

**MINA J. BISSELL**  
Distinguished Scientist  
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**Education**

Chemistry (Transferred)	Bryn Mawr College	1959 – 1961
B.A. (Honors) Chemistry	Radcliffe/Harvard College	1961 – 1963
M.A. Bacteriology and Biochemistry	Harvard University Medical School	1963 – 1964
Ph.D. Microbiology and Molecular Genetics	Harvard University Medical School	1964 – 1969

**RESEARCH AND PROFESSIONAL EXPERIENCE:**

**Research Experience and Employment:**

Milton Fellow, Harvard University (1969–70); American Cancer Society Fellow (1970–72); Staff Biochemist (1972–76); Senior Staff, LBNL (1976–); Faculty: Graduate Groups in Comparative Biochemistry (1979–), Endocrinology (2001–), Molecular Toxicology (2002–), Bioengineering (2008–), University of California, Berkeley; Visiting Wellcome Prof., Kettering Inst., University of Cincinnati Medical School (1986–88); Director, Cell & Molecular Biology Division, LBNL (1988–92); Director, Life Sciences Division (includes Cell & Molecular Biology Division), LBNL (1992–2002); Associate Director, Biosciences, (1995–2002); Distinguished Scientist (Nov. 2002–); Senior Advisor to the Laboratory Director on Biology (Nov. 2002–); Member, UCSF Comprehensive Cancer Center, University of California, San Francisco (2006–); Member, Life Sciences Division representative on the Laboratory Staff Committee, LBNL (2006–2009).

**Awards and Honors (selected):**

Medal for Top High School Student in the Country, Iran (1958); Medal of American Institute of Chemists for Top Chemistry Student at Radcliffe College (1962); Fogarty Senior Fellow (London, 1983–84); First Joseph Sadusk Award for Breast Cancer Research (1985); Guggenheim Fellow (Paris, 1992–93); ASCB Women in Cell Biology Career Recognition Award (1993); Elected AAAS Fellow (1994); E.O. Lawrence Award, U.S. Department of Energy (1996); President, American Society of Cell Biology (1997); Elected, Institute of Medicine of the National Academy of Sciences (1997); Exceptional Service Award, OBER, U.S. Department of Energy (1997); Mellon Award, University of Pittsburgh (1998); Eli Lilly/Clowes Award of the American Association for Cancer Research (1999); President, International Society of Differentiation (2000–02); Honorary Doctorate, Pierre et Marie Curie University, Paris, France (2001); Innovator Award in Breast Cancer, U.S. Department of Defense (2002–2008); Elected to the American Academy of Arts and Sciences (2002); Komen Foundation Brinker Award (2003); Discovery Health Channel Medical Honor and Medal (2004); Honorary Doctorate, University of Copenhagen (2004); Distinguished Scientist Fellowship Award, OBER, U.S. Department of Energy (2005); Ted Couch Lectureship in Cancer Research and Award, H. Lee Moffitt Cancer Institute (2007); Pezcoller Foundation–AACR International Award for Cancer Research (2007); Elected to the American Philosophical Society (2007); Inserm International Foreign Scientist of the Year Award, France (2007); FASEB Excellence in Science Award (2008); ‘Mina J. Bissell’ Award, Portugal (2008; to be given every two years to a person who has changed a field); American Cancer Society Medal of Honor (2008); Rothschild-Yvette Mayent-Institut Curie Award, Institut Curie (2009); MERIT Award, National Institutes of Health (2009); Member, Search Committee, Director of the Lawrence Berkeley National Laboratory (2009) and more than 90 distinguished & named lectures.

**National & International Committees and Review Boards, Non-LBNL Only (selected):**

4 NIH study sections: Molecular Cytology (1981–85); Gerontology & Geriatrics Review (1987–89); Pathology B (1989–92) and Tumor Microenvironment (2005–2009); Board of Directors, Gordon Conferences (1993–98); Organizer, 2 Gordon Research Conferences and 2 Keystone Conferences (1993, 1996, 1998, 2005); Secretary of Energy’s Advisory Committee, BERAC (1995–99); Chair, BERAC Subcommittee on Application of Genome and Structural Biology (1995); Integration Panel, U.S. Army Breast Cancer Research Program (1995–98); Chair, NASA Committee on the Role of Animal Research in Space (1996–97); NCI Panel on “Preclinical Models of Cancer” (1997–98); Howard Hughes Medical Inst. Evaluation Panels, Washington, D.C. (1997/1999); Member, Rhoads Memorial Award Committee (1997–1998); Advisory Committee, Burroughs Wellcome Career Awards (1998–2002); Advisory Board, University of Chicago Cancer Research Center (1997); U.S. Representative to Council of Scientists, Human Frontier Science Program, Strasbourg, France (1998–2002); Board of Directors, AACR (1999–2001); Human Rights Committee of National Academies (1999–2005); External Advisory Committee, Instituto de Biologia Molecular e Celular, Porto, Portugal (1999–); Institute of Defense Analysis, DSSG, Alexandria, VA (2000–); AACR Science Policy and Legislative Affairs Committees (2001–04); Advisory Board, Kansas-Biomedical Research Infrastructure Network (2001–2004); Scientific Advisory Boards: MIT Center for Environmental Health Sciences (2002–04); Breakthrough Breast Cancer, London, UK (2002–); Member, Kirk A. Landon-AARC Prize for Basic Cancer Research Committee (2003); Scientific Advisory Board, Pacific Northwest National Laboratory (2003–2004); NCI/NCAB Focus Group on Cancer in the Organism (2004); Scientific Advisory Board, Susan Love Breast Cancer Research Foundation (2003–06); Chair, Group on Cancer Biology of the IOM of the National Academies (2005–07); Member, Scientific Advisory Board, Biomega (2006–2009); Nominating Committee, AACR (2006–08); Selection Committee, Pezcoller Foundation–AACR International Award (2007–08); Advisory Committee, Italian National Cancer Institute, Rome, Italy (2007–); Advisory Committee, Advisory Committee, Euro Consortium for cancer stem cell research, Italy, Sweden, Denmark, UK (2007–); Member, Program Committee, AACR Annual Meeting (2009); Chair, TME Nominating Committee, AACR (2009); Member, Scientific board of the American Portuguese Biomedical Research Fund, Porto, Portugal (2009–); Member, The International Scientific Committee, Cancer Research Centre, Lyon, France (2009–).

### **Associate Editor & Editorial Boards (current only):**

In Vitro Cellular and Developmental Biology (1990–); Molecular Carcinogenesis (1993–); Cell Structure and Function (1994–); Journal of Mammary Gland Biology (1995–); Journal of Experimental Therapeutics and Oncology (1995–); Molecular Medicine (1997–); Journal of Clinical Investigation (1998–); Breast Cancer Research (1999–2003, Senior Editor: 2003–); International Journal of Cancer (1999–2010); Science (2005–); Journal of Cell Science (2006–); Integrative Biology (Chair of the Editorial Board: 2008–) and BioArchitecture (2010–).

### **Patents Issued: (5)**

United States Patent #6,753,154; United States Patent #6,982,151; United States Patent #5,846,536; United States Patent #6,123,941; United States Patent #6,287,790

### **Patents Pending: (10)**

### **Lectures (2008–Present only): Plenary, distinguished and named lectures are marked with an asterisk.**

#### **2008**

\*University of Colorado, Aurora, CO (Distinguished Lecture); \*GABBA Symposium, Oporto, Portugal (Keynote Speaker); \*DOE Low Dose Radiation Research Investigators' Workshop, Washington, D.C. (Keynote Speaker); \*American Association for Cancer Research, San Diego, CA (session chair); \*Cold Spring Harbor Laboratory, Long Island, NY (Keynote Speaker); \*Rockefeller University, New York, NY (Harvey Society Lecture); \*American Society of Biochemistry and Molecular Biology, San Diego, CA (FASEB Excellence in Science Award Lecture); \*University of Nebraska, Omaha, NE (Henry Lemon Memorial Lecture); \*Canadian Breast Cancer Research Alliance, Vancouver, Canada (plenary); \*Stony Brook University, Stony Brook, NY (plenary); \*Pezcoller Foundation, Trento, Italy (plenary); \*American Society for Bone and Mineral Research, Montreal, Canada (Gerald D. Aurbach Memorial Lecture); \*Mayo Clinic, Rochester, MN (Graduate Student Day Distinguished Speaker); \*Karolinska Institutet, Stockholm, Sweden (Keynote Speaker); \*Case Western Reserve University, Cleveland, OH (Nathan S. Greenfield Family Pharmacology Lecture); \*Salk Institute, La Jolla, CA (Marguerite Vogt Lecture on Cell Biology); \*Albert Einstein College of Medicine, Yeshiva University, Bronx, NY (Berta V. Scharrer Lecture)

**Other lectures:** UCSF, San Francisco, CA; National Cancer Institute, Bethesda, MD; Fondation Ipsen, San Jose, Costa Rica; American Association for Cancer Research, San Diego, CA; "Science at the Theatre" series, Berkeley Repertory Theatre, CA; University of Dundee, Scotland

#### **2009**

\*Georgetown University, Washington, DC (Dean's Distinguished Lecture); \*Gordon Research Conference, Ventura Beach, CA (plenary); \*Gordon Research Conference, Galveston, TX (Keynote Speaker); \*Wake Forest University, Winston-Salem, NC (Distinguished Speaker); \*Marshall University, Huntington, WV (Visiting Scholar); \*Keystone Symposium, Vancouver, BC, Canada (plenary); \*Cancéropôle Lyon Auvergne Rhône-Alpes Scientific Forum, Archamps, France (Keynote Speaker); \*Translational Oncology Symposium, Barcelona, Spain (Keynote Speaker); \*American Association for Cancer Research, Denver, CO (Keynote Speaker); Institut Curie, Paris, France (1st Rothschild-Mayent Fellowship Lecture); \*European Human Genetics Conference, Vienna, Austria (plenary); \*Cancer Epigenetics and Biology Symposium, Barcelona, Spain (plenary); \*Yokosuka Science Fiesta, Yokosuka, Japan (Keynote Speaker); Institut Curie, Paris, France (2nd Rothschild-Mayent Fellowship Lecture); \*Midwest Breast Cancer Research Symposium, Iowa City, IA (Keynote Speaker); \*Karolinska Institute, Stockholm, Sweden ("What is Life" Distinguished Series); \*Purdue University, West Lafayette, IN (Sigma Xi Distinguished Lecture); \*NCI Integrative Cancer Biology Program, Berkeley, CA (Keynote Speaker); \*University of Toronto, ON, Canada (DSR Sarma Lectureship in Oncologic Pathology); \*Fox Chase Cancer Center, Philadelphia, PA (Distinguished Lecture); **(to be given)** \*M.D. Anderson Cancer Center, Houston, TX (Fidler Lectureship in Metastasis)

**Other Lectures:** Xoma LLC, Berkeley, CA; University of Barcelona, Spain; Institut Servier, Paris, France; University of Nice, Nice, France; American Cancer Society, Redwood Shores, CA; Virginia Commonwealth University, Richmond, VA; Society of Iranian-American Professionals, Sunnyvale, CA

#### **2010**

\*University of Southern California, Los Angeles, CA (Spring Lecture Series); \*University of California, Davis, CA (Howard Hughes Series Special Lecture); \*M.D. Anderson Cancer Center, Houston, TX (Keynote Speaker); \*St. Jude Children's Research Hospital, Memphis, TN (Vince Kidd Postdoctoral Fellow Memorial Lecture, Danny Thomas Lecture Series); \*The Pennsylvania State University, University Park, PA (Russell Marker Lectures); \*University of Pennsylvania, Philadelphia, PA (Shapiro Lectureship); \*European Breast Cancer Conference, Barcelona, Spain (Keynote Speaker); \*Yale University, New Haven, CT (Grand Rounds); \*Karolinska Institute, Stockholm, Sweden (Karolinska Research Lecture); \*NIH-National Cancer Institute, Bethesda, MD (CCR Eminent Lecture); \*University of Michigan, Ann Arbor, MI (Grand Rounds); \*American Thoracic Society International Conference, New Orleans, LA (Keynote Speaker); \*University of Texas Medical Branch, Galveston, TX (Keynote Speaker); \*UC Systemwide Symposium Bioengineering, Davis, CA (Keynote Lecture); \*European Association for Cancer Research, Oslo, Norway (Plenary Lecture); \*American Society for Matrix Biology, Charleston, SC (Plenary Lecture); \*Van Andel Research Institute, Grand Rapids, MI (Han-Mo Koo Memorial Seminar); \*Tulane University, New Orleans, LA (Fisher Distinguished Lecture); \*University of Texas, San Antonio, TX (Distinguished Students Lecture)

**Other Lectures:** Stanford University, Palo Alto, CA; Miami Winter Symposium, Miami Beach, FL; Mount Sinai School of Medicine, New York, NY; The Jackson Laboratory, Bar Harbor, ME; Friedrich Miescher Institute, Basel, Switzerland; University of Texas, Austin, TX

**Selected Publications (selected since 1995; total 319)**

139. Rønnov-Jessen L, Petersen OW, Koteliensky VE and **Bissell MJ** (1995). The origin of the myofibroblasts in breast cancer: recapitulation of tumor environment in culture unravels diversity and implicates converted fibroblasts and recruited smooth muscle cells. *J Clin Invest.* 1995 Feb; 95(2):859-73.
140. Boudreau N, Sympson CJ, Werb Z and **Bissell MJ** (1995). Suppression of ICE and apoptosis in mammary epithelial cells by extracellular matrix. *Science.* 1995 Feb 10; 267(5199):891-3.
143. Streuli CH, Schmidhauser C, Bailey N, Yurchenco P, Skubitz AP, Roskelley C and **Bissell MJ** (1995). Laminin mediates tissue-specific gene expression in mammary epithelia. *J Cell Biol.* 1995 May; 129(3):591-603.
156. Rønnov-Jessen L, Petersen OW and **Bissell MJ** (1996). Cellular changes involved in conversion of normal to malignant breast: importance of the stromal reaction. *Physiol Rev.* 1996 Jan; 76(1):69-125. Review.
166. Weaver VM, Petersen OW, Wang F, Larabell CA, Briand P, Damsky C and **Bissell MJ** (1997). Reversion of the malignant phenotype of human breast cells in three-dimensional culture and in vivo by integrin blocking antibodies. *J Cell Biol.* 1997 Apr 7; 137(1):231-46 (cover feature).
167. Lochter A, Galosy S, Muschler J, Freedman N, Werb Z and **Bissell MJ** (1997). Matrix metalloproteinase stromelysin-1 triggers a cascade of molecular alterations that leads to stable epithelial-to-mesenchymal conversion and a premalignant phenotype in mammary epithelial cells. *J Cell Biol.* 1997 Dec 29; 139(7):1861-72.
171. Myers CA, Schmidhauser C, Mellentin-Michelotti J, Fragoso G, Roskelley CD, Casperson G, Mossi R, Pujuguet P, Hager G and **Bissell MJ** (1998). Characterization of BCE-1, a transcriptional enhancer regulated by prolactin and extracellular matrix and modulated by the state of histone acetylation. *Mol Cell Biol.* 1998 Apr; 18(4):2184-95.
177. Thomasset N, Lochter A, Sympson CJ, Lund LR, Williams DR, Behrendtsen O, Werb Z and **Bissell MJ** (1998). Expression of autoactivated stromelysin-1 in mammary glands of transgenic mice leads to a reactive stroma during early development. *Am J Pathol.* 1998 Aug; 153(2):457-67
180. Lelièvre SA, Weaver VM, Nickerson JA, Larabell CA, Bhaumik A, Petersen OW and **Bissell MJ** (1998). Tissue phenotype depends on reciprocal interactions between the extracellular matrix and the structural organization of the nucleus. *Proc Natl Acad Sci USA.* 1998 Dec 8; 95(25):14711-6.
181. Wang F, Weaver VM, Petersen OW, Larabell CA, Dedhar S, Briand P, Lupu R and **Bissell MJ** (1998). Reciprocal interactions between  $\beta$ 1-integrin and epidermal growth factor receptor in three-dimensional basement membrane breast cultures: a different perspective in epithelial biology. *Proc Natl Acad Sci USA.* 1998 Dec 8; 95(25):14821-6.
185. Péchoux C, Gudjonsson T, Rønnov-Jessen L, **Bissell MJ** and Petersen OW (1999). Human mammary luminal epithelial cells contain progenitors to myoepithelial cells. *Dev Biol.* 1999 Feb 1; 206(1):88-99.
188. **Bissell MJ**, Weaver VM, Lelièvre SA, Wang F, Petersen OW and Schmeichel KL (1999). Tissue structure, nuclear organization and gene expression in normal and malignant breast. *Cancer Res.* 1999 Apr 1; 59(7 Suppl):1757-64s. Review.
189. Sternlicht MD, Lochter A, Sympson CJ, Huey B, Rougier JP, Gray JW, Pinkel D, **Bissell MJ** and Werb Z (1999). The stromal proteinase MMP3/stromelysin-1 promotes mammary carcinogenesis. *Cell.* 1999 Jul 23; 98(2):137-46.
191. Muschler J, Lochter A, Roskelley CD, Yurchenco P and **Bissell MJ** (1999). Division of labor among the  $\alpha$ 6 $\beta$ 4 integrins,  $\beta$ 1 integrins, and an E3 laminin receptor to signal morphogenesis and  $\beta$ -casein expression in mammary epithelial cells. *Mol Biol Cell.* 1999 Sep; 10(9):2817-28.
203. Hirai Y, Radisky D, Boudreau R, Simian M, Stevens ME, Oka Y, Takebe K, Niwa S and **Bissell MJ** (2001). Epimorphin mediates mammary luminal morphogenesis through control of C/EBP $\beta$ . *J Cell Biol.* 2001 May 14; 153(4):785-94.
204. Simian M, Hirai Y, Navre M, Werb Z, Lochter A and **Bissell MJ** (2001). The interplay of matrix metalloproteinases, morphogens and growth factors is necessary for branching of mammary epithelial cells. *Development.* 2001 Aug; 128(16):3117-31.
205. Muthuswamy SK, Li D, Lelièvre SA, **Bissell MJ** and Brugge JS (2001). ErbB2, but not ErbB1, reinitiates proliferation and induces luminal repopulation in epithelial acini. *Nat Cell Biol.* 2001 Sep; 3(9):785-93.
206. **Bissell MJ** and Radisky D (2001). Putting tumours in context. *Nat Rev Cancer.* 2001 Oct; 1(1):46-54. Review.
210. Gudjonsson T, Rønnov-Jessen L, Villadsen R, Rank F, **Bissell MJ** and Petersen OW (2002). Normal and tumor-derived myoepithelial cells differ in their ability to interact with luminal breast epithelial cells for polarity and basement membrane deposition. *J Cell Sci.* 2002 Jan 1; 115(Pt 1):39-50.
212. Gudjonsson T, Villadsen R, Nielsen HL, Rønnov-Jensen L, **Bissell MJ** and Petersen OW (2002). Isolation, immortalization, and characterization of a human breast epithelial cell line with stem cell properties. *Genes Dev.* 2002 Mar 15; 16(6):693-706.
214. Weaver VM, Lelièvre SA, Lakins JN, Chrenek MA, Jones JC, Giancotti F, Werb Z and **Bissell MJ** (2002).  $\beta$ 4 integrin-dependent formation of polarized three-dimensional architecture confers resistance to apoptosis in normal and malignant mammary epithelium. *Cancer Cell.* 2002 Sep; 2(3):205-16. Also see *Nature (News & Views)* 419:790-1 and *Cell (MiniReview)* 111:923-5.
215. Wang F, Hansen RK, Radisky D, Yoneda T, Barcellos-Hoff MH, Petersen OW, Turley EA and **Bissell MJ** (2002). Phenotypic reversion or death of cancer cells by altering signaling pathways in three-dimensional contexts. *J Natl Cancer Inst.* 2002 Oct 2; 94(19):1494-503.
217. Muschler J, Levy D, Boudreau R, Henry M, Campbell K and **Bissell MJ** (2002). A role for dystroglycan in epithelial polarization: loss of function in breast tumor cells. *Cancer Res.* 2002 Dec 1; 62(23):7102-9.

224. Schmeichel KL and **Bissell MJ** (2003). Modeling tissue-specific signaling and organ function in three dimensions. *J Cell Sci.* 2003 Jun 15; 116(Pt 12):2377-88. Review.
226. Novaro V, Roskelley C and **Bissell MJ** (2003). Collagen-IV and laminin-1 regulate estrogen receptor  $\alpha$  expression and function in mouse mammary epithelial cells. *J Cell Sci.* 2003 Jul 15; 116(14) 2975-86.
240. Liu H, Radisky DC, Wang F and **Bissell MJ** (2004). Polarity and proliferation are controlled by distinct signaling pathways downstream of PI3-kinase in breast epithelial tumor cells. *J Cell Biol.* 2004 Feb 16; 164(4):603-12.
246. **Bissell MJ**, Kenny PA and Radisky D (2005). Microenvironmental regulators of tissue structure and function also regulate tumor induction and progression: the role of extracellular matrix and its degrading enzymes. *Cold Spring Harb Symp Quant Biol.* 2005; 70:343-56.
248. **Bissell MJ** and LaBarge MA (2005). Context, tissue plasticity, and cancer: are tumor stem cells also regulated by the microenvironment? *Cancer Cell.* 2005 Jan; 7(1):17-23.
253. Radisky DC, Levy DD, Littlepage LE, Liu H, Nelson CM, Fata JE, Leake D, Godden EL, Albertson DG, Nieto MA, Werb Z and **Bissell MJ** (2005). Rac1b and reactive oxygen species mediate MMP-3-induced EMT and genomic instability. *Nature.* 2005 Jul 7; 436(7047):123-7.
257. Bascom JL, Fata JE, Hirai Y, Sternlicht MD and **Bissell MJ** (2005). Epimorphin overexpression in the mouse mammary gland promotes alveolar hyperplasia and mammary adenocarcinoma. *Cancer Res.* 2005 Oct 1; 65(19):8617-21.
262. Park CC, Zhang H, Pallavicini M, Gray JW, Baehner F, Park CJ and **Bissell MJ** (2006).  $\beta_1$  integrin inhibitory antibody induces apoptosis of breast cancer cells, inhibits growth, and distinguishes malignant from normal phenotype in three dimensional cultures and *in vivo*. *Cancer Res.* 2006 Feb 1; 66(3):1526-35.
263. Liu H, Radisky DC, Nelson CM, Zhang H, Fata JE, Roth RA and **Bissell MJ** (2006). Mechanism of Akt1 inhibition of breast cancer cell invasion reveals a protumorigenic role for TSC2. *Proc Natl Acad Sci USA.* 2006 Mar 14; 103(11):4134-9.
266. Fournier MV, Martin KJ, Kenny PA, Xhaja K, Bosch I, Yaswen P and **Bissell MJ** (2006). Gene expression signature in organized and growth-arrested mammary acini predicts good outcome in breast cancer. *Cancer Res.* 2006 Jul 15; 66(14):7095-102
268. Nelson CM, VanDuijn MM, Inman JL, Fletcher DA and **Bissell MJ** (2006). Tissue geometry determines sites of mammary branching morphogenesis in organotypic cultures. *Science.* 2006 Oct 13; 314(5797):298-300.
270. Kenny PA, Lee GY, Myers CA, Neve RM, Semeiks JR, Spellman PT, Lorenz K, Lee EH, Barcellos-Hoff MH, Petersen OW, Gray JW and **Bissell MJ** (2007). The morphologies of breast cancer cell lines in three-dimensional assays correlate with their profiles of gene expression. *Mol Oncol.* 2007 Jun; 1(1): 84-96
274. Kenny PA and **Bissell MJ** (2007). Targeting TACE-dependent EGFR ligand shedding in breast cancer. *J Clin Invest.* 2007 Feb; 117(2):337-45.
278. Villadsen R, Fridriksdottir AJ, Rønnov-Jessen L, Gudjonsson T, Rank F, LaBarge MA, **Bissell MJ** and Petersen OW (2007). Evidence for a stem cell hierarchy in the adult human breast. *J Cell Biol.* 2007 Apr 9; 177(1):87-101.
281. Itoh M, Nelson CM, Myers CA and **Bissell MJ** (2007). Rap1 integrates tissue polarity, lumen formation, and tumorigenic potential in human breast epithelial cells. *Cancer Res.* 2007 May 15; 67(10):4759-66 (cover feature).
282. Xu R, Spencer VA and **Bissell MJ** (2007). Extracellular matrix-regulated gene expression requires cooperation of SWI/SNF and transcription factors. *J Biol Chem.* 2007 May 18; 282(20):14992-9.
283. Fata JE, Mori H, Ewald AJ, Zhang H, Yao E, Werb Z and **Bissell MJ** (2007). The MAPK(ERK-1,2) pathway integrates distinct and antagonistic signals from TGF $\alpha$  and FGF7 in morphogenesis of mouse mammary epithelium. *Dev Biol.* 2007 Jun 1; 306(1):193-207.
286. LeBeyec J, Xu R, Lee SY, Nelson CM, Rizki A, Alcaraz J and **Bissell MJ** (2007). Cell shape regulates global histone acetylation in human mammary epithelial cells. *Exp Cell Res.* 2007 Aug 15; 313(14):3066-75.
287. Andarawewa KL, Erickson AC, Chou WS, Costes SV, Gascard P, Mott JD, **Bissell MJ** and Barcellos-Hoff MH (2007). Ionizing radiation predisposes nonmalignant human mammary epithelial cells to undergo transforming growth factor  $\beta$ -induced epithelial to mesenchymal transition. *Cancer Res.* 2007 Sep 15; 67(18):8662-70.
289. Rizki A, Mott JD and **Bissell MJ** (2007). Polo-like kinase 1 is involved in invasion through extracellular matrix. *Cancer Res.* 2007 Dec 1; 67(23):11106-10.
290. Rizki A, Weaver VM, Lee SY, Rozenberg GI, Chin K, Myers CA, Bascom JL, Mott JD, Semeiks JR, Grate LR, Mian IS, Borowsky AD, Jensen RA, Idowu MO, Chen F, Chen DJ, Petersen OW, Gray JW and **Bissell MJ** (2008). A human breast cell model of preinvasive to invasive transition. *Cancer Res.* 2008 Mar 1; 68(5):1378-87.
293. Nelson CM, Inman JL and **Bissell MJ** (2008). Three-dimensional lithographically defined organotypic tissue arrays for quantitative analysis of morphogenesis and neoplastic progression. *Nat Protoc.* 2008; 3(4):674-8.
295. Hu M, Yao J, Carroll DK, Weremowicz S, Chen H, Carrasco D, Richardson A, Violette S, Nikolskaya T, Nikolsky Y, Bauerlein EL, Hahn WC, Gelman RS, Allred C, **Bissell MJ**, Schnitt S and Polyak K (2008). Regulation of in situ to invasive breast carcinoma transition. *Cancer Cell.* 2008 May; 13(5):394-406 (cover feature).
298. Nelson CM, Khauv D, **Bissell MJ** and Radisky DC (2008). Change in cell shape is required for matrix metalloproteinase-induced epithelial-mesenchymal transition of mammary epithelial cells. *J Cell Biochem.* 2008 May 27; 105(1):25-33 (cover feature).
299. Park CC, Zhang HJ, Yao ES, Park CJ and **Bissell MJ** (2008).  $\beta_1$  integrin inhibition dramatically enhances radiotherapy efficacy. *Cancer Res.* 2008 Jun 1; 68(11):4398-405.
301. Martin KJ, Patrick DR, **Bissell MJ** and Fournier MV (2008). Prognostic breast cancer signature identified from 3D culture model accurately predicts clinical outcome across independent datasets. *PLoS ONE.* 2008 Aug 20; 3(8):e2994.
303. Alcaraz J, Xu R, Mori H, Nelson CM, Mroue R, Spencer VA, Brownfield D, Radisky DC, Bustamante C and **Bissell MJ** (2008). Laminin and biomimetic extracellular elasticity enhance functional differentiation in mammary epithelia. *EMBO J.* 2008 Nov 5; 27(21):2829-38.
305. LaBarge MA, Nelson CM, Villadsen R, Fridriksdottir A, Ruth JR, Stampfer M, Petersen OW and **Bissell MJ** (2009). Human

- mammary progenitor cell fate decisions are products of interactions with combinatorial microenvironments. *Integr Biol.* 2009 Jan; 1:70-9.
308. Xu R, Nelson CM, Muschler JL, Veiseh M, Vonderhaar BK and **Bissell MJ** (2009). Sustained activation of STAT5 is essential for chromatin remodeling and maintenance of mammary-specific function. *J Cell Biol.* 2009 Jan 12; 184(1):57-66.
  313. Fournier MV, Fata JE, Martin KJ, Yaswen P and **Bissell MJ** (2009). Interaction of E-cadherin and PTEN regulates morphogenesis and growth arrest in human mammary epithelial cells. *Cancer Res.* 2009 May 15; 69(10):4545-52.
  315. Chen A, Cuevas I, Kenny PA, Miyake H, Mace K, Ghajar C, Boudreau A, **Bissell MJ** and Boudreau, N. (2009). Endothelial Cell Migration and VEGF Expression are the result of Loss of Breast Tissue Polarity. *Cancer Res.* 2009 69: 6721-6729.
  316. Weigelt B, Lo AT, Park CC, Gray JW and **Bissell MJ** (2009). HER2 signaling pathway activation and response of breast cancer cells to HER2 targeting agents is dependent strongly on the 3D microenvironment. *Breast Cancer Res Treat.* 2009 Aug 22.
  317. Mori H, Gjorevskib N, Inman JL, **Bissell MJ** and Nelson CM (2009). Self-organization of engineered epithelial tubules by differential cellular motility. *Proc Natl Acad Sci U S A.* 2009 Aug 18.
  318. Simian M, **Bissell MJ**, Barcellos-Hoff MH, Shyamala G (2009). Estrogen and progesterone receptors have distinct roles in the establishment of the hyperplastic phenotype in PR-A transgenic mice. *Breast Cancer Research* 2009, 11:R72 (29 September 2009.)