# Paolo P Provenzano

List of Publications by Year
in descending order



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|---|---|---|---|
| 44 papers | 8,984 citations | 159585 30 h-index | 243625 44 g-index |
| 49 all docs | 49 docs citations | 49 times ranked | 11978 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Enzymatic Targeting of the Stroma Ablates Physical Barriers to Treatment of Pancreatic Ductal Adenocarcinoma. Cancer Cell, 2012, 21, 418-429. | 16.8 | 1,664 |
| 2 | Collagen reorganization at the tumor-stromal interface facilitates local invasion. BMC Medicine, 2006, 4, 38. | 5.5 | 1,417 |
| 3 | Collagen density promotes mammary tumor initiation and progression. BMC Medicine, 2008, 6, 11. | 5.5 | 1,129 |
| 4 | Aligned Collagen Is a Prognostic Signature for Survival in Human Breast Carcinoma. American Journal of Pathology, 2011, 178, 1221-1232. | 3.8 | 1,026 |
| 5 | Matrix nanotopography as a regulator of cell function. Journal of Cell Biology, 2012, 197, 351-360. | 5.2 | 522 |
| 6 | Contact Guidance Mediated Three-Dimensional Cell Migration is Regulated by Rho/ROCK-Dependent Matrix Reorganization. Biophysical Journal, 2008, 95, 5374-5384. | 0.5 | 426 |
| 7 | Mechanical signaling through the cytoskeleton regulates cell proliferation by coordinated focal adhesion and Rho GTPase signaling. Journal of Cell Science, 2011, 124, 1195-1205. | 2.0 | 423 |
| 8 | Collagen fibril morphology and organization: Implications for force transmission in ligament and tendon. Matrix Biology, 2006, 25, 71-84. | 3.6 | 285 |
| 9 | Anisotropic forces from spatially constrained focal adhesions mediate contact guidance directed cell migration. Nature Communications, 2017, 8, 14923. | 12.8 | 221 |
| 10 | Subfailure damage in ligament: a structural and cellular evaluation. Journal of Applied Physiology, 2002, 92, 362-371. | 2.5 | 191 |
| 11 | Multiphoton microscopy and fluorescence lifetime imaging microscopy (FLIM) to monitor metastasis and the tumor microenvironment. Clinical and Experimental Metastasis, 2009, 26, 357-370. | 3.3 | 185 |
| 12 | Enhanced Directional Migration of Cancer Stem Cells in 3D Aligned Collagen Matrices. Biophysical Journal, 2017, 112, 1023-1036. | 0.5 | 132 |
| 13 | Interstitial Pressure in Pancreatic Ductal Adenocarcinoma Is Dominated by a Gel-Fluid Phase. Biophysical Journal, 2016, 110, 2106-2119. | 0.5 | 131 |
| 14 | Mammary Epithelial-Specific Disruption of Focal Adhesion Kinase Retards Tumor Formation and Metastasis in a Transgenic Mouse Model of Human Breast Cancer. American Journal of Pathology, 2008, 173, 1551-1565. | 3.8 | 126 |
| 15 | Antifibrotic Therapy Disrupts Stromal Barriers and Modulates the Immune Landscape in Pancreatic Ductal Adenocarcinoma. Cancer Research, 2019, 79, 372-386. | 0.9 | 110 |
| 16 | The role of focal adhesion kinase in tumor initiation and progression. Cell Adhesion and Migration, 2009, 3, 347-350. | 2.7 | 81 |
| 17 | Loss of HIF1A From Pancreatic Cancer Cells Increases Expression of PPP1R1B and Degradation of p53 to Promote Invasion and Metastasis. Gastroenterology, 2020, 159, 1882-1897.e5. | 1.3 | 79 |
| 18 | Engineering T cells to enhance 3D migration through structurally and mechanically complex tumor microenvironments. Nature Communications, 2021, 12, 2815. | 12.8 | 73 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Hindlimb unloading alters ligament healing. Journal of Applied Physiology, 2003, 94, 314-324. | 2.5 | 58 |
| 20 | Nonlinear Optical Imaging of Cellular Processes in Breast Cancer. Microscopy and Microanalysis, 2008, 14, 532-548. | 0.4 | 56 |
| 21 | Shining new light on 3D cell motility and the metastatic process. Trends in Cell Biology, 2009, 19, 638-648. | 7.9 | 56 |
| 22 | Systemic administration of IGF-I enhances healing in collagenous extracellular matrices: evaluation of loaded and unloaded ligaments. BMC Physiology, 2007, 7, 2. | 3.6 | 55 |
| 23 | Nonlinear optical imaging and spectral-lifetime computational analysis of endogenous and exogenous fluorophores in breast cancer. Journal of Biomedical Optics, 2008, 13, 031220. | 2.6 | 52 |
| 24 | Bimodal sensing of guidance cues in mechanically distinct microenvironments. Nature Communications, 2018, 9, 4891. | 12.8 | 52 |
| 25 | Microtubule-Actomyosin Mechanical Cooperation during Contact Guidance Sensing. Cell Reports, 2018, 25, 328-338.e5. | 6.4 | 51 |
| 26 | Intrinsic fibroblast-mediated remodeling of damaged collagenous matrices in vivo. Matrix Biology, 2005, 23, 543-555. | 3.6 | 50 |
| 27 | Dynamics of 3D carcinoma cell invasion into aligned collagen. Integrative Biology (United Kingdom), 2018, 10, 100-112. | 1.3 | 46 |
| 28 | Multiscale Cues Drive Collective Cell Migration. Scientific Reports, 2016, 6, 29749. | 3.3 | 40 |
| 29 | Aligned forces: Origins and mechanisms of cancer dissemination guided by extracellular matrix architecture. Current Opinion in Cell Biology, 2021, 72, 63-71. | 5.4 | 37 |
| 30 | Application of a Probabilistic Microstructural Model to Determine Reference Length and Toe-to-Linear Region Transition in Fibrous Connective Tissue. Journal of Biomechanical Engineering, 2003, 125, 415-422. | 1.3 | 32 |
| 31 | Fibrillar Collagen Quantification With Curvelet Transform Based Computational Methods. Frontiers in Bioengineering and Biotechnology, 2020, 8, 198. | 4.1 | 32 |
| 32 | Heterogeneous Differentiation of Human Mesenchymal Stem Cells in 3D Extracellular Matrix Composites. BioResearch Open Access, 2016, 5, 37-48. | 2.6 | 27 |
| 33 | Stromal architecture directs early dissemination in pancreatic ductal adenocarcinoma. JCI Insight, 2022, 7, . | 5.0 | 22 |
| 34 | Non-Invasive Monitoring of Stromal Biophysics with Targeted Depletion of Hyaluronan in Pancreatic Ductal Adenocarcinoma. Cancers, 2019, 11, 772. | 3.7 | 18 |
| 35 | Physical and Chemical Enhancement of and Adaptive Resistance to Irreversible Electroporation of Pancreatic Cancer. Annals of Biomedical Engineering, 2018, 46, 25-36. | 2.5 | 16 |
| 36 | Multiphoton fluorescence lifetime imaging of chemotherapy distribution in solid tumors. Journal of Biomedical Optics, 2017, 22, 1. | 2.6 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Engineering Elastic Nano- and Micro-Patterns and Textures for Directed Cell Motility. STAR Protocols, 2020, 1, 100013. | 1.2 | 10 |
| 38 | Cancer Stem Cell Migration in Threeâ€Ðimensional Aligned Collagen Matrices. Current Protocols in Stem Cell Biology, 2018, 46, e57. | 3.0 | 8 |
| 39 | Modeling distributed forces within cell adhesions of varying size on continuous substrates. Cytoskeleton, 2019, 76, 571-585. | 2.0 | 7 |
| 40 | Bringing order to the matrix. Nature Materials, 2020, 19, 130-131. | 27.5 | 6 |
| 41 | The role of nonmuscle myosin 2A and 2B in the regulation of mesenchymal cell contact guidance. Molecular Biology of the Cell, 2019, 30, 1961-1973. | 2.1 | 5 |
| 42 | Characterizing Tissue Remodeling and Mechanical Heterogeneity in Cerebral Aneurysms. Journal of Vascular Research, 2022, 59, 34-42. | 1.4 | 4 |
| 43 | Tug of War at the Cell-Matrix Interface. Biophysical Journal, 2017, 112, 1739-1741. | 0.5 | 2 |
| 44 | Elucidating the signal for contact guidance contained in aligned fibrils with a microstructuralâ€“mechanical model. Journal of the Royal Society Interface, 2022, 19, 20210951. | 3.4 | 1 |