

## Basic science: (SEPTEMBER 2007)

1. Abba MC, Sun H, Hawkins KA, Drake JA, Hu Y, Nunez MI, Gaddis S, Shi T, Horvath S, Sahin A and Aldaz CM. Breast cancer molecular signatures as determined by SAGE: correlation with lymph node status. *Mol Cancer Res* 2007; **5**: 881–890.
2. Alarmo EL, Korhonen T, Kuukasjaervi T, Huhtala H, Holli K and Kallioniemi A. Bone morphogenetic protein 7 expression associates with bone metastasis in breast carcinomas. *Ann Oncol* 2007; 10.1093/annonc/mdm453.
3. Andarawewa KL, Erickson AC, Chou WS, Costes SV, Gascard P, Mott JD, Bissell MJ and Barcellos-Hoff MH. Ionizing radiation predisposes nonmalignant human mammary epithelial cells to undergo transforming growth factor  $\beta$ -induced epithelial to mesenchymal transition. *Cancer Res* 2007; **67**: 8662–8670.
4. Balasubramanian SP, Cox A, Cross SS, Higham SE, Brown NJ and Reed MW. Influence of VEGF-A gene variation and protein levels in breast cancer susceptibility and severity. *Int J Cancer* 2007; **121**: 1009–1016.
5. Bromberg KD, Kluger HM, Delaunay A, Abbas S, DiVito KA, Krajewski S and Ronai Z. Increased expression of the E3 ubiquitin ligase RNF5 is associated with decreased survival in breast cancer. *Cancer Res* 2007; **67**: 8172–8179.
6. Buijs JT, Henriquez NV, Van Overveld PGM, Van der Horst G, Que I, Schwaninger R, Rentsch C, Ten Dijke P, Cleton-Jansen AM, Driouch K, Lidereau R, Bachelier R, Vukicevic S, Clezardin P, Papapoulos SE, Cecchini MG, Lowik C and Van der Pluijm G. Bone morphogenetic protein 7 in the development and treatment of bone Metastases from breast cancer. *Cancer Res* 2007; **67**: 8742–8751.
7. Cao Y, Luo J and Karin M.  $\text{I}\kappa\text{B}$  kinase  $\alpha$  kinase activity is required for self-renewal of ErbB2/Her2-transformed mammary tumor-initiating cells. *Proc Natl Acad Sci USA* 2007; **104**: 15852–15857.
8. Chen D, Reierstad S, Lin Z, Lu M, Brooks C, Li N, Innes J and Bulun SE. Prostaglandin E-2 induces breast cancer-related aromatase promoters via activation of p38 and c-jun NH<sub>2</sub>-Terminal kinase in adipose fibroblasts. *Cancer Res* 2007; **67**: 8914–8922.
9. Christov K, Grubbs CJ, Shilkaitis A, Juliana MM and Lubet RA. Short-term modulation of cell proliferation and apoptosis and preventive/Therapeutic efficacy of various agents in a mammary cancer model. *Clin Cancer Res* 2007; **13**: 5488–5496.
10. Dairkee SH, Nicolau M, Sayeed A, Champion S, Ji Y, Moore DH, Yong B, Meng Z and Jeffrey SS. Oxidative stress pathways highlighted in tumor cell immortalization: association with breast cancer outcome. *Oncogene* 2007; **26**: 6269–6279.
11. Deeb KK, Michalowska AM, Yoon CY, Krummey SM, Hoenerhoff MJ, Kavanaugh C, Li MC, Demayo FJ, Linnoila I, Deng CX, Lee E, Medina D, Shih JH and Green JE. Identification of an integrated SV40 T/t-antigen cancer signature in aggressive human breast, prostate, and lung carcinomas with poor prognosis. *Cancer Res* 2007; **67**: 8065–8080.
12. Dupont VN, Gentien D, Oberkampf M, De Rycke Y and Blin N. A gene expression signature associated with metastatic cells in effusions of breast carcinoma patients. *Int J Cancer* 2007; **121**: 1036–1046.
13. Fernando R, Foster JS, Bible A, Strom A, Pestell RG, Rao M, Saxton A, Baek SJ, Yamaguchi K, Donnell R, Cekanova M and Wimalasena J. Breast cancer cell proliferation is inhibited by BAD: Regulation of CYCLIN D1. *J Biol Chem* 2007; **282**: 28864–28873.
14. Gonzalez ME, Peterson EA, Privette LM, Loffreda-Wren JL, Kalikin LM and Petty EM. High SEPT9\_v1 expression in human breast cancer cells is associated with oncogenic phenotypes. *Cancer Res* 2007; **67**: 8554–8564.
15. Green KA and Carroll JS. Opinion: Oestrogen-receptor-mediated transcription and the influence of co-factors and chromatin state. *Nat Rev Cancer* 2007; **7**: 713–722.

16. Gutzman JH, Rugowski DE, Nikolai SE and Schuler LA. Stat5 activation inhibits prolactin-induced AP-1 activity: distinct prolactin-initiated signals in tumorigenesis dependent on cell context. *Oncogene* 2007; **26**: 6341–6348.
17. Hatsell S and Frost AR. Hedgehog signaling in mammary gland development and breast cancer. *J Mammary Gland Biol Neoplasia* 2007; **12**: 163–173.
18. Hitosugi T, Sato M, Sasaki K and Urnezawa Y. Lipid raft-specific knockdown of src family kinase activity inhibits cell adhesion and cell cycle progression of breast cancer cells. *Cancer Res* 2007; **67**: 8139–8148.
19. Kerlikowske K, Miglioretti DL, Buist DSM, Walker R and Carney PA. Declines in invasive breast cancer and use of postmenopausal hormone therapy in a screening mammography population. *J Natl Cancer Inst* 2007; **99**: 1335–1339.
20. Knowlden J, Jones H, Barrow D, Gee J, Nicholson R and Hutcheson I. Insulin receptor substrate-1 involvement in epidermal growth factor receptor and insulin-like growth factor receptor signalling: implication for Gefitinib ('Iressa') response and resistance. *Breast Cancer Res Treat* 2007; 10.1007/s10549-007-9763-9.
21. Lagadec C, Adriaenssens E, Toillon RA, Chopin V, Romon R, Van Coppenolle F, Hondermarck H and Le Bourhis X. Tamoxifen and TRAIL synergistically induce apoptosis in breast cancer cells. *Oncogene* 2007; 10.1038/sj.onc.1210749.
22. Liu JC, Deng T, Lehal RS, Kim J and Zacksenhaus E. Identification of tumorsphere- and tumor-initiating cells in HER2/Neu-induced mammary tumors. *Cancer Res* 2007; **67**: 8671–8681.
23. Ma L, Teruya-Feldstein J and Weinberg RA. Tumour invasion and metastasis initiated by microRNA-10b in breast cancer. *Nature* 2007; **449**: 682–688.
24. McBryan J, Howlin J, Kenny PA, Shioda T and Martin F. ER  $\alpha$ -CITED1 co-regulated genes expressed during pubertal mammary gland development: implications for breast cancer prognosis. *Oncogene* 2007; **26**: 6406–6419.
25. McGowan EM, Russell AJ, Boonyaratankornkit V, Saunders DN, Lehrbach GM, Sergio CM, Musgrove EA, Edwards DP and Sutherland RL. Progestins reinitiate cell cycle progression in antiestrogen-arrested breast cancer cells through the B-Isoform of progesterone receptor. *Cancer Res* 2007; **67**: 8942–8951.
26. Melana SM, Nepomnaschy I, Sakalian M, Abbott A, Hasa J, Holland JF and Pogo BGT. Characterization of viral particles isolated from primary cultures of human breast cancer cells. *Cancer Res* 2007; **67**: 8960–8965.
27. Milliken EL, Lozada KL, Johnson E, Landis MD, Seachrist DD, Whitten I, Sutton ALM, Abdul-Karim FW and Keri RA. Ovarian hyperstimulation induces centrosome amplification and aneuploid mammary tumors independently of alterations in p53 in a transgenic mouse model of breast cancer. *Oncogene* 2007; 10.1038/sj.onc.1210815.
28. O'Neill CF, Urs S, Cinelli C, Lincoln A, Nadeau RJ, Leon R, Toher J, Mouta-Bellum C, Friesel RE and Liaw L. Notch2 signaling induces apoptosis and inhibits human MDA-MB-231 xenograft growth. *Am J Pathol* 2007; **171**: 1023–1036.
29. Stang MT, Armstrong MJ, Watson GA, Sung KY, Liu Y, Ren B and Yim JH. Interferon regulatory factor-1-induced apoptosis mediated by a ligand-independent fas-associated death domain pathway in breast cancer cells. *Oncogene* 2007; **26**: 6420–6430.
30. Stender JD, Frasor J, Komm B, Chang KCN, Kraus WL and Katzenellenbogen BS. Estrogen-regulated gene networks in human breast cancer cells: Involvement of E2F1 in the regulation of cell proliferation. *Mol Endocrinol* 2007; **21**: 2112–2123.
31. Stingl J and Caldas C. Molecular heterogeneity of breast carcinomas and the cancer stem cell hypothesis. *Nat Rev Cancer* 2007; **7**: 791–799.
32. Tang B, Yoo N, Vu M, Mamura M, Nam JS, Ooshima A, Du Z, Desprez PY, Anver MR, Michalowska AM, Shih J, Parks WT and Wakefield LM. Transforming growth factor- $\beta$  can suppress tumorigenesis through effects on the putative cancer stem or early progenitor cell and committed progeny in a breast cancer xenograft model. *Cancer Res* 2007; **67**: 8643–8652.
33. Ursini-Siegel J, Rajput AB, Lu HL, Sanguin-Gendreau V, Zuo DM, Papavasiliou V, Lavoie C, Turpin J, Cianflone K, Huntsman DG and Muller WJ. Elevated expression of DecR1 impairs ErbB2/Neu-Induced mammary tumor development. *Mol Cell Biol* 2007; **27**: 6361–6371.
34. Vachon CM, Sellers TA, Carlson EE, Cunningham JM, Hilker CA, Smalley RL, Schaid DJ, Kelemen LE, Couch FJ and Pankratz VS. Strong evidence of a genetic determinant for mammographic density, a major risk factor for breast cancer. *Cancer Res* 2007; **67**: 8412–8418.
35. Vaidya KS and Welch DR. Metastasis suppressors and their roles in breast carcinoma. *J Mammary Gland Biol Neoplasia* 2007; **12**: 175–190.

36. Vargo-Gogola T and Rosen JM. Modelling breast cancer: one size does not fit all. *Nat Rev Cancer* 2007; **7**: 659–672.
37. Voorzanger-Rousselot N, Goehrig D, Journe F, Doriath V, Body JJ, Clezardin P and Garnero P. Increased Dickkopf-1 expression in breast cancer bone metastases. *Br J Cancer* 2007; **97**: 964–970.
38. Wang N, Lin KK, Lu Z, Lam KS, Newton R, Xu X, Yu Z, Gill GN and Andersen B. The LIM-only factor LMO4 regulates expression of the BMP7 gene through an HDAC2-dependent mechanism, and controls cell proliferation and apoptosis of mammary epithelial cells. *Oncogene* 2007; **26**: 6431–6441.
39. Wedren S, Magnusson C, Humphreys K, Melhus H, Kindmark A, Stiger F, Branting M, Persson I, Baron J and Weiderpass E. Associations between androgen and vitamin D receptor microsatellites and postmenopausal breast cancer. *Cancer Epidemiol Biomarkers Prev* 2007; **16**: 1775–1783.
40. Woodfield GW, Horan AD, Chen Y and Weigel RJ. TFAP2C controls hormone response in breast cancer cells through multiple pathways of estrogen signaling. *Cancer Res* 2007; **67**: 8439–8443.
41. Yuan YH, Qin L, Liu D, Wu RC, Mussi P, Zhou SL, Zhou SY and Xu J. Genetic screening reveals an essential role of p27kip1 in restriction of breast cancer progression. *Cancer Res* 2007; **67**: 8032–8042.

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