

# Mina J Bissell

## List of Publications by Year in descending order

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Version: 2024-02-01

109  
papers

24,027  
citations

25034

57  
h-index

31849

101  
g-index

124  
all docs

124  
docs citations

124  
times ranked

28090  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Tumour exosome integrins determine organotropic metastasis. <i>Nature</i> , 2015, 527, 329-335.   | 27.8 | 3,688     |
| 2  | Putting tumours in context. <i>Nature Reviews Cancer</i> , 2001, 1, 46-54.  | 28.4 | 1,892     |
| 3  | How does the extracellular matrix direct gene expression?. <i>Journal of Theoretical Biology</i> , 1982, 99, 31-68.   | 1.7  | 1,387     |
| 4  | Why don't we get more cancer? A proposed role of the microenvironment in restraining cancer progression. <i>Nature Medicine</i> , 2011, 17, 320-329.  | 30.7 | 1,296     |
| 5  | Pre-metastatic niches: organ-specific homes for metastases. <i>Nature Reviews Cancer</i> , 2017, 17, 302-317.   | 28.4 | 1,272     |
| 6  | Three-dimensional culture models of normal and malignant breast epithelial cells. <i>Nature Methods</i> , 2007, 4, 359-365.   | 19.0 | 1,131     |
| 7  | Î²4 integrin-dependent formation of polarized three-dimensional architecture confers resistance to apoptosis in normal and malignant mammary epithelium. <i>Cancer Cell</i> , 2002, 2, 205-216.                         | 16.8 | 880       |
| 8  | Extracellular Vesicle and Particle Biomarkers Define Multiple Human Cancers. <i>Cell</i> , 2020, 182, 1044-1061.e18.  | 28.9 | 691       |
| 9  | Tissue Geometry Determines Sites of Mammary Branching Morphogenesis in Organotypic Cultures. <i>Science</i> , 2006, 314, 298-300.   | 12.6 | 545       |
| 10 | The organizing principle: microenvironmental influences in the normal and malignant breast. <i>Differentiation</i> , 2002, 70, 537-546.   | 1.9  | 542       |
| 11 | Context, tissue plasticity, and cancer. <i>Cancer Cell</i> , 2005, 7, 17-23.  | 16.8 | 464       |
| 12 | Organoids: A historical perspective of thinking in three dimensions. <i>Journal of Cell Biology</i> , 2017, 216, 31-40.   | 5.2  | 442       |
| 13 | Regulation of In Situ to Invasive Breast Carcinoma Transition. <i>Cancer Cell</i> , 2008, 13, 394-406.  | 16.8 | 437       |
| 14 | Normal and tumor-derived myoepithelial cells differ in their ability to interact with luminal breast epithelial cells for polarity and basement membrane deposition. <i>Journal of Cell Science</i> , 2002, 115, 39-50. | 2.0  | 409       |
| 15 | Phenotypic Reversion or Death of Cancer Cells by Altering Signaling Pathways in Three-Dimensional Contexts. <i>Journal of the National Cancer Institute</i> , 2002, 94, 1494-1503.                                      | 6.3  | 392       |
| 16 | Tissue architecture: the ultimate regulator of breast epithelial function. <i>Current Opinion in Cell Biology</i> , 2003, 15, 753-762.  | 5.4  | 382       |
| 17 | The tumor microenvironment is a dominant force in multidrug resistance. <i>Drug Resistance Updates</i> , 2012, 15, 39-49.   | 14.4 | 361       |
| 18 | Polarity and proliferation are controlled by distinct signaling pathways downstream of PI3-kinase in breast epithelial tumor cells. <i>Journal of Cell Biology</i> , 2004, 164, 603-612.                                | 5.2  | 353       |

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|----|--|------|-----------|
| 19 | Normal and tumor-derived myoepithelial cells differ in their ability to interact with luminal breast epithelial cells for polarity and basement membrane deposition. <i>Journal of Cell Science</i> , 2002, 115, 39-50.                        | 2.0  | 348       |
| 20 | Mammary gland development: cell fate specification, stem cells and the microenvironment. <i>Development (Cambridge)</i> , 2015, 142, 1028-1042.  | 2.5  | 343       |
| 21 | CSF1R inhibition delays cervical and mammary tumor growth in murine models by attenuating the turnover of tumor-associated macrophages and enhancing infiltration by CD8 <sup>+</sup> T cells. <i>Oncolmmunology</i> , 2013, 2, e26968.        | 4.6  | 311       |
| 22 | Tumor reversion: Correction of malignant behavior by microenvironmental cues. <i>International Journal of Cancer</i> , 2003, 107, 688-695.   | 5.1  | 307       |
| 23 | Î²1 Integrin Inhibitory Antibody Induces Apoptosis of Breast Cancer Cells, Inhibits Growth, and Distinguishes Malignant from Normal Phenotype in Three Dimensional Cultures and <i>in vivo</i> . <i>Cancer Research</i> , 2006, 66, 1526-1535. | 0.9  | 303       |
| 24 | Tissue architecture and function: dynamic reciprocity via extra- and intra-cellular matrices. <i>Cancer and Metastasis Reviews</i> , 2009, 28, 167-176.  | 5.9  | 274       |
| 25 | The need for complex 3D culture models to unravel novel pathways and identify accurate biomarkers in breast cancer. <i>Advanced Drug Delivery Reviews</i> , 2014, 69-70, 42-51.  | 13.7 | 273       |
| 26 | The matrix metalloproteinase stromelysin-1 acts as a natural mammary tumor promoter. <i>Oncogene</i> , 2000, 19, 1102-1113.  | 5.9  | 244       |
| 27 | Myoepithelial cells: good fences make good neighbors. <i>Breast Cancer Research</i> , 2005, 7, 190-7.  | 5.0  | 210       |
| 28 | Î²1 Integrin Inhibition Dramatically Enhances Radiotherapy Efficacy in Human Breast Cancer Xenografts. <i>Cancer Research</i> , 2008, 68, 4398-4405.   | 0.9  | 201       |
| 29 | The Differentiated State of Normal and Malignant Cells or How to Define a "Normal" Cell in Culture. <i>International Review of Cytology</i> , 1981, 70, 27-100.  | 6.2  | 194       |
| 30 | Coherent angular motion in the establishment of multicellular architecture of glandular tissues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 1973-1978.                                | 7.1  | 184       |
| 31 | Breast Cancer Cells in Three-dimensional Culture Display an Enhanced Radioresponse after Coordinate Targeting of Integrin Î²1 and Fibronectin. <i>Cancer Research</i> , 2010, 70, 5238-5248.   | 0.9  | 173       |
| 32 | The MAPKERK-1,2 pathway integrates distinct and antagonistic signals from TGFÎ± and FGF7 in morphogenesis of mouse mammary epithelium. <i>Developmental Biology</i> , 2007, 306, 193-207.  | 2.0  | 169       |
| 33 | Laminin and biomimetic extracellular elasticity enhance functional differentiation in mammary epithelia. <i>EMBO Journal</i> , 2008, 27, 2829-2838.  | 7.8  | 161       |
| 34 | From laminin to lamin: regulation of tissue-specific gene expression by the ECM. <i>Trends in Cell Biology</i> , 1995, 5, 1-4.   | 7.9  | 157       |
| 35 | A Human Breast Cell Model of Preinvasive to Invasive Transition. <i>Cancer Research</i> , 2008, 68, 1378-1387.   | 0.9  | 145       |
| 36 | The tumor microenvironment modulates tamoxifen resistance in breast cancer: a role for soluble stromal factors and fibronectin through Î²1 integrin. <i>Breast Cancer Research and Treatment</i> , 2012, 133, 459-471.                         | 2.5  | 143       |

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|----|--|-----|-----------|
| 37 | Extracellular matrix control of mammary gland morphogenesis and tumorigenesis: insights from imaging. <i>Histochemistry and Cell Biology</i> , 2008, 130, 1105-18.   | 1.7 | 142       |
| 38 | Patterned Collagen Fibers Orient Branching Mammary Epithelium through Distinct Signaling Modules. <i>Current Biology</i> , 2013, 23, 703-709.  | 3.9 | 135       |
| 39 | Depletion of nuclear actin is a key mediator of quiescence in epithelial cells. <i>Journal of Cell Science</i> , 2011, 124, 123-132.   | 2.0 | 128       |
| 40 | FAM83A confers EGFR-TKI resistance in breast cancer cells and in mice. <i>Journal of Clinical Investigation</i> , 2012, 122, 3211-3220.  | 8.2 | 126       |
| 41 | A role for dystroglycan in epithelial polarization: loss of function in breast tumor cells. <i>Cancer Research</i> , 2002, 62, 7102-9.   | 0.9 | 125       |
| 42 | Tissue architecture: the ultimate regulator of epithelial function?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 1998, 353, 857-870.   | 4.0 | 124       |
| 43 | The Significance of Matrix Metalloproteinases during Early Stages of Tumor Progression. <i>Annals of the New York Academy of Sciences</i> , 1998, 857, 180-193.  | 3.8 | 121       |
| 44 | Division of Labor among the $\alpha 6 \beta 4$ Integrin, $\beta 1$ Integrins, and an E3 Laminin Receptor to Signal Morphogenesis and $\beta 2$ -Casein Expression in Mammary Epithelial Cells. <i>Molecular Biology of the Cell</i> , 1999, 10, 2817-2828. | 2.1 | 114       |
| 45 | Splicing program of human MENA produces a previously undescribed isoform associated with invasive, mesenchymal-like breast tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19280-19285.        | 7.1 | 112       |
| 46 | Characterization of BCE-1, a Transcriptional Enhancer Regulated by Prolactin and Extracellular Matrix and Modulated by the State of Histone Acetylation. <i>Molecular and Cellular Biology</i> , 1998, 18, 2184-2195.                                      | 2.3 | 111       |
| 47 | Modeling Host-Pathogen Interactions in the Context of the Microenvironment: Three-Dimensional Cell Culture Comes of Age. <i>Infection and Immunity</i> , 2018, 86, .   | 2.2 | 108       |
| 48 | FAM83 family oncogenes are broadly involved in human cancers: an integrative multi-omics approach. <i>Molecular Oncology</i> , 2017, 11, 167-179.  | 4.6 | 102       |
| 49 | Raf-induced MMP9 disrupts tissue architecture of human breast cells in three-dimensional culture and is necessary for tumor growth in vivo. <i>Genes and Development</i> , 2010, 24, 2800-2811.  | 5.9 | 91        |
| 50 | Dystroglycan loss disrupts polarity and $\beta 2$ -casein induction in mammary epithelial cells by perturbing laminin anchoring. <i>Journal of Cell Science</i> , 2006, 119, 4047-4058.  | 2.0 | 90        |
| 51 | AZU-1: A Candidate Breast Tumor Suppressor and Biomarker for Tumor Progression. <i>Molecular Biology of the Cell</i> , 2000, 11, 1357-1367.  | 2.1 | 84        |
| 52 | An odyssey from breast to bone: Multi-step control of mammary metastases and osteolysis by matrix metalloproteinases. <i>Apmis</i> , 1999, 107, 128-136.   | 2.0 | 78        |
| 53 | Sorting Out the FACS: A Devil in the Details. <i>Cell Reports</i> , 2014, 6, 779-781.  | 6.4 | 76        |
| 54 | Of plasticity and specificity: dialectics of the microenvironment and macroenvironment and the organ phenotype. <i>Wiley Interdisciplinary Reviews: Developmental Biology</i> , 2014, 3, 147-163.  | 5.9 | 76        |

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|----|--|------|-----------|
| 55 | Laminin-111 and the Level of Nuclear Actin Regulate Epithelial Quiescence via Exportin-6. <i>Cell Reports</i> , 2017, 19, 2102-2115.   | 6.4  | 68        |
| 56 | Interaction of E-cadherin and PTEN Regulates Morphogenesis and Growth Arrest in Human Mammary Epithelial Cells. <i>Cancer Research</i> , 2009, 69, 4545-4552.  | 0.9  | 64        |
| 57 | Deep nuclear invaginations linked to cytoskeletal filaments: Integrated bioimaging of epithelial cells in 3D culture. <i>Journal of Cell Science</i> , 2017, 130, 177-189.   | 2.0  | 64        |
| 58 | Differentiation and Cancer in the Mammary Gland: Shedding Light on an Old Dichotomy. <i>Advances in Cancer Research</i> , 1998, 75, 135-162.   | 5.0  | 63        |
| 59 | Nuclear repartitioning of galectin-1 by an extracellular glycan switch regulates mammary morphogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4820-7. | 7.1  | 63        |
| 60 | Of Microenvironments and Mammary Stem Cells. <i>Stem Cell Reviews and Reports</i> , 2007, 3, 137-146.  | 5.6  | 58        |
| 61 | $\alpha 1$ and $\alpha 4$ integrins: from breast development to clinical practice. <i>Breast Cancer Research</i> , 2014, 16, 459.  | 5.0  | 57        |
| 62 | Goodbye flat biology – time for the 3rd and the 4th dimensions. <i>Journal of Cell Science</i> , 2017, 130, 3-5.   | 2.0  | 57        |
| 63 | Self-organization is a dynamic and lineage-intrinsic property of mammary epithelial cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 3264-3269.            | 7.1  | 52        |
| 64 | Astrocytic laminin-211 drives disseminated breast tumor cell dormancy in brain. <i>Nature Cancer</i> , 2022, 3, 25-42.   | 13.2 | 52        |
| 65 | Inhibitors of Rho kinase (ROCK) signaling revert the malignant phenotype of breast cancer cells in 3D context. <i>Oncotarget</i> , 2016, 7, 31602-31622.   | 1.8  | 47        |
| 66 | Laminin signals initiate the reciprocal loop that informs breast-specific gene expression and homeostasis by activating NO, p53 and microRNAs. <i>ELife</i> , 2018, 7, .   | 6.0  | 45        |
| 67 | Polarity determination in breast tissue: desmosomal adhesion, myoepithelial cells, and laminin 1. <i>Breast Cancer Research</i> , 2003, 5, 117-9.  | 5.0  | 44        |
| 68 | NF $\kappa$ B disrupts tissue polarity in 3D by preventing integration of microenvironmental signals. <i>Oncotarget</i> , 2013, 4, 2010-2020.  | 1.8  | 42        |
| 69 | Perturbed myoepithelial cell differentiation in BRCA mutation carriers and in ductal carcinoma in situ. <i>Nature Communications</i> , 2019, 10, 4182.   | 12.8 | 37        |
| 70 | Transient external force induces phenotypic reversion of malignant epithelial structures via nitric oxide signaling. <i>ELife</i> , 2018, 7, .   | 6.0  | 30        |
| 71 | Fibronectin rescues estrogen receptor $\alpha$ from lysosomal degradation in breast cancer cells. <i>Journal of Cell Biology</i> , 2018, 217, 2777-2798.   | 5.2  | 30        |
| 72 | Asymmetric expression of connexins between luminal epithelial- and myoepithelial- cells is essential for contractile function of the mammary gland. <i>Developmental Biology</i> , 2015, 399, 15-26.                 | 2.0  | 29        |

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|----|---|------|-----------|
| 73 | Pathways of parallel progression. <i>Nature</i> , 2016, 540, 528-529.   | 27.8 | 29        |
| 74 | Systems-Level Properties of EGFR-RAS-ERK Signaling Amplify Local Signals to Generate Dynamic Gene Expression Heterogeneity. <i>Cell Systems</i> , 2020, 11, 161-175.e5.   | 6.2  | 29        |
| 75 | Mammary Branching Morphogenesis Requires Reciprocal Signaling by Heparanase and MMP-14. <i>Journal of Cellular Biochemistry</i> , 2015, 116, 1668-1679.   | 2.6  | 24        |
| 76 | The role of tumor microenvironment and exosomes in dormancy and relapse. <i>Seminars in Cancer Biology</i> , 2022, 78, 35-44.   | 9.6  | 24        |
| 77 | Communication between the cell membrane and the nucleus: Role of protein compartmentalization. , 1998, 72, 250-263.   |      | 23        |
| 78 | Trichostatin a inhibits $\kappa$ -casein expression in mammary epithelial cells. <i>Journal of Cellular Biochemistry</i> , 2001, 83, 660-670.   | 2.6  | 23        |
| 79 | SnapShot: Branching Morphogenesis. <i>Cell</i> , 2014, 158, 1212-1212.e1.   | 28.9 | 23        |
| 80 | Subcellular Localization and Ser-137 Phosphorylation Regulate Tumor-suppressive Activity of Profilin-1. <i>Journal of Biological Chemistry</i> , 2015, 290, 9075-9086.  | 3.4  | 23        |
| 81 | The pattern of hMENA isoforms is regulated by TGF- $\beta$ 21 in pancreatic cancer and may predict patient outcome. <i>Oncotarget</i> , 2016, 5, e1221556.  | 4.6  | 23        |
| 82 | Transcriptional activation by viral enhancers: Critical dependence on extracellular matrix-cell interactions in mammary epithelial cells. <i>Molecular Carcinogenesis</i> , 1994, 10, 66-71.                                      | 2.7  | 21        |
| 83 | New insight into the role of MMP14 in metabolic balance. <i>PeerJ</i> , 2016, 4, e2142.   | 2.0  | 21        |
| 84 | Modelling breast cancer requires identification and correction of a critical cell lineage-dependent transduction bias. <i>Nature Communications</i> , 2015, 6, 6927.  | 12.8 | 20        |
| 85 | The PI3K/mTOR inhibitor Gedatolisib eliminates dormant breast cancer cells in organotypic culture, but fails to prevent metastasis in preclinical settings. <i>Molecular Oncology</i> , 2022, 16, 130-147.                        | 4.6  | 19        |
| 86 | An interferon signature identified by RNA-sequencing of mammary tissues varies across the estrous cycle and is predictive of metastasis-free survival. <i>Oncotarget</i> , 2014, 5, 4011-4025.                                    | 1.8  | 19        |
| 87 | hMENA isoforms impact NSCLC patient outcome through fibronectin/ $\beta$ 21 integrin axis. <i>Oncogene</i> , 2018, 37, 5605-5617.   | 5.9  | 17        |
| 88 | Identification of genetic loci that control mammary tumor susceptibility through the host microenvironment. <i>Scientific Reports</i> , 2015, 5, 8919.  | 3.3  | 16        |
| 89 | Glandular Structure and Gene Expression: Lessons from the Mammary Gland. <i>Annals of the New York Academy of Sciences</i> , 1998, 842, 1-6.  | 3.8  | 15        |
| 90 | Pathways Involved in Formation of Mammary Organoid Architecture Have Keys to Understanding Drug Resistance and to Discovery of Druggable Targets. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2016, 81, 207-217. | 1.1  | 15        |

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|-----|---|------|-----------|
| 91  | Cancer stem cells in breast and prostate: Fact or fiction?. <i>Advances in Cancer Research</i> , 2019, 144, 315-341.  | 5.0  | 14        |
| 92  | Reprogramming stem cells is a microenvironmental task. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 15637-15638.   | 7.1  | 13        |
| 93  | The Microenvironment of the Breast: Three-Dimensional Models to Study the Roles of the Stroma and the Extracellular Matrix in Function and Dysfunction. <i>Breast Journal</i> , 1995, 1, 22-35.                                     | 1.0  | 12        |
| 94  | Network Analysis of Breast Cancer Progression and Reversal Using a Tree-Evolving Network Algorithm. <i>PLoS Computational Biology</i> , 2014, 10, e1003713.   | 3.2  | 9         |
| 95  | Thinking in three dimensions: discovering reciprocal signaling between the extracellular matrix and nucleus and the wisdom of microenvironment and tissue architecture. <i>Molecular Biology of the Cell</i> , 2016, 27, 3192-3196. | 2.1  | 9         |
| 96  | Iron Supplementation Eliminates Antagonistic Interactions Between Root-Associated Bacteria. <i>Frontiers in Microbiology</i> , 2020, 11, 1742.  | 3.5  | 9         |
| 97  | 184AA3: a xenograft model of ER+ breast adenocarcinoma. <i>Breast Cancer Research and Treatment</i> , 2016, 155, 37-52.   | 2.5  | 8         |
| 98  | Rhizobacteria Mediate the Phytotoxicity of a Range of Biorefineryâ€Relevant Compounds. <i>Environmental Toxicology and Chemistry</i> , 2019, 38, 1911-1922.   | 4.3  | 7         |
| 99  | Alterations in Progesterone Receptor Isoform Balance in Normal and Neoplastic Breast Cells Modulates the Stem Cell Population. <i>Cells</i> , 2020, 9, 2074.  | 4.1  | 5         |
| 100 | A Functionally Robust Phenotypic Screen that Identifies Drug Resistance-associated Genes Using 3D Cell Culture. <i>Bio-protocol</i> , 2018, 8, .  | 0.4  | 5         |
| 101 | The not-so-sweet side of sugar: Influence of the microenvironment on the processes that unleash cancer. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165960.                                     | 3.8  | 2         |
| 102 | Ser71 Phosphorylation Inhibits Actin-Binding of Profilin-1 and Its Apoptosis-Sensitizing Activity. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 692269.  | 3.7  | 1         |
| 103 | Regulation of gene expression by extracellular matrix. <i>Stem Cells</i> , 1995, 13, 86-87.   | 3.2  | 0         |
| 104 | Extracellular Matrix: Tissue-specific Regulator of Cell Proliferation. , 2004, , 297-332.   |      | 0         |
| 105 | Culturing Mammary Stem Cells. , 0, , 281-302.   |      | 0         |
| 106 | Zena Werb (1945â€“2020). <i>Science</i> , 2020, 369, 1059-1059.   | 12.6 | 0         |
| 107 | Quantitative Model-Based Image Analysis of NuMa Distribution Links Nuclear Organization with Cell Phenotype. <i>Microscopy and Microanalysis</i> , 2001, 7, 578-579.  | 0.4  | 0         |
| 108 | Zena Werb (1945â€“2020): Mourning the loss of a tissue microenvironment icon. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 27759-27760.                                      | 7.1  | 0         |

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|-----|---|-----|-----------|
| 109 | Generating a Fractal Microstructure of Laminin-111 to Signal to Cells. Journal of Visualized Experiments, 2020, , . | 0.3 | 0         |