 26 |
| 34 | Control of vascular tube morphogenesis and maturation in 3D extracellular matrices by endothelial cells and pericytes. *Methods in Molecular Biology*, **2013**, 1066, 17-28 | 1.4 | 25 |
| 33 | Proinflammatory Mediators, IL (Interleukin)-1□TNF (Tumor Necrosis Factor) □and Thrombin Directly Induce Capillary Tube Regression. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2020**, 40, 365-377 | 9.4 | 20 |
| 32 | Talin1 is required for cardiac Z-disk stabilization and endothelial integrity in zebrafish. *FASEB Journal*, **2015**, 29, 4989-5005 | 0.9 | 19 |
| 31 | Investigating human vascular tube morphogenesis and maturation using endothelial cell-pericyte co-cultures and a doxycycline-inducible genetic system in 3D extracellular matrices. *Methods in Molecular Biology*, **2015**, 1189, 171-89 | 1.4 | 18 |
| 30 | Molecular Signaling Pathways Controlling Vascular Tube Morphogenesis and Pericyte-Induced Tube Maturation in 3D Extracellular Matrices. *Advances in Pharmacology*, **2016**, 77, 241-80 | 5.7 | 17 |
| 29 | Defining Endothelial Cell-Derived Factors That Promote Pericyte Recruitment and Capillary Network Assembly. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2020**, 40, 2632-2648 | 9.4 | 13 |
| 28 | Rasip1 is essential to blood vessel stability and angiogenic blood vessel growth. *Angiogenesis*, **2016**, 19, 173-90 | 10.6 | 13 |
| 27 | Rasip1 controls lymphatic vessel lumen maintenance by regulating endothelial cell junctions. *Development (Cambridge)*, **2018**, 145, | 6.6 | 12 |
| 26 | Outside in: inversion of cell polarity controls epithelial lumen formation. *Developmental Cell*, **2014**, 31, 140-2 | 10.2 | 11 |
| 25 | Src- and Fyn-dependent apical membrane trafficking events control endothelial lumen formation during vascular tube morphogenesis. *PLoS ONE*, **2017**, 12, e0184461 | 3.7 | 10 |
| 24 | Constitutive Active Mutant TIE2 Induces Enlarged Vascular Lumen Formation with Loss of Apico-basal Polarity and Pericyte Recruitment. *Scientific Reports*, **2019**, 9, 12352 | 4.9 | 8 |

| | | | |
|---|---|---|---|
| 23 | Anti-angiogenic effects of VEGF stimulation on endothelium deficient in phosphoinositide recycling. *Nature Communications*, **2020**, 11, 1204 | 17.4 | 8 |
| 22 | Angiogenesis and Proteinases: Influence on Vascular Morphogenesis, Stabilization and Regression. *Drug Discovery Today: Disease Models*, **2011**, 8, 13-20 | 1.3 | 8 |
| 21 | Defining an Upstream VEGF (Vascular Endothelial Growth Factor) Priming Signature for Downstream Factor-Induced Endothelial Cell-Pericyte Tube Network Coassembly. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2020**, 40, 2891-2909 | 9.4 | 8 |
| 20 | Control of endothelial tubulogenesis by Rab and Ral GTPases, and apical targeting of caveolin-1-labeled vacuoles. *PLoS ONE*, **2020**, 15, e0235116 | 3.7 | 7 |
| 19 | An inhibitor of endothelial ETS transcription factors promotes physiologic and therapeutic vessel regression. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 26494-26502 | 11.5 | 5 |
| 18 | Molecular Control of Vascular Tube Morphogenesis and Stabilization: Regulation by Extracellular Matrix, Matrix Metalloproteinases, and Endothelial Cell–Pericyte Interactions **2011**, 17-47 | | 4 |
| 17 | Molecular Regulation of Vasculogenesis and Angiogenesis: Recent Advances and Future Directions **2012**, 169-206 | | 3 |
| 16 | Endothelial Cell Polarization During Lumen Formation, Tubulogenesis, and Vessel Maturation in 3D Extracellular Matrices **2015**, 205-220 | | 3 |
| 15 | Evaluation and Characterization of Endothelial Cell Invasion and Sprouting Behavior. *Methods in Molecular Biology*, **2018**, 1846, 249-259 | 1.4 | 3 |
| 14 | Endothelial k-RasV12 Expression Induces Capillary Deficiency Attributable to Marked Tube Network Expansion Coupled to Reduced Pericytes and Basement Membranes. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2021**, ATVBAHA121316798 | 9.4 | 0 |
| 13 | Selective and Marked Blockade of Endothelial Sprouting Behavior Using Paclitaxel and Related Pharmacologic Agents. *American Journal of Pathology*, **2021**, 191, 2245-2264 | 5.8 | 0 |
| 12 | Cdc42 and its downstream effectors control endothelial cell invasion and lumenal morphogenesis in 3D collagen matrices. *FASEB Journal*, **2006**, 20, A1078 | 0.9 | |
| 11 | Coordinated regulation by Cdc42, integrin alpha2beta1, and membrane type-1 metalloproteinase-dependant signaling of capillary tube formation in 3D collagen matrices. *FASEB Journal*, **2007**, 21, A14 | 0.9 | |
| 10 | Role of extracellular matrix in vascular morphogenesis. *FASEB Journal*, **2007**, 21, A82 | 0.9 | |
| 9 | Cdc42/alpha2beta1 integrin/membrane type-1 metalloproteinase complexes regulate endothelial lumen formation in 3D collagen matrices. *FASEB Journal*, **2008**, 22, 49.7 | 0.9 | |
| 8 | Potentiation of BK Channels by 51 Integrin Activation in Arteriolar Smooth Muscle. *FASEB Journal*, **2008**, 22, 1145.3 | 0.9 | |
| 7 | Control of microvascular tube assembly by endothelial cell-pericyte interactions. *FASEB Journal*, **2008**, 22, 383.1 | 0.9 | |
| 6 | Vascular guidance tunnels direct endothelial cell-pericyte interactions and basement membrane matrix deposition. *FASEB Journal*, **2008**, 22, 746.12 | 0.9 | |

# List of Publications

| | | |
|---|---|---|
| 5 | Molecular Control of Capillary Tube Morphogenesis and Maturation Through Endothelial Cell-Pericyte Interactions: Regulation by Small GTPase-Mediated Signaling, Kinase Cascades, Extracellular Matrix Remodeling, and Defined Growth Factors **2018**, 1-36 | |
| 4 | ECM Remodeling Events during EC-Pericyte Tube Co-Assembly in 3D Matrices. *FASEB Journal*, **2015**, 29, 359.1 | 0.9 |
| 3 | A Fibronectin Fragment Elicits Vasodilatation and Alters Myogenic Responsiveness of Skeletal Muscle Arterioles. *FASEB Journal*, **2010**, 24, 600.4 | 0.9 |
| 2 | Integrin-dependent and -independent potentiation of L-type Calcium Current (Cav1.2) by cell stretch. *FASEB Journal*, **2011**, 25, 1042.2 | 0.9 |
| 1 | Formation of pancreatic □cells from precursor cells contributes to the reversal of established type 1 diabetes. *Cellular Immunology*, **2021**, 364, 104360 | 4.4 |