

Basic science (January 2006)

1. Arnould L, Gelly M, Penault-Llorca F, Benoit L, Bonnetain F, Migeon C, Cabaret V, Fermeaux V, Bertheau P, Garnier J, Jeannin JF, Coudert B. Trastuzumab-based treatment of HER2-positive breast cancer: an antibody-dependent cellular cytotoxicity mechanism? *Brit J Cancer* 2006; **94**: 259–267.
2. Barnes N, Haywood P, Flint P, Knox WF, Bundred NJ. Survivin expression in in situ and invasive breast cancer relates to COX-2 expression and DCIS recurrence. *Brit J Cancer* 2006; **94**: 253–258.
3. Beattie MS, Costantino JP, Cummings SR, Wickerham DL, Vogel VG, Dowsett M, Folkard EJ, Willett WC, Wolmark N, Hankinson SE. Endogenous sex hormones, breast cancer risk, and tamoxifen response: an ancillary study in the NSABP Breast Cancer Prevention Trial (P-1). *J Natl Cancer Inst* 2006; **98**: 110–115.
4. Bentires-Alj M, Gil SG, Chan R, Wang ZGC, Wang YP, Imanaka N, Harris LN, Richardson A, Neel BG, Gu HH. A role for the scaffolding adapter GAB2 in breast cancer. *Nat Med* 2006; **12**: 114–121.
5. Bidwell GL, Raucher D. Enhancing the antiproliferative effect of topoisomerase II inhibitors using a polypeptide inhibitor of c-Myc. *Biochem Pharmacol* 2006; **71**: 248–256.
6. Breuleux M, Schoumacher F, Rehn D, Kung W, Mueller H, Eppenberger U. Heregulins implicated in cellular functions other than receptor activation. *Mol Cancer Res* 2006; **4**: 27–37.
7. Brummer T, Schramek D, Hayes VM, Bennett HL, Caldon CE, Musgrove EA, Daly RJ. Increased proliferation and altered growth factor dependence of human mammary epithelial cells overexpressing the Gab2 docking protein. *J Biol Chem* 2006; **281**: 626–637.
8. Canzian F, McKay JD, Cleveland RJ, Dossus L, Biessy C, Rinaldi S, Landi S, Boillot C, Monnier S, Chajes V, Clavel-Chapelon F, Tehard B, Chang-Claude J, Linseisen J, Lahmann PH, Pischon T, Trichopoulos D, Trichopoulou A, Zilis D, Palli D, Tumino R, Vineis P, Berrino F, Bueno-de-Mesquita HB, van Gils CH, Peeters PHM, Pera G, Ardanaz E, Chirlaque MD, Quiros JR, Larranaga N, Martinez-Garcia C, Allen NE, Key TJ, Bingham SA, Khaw KT, Slimani N, Norat T, Riboli E, Kaaks R. Polymorphisms of genes coding for insulin-like growth factor I and its major binding proteins, circulating levels of IGF-I and IGFBP-3 and breast cancer risk: results from the EPIC study. *Brit J Cancer* 2006; **94**: 299–307.
9. Cebrian A, Pharoah PD, Ahmed S, Smith PL, Luccarini C, Luben R, Redman K, Munday H, Easton DF, Dunning AM, Ponder BAJ. Tagging single-nucleotide polymorphisms in antioxidant defense enzymes and susceptibility to breast cancer. *Cancer Res* 2006; **66**: 1225–1233.
10. Chen TP, Jackson CR, Link A, Markey MP, Colligan BM, Douglass LW, Pemberton JO, Deddens JA, Graff JR, Carter JH. Int7G24A variant of transforming growth factor-beta receptor type I is associated with invasive breast cancer. *Clin Cancer Res* 2006; **12**: 392–397.
11. Desruisseau S, Palmari J, Giusti C, Romain S, Martin PM, Berthois Y. Determination of TGF beta 1 protein level in human primary breast cancers and its relationship with survival. *Brit J Cancer* 2006; **94**: 239–246.
12. Diaz N, Minton S, Cox C, Bowman T, Gritsko T, Garcia R, Eweis I, Wloch M, Livingston S, Seijo E, Cantor A, Lee JH, Beam CA, Sullivan D, Jove R, Muro-Cacho CA. Activation of Stat3 in primary tumors from high-risk breast cancer patients is associated with elevated levels of activated Src and survivin expression. *Clin Cancer Res* 2006; **12**: 20–28.
13. Fiegl H, Millinger S, Goebel G, Muller-Holzner E, Marth C, Laird PW, Widschwendter M. Breast

- cancer DNA methylation profiles in cancer cells and tumor stroma: association with HER-2/neu status in primary breast cancer. *Cancer Res* 2006; **66**: 29–33.
14. Fujita T, Doihara H, Kawasaki K, Takabatake D, Takahashi H, Washio K, Tsukuda K, Ogasawara Y, Shimizu N. PTEN activity could be a predictive marker of trastuzumab efficacy in the treatment of ErbB2-overexpressing breast cancer. *Brit J Cancer* 2006; **94**: 247–252.
 15. Gillmore R, Xue SA, Holler A, Kaeda J, Hadjiminas D, Healy V, Dina R, Parry SC, Bellantuono I, Ghani Y, Coombes RC, Waxman J, Stauss HJ. Detection of Wilms' tumor antigen-specific CTL in tumor-draining lymph nodes of patients with early breast cancer. *Clin Cancer Res* 2006; **12**: 34–42.
 16. Gritsko T, Williams A, Turkson J, Kaneko S, Bowman T, Huang M, Nam S, Eweis I, Diaz N, Sullivan D, Yoder S, Enkemann S, Eschrich S, Lee JH, Beam CA, Cheng J, Minton S, Muro-Cacho CA, Jove R. Persistent activation of Stat3 signaling induces survivin gene expression and confers resistance to apoptosis in human breast cancer cells. *Clin Cancer Res* 2006; **12**: 11–19.
 17. Hiscox S, Jiang WG, Obermeier K, Taylor K, Morgan L, Burmi R, Barrow D, Nicholson RI. Tamoxifen resistance in MCF7 cells promotes EMT-like behaviour and involves modulation of beta-catenin phosphorylation. *Int J Cancer* 2006; **118**: 290–301.
 18. Ko MJ, Murata K, Hwang DS, Parvin JD. Inhibition of BRCA1 in breast cell lines causes the centrosome duplication cycle to be disconnected from the cell cycle. *Oncogene* 2006; **25**: 298–303.
 19. Kote-Jarai Z, Salmon A, Mengitsu T, Copeland M, Ardern-Jones A, Locke I, Shanley S, Summersgill B, Lu YJ, Shipley J, Eeles R. Increased level of chromosomal damage after irradiation of lymphocytes from BRCA1 mutation carriers. *Brit J Cancer* 2006; **94**: 308–310.
 20. Kroger N, Milde-Langosch K, Riethdorf S, Schmoor C, Schumacher M, Zander AR, Loning T. Prognostic and predictive effects of immunohistochemical factors in high-risk primary breast cancer patients. *Clin Cancer Res* 2006; **12**: 159–168.
 21. Landis MW, Pawlyk BS, Li T, Sicinski P, Hinds PW. Cyclin D1-dependent kinase activity in murine development and mammary tumorigenesis. *Cancer Cell* 2006; **9**: 13–22.
 22. Li CM, Margolin AA, Salas M, Memeo L, Mansukhani M, Hibshoosh H, Szabolcs M, Klinakis A, Tycko B. PEG10 is a c-MYC target gene in cancer cells. *Cancer Res* 2006; **66**: 665–672.
 23. Li L, Li ZG, Howley PM, Sacks DB. E6AP and calmodulin reciprocally regulate estrogen receptor stability. *J Biol Chem* 2006; **281**: 1978–1985.
 24. Lovelock PK, Healey S, Au W, Sum EYM, Tesoriero A, Wong EM, Hinson S, Brinkworth R, Bekessy A, Diez O, Izatt L, Solomon E, Jenkins M, Renard H, Hopper J, Waring P, Tavtigian SV, Goldgar D, Lindeman GJ, Visvader JE, Couch FJ, Henderson BR, Southey M, Chenevix-Trench G, Spurdle AB, Brown MA and Group Authors kConFab Investigators. Genetic, functional, and histopathological evaluation of two C-terminal BRCA1 missense variants. *J Med Genet* 2006; **43**: 74–83.
 25. Lu Z, Luo RZ, Peng H, Huang M, Nishimoto A, Hunt KK, Helin K, Liao WSL, Yu Y. E2F-HDAC complexes negatively regulate the tumor suppressor gene ARHI in breast cancer. *Oncogene* 2006; **25**: 230–239.
 26. Ma YX, Katiyar P, Jones LP, Fan SJ, Zhang YY, Furth PA, Rosen EM. The breast cancer susceptibility gene BRCA1 regulates progesterone receptor signaling in mammary epithelial cells. *Mol Endocrinol* 2006; **20**: 14–34.
 27. Mitchell DC, Abdelrahim M, Weng JS, Stafford LJ, Safe S, Bar-Eli M, Liu MY. Regulation of KiSS-1 metastasis suppressor gene expression in breast cancer cells by direct interaction of transcription factors activator protein-2 alpha and specificity protein-1. *J Biol Chem* 2006; **281**: 51–58.
 28. Morris DR, Ding Y, Ricks TK, Gullapalli A, Wolfe BL, Trejo J. Protease-activated receptor-2 is essential for factor VIIa and Xa-induced signaling, migration, and invasion of breast cancer cells. *Cancer Res* 2006; **66**: 307–314.
 29. Moyano JV, Evans JR, Chen F, Lu ML, Werner ME, Yehiely F, Diaz LK, Turbin D, Karaca G, Wiley E, Nielsen TO, Perou CM, Cryns VL. Alpha B-crystallin is a novel oncoprotein that predicts poor clinical outcome in breast cancer. *J Clin Invest* 2006; **116**: 261–270.
 30. Murata S, Kominsky SL, Vali M, Zhang Z, Garrett-Mayer E, Korz D, Huso D, Baker SD, Barber J, Jaffee E, Reilly RT, Sukumar S. Ductal access for prevention and therapy of mammary tumors. *Cancer Res* 2006; **66**: 638–645.
 31. Newman SP, Ireson CR, Tutill HJ, Day JM, Parsons MFC, Leese MP, Potter BVL, Reed MJ, Purohit A. The role of 17 beta-hydroxysteroid dehydrogenases in modulating the activity of 2-methoxyestradiol in breast cancer cells. *Cancer Res* 2006; **66**: 324–330.
 32. Ota H, Tokunaga E, Chang K, Hikasa M, Iijima K, Eto M, Kozaki K, Akishita M, Ouchi Y, Kaneki M.

- Sirt1 inhibitor, Sirtinol, induces senescence-like growth arrest with attenuated Ras-MAPK signaling in human cancer cells. *Oncogene* 2006; **25**: 176–185.
33. Reagan-Shaw S, Ahmad N. RNA interference-mediated depletion phosphoinositide 3-kinase activates forkhead box class O transcription factors and induces cell cycle arrest and apoptosis in breast carcinoma cells. *Cancer Res* 2006; **66**: 1062–1069.
 34. Saez R, Molina MA, Ramsey EE, Rojo F, Keenan EJ, Albanell J, Lluch A, Garcia-Conde J, Baselga J, Clinton GM. p95HER-2 predicts worse outcome in patients with HER-2-positive breast cancer. *Clin Cancer Res* 2006; **12**: 424–431.
 35. Shackleton M, Vaillant F, Simpson KJ, Stingl J, Smyth GK, Asselin-Labat ML, Wu L, Lindeman GJ, Visvader JE. Generation of a functional mammary gland from a single stem cell. *Nature* 2006; **439**: 84–88.
 36. Sotgia F, Williams TM, Schubert W, Medina F, Minetti C, Pestell RG, Lisanti MP. Caveolin-1 deficiency (–/–) conveys premalignant alterations in mammary epithelia, with abnormal lumen formation, growth factor independence, and cell invasiveness. *Am J Pathol* 2006; **168**: 292–309.
 37. Spurdle AB, Antoniou AC, Kelemen L, Holland H, Peock S, Cook MR, Smith PL, Greene MH, Simard J, Plourde M, Southey MC, Godwin AK, Beck J, Miron A, Daly MB, Santella RM, Hopper JL, John EM, Andrulis IL, Durocher F, Struwing JP, Easton DF, Chenevix-Trench G. The AIB1 polyglutamine repeat does not modify breast cancer risk in BRCA1 and BRCA2 mutation carriers. *Cancer Epidemiol Biomarkers* 2006; **15**: 76–79.
 38. Stange DE, Radlwimmer B, Schubert F, Traub F, Pich A, Toedt G, Mendrzyk F, Lehmann U, Eils R, Kreipe H, Lichter P. High-resolution genomic profiling reveals association of chromosomal aberrations on 1q and 16p with histologic and genetic subgroups of invasive breast cancer. *Clin Cancer Res* 2006; **12**: 345–352.
 39. Sunters A, Madureira PA, Pomeranz KM, Aubert M, Brosens JJ, Cook SJ, Burgering BMT, Coombes RC, Lam EWF. Paclitaxel-induced nuclear translocation of FOXO3a in breast cancer cells is mediated by c-jun NH2-Terminal kinase and Akt. *Cancer Res* 2006; **66**: 212–220.
 40. Tanaka A, Muto S, Konno M, Itai A, Matsuda H. A new I kappa B kinase beta inhibitor prevents human breast cancer progression through negative regulation of cell cycle transition. *Cancer Res* 2006; **66**: 419–426.
 41. Thibaudeau J, Lepine J, Tojcic J, Duguay Y, Pelletier G, Plante M, Brisson J, Tetu B, Jacob S, Perusse L, Belanger A, Guillemette C. Characterization of common UGT1A8, UGT1A9, and UGT2B7 variants with different capacities to inactivate mutagenic 4-hydroxylated metabolites of estradiol and estrone. *Cancer Res* 2006; **66**: 125–133.
 42. Tokunaga E, Kimura Y, Oki E, Ueda N, Futatsugi M, Mashino K, Yamamoto M, Ikebe M, Kakeji Y, Baba H, Maehara Y. Akt is frequently activated in HER2/neu-positive breast cancers and associated with poor prognosis among hormone-treated patients. *Int J Cancer* 2006; **118**: 284–289.
 43. Wang GZ, Platt-Higgins A, Carroll J, Rudland SD, Winstanley J, Barraclough R, Rudland PS. Induction of metastasis by S100P in a rat mammary model and its association with poor survival of breast cancer patients. *Cancer Res* 2006; **66**: 1199–1207.
 44. Wei XL, Xu H, Kufe D. MUC1 oncoprotein stabilizes and activates estrogen receptor alpha. *Mol Cell* 2006; **21**: 295–305.
 45. Wood CE, Register TC, Franke AA, Anthony MS, Cline JM. Dietary soy isoflavones inhibit estrogen effects in the postmenopausal breast. *Cancer Res* 2006; **66**: 1241–1249.
 46. Yager JD, Davidson NE. Mechanisms of disease: estrogen carcinogenesis in breast cancer. *New Engl J Med* 2006; **354**: 270–282.
 47. Yu QY, Sicinska E, Geng Y, Ahnstrom M, Zagozdzon A, Kong YX, Gardner H, Kiyokawa H, Harris LN, Stal O, Sicinski P. Requirement for CDK4 kinase function in breast cancer. *Cancer Cell* 2006; **9**: 23–32.
 48. Yuan BB, Xu Y, Woo JH, Wang YY, Bae YK, Yoon DS, Wersto RP, Tully E, Wilsbach K, Gabrielson E. Increased expression of mitotic checkpoint genes in breast cancer cells with chromosomal instability. *Clin Cancer Res* 2006; **12**: 405–410.

Prepared by
R. Sutherland, J. Scorer
Cancer Research Program
Garvan Institute of Medical Research
Darlinghurst, NSW, Australia