

BIBLIOGRAPHY

- Abd Muttalib, K., Wan Othman, W., Abu Talib, N., and Ramli, R. (2002). A strategy for primary prevention and early detection of oral cancer and precancer:1997-2000. *Malaysian Dental Journal* 23, 80-88.
- Ahmed, S., Rahman, A., and Hull, S. (1997). Use of betel quid and cigarettes among Bangladeshi patients in an inner-city practice: prevalence and knowledge of health effects. *Br J Gen Pract* 47, 431-434.
- Alevizos, I., Mahadevappa, M., Zhang, X., Ohyama, H., Kohno, Y., Posner, M., Gallagher, G.T., Varvares, M., Cohen, D., Kim, D., et al. (2001). Oral cancer in vivo gene expression profiling assisted by laser capture microdissection and microarray analysis. *Oncogene* 20, 6196-6204.
- Alizadeh, A.A., Eisen, M.B., Davis, R.E., Ma, C., Lossos, I.S., Rosenwald, A., Boldrick, J.C., Sabet, H., Tran, T., Yu, X., et al. (2000). Distinct types of diffuse large B-cell lymphoma identified by gene expression profiling. *Nature* 403, 503-511.
- Allard, J.E., Risinger, J.I., Morrison, C., Young, G., Rose, G.S., Fowler, J., Berchuck, A., and Maxwell, G.L. (2007). Overexpression of folate binding protein is associated with shortened progression-free survival in uterine adenocarcinomas. *Gynecol Oncol* 107, 52-57.
- Alvaro, T., Lejeune, M., Salvado, M.T., Bosch, R., Garcia, J.F., Jaen, J., Banham, A.H., Roncador, G., Montalban, C., and Piris, M.A. (2005). Outcome in Hodgkin's lymphoma can be predicted from the presence of accompanying cytotoxic and regulatory T cells. *Clin Cancer Res* 11, 1467-1473.
- Amatschek, S., Lucas, R., Eger, A., Pflueger, M., Hundsberger, H., Knoll, C., Grosse-Kracht, S., Schuett, W., Koszik, F., Maurer, D., et al. (2011). CXCL9 induces chemotaxis, chemorepulsion and endothelial barrier disruption through CXCR3-mediated activation of melanoma cells. *Br J Cancer* 104, 469-479.
- Anantharaman, D., Chaubal, P.M., Kannan, S., Bhisey, R.A., and Mahimkar, M.B. (2007). Susceptibility to oral cancer by genetic polymorphisms at CYP1A1, GSTM1 and GSTT1 loci among Indians: tobacco exposure as a risk modulator. *Carcinogenesis* 28, 1455-1462.
- Andre, K., Schraub, S., Mercier, M., and Bontemps, P. (1995). Role of alcohol and tobacco in the aetiology of head and neck cancer: a case-control study in the Doubs region of France. *Eur J Cancer B Oral Oncol* 31B, 301-309.
- Ang, K.K., Harris, J., Wheeler, R., Weber, R., Rosenthal, D.I., Nguyen-Tan, P.F., Westra, W.H., Chung, C.H., Jordan, R.C., Lu, C., et al. (2010). Human papillomavirus and survival of patients with oropharyngeal cancer. *N Engl J Med* 363, 24-35.
- Antony, A.C. (1996). Folate receptors. *Annu Rev Nutr* 16, 501-521.
- Awang, M.N. (1988). Betel quid and oral carcinogenesis. *Singapore Med J* 29, 589-593.

Badoual, C., Bouchaud, G., Agueznay Nel, H., Mortier, E., Hans, S., Gey, A., Fernani, F., Peyrard, S., Puig, P.L., Bruneval, P., et al. (2008). The soluble alpha chain of interleukin-15 receptor: a proinflammatory molecule associated with tumor progression in head and neck cancer. *Cancer Res* 68, 3907-3914.

Badoual, C., Hans, S., Fridman, W.H., Brasnu, D., Erdman, S., and Tartour, E. (2009). Revisiting the prognostic value of regulatory T cells in patients with cancer. *J Clin Oncol* 27, e5-6; author reply e7.

Badoual, C., Hans, S., Rodriguez, J., Peyrard, S., Klein, C., Agueznay Nel, H., Mosseri, V., Laccourreye, O., Bruneval, P., Fridman, W.H., et al. (2006). Prognostic value of tumor-infiltrating CD4+ T-cell subpopulations in head and neck cancers. *Clin Cancer Res* 12, 465-472.

Bagnoli, M., Tomassetti, A., Figini, M., Flati, S., Dolo, V., Canevari, S., and Miotti, S. (2000). Downmodulation of caveolin-1 expression in human ovarian carcinoma is directly related to alpha-folate receptor overexpression. *Oncogene* 19, 4754-4763.

Bankfalvi, A., and Piffko, J. (2000). Prognostic and predictive factors in oral cancer: the role of the invasive tumour front. *J Oral Pathol Med* 29, 291-298.

Baron, J.A., Sandler, R.S., Haile, R.W., Mandel, J.S., Mott, L.A., and Greenberg, E.R. (1998). Folate intake, alcohol consumption, cigarette smoking, and risk of colorectal adenomas. *J Natl Cancer Inst* 90, 57-62.

Bathe, O.F. (2009). Molecular determinants of outcomes: linking tissue banks to outcomes databases. *J Surg Oncol* 99, 513-516.

Bedi, R., and Gilthorpe, M.S. (1995). The prevalence of betel-quid and tobacco chewing among the Bangladeshi community resident in a United Kingdom area of multiple deprivation. *Prim Dent Care* 2, 39-42.

Belbin, T.J., Schlecht, N.F., Smith, R.V., Adrien, L.R., Kawachi, N., Brandwein-Gensler, M., Bergman, A., Chen, Q., Childs, G., and Prystowsky, M.B. (2008). Site-specific molecular signatures predict aggressive disease in HNSCC. *Head Neck Pathol* 2, 243-256.

Bibikova, M., Chudin, E., Arsanjani, A., Zhou, L., Garcia, E.W., Modder, J., Kostelec, M., Barker, D., Downs, T., Fan, J.B., et al. (2007). Expression signatures that correlated with Gleason score and relapse in prostate cancer. *Genomics* 89, 666-672.

Bibikova, M., Talantov, D., Chudin, E., Yeakley, J.M., Chen, J., Doucet, D., Wickham, E., Atkins, D., Barker, D., Chee, M., et al. (2004a). Quantitative gene expression profiling in formalin-fixed, paraffin-embedded tissues using universal bead arrays. *Am J Pathol* 165, 1799-1807.

Bibikova, M., Yeakley, J.M., Chudin, E., Chen, J., Wickham, E., Wang-Rodriguez, J., and Fan, J.B. (2004b). Gene expression profiles in formalin-fixed, paraffin-embedded tissues obtained with a novel assay for microarray analysis. *Clin Chem* 50, 2384-2386.

Blot, W.J., McLaughlin, J.K., Winn, D.M., Austin, D.F., Greenberg, R.S., Preston-Martin, S., Bernstein, L., Schoenberg, J.B., Stemhagen, A., and Fraumeni, J.F., Jr. (1988). Smoking and drinking in relation to oral and pharyngeal cancer. *Cancer Res* 48, 3282-3287.

- Bohling, S.D., and Allison, K.H. (2008). Immunosuppressive regulatory T cells are associated with aggressive breast cancer phenotypes: a potential therapeutic target. *Mod Pathol* 21, 1527-1532.
- Bordeaux, J., Welsh, A., Agarwal, S., Killiam, E., Baquero, M., Hanna, J., Anagnostou, V., and Rimm, D. (2010). Antibody validation. *Biotechniques* 48, 197-209.
- Bottero, F., Tomassetti, A., Canevari, S., Miotti, S., Menard, S., and Colnaghi, M.I. (1993). Gene transfection and expression of the ovarian carcinoma marker folate binding protein on NIH/3T3 cells increases cell growth in vitro and in vivo. *Cancer Res* 53, 5791-5796.
- Brandizzi, D., Gandolfo, M., Velazco, M.L., Cabrini, R.L., and Lanfranchi, H.E. (2008). Clinical features and evolution of oral cancer: A study of 274 cases in Buenos Aires, Argentina. *Med Oral Patol Oral Cir Bucal* 13, E544-548.
- Brazma, A., Robinson, A., Cameron, G., and Ashburner, M. (2000). One-stop shop for microarray data. *Nature* 403, 699-700.
- Brown, D., and Waneck, G.L. (1992). Glycosyl-phosphatidylinositol-anchored membrane proteins. *J Am Soc Nephrol* 3, 895-906.
- Bustin, S.A. (2000). Absolute quantification of mRNA using real-time reverse transcription polymerase chain reaction assays. *J Mol Endocrinol* 25, 169-193.
- Butte, A. (2002). The use and analysis of microarray data. *Nat Rev Drug Discov* 1, 951-960.
- Campbell, I.G., Jones, T.A., Foulkes, W.D., and Trowsdale, J. (1991). Folate-binding protein is a marker for ovarian cancer. *Cancer Res* 51, 5329-5338.
- Carreras, J., Lopez-Guillermo, A., Fox, B.C., Colomo, L., Martinez, A., Roncador, G., Montserrat, E., Campo, E., and Banham, A.H. (2006). High numbers of tumor-infiltrating FOXP3-positive regulatory T cells are associated with improved overall survival in follicular lymphoma. *Blood* 108, 2957-2964.
- Cawson, R., Binnie, H., Speight, P., Barret, A., and Wright, J. (1998). *Lucas's Pathology of Tumour of Oral Tissue*, 5th edn (London, Churchill Livingstone).
- Chattopadhyay, A. (1989). Epidemiologic study of oral cancer in eastern India. *Indian J Dermatol* 34, 59-65.
- Chen, C., Mendez, E., Houck, J., Fan, W., Lohavanichbutr, P., Doody, D., Yueh, B., Futran, N.D., Upton, M., Farwell, D.G., et al. (2008a). Gene expression profiling identifies genes predictive of oral squamous cell carcinoma. *Cancer Epidemiol Biomarkers Prev* 17, 2152-2162.
- Chen, J., He, Q.Y., Yuen, A.P., and Chiu, J.F. (2004). Proteomics of buccal squamous cell carcinoma: the involvement of multiple pathways in tumorigenesis. *Proteomics* 4, 2465-2475.
- Chen, K., Fallen, S., Abaan, H.O., Hayran, M., Gonzalez, C., Wodajo, F., MacDonald, T., Toretsky, J.A., and Uren, A. (2008b). Wnt10b induces chemotaxis of osteosarcoma and correlates with reduced survival. *Pediatr Blood Cancer* 51, 349-355.

Chen, P.H., Shieh, T.Y., Ho, P.S., Tsai, C.C., Yang, Y.H., Lin, Y.C., Ko, M.S., Tsai, P.C., Chiang, S.L., Tu, H.P., et al. (2007). Prognostic factors associated with the survival of oral and pharyngeal carcinoma in Taiwan. *BMC Cancer* 7, 101.

Chen, Y.K., Huang, H.C., Lin, L.M., and Lin, C.C. (1999). Primary oral squamous cell carcinoma: an analysis of 703 cases in southern Taiwan. *Oral Oncol* 35, 173-179.

Cheong, S.C., Chandramouli, G.V., Saleh, A., Zain, R.B., Lau, S.H., Sivakumaren, S., Pathmanathan, R., Prime, S.S., Teo, S.H., Patel, V., et al. (2009). Gene expression in human oral squamous cell carcinoma is influenced by risk factor exposure. *Oral Oncol* 45, 712-719.

Chetty, R., and Gatter, K. (1994). CD3: structure, function, and role of immunostaining in clinical practice. *J Pathol* 173, 303-307.

Choi, P., and Chen, C. (2005). Genetic expression profiles and biologic pathway alterations in head and neck squamous cell carcinoma. *Cancer* 104, 1113-1128.

Choi, S.S., Park, I.C., Yun, J.W., Sung, Y.C., Hong, S.I., and Shin, H.S. (1995). A novel Bcl-2 related gene, Bfl-1, is overexpressed in stomach cancer and preferentially expressed in bone marrow. *Oncogene* 11, 1693-1698.

Chung, C.H., Parker, J.S., Ely, K., Carter, J., Yi, Y., Murphy, B.A., Ang, K.K., El-Naggar, A.K., Zanation, A.M., Cmelak, A.J., et al. (2006). Gene expression profiles identify epithelial-to-mesenchymal transition and activation of nuclear factor-kappaB signaling as characteristics of a high-risk head and neck squamous cell carcinoma. *Cancer Res* 66, 8210-8218.

Chung, C.H., Parker, J.S., Karaca, G., Wu, J., Funkhouser, W.K., Moore, D., Butterfoss, D., Xiang, D., Zanation, A., Yin, X., et al. (2004). Molecular classification of head and neck squamous cell carcinomas using patterns of gene expression. *Cancer Cell* 5, 489-500.

Clayman GL, L.S., Laramore GE, Hong WK (1997). *Head and Neck Cancer* (Baltimore, Williams & Wilkins).

Clifton, G.T., Sears, A.K., Clive, K.S., Holmes, J.P., Mittendorf, E.A., Ioannides, C.G., Ponniah, S., and Peoples, G.E. (2011). Folate receptor alpha: A storied past and promising future in immunotherapy. *Hum Vaccin* 7.

Cortesina, G., Sacchi, M., Bussi, M., Panizzut, B., Ferro, S., Carlevato, M.T., and Marchisio, P.C. (1995). Integrin expression in head and neck cancers. *Acta Otolaryngol* 115, 328-330.

Cosmi, L., Liotta, F., Lazzeri, E., Francalanci, M., Angeli, R., Mazzinghi, B., Santarlasci, V., Manetti, R., Vanini, V., Romagnani, P., et al. (2003). Human CD8+CD25+ thymocytes share phenotypic and functional features with CD4+CD25+ regulatory thymocytes. *Blood* 102, 4107-4114.

Coudry, R.A., Meireles, S.I., Stoyanova, R., Cooper, H.S., Carpino, A., Wang, X., Engstrom, P.F., and Clapper, M.L. (2007). Successful application of microarray technology to microdissected formalin-fixed, paraffin-embedded tissue. *J Mol Diagn* 9, 70-79.

Coyle, V.M., and Johnston, P.G. (2010). Genomic markers for decision making: what is preventing us from using markers? *Nat Rev Clin Oncol* 7, 90-97.

Curiel, T.J., Coukos, G., Zou, L., Alvarez, X., Cheng, P., Mottram, P., Evdemon-Hogan, M., Conejo-Garcia, J.R., Zhang, L., Burow, M., et al. (2004). Specific recruitment of regulatory T cells in ovarian carcinoma fosters immune privilege and predicts reduced survival. *Nat Med* 10, 942-949.

D'Sa-Eipper, C., Subramanian, T., and Chinnadurai, G. (1996). bfl-1, a bcl-2 homologue, suppresses p53-induced apoptosis and exhibits potent cooperative transforming activity. *Cancer Res* 56, 3879-3882.

Daftary D, M.P., Bhonsle R, Gupta P, Mehta F, Pindborg JJ. (1991). Risk markers for oral disease, Vol 2 (Cambridge, Cambridge University Press).

Dainty, L.A., Risinger, J.I., Morrison, C., Chandramouli, G.V., Bidus, M.A., Zahn, C., Rose, G.S., Fowler, J., Berchuck, A., and Maxwell, G.L. (2007). Overexpression of folate binding protein and mesothelin are associated with uterine serous carcinoma. *Gynecol Oncol* 105, 563-570.

Danaei, G., Vander Hoorn, S., Lopez, A.D., Murray, C.J., and Ezzati, M. (2005). Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors. *Lancet* 366, 1784-1793.

de Araujo, R.F., Jr., Barboza, C.A., Clebis, N.K., de Moura, S.A., and Lopes Costa Ade, L. (2008). Prognostic significance of the anatomical location and TNM clinical classification in oral squamous cell carcinoma. *Med Oral Patol Oral Cir Bucal* 13, E344-347.

de Boer, O.J., van der Loos, C.M., Teeling, P., van der Wal, A.C., and Teunissen, M.B. (2007). Immunohistochemical analysis of regulatory T cell markers FOXP3 and GITR on CD4+CD25+ T cells in normal skin and inflammatory dermatoses. *J Histochem Cytochem* 55, 891-898.

de Bruin, E.C., van de Pas, S., Lips, E.H., van Eijk, R., van der Zee, M.M., Lombaerts, M., van Wezel, T., Marijnen, C.A., van Krieken, J.H., Medema, J.P., et al. (2005). Macrodissection versus microdissection of rectal carcinoma: minor influence of stroma cells to tumor cell gene expression profiles. *BMC Genomics* 6, 142.

Dhanasekaran, S.M., Barrette, T.R., Ghosh, D., Shah, R., Varambally, S., Kurachi, K., Pienta, K.J., Rubin, M.A., and Chinnaiyan, A.M. (2001). Delineation of prognostic biomarkers in prostate cancer. *Nature* 412, 822-826.

Diatchenko, L., Lau, Y.F., Campbell, A.P., Chenchik, A., Moqadam, F., Huang, B., Lukyanov, S., Lukyanov, K., Gurskaya, N., Sverdlov, E.D., et al. (1996). Suppression subtractive hybridization: a method for generating differentially regulated or tissue-specific cDNA probes and libraries. *Proc Natl Acad Sci U S A* 93, 6025-6030.

Edefonti, V., Bravi, F., La Vecchia, C., Randi, G., Ferraroni, M., Garavello, W., Franceschi, S., Talamini, R., Boffetta, P., and Decarli, A. (2010). Nutrient-based dietary patterns and the risk of oral and pharyngeal cancer. *Oral Oncol* 46, 343-348.

- Edgar, R., and Lash, A. (2002). The Gene Expression Omnibus (GEO): A gene Expression and Hybridization Repository. In THE NCBI Handbook, O.J. McEntyre J., ed. (Bethesda, USA, National Center for Biotechnology Information).
- Egeblad, M., and Werb, Z. (2002). New functions for the matrix metalloproteinases in cancer progression. *Nat Rev Cancer* 2, 161-174.
- Elkahloun, A.G., Gaudet, J., Robinson, G.S., and Sgroi, D.C. (2002). In situ gene expression analysis of cancer using laser capture microdissection, microarrays and real time quantitative PCR. *Cancer Biol Ther* 1, 354-358.
- Elnakat, H., and Ratnam, M. (2004). Distribution, functionality and gene regulation of folate receptor isoforms: implications in targeted therapy. *Adv Drug Deliv Rev* 56, 1067-1084.
- Elwood, P.C., Deutsch, J.C., and Kolhouse, J.F. (1991). The conversion of the human membrane-associated folate binding protein (folate receptor) to the soluble folate binding protein by a membrane-associated metalloprotease. *J Biol Chem* 266, 2346-2353.
- Engelman, J.A., Chu, C., Lin, A., Jo, H., Ikezu, T., Okamoto, T., Kohtz, D.S., and Lisanti, M.P. (1998). Caveolin-mediated regulation of signaling along the p42/44 MAP kinase cascade in vivo. A role for the caveolin-scaffolding domain. *FEBS Lett* 428, 205-211.
- Engelman, J.A., Wykoff, C.C., Yasuhara, S., Song, K.S., Okamoto, T., and Lisanti, M.P. (1997). Recombinant expression of caveolin-1 in oncogenically transformed cells abrogates anchorage-independent growth. *J Biol Chem* 272, 16374-16381.
- Erdman, S.E., Sohn, J.J., Rao, V.P., Nambiar, P.R., Ge, Z., Fox, J.G., and Schauer, D.B. (2005). CD4+CD25+ regulatory lymphocytes induce regression of intestinal tumors in ApcMin/+ mice. *Cancer Res* 65, 3998-4004.
- Eriksen, J.G., Steiniche, T., Sogaard, H., and Overgaard, J. (2004). Expression of integrins and E-cadherin in squamous cell carcinomas of the head and neck. *Apmis* 112, 560-568.
- Estilo, C.L., P, O.c., Talbot, S., Socci, N.D., Carlson, D.L., Ghossein, R., Williams, T., Yonekawa, Y., Ramanathan, Y., Boyle, J.O., et al. (2009). Oral tongue cancer gene expression profiling: Identification of novel potential prognosticators by oligonucleotide microarray analysis. *BMC Cancer* 9, 11.
- Farragher, S.M., Tanney, A., Kennedy, R.D., and Paul Harkin, D. (2008). RNA expression analysis from formalin fixed paraffin embedded tissues. *Histochem Cell Biol* 130, 435-445.
- Fontenot, J.D., Gavin, M.A., and Rudensky, A.Y. (2003). Foxp3 programs the development and function of CD4+CD25+ regulatory T cells. *Nat Immunol* 4, 330-336.
- Foulkes, W.D., Brunet, J.S., Sieh, W., Black, M.J., Shenouda, G., and Narod, S.A. (1996). Familial risks of squamous cell carcinoma of the head and neck: retrospective case-control study. *BMJ* 313, 716-721.

Freshney, R.I., ed. (1987). *Culture of animals cell - a manual of basic technique* 2nd edn (New York, Wiley-Liss Inc).

Funk, G.F., Karnell, L.H., Robinson, R.A., Zhen, W.K., Trask, D.K., and Hoffman, H.T. (2002). Presentation, treatment, and outcome of oral cavity cancer: a National Cancer Data Base report. *Head Neck* 24, 165-180.

Futakuchi, M., Nannuru, K.C., Varney, M.L., Sadanandam, A., Nakao, K., Asai, K., Shirai, T., Sato, S.Y., and Singh, R.K. (2009). Transforming growth factor-beta signaling at the tumor-bone interface promotes mammary tumor growth and osteoclast activation. *Cancer Sci* 100, 71-81.

Gaggioli, C., Hooper, S., Hidalgo-Carcedo, C., Grosse, R., Marshall, J.F., Harrington, K., and Sahai, E. (2007). Fibroblast-led collective invasion of carcinoma cells with differing roles for RhoGTPases in leading and following cells. *Nat Cell Biol* 9, 1392-1400.

Geback, T., Schulz, M.M., Koumoutsakos, P., and Detmar, M. (2009). TScratch: a novel and simple software tool for automated analysis of monolayer wound healing assays. *Biotechniques* 46, 265-274.

George, A., Varghese, C., Sankaranarayanan, R., and Nair, M.K. (1994). Use of tobacco and alcoholic beverages by children and teenagers in a low-income coastal community in south India. *J Cancer Educ* 9, 111-113.

Gillison, M.L. (2007). Current topics in the epidemiology of oral cavity and oropharyngeal cancers. *Head Neck* 29, 779-792.

Gillison, M.L., D'Souza, G., Westra, W., Sugar, E., Xiao, W., Begum, S., and Viscidi, R. (2008). Distinct risk factor profiles for human papillomavirus type 16-positive and human papillomavirus type 16-negative head and neck cancers. *J Natl Cancer Inst* 100, 407-420.

Ginos, M.A., Page, G.P., Michalowicz, B.S., Patel, K.J., Volker, S.E., Pambuccian, S.E., Ondrey, F.G., Adams, G.L., and Gaffney, P.M. (2004). Identification of a gene expression signature associated with recurrent disease in squamous cell carcinoma of the head and neck. *Cancer Res* 64, 55-63.

Giovannucci, E., Rimm, E.B., Ascherio, A., Stampfer, M.J., Colditz, G.A., and Willett, W.C. (1995). Alcohol, low-methionine--low-folate diets, and risk of colon cancer in men. *J Natl Cancer Inst* 87, 265-273.

Glass, D.A., 2nd, Bialek, P., Ahn, J.D., Starbuck, M., Patel, M.S., Clevers, H., Taketo, M.M., Long, F., McMahon, A.P., Lang, R.A., et al. (2005). Canonical Wnt signaling in differentiated osteoblasts controls osteoclast differentiation. *Dev Cell* 8, 751-764.

Golub, T.R., Slonim, D.K., Tamayo, P., Huard, C., Gaasenbeek, M., Mesirov, J.P., Coller, H., Loh, M.L., Downing, J.R., Caligiuri, M.A., et al. (1999). Molecular classification of cancer: class discovery and class prediction by gene expression monitoring. *Science* 286, 531-537.

Grossman, W.J., Verbsky, J.W., Barchet, W., Colonna, M., Atkinson, J.P., and Ley, T.J. (2004). Human T regulatory cells can use the perforin pathway to cause autologous target cell death. *Immunity* 21, 589-601.

- Guha, N., Boffetta, P., Wunsch Filho, V., Eluf Neto, J., Shangina, O., Zaridze, D., Curado, M.P., Koifman, S., Matos, E., Menezes, A., et al. (2007). Oral health and risk of squamous cell carcinoma of the head and neck and esophagus: results of two multicentric case-control studies. *Am J Epidemiol* 166, 1159-1173.
- Guise, T.A., and Mundy, G.R. (1998). Cancer and bone. *Endocr Rev* 19, 18-54.
- Gupta, P.C., and Ray, C.S. (2004). Epidemiology of betel quid usage. *Ann Acad Med Singapore* 33, 31-36.
- Gupta, P.C., and Warnakulasuriya, S. (2002). Global epidemiology of areca nut usage. *Addict Biol* 7, 77-83.
- Hall, C.L., Kang, S., MacDougald, O.A., and Keller, E.T. (2006). Role of Wnts in prostate cancer bone metastases. *J Cell Biochem* 97, 661-672.
- Halsted, C.H., Villanueva, J.A., Devlin, A.M., and Chandler, C.J. (2002). Metabolic interactions of alcohol and folate. *J Nutr* 132, 2367S-2372S.
- Hamid, S., Lim, K.P., Zain, R.B., Ismail, S.M., Lau, S.H., Mustafa, W.M., Abraham, M.T., Nam, N.A., Teo, S.H., and Cheong, S.C. (2007). Establishment and characterization of Asian oral cancer cell lines as in vitro models to study a disease prevalent in Asia. *Int J Mol Med* 19, 453-460.
- Hanahan, D., and Weinberg, R.A. (2011). Hallmarks of cancer: the next generation. *Cell* 144, 646-674.
- Haniza, M., Maimunah, A., Rusilawati, J., Latifah, S., and A., S. (1999). National Health and Morbidity Survey 1996: Smoking among adults. Public Health Institute, Ministry of Health Malaysia 15, 23.
- Haque, T., Faury, D., Albrecht, S., Lopez-Aguilar, E., Hauser, P., Garami, M., Hanzely, Z., Bogner, L., Del Maestro, R.F., Atkinson, J., et al. (2007). Gene expression profiling from formalin-fixed paraffin-embedded tumors of pediatric glioblastoma. *Clin Cancer Res* 13, 6284-6292.
- Haudenschild, C.C., and Schwartz, S.M. (1979). Endothelial regeneration. II. Restitution of endothelial continuity. *Lab Invest* 41, 407-418.
- He, Q.Y., Chen, J., Kung, H.F., Yuen, A.P., and Chiu, J.F. (2004). Identification of tumor-associated proteins in oral tongue squamous cell carcinoma by proteomics. *Proteomics* 4, 271-278.
- Hecht, S.S. (1999). Tobacco smoke carcinogens and lung cancer. *J Natl Cancer Inst* 91, 1194-1210.
- Hedenfalk, I., Duggan, D., Chen, Y., Radmacher, M., Bittner, M., Simon, R., Meltzer, P., Gusterson, B., Esteller, M., Kallioniemi, O.P., et al. (2001). Gene-expression profiles in hereditary breast cancer. *N Engl J Med* 344, 539-548.
- Henderson, B.E., and Aiken, G.H. (1979). Cancer in Papua New Guinea. *Natl Cancer Inst Monogr*, 67-72.
- Hirayama, T. (1966). An epidemiological study of oral and pharyngeal cancer in Central and South-East Asia. *Bull World Health Organ* 34, 41-69.

Ho, T., Wei, Q., and Sturgis, E.M. (2007). Epidemiology of carcinogen metabolism genes and risk of squamous cell carcinoma of the head and neck. *Head Neck* 29, 682-699.

Horlings, H.M., van Laar, R.K., Kerst, J.M., Helgason, H.H., Wesseling, J., van der Hoeven, J.J., Warmoes, M.O., Floore, A., Witteveen, A., Lahti-Domenici, J., et al. (2008). Gene expression profiling to identify the histogenetic origin of metastatic adenocarcinomas of unknown primary. *J Clin Oncol* 26, 4435-4441.

Hoshida, Y., Villanueva, A., Kobayashi, M., Peix, J., Chiang, D.Y., Camargo, A., Gupta, S., Moore, J., Wrobel, M.J., Lerner, J., et al. (2008). Gene expression in fixed tissues and outcome in hepatocellular carcinoma. *N Engl J Med* 359, 1995-2004.

Huang da, W., Sherman, B.T., and Lempicki, R.A. (2009). Systematic and integrative analysis of large gene lists using DAVID bioinformatics resources. *Nat Protoc* 4, 44-57.

Huang, Q., Yu, G.P., McCormick, S.A., Mo, J., Datta, B., Mahimkar, M., Lazarus, P., Schaffer, A.A., Desper, R., and Schantz, S.P. (2002). Genetic differences detected by comparative genomic hybridization in head and neck squamous cell carcinomas from different tumor sites: construction of oncogenetic trees for tumor progression. *Genes Chromosomes Cancer* 34, 224-233.

Hung, H.C., Chuang, J., Chien, Y.C., Chern, H.D., Chiang, C.P., Kuo, Y.S., Hildesheim, A., and Chen, C.J. (1997). Genetic polymorphisms of CYP2E1, GSTM1, and GSTT1; environmental factors and risk of oral cancer. *Cancer Epidemiol Biomarkers Prev* 6, 901-905.

Hwang, D., Alevizos, I., Schmitt, W.A., Misra, J., Ohyama, H., Todd, R., Mahadevappa, M., Warrington, J.A., Stephanopoulos, G., and Wong, D.T. (2003). Genomic dissection for characterization of cancerous oral epithelium tissues using transcription profiling. *Oral Oncol* 39, 259-268.

IARC (1986). Tobacco Smoking. International Agency for Research in Cancer (IARC) Monograph on the evaluation of carcinogenic risks of chemical to humans, Vol 38 (Lyon, France, IARC).

IARC (1989). Alcohol Drinking. International Agency for Research in Cancer (IARC) Monograph on the evaluation of carcinogenics risks of chemicals to humans, Vol 44 (Lyon, France, IARC).

IARC (2004). Betel-quid and Areca-nut Chewing and Some Areca-nut-derived Nitrosamines. International Agency for Research in Cancer (IARC) Monograph on the evaluation of carcinogenics risks of chemicals to humans., Vol 85 (Lyon, France, IARC).

Ishikuro, M., Sakamoto, K., Kayamori, K., Akashi, T., Kanda, H., Izumo, T., and Yamaguchi, A. (2008). Significance of the fibrous stroma in bone invasion by human gingival squamous cell carcinomas. *Bone* 43, 621-627.

Iype, E.M., Pandey, M., Mathew, A., Thomas, G., Sebastian, P., and Nair, M.K. (2001). Oral cancer among patients under the age of 35 years. *J Postgrad Med* 47, 171-176.

Jemal, A., Bray, F., Center, M.M., Ferlay, J., Ward, E., and Forman, D. (2011). Global cancer statistics. *CA Cancer J Clin* 61, 69-90.

Jones, A.S., England, J., Hamilton, J., Helliwell, T.R., Field, J., Gerlinger, I., and Karkanevatos, T. (1997). Mandibular invasion in patients with oral and oropharyngeal squamous carcinoma. *Clin Otolaryngol Allied Sci* 22, 239-245.

Jordan, R.C., Macabeo-Ong, M., Shiboski, C.H., Dekker, N., Ginzinger, D.G., Wong, D.T., and Schmidt, B.L. (2004). Overexpression of matrix metalloproteinase-1 and -9 mRNA is associated with progression of oral dysplasia to cancer. *Clin Cancer Res* 10, 6460-6465.

Jovanovic, A., Schulten, E.A., Kostense, P.J., Snow, G.B., and van der Waal, I. (1993). Tobacco and alcohol related to the anatomical site of oral squamous cell carcinoma. *J Oral Pathol Med* 22, 459-462.

Kalli, K.R., Oberg, A.L., Keeney, G.L., Christianson, T.J., Low, P.S., Knutson, K.L., and Hartmann, L.C. (2008). Folate receptor alpha as a tumor target in epithelial ovarian cancer. *Gynecol Oncol* 108, 619-626.

Kane, M.A., Elwood, P.C., Portillo, R.M., Antony, A.C., Najfeld, V., Finley, A., Waxman, S., and Kolhouse, J.F. (1988). Influence on immunoreactive folate-binding proteins of extracellular folate concentration in cultured human cells. *J Clin Invest* 81, 1398-1406.

Karsten, S.L., Van Deerlin, V.M., Sabatti, C., Gill, L.H., and Geschwind, D.H. (2002). An evaluation of tyramide signal amplification and archived fixed and frozen tissue in microarray gene expression analysis. *Nucleic Acids Res* 30, E4.

Kelemen, L.E. (2006). The role of folate receptor alpha in cancer development, progression and treatment: cause, consequence or innocent bystander? *Int J Cancer* 119, 243-250.

Kim, Y., Shintani, S., Kohno, Y., Zhang, R., and Wong, D.T. (2004). Cyclin G2 dysregulation in human oral cancer. *Cancer Res* 64, 8980-8986.

Koleske, A.J., Baltimore, D., and Lisanti, M.P. (1995). Reduction of caveolin and caveolae in oncogenically transformed cells. *Proc Natl Acad Sci U S A* 92, 1381-1385.

Kopp, H.G., Ramos, C.A., and Rafii, S. (2006). Contribution of endothelial progenitors and proangiogenic hematopoietic cells to vascularization of tumor and ischemic tissue. *Curr Opin Hematol* 13, 175-181.

Kuo, W.P. (2003). Overview of bioinformatics and its application to oral genomics. *Adv Dent Res* 17, 89-94.

Kurokawa, A., Nagata, M., Kitamura, N., Noman, A.A., Ohnishi, M., Ohyama, T., Kobayashi, T., Shingaki, S., and Takagi, R. (2008). Diagnostic value of integrin alpha3, beta4, and beta5 gene expression levels for the clinical outcome of tongue squamous cell carcinoma. *Cancer* 112, 1272-1281.

La Vecchia, C., Lucchini, F., Negri, E., Boyle, P., Maisonneuve, P., and Levi, F. (1992). Trends of cancer mortality in Europe, 1955-1989: I, Digestive sites. *Eur J Cancer* 28, 132-235.

La Vecchia, C., Tavani, A., Franceschi, S., Levi, F., Corrao, G., and Negri, E. (1997). Epidemiology and prevention of oral cancer. *Oral Oncol* 33, 302-312.

- Lampugnani, M.G. (1999). Cell migration into a wounded area in vitro. *Methods Mol Biol* 96, 177-182.
- Lassmann, S., Kreutz, C., Schoepflin, A., Hopt, U., Timmer, J., and Werner, M. (2009). A novel approach for reliable microarray analysis of microdissected tumor cells from formalin-fixed and paraffin-embedded colorectal cancer resection specimens. *J Mol Med* 87, 211-224.
- Leamon, C.P., and Low, P.S. (2001). Folate-mediated targeting: from diagnostics to drug and gene delivery. *Drug Discov Today* 6, 44-51.
- Lechpammer, M., and Sgroi, D.C. (2004). Laser Capture Microdissection: a rising tool in genetic profiling of cancer. *Expert Rev Mol Diagn* 4, 429-430.
- Leethanakul, C., Patel, V., Gillespie, J., Shillitoe, E., Kellman, R.M., Ensley, J.F., Limwongse, V., Emmert-Buck, M.R., Krizman, D.B., and Gutkind, J.S. (2000). Gene expression profiles in squamous cell carcinomas of the oral cavity: use of laser capture microdissection for the construction and analysis of stage-specific cDNA libraries. *Oral Oncol* 36, 474-483.
- Lewin, F., Norell, S.E., Johansson, H., Gustavsson, P., Wennerberg, J., Biorklund, A., and Rutqvist, L.E. (1998). Smoking tobacco, oral snuff, and alcohol in the etiology of squamous cell carcinoma of the head and neck: a population-based case-referent study in Sweden. *Cancer* 82, 1367-1375.
- Liang, C.C., Park, A.Y., and Guan, J.L. (2007). In vitro scratch assay: a convenient and inexpensive method for analysis of cell migration in vitro. *Nat Protoc* 2, 329-333.
- Liang, P., and Pardee, A.B. (1992). Differential display of eukaryotic messenger RNA by means of the polymerase chain reaction. *Science* 257, 967-971.
- Lilie, R. (1965). *Histopathologic Technic and Practical Histochemistry*, 3rd edn (New York, McGraw-Hill Book Co.).
- Lim, G., Rampal, S., and Halimah, Y. (2008). Cancer Incidence in Peninsular Malaysia, 2003 - 2005. National Cancer Registry.
- Loddenkemper, C., Schernus, M., Noutsias, M., Stein, H., Thiel, E., and Nagorsen, D. (2006). In situ analysis of FOXP3+ regulatory T cells in human colorectal cancer. *J Transl Med* 4, 52.
- Lumukana, R., and King, T. (2003). Smoking and chewing habits of oral cancer patients in the Solomon Islands. *Pac Health Dialog* 10, 41-44.
- Mackay J, E.M. (2002). *The Tobacco atlas* (Geneva, WHO).
- Malhotra, P.S., Malekzali, A., Bonner, R.F., Juhn, S., Van Waes, C., and Chen, Z. (2004). Assessment of gene expression in head and neck carcinoma using laser capture microdissection and real-time reverse transcription polymerase chain reaction. *Laryngoscope* 114, 2123-2128.
- Maloy, K.J., Salaun, L., Cahill, R., Dougan, G., Saunders, N.J., and Powrie, F. (2003). CD4+CD25+ T(R) cells suppress innate immune pathology through cytokine-dependent mechanisms. *J Exp Med* 197, 111-119.

- Marsden, A.T. (1960). Betel cancer in Malaya. *Med J Malaya* 14, 162-165.
- Mashberg, A., Boffetta, P., Winkelman, R., and Garfinkel, L. (1993). Tobacco smoking, alcohol drinking, and cancer of the oral cavity and oropharynx among U.S. veterans. *Cancer* 72, 1369-1375.
- Masuda, N., Ohnishi, T., Kawamoto, S., Monden, M., and Okubo, K. (1999). Analysis of chemical modification of RNA from formalin-fixed samples and optimization of molecular biology applications for such samples. *Nucleic Acids Res* 27, 4436-4443.
- McCullough, M.J., and Farah, C.S. (2008). The role of alcohol in oral carcinogenesis with particular reference to alcohol-containing mouthwashes. *Aust Dent J* 53, 302-305.
- McMahon, S., and Chen, A.Y. (2003). Head and neck cancer. *Cancer Metastasis Rev* 22, 21-24.
- Mendez, E., Cheng, C., Farwell, D.G., Ricks, S., Agoff, S.N., Futran, N.D., Weymuller, E.A., Jr., Maronian, N.C., Zhao, L.P., and Chen, C. (2002). Transcriptional expression profiles of oral squamous cell carcinomas. *Cancer* 95, 1482-1494.
- Mendez, E., Houck, J.R., Doody, D.R., Fan, W., Lohavanichbutr, P., Rue, T.C., Yueh, B., Futran, N.D., Upton, M.P., Farwell, D.G., et al. (2009). A genetic expression profile associated with oral cancer identifies a group of patients at high risk of poor survival. *Clin Cancer Res* 15, 1353-1361.
- Mercurio, A.M., and Rabinovitz, I. (2001). Towards a mechanistic understanding of tumor invasion--lessons from the alpha6beta 4 integrin. *Semin Cancer Biol* 11, 129-141.
- Meurman, J.H. (2010). Infectious and dietary risk factors of oral cancer. *Oral Oncol* 46, 411-413.
- Miotti, S., Bagnoli, M., Tomassetti, A., Colnaghi, M.I., and Canevari, S. (2000). Interaction of folate receptor with signaling molecules lyn and G(alpha)(i-3) in detergent-resistant complexes from the ovary carcinoma cell line IGROV1. *J Cell Sci* 113 Pt 2, 349-357.
- Miyazaki, H., Patel, V., Wang, H., Ensley, J.F., Gutkind, J.S., and Yeudall, W.A. (2006). Growth factor-sensitive molecular targets identified in primary and metastatic head and neck squamous cell carcinoma using microarray analysis. *Oral Oncol* 42, 240-256.
- Morales, A.A., Olsson, A., Celsing, F., Osterborg, A., Jondal, M., and Osorio, L.M. (2005). High expression of bfl-1 contributes to the apoptosis resistant phenotype in B-cell chronic lymphocytic leukemia. *Int J Cancer* 113, 730-737.
- Musto, D.F. (1999). The mystery of addiction. *Lancet* 354 Suppl, SIV1.
- Nagata, M., Fujita, H., Ida, H., Hoshina, H., Inoue, T., Seki, Y., Ohnishi, M., Ohyama, T., Shingaki, S., Kaji, M., et al. (2003). Identification of potential biomarkers of lymph node metastasis in oral squamous cell carcinoma by cDNA microarray analysis. *Int J Cancer* 106, 683-689.
- Nemes, J.A., Redl, P., Boda, R., Kiss, C., and Marton, I.J. (2008). Oral cancer report from Northeastern Hungary. *Pathol Oncol Res* 14, 85-92.

- Ng, K.H., Siar, C.H., Ramanathan, K., and Murugasu, P. (1986). A study on the prevalence of oral habits in 100 cases of squamous cell carcinoma in Malaysia. *Ann Dent* 45, 7-10.
- Nizar, S., Copier, J., Meyer, B., Bodman-Smith, M., Galustian, C., Kumar, D., and Dalglish, A. (2009). T-regulatory cell modulation: the future of cancer immunotherapy? *Br J Cancer* 100, 1697-1703.
- Norton, S.A. (1998). Betel: consumption and consequences. *J Am Acad Dermatol* 38, 81-88.
- Nystrom, M.L., Thomas, G.J., Stone, M., Mackenzie, I.C., Hart, I.R., and Marshall, J.F. (2005). Development of a quantitative method to analyse tumour cell invasion in organotypic culture. *J Pathol* 205, 468-475.
- O'Brien, C.J., Adams, J.R., McNeil, E.B., Taylor, P., Laniewski, P., Clifford, A., and Parker, G.D. (2003). Influence of bone invasion and extent of mandibular resection on local control of cancers of the oral cavity and oropharynx. *Int J Oral Maxillofac Surg* 32, 492-497.
- O'Donnell, R.K., Kupferman, M., Wei, S.J., Singhal, S., Weber, R., O'Malley, B., Cheng, Y., Putt, M., Feldman, M., Ziober, B., et al. (2005). Gene expression signature predicts lymphatic metastasis in squamous cell carcinoma of the oral cavity. *Oncogene* 24, 1244-1251.
- O-charoenrat, P., Pillai, G., Patel, S., Fisher, C., Archer, D., Eccles, S., and Rhys-Evans, P. (2003). Tumour thickness predicts cervical nodal metastases and survival in early oral tongue cancer. *Oral Oncol* 39, 386-390.
- Oakley, E., Demaine, L., and Warnakulasuriya, S. (2005). Areca (betel) nut chewing habit among high-school children in the Commonwealth of the Northern Mariana Islands (Micronesia). *Bull World Health Organ* 83, 656-660.
- Ogden, G.R. (2005). Alcohol and oral cancer. *Alcohol* 35, 169-173.
- Ogura, I., Kurabayashi, T., Sasaki, T., Amagasa, T., Okada, N., and Kaneda, T. (2003). Maxillary bone invasion by gingival carcinoma as an indicator of cervical metastasis. *Dentomaxillofac Radiol* 32, 291-294.
- Oliver, A.J., Helfrick, J.F., and Gard, D. (1996). Primary oral squamous cell carcinoma: a review of 92 cases. *J Oral Maxillofac Surg* 54, 949-954; discussion 955.
- Paik, S., Kim, C.Y., Song, Y.K., and Kim, W.S. (2005). Technology insight: Application of molecular techniques to formalin-fixed paraffin-embedded tissues from breast cancer. *Nat Clin Pract Oncol* 2, 246-254.
- Paik, S., Shak, S., Tang, G., Kim, C., Baker, J., Cronin, M., Baehner, F.L., Walker, M.G., Watson, D., Park, T., et al. (2004). A multigene assay to predict recurrence of tamoxifen-treated, node-negative breast cancer. *N Engl J Med* 351, 2817-2826.
- Paterson, I.C., Eveson, J.W., and Prime, S.S. (1996). Molecular changes in oral cancer may reflect aetiology and ethnic origin. *Eur J Cancer B Oral Oncol* 32B, 150-153.

- Penland, S.K., Keku, T.O., Torrice, C., He, X., Krishnamurthy, J., Hoadley, K.A., Woosley, J.T., Thomas, N.E., Perou, C.M., Sandler, R.S., et al. (2007). RNA expression analysis of formalin-fixed paraffin-embedded tumors. *Lab Invest* 87, 383-391.
- Perou, C.M., Sorlie, T., Eisen, M.B., van de Rijn, M., Jeffrey, S.S., Rees, C.A., Pollack, J.R., Ross, D.T., Johnsen, H., Akslén, L.A., et al. (2000). Molecular portraits of human breast tumours. *Nature* 406, 747-752.
- Petti, S. (2009). Lifestyle risk factors for oral cancer. *Oral Oncol* 45, 340-350.
- Pinholt, E.M., Rindum, J., and Pindborg, J.J. (1997). Oral cancer: a retrospective study of 100 Danish cases. *Br J Oral Maxillofac Surg* 35, 77-80.
- Pollard, J.W. (2004). Tumour-educated macrophages promote tumour progression and metastasis. *Nat Rev Cancer* 4, 71-78.
- Pomeroy, S.L., Tamayo, P., Gaasenbeek, M., Sturla, L.M., Angelo, M., McLaughlin, M.E., Kim, J.Y., Goumnerova, L.C., Black, P.M., Lau, C., et al. (2002). Prediction of central nervous system embryonal tumour outcome based on gene expression. *Nature* 415, 436-442.
- Prabhu, N.T., Warnakulasuriya, K., Gelbier, S., and Robinson, P.G. (2001). Betel quid chewing among Bangladeshi adolescents living in east London. *Int J Paediatr Dent* 11, 18-24.
- Prabhu, S. (2008). *Oral Diseases and Disorders Differential Diagnosis* (New Delhi, Jaypee Brothers Publishers).
- Prince, M.E., Ubell, M.L., Castro, J., Ogawa, H., Ogawa, T., Narayan, A., Paulino, A., Cole, A., Wolf, G.T., Rubin, M.A., et al. (2007). Tissue-preserving approach to extracting DNA from paraffin-embedded specimens using tissue microarray technology. *Head Neck* 29, 465-471.
- Quintana, A., Raczka, E., Piehler, L., Lee, I., Myc, A., Majoros, I., Patri, A.K., Thomas, T., Mule, J., and Baker, J.R., Jr. (2002). Design and function of a dendrimer-based therapeutic nanodevice targeted to tumor cells through the folate receptor. *Pharm Res* 19, 1310-1316.
- Ramanathan, K., Canaganayagam, A., Tan, C., and A., R. (1973). Frequency of oral precancerous conditions in 407 Malaysian- with correlation to oral habits. *The Medical Journal of Malaysia* 27, 173-181.
- Ramaswamy, S., and Golub, T.R. (2002). DNA microarrays in clinical oncology. *J Clin Oncol* 20, 1932-1941.
- Rao, S.K., Pavicevic, Z., Du, Z., Kim, J.G., Fan, M., Jiao, Y., Rosebush, M., Samant, S., Gu, W., Pfeffer, L.M., et al. (2010). Pro-inflammatory genes as biomarkers and therapeutic targets in oral squamous cell carcinoma. *J Biol Chem* 285, 32512-32521.
- Rautava, J., Luukkaa, M., Heikinheimo, K., Alin, J., Grenman, R., and Happonen, R.P. (2007). Squamous cell carcinomas arising from different types of oral epithelia differ in their tumor and patient characteristics and survival. *Oral Oncol* 43, 911-919.

- Ravo, M., Mutarelli, M., Ferraro, L., Grober, O.M., Paris, O., Tarallo, R., Vigilante, A., Cimino, D., De Bortoli, M., Nola, E., et al. (2008). Quantitative expression profiling of highly degraded RNA from formalin-fixed, paraffin-embedded breast tumor biopsies by oligonucleotide microarrays. *Lab Invest* 88, 430-440.
- Reinholz, M.M., Eckel-Passow, J.E., Anderson, S.K., Asmann, Y.W., Zschunke, M.A., Oberg, A.L., McCullough, A.E., Dueck, A.C., Chen, B., April, C.S., et al. (2010). Expression profiling of formalin-fixed paraffin-embedded primary breast tumors using cancer-specific and whole genome gene panels on the DASL(R) platform. *BMC Med Genomics* 3, 60.
- Rentoft, M., Laurell, G., Coates, P.J., Sjostrom, B., and Nylander, K. (2009). Gene expression profiling of archival tongue squamous cell carcinomas provides sub-classification based on DNA repair genes. *Int J Oncol* 35, 1321-1330.
- Rhodes, D.R., Yu, J., Shanker, K., Deshpande, N., Varambally, R., Ghosh, D., Barrette, T., Pandey, A., and Chinnaiyan, A.M. (2004). ONCOMINE: a cancer microarray database and integrated data-mining platform. *Neoplasia* 6, 1-6.
- Rodrigues, V.C., Moss, S.M., and Tuomainen, H. (1998). Oral cancer in the UK: to screen or not to screen. *Oral Oncol* 34, 454-465.
- Roepman, P., Schuurman, A., Delahaye, L.J., Witteveen, A.T., Floore, A.N., and Glas, A.M. (2009). A gene expression profile for detection of sufficient tumour cells in breast tumour tissue: microarray diagnosis eligibility. *BMC Med Genomics* 2, 52.
- Russo, G., Zegar, C., and Giordano, A. (2003). Advantages and limitations of microarray technology in human cancer. *Oncogene* 22, 6497-6507.
- Rusthoven, K., Ballonoff, A., Raben, D., and Chen, C. (2008). Poor prognosis in patients with stage I and II oral tongue squamous cell carcinoma. *Cancer* 112, 345-351.
- Saba, N.F., Wang, X., Muller, S., Tighiouart, M., Cho, K., Nie, S., Chen, Z., and Shin, D.M. (2009). Examining expression of folate receptor in squamous cell carcinoma of the head and neck as a target for a novel nanotherapeutic drug. *Head Neck* 31, 475-481.
- Sakaguchi, S. (2000). Regulatory T cells: key controllers of immunologic self-tolerance. *Cell* 101, 455-458.
- Salama, P., Phillips, M., Grieu, F., Morris, M., Zeps, N., Joseph, D., Platell, C., and Iacopetta, B. (2009). Tumor-infiltrating FOXP3+ T regulatory cells show strong prognostic significance in colorectal cancer. *J Clin Oncol* 27, 186-192.
- Saleh, A., Zain, R.B., Hussaini, H., Ng, F., Tanavde, V., Hamid, S., Chow, A.T., Lim, G.S., Abraham, M.T., Teo, S.H., et al. (2010). Transcriptional profiling of oral squamous cell carcinoma using formalin-fixed paraffin-embedded samples. *Oral Oncol* 46, 379-386.
- Sathyan, K.M., Sailasree, R., Jayasurya, R., Lakshminarayanan, K., Abraham, T., Nalinakumari, K.R., Abraham, E.K., and Kannan, S. (2006). Carcinoma of tongue and the buccal mucosa represent different biological subentities of the oral carcinoma. *J Cancer Res Clin Oncol* 132, 601-609.

- Sato, S., Futakuchi, M., Ogawa, K., Asamoto, M., Nakao, K., Asai, K., and Shirai, T. (2008). Transforming growth factor beta derived from bone matrix promotes cell proliferation of prostate cancer and osteoclast activation-associated osteolysis in the bone microenvironment. *Cancer Sci* 99, 316-323.
- Schobesberger, M., Baltzer, A., Oberli, A., Kappeler, A., Gugger, M., Burger, H., and Jaggi, R. (2008). Gene expression variation between distinct areas of breast cancer measured from paraffin-embedded tissue cores. *BMC Cancer* 8, 343.
- Schottelius, A.J., and Dinter, H. (2006). Cytokines, NF-kappaB, microenvironment, intestinal inflammation and cancer. *Cancer Treat Res* 130, 67-87.
- Schottenfeld, D., and Beebe-Dimmer, J. (2006). Alleviating the burden of cancer: a perspective on advances, challenges, and future directions. *Cancer Epidemiol Biomarkers Prev* 15, 2049-2055.
- Schubert, L.A., Jeffery, E., Zhang, Y., Ramsdell, F., and Ziegler, S.F. (2001). Scurfin (FOXP3) acts as a repressor of transcription and regulates T cell activation. *J Biol Chem* 276, 37672-37679.
- Schwartz, J.L., Gu, X., Kittles, R.A., Baptiste, A., and Shklar, G. (2000). Experimental oral carcinoma of the tongue and buccal mucosa: possible biologic markers linked to cancers at two anatomic sites. *Oral Oncol* 36, 225-235.
- Scully, C. (1996). New aspects of oral viral diseases. *Curr Top Pathol* 90, 29-96.
- Scully, C., de Almeida, O.P., Bagan, J., Dios, P.D., and Taylor, A.M. (2010). *Oral Medicine and Pathology at a Glance* (Iowa, Wiley-Blackwell).
- Scully, C., Field, J.K., and Tanzawa, H. (2000). Genetic aberrations in oral or head and neck squamous cell carcinoma (SCCHN): 1. Carcinogen metabolism, DNA repair and cell cycle control. *Oral Oncol* 36, 256-263.
- Severino, P., Alvares, A.M., Michaluart, P., Jr., Okamoto, O.K., Nunes, F.D., Moreira-Filho, C.A., and Tajara, E.H. (2008). Global gene expression profiling of oral cavity cancers suggests molecular heterogeneity within anatomic subsites. *BMC Res Notes* 1, 113.
- Shah, S.M., Merchant, A.T., Luby, S.P., and Chotani, R.A. (2002). Addicted schoolchildren: prevalence and characteristics of areca nut chewers among primary school children in Karachi, Pakistan. *J Paediatr Child Health* 38, 507-510.
- Sherlock, G. (2001). Analysis of large-scale gene expression data. *Brief Bioinform* 2, 350-362.
- Shi, L., Reid, L.H., Jones, W.D., Shippy, R., Warrington, J.A., Baker, S.C., Collins, P.J., de Longueville, F., Kawasaki, E.S., Lee, K.Y., et al. (2006). The MicroArray Quality Control (MAQC) project shows inter- and intraplatform reproducibility of gene expression measurements. *Nat Biotechnol* 24, 1151-1161.
- Shipp, M.A., Ross, K.N., Tamayo, P., Weng, A.P., Kutok, J.L., Aguiar, R.C., Gaasenbeek, M., Angelo, M., Reich, M., Pinkus, G.S., et al. (2002). Diffuse large B-cell lymphoma outcome prediction by gene-expression profiling and supervised machine learning. *Nat Med* 8, 68-74.

- Siar, C., Ng, K., Mah, C., and Ling, C. (1990). Oral Squamous Cell Carcinoma in Peninsular Malaysia. *Asian Medical Journal* 33, 697-703.
- Silverman, S., Jr. (2001). Demographics and occurrence of oral and pharyngeal cancers. The outcomes, the trends, the challenge. *J Am Dent Assoc* 132 Suppl, 7S-11S.
- Smyth, M.J., Hayakawa, Y., Takeda, K., and Yagita, H. (2002). New aspects of natural-killer-cell surveillance and therapy of cancer. *Nat Rev Cancer* 2, 850-861.
- Sorlie, T., Perou, C.M., Tibshirani, R., Aas, T., Geisler, S., Johnsen, H., Hastie, T., Eisen, M.B., van de Rijn, M., Jeffrey, S.S., et al. (2001). Gene expression patterns of breast carcinomas distinguish tumor subclasses with clinical implications. *Proc Natl Acad Sci U S A* 98, 10869-10874.
- Southern, E., Mir, K., and Shchepinov, M. (1999). Molecular interactions on microarrays. *Nat Genet* 21, 5-9.
- Srinivasan, M., Sedmak, D., and Jewell, S. (2002). Effect of fixatives and tissue processing on the content and integrity of nucleic acids. *Am J Pathol* 161, 1961-1971.
- Srivastava, P.K., Kuffer, S., Brors, B., Shahi, P., Li, L., Kenzelmann, M., Gretz, N., and Grone, H.J. (2008). A cut-off based approach for gene expression analysis of formalin-fixed and paraffin-embedded tissue samples. *Genomics* 91, 522-529.
- Stahl, S., Meskin, L.H., and Brown, L.J. (2004). The American Dental Association's oral cancer campaign: the impact on consumers and dentists. *J Am Dent Assoc* 135, 1261-1267.
- Statistics Department, M. (2001). Population distribution and basic demographic characteristics. . In *Population and housing census 2000* (Kuala Lumpur, Statistics Department, Malaysia).
- Stein, R., Goldenberg, D.M., and Mattes, M.J. (1991). Normal tissue reactivity of four anti-tumor monoclonal antibodies of clinical interest. *Int J Cancer* 47, 163-169.
- Steinberg, S.E., Campbell, C.L., and Hillman, R.S. (1982). Effect of alcohol on tumor folate supply. *Biochem Pharmacol* 31, 1461-1463.
- Stewart, B.W., Kleihues, P., and International Agency for Research on Cancer. (2003). *World cancer report* (Lyon, IARC Press).
- Svedlund, J., Auren, M., Sundstrom, M., Dralle, H., Akerstrom, G., Bjorklund, P., and Westin, G. (2010). Aberrant WNT/beta-catenin signaling in parathyroid carcinoma. *Mol Cancer* 9, 294.
- Tan, B., Rosman, A., Ng, K., and Ahmad, N. (2000). Profile of betel quid chewers in six Malaysian estates. *Ann Dent University Malaya* 7, 1-5.
- Tanzer, M.L. (2006). Current concepts of extracellular matrix. *J Orthop Sci* 11, 326-331.
- Thomas, G.J., and Speight, P.M. (2001). Cell adhesion molecules and oral cancer. *Crit Rev Oral Biol Med* 12, 479-498.

- Todd, R., and Wong, D.T. (2002). DNA hybridization arrays for gene expression analysis of human oral cancer. *J Dent Res* 81, 89-97.
- Toffoli, G., Cernigoi, C., Russo, A., Gallo, A., Bagnoli, M., and Boiocchi, M. (1997). Overexpression of folate binding protein in ovarian cancers. *Int J Cancer* 74, 193-198.
- Toffoli, G., Russo, A., Gallo, A., Cernigoi, C., Miotti, S., Sorio, R., Tumolo, S., and Boiocchi, M. (1998). Expression of folate binding protein as a prognostic factor for response to platinum-containing chemotherapy and survival in human ovarian cancer. *Int J Cancer* 79, 121-126.
- Tomozawa, S., Tsuno, N.H., Sunami, E., Hatano, K., Kitayama, J., Osada, T., Saito, S., Tsuruo, T., Shibata, Y., and Nagawa, H. (2000). Cyclooxygenase-2 overexpression correlates with tumour recurrence, especially haematogenous metastasis, of colorectal cancer. *Br J Cancer* 83, 324-328.
- Toruner, G.A., Ulger, C., Alkan, M., Galante, A.T., Rinaggio, J., Wilk, R., Tian, B., Soteropoulos, P., Hameed, M.R., Schwalb, M.N., et al. (2004). Association between gene expression profile and tumor invasion in oral squamous cell carcinoma. *Cancer Genet Cytogenet* 154, 27-35.
- Tsai, W.C., Tsai, S.T., Ko, J.Y., Jin, Y.T., Li, C., Huang, W., Young, K.C., Lai, M.D., Liu, H.S., and Wu, L.W. (2004). The mRNA profile of genes in betel quid chewing oral cancer patients. *Oral Oncol* 40, 418-426.
- Tsai, Y.F., Wong, T.K., and Chen, S.C. (2002). Prevalence and related risk factors of areca quid chewing among junior high students in eastern Taiwan. *Public Health* 116, 190-194.
- Vachani, A., Nebozhyn, M., Singhal, S., Alila, L., Wakeam, E., Muschel, R., Powell, C.A., Gaffney, P., Singh, B., Brose, M.S., et al. (2007). A 10-gene classifier for distinguishing head and neck squamous cell carcinoma and lung squamous cell carcinoma. *Clin Cancer Res* 13, 2905-2915.
- van't Veer, L.J., and Bernards, R. (2008). Enabling personalized cancer medicine through analysis of gene-expression patterns. *Nature* 452, 564-570.
- van 't Veer, L.J., Dai, H., van de Vijver, M.J., He, Y.D., Hart, A.A., Mao, M., Peterse, H.L., van der Kooy, K., Marton, M.J., Witteveen, A.T., et al. (2002). Gene expression profiling predicts clinical outcome of breast cancer. *Nature* 415, 530-536.
- Vandesompele, J., De Preter, K., Pattyn, F., Poppe, B., Van Roy, N., De Paepe, A., and Speleman, F. (2002). Accurate normalization of real-time quantitative RT-PCR data by geometric averaging of multiple internal control genes. *Genome Biol* 3.
- Velculescu, V.E., Zhang, L., Vogelstein, B., and Kinzler, K.W. (1995). Serial analysis of gene expression. *Science* 270, 484-487.
- Vogler, M., Dinsdale, D., Dyer, M.J., and Cohen, G.M. (2009). Bcl-2 inhibitors: small molecules with a big impact on cancer therapy. *Cell Death Differ* 16, 360-367.
- Walker, D.M., Boey, G., and McDonald, L.A. (2003). The pathology of oral cancer. *Pathology* 35, 376-383.

Walker, M.R., Carson, B.D., Nepom, G.T., Ziegler, S.F., and Buckner, J.H. (2005). De novo generation of antigen-specific CD4⁺CD25⁺ regulatory T cells from human CD4⁺CD25⁻ cells. *Proc Natl Acad Sci U S A* 102, 4103-4108.

Walser, T.C., Ma, X., Kundu, N., Dorsey, R., Goloubeva, O., and Fulton, A.M. (2007). Immune-mediated modulation of breast cancer growth and metastasis by the chemokine Mig (CXCL9) in a murine model. *J Immunother* 30, 490-498.

Wang, C.Y., Guttridge, D.C., Mayo, M.W., and Baldwin, A.S., Jr. (1999). NF-kappaB induces expression of the Bcl-2 homologue A1/Bfl-1 to preferentially suppress chemotherapy-induced apoptosis. *Mol Cell Biol* 19, 5923-5929.

Warnakulasuriya, S. (2002). Areca nut use following migration and its consequences. *Addict Biol* 7, 127-132.

Warnakulasuriya, S. (2009). Global epidemiology of oral and oropharyngeal cancer. *Oral Oncol* 45, 309-316.

Warner, G.C., Reis, P.P., Jurisica, I., Sultan, M., Arora, S., Macmillan, C., Makitie, A.A., Grenman, R., Reid, N., Sukhai, M., et al. (2004). Molecular classification of oral cancer by cDNA microarrays identifies overexpressed genes correlated with nodal metastasis. *Int J Cancer* 110, 857-868.

Warrington, J.A., Nair, A., Mahadevappa, M., and Tsyganskaya, M. (2000). Comparison of human adult and fetal expression and identification of 535 housekeeping/maintenance genes. *Physiol Genomics* 2, 143-147.

Waugh, D.J., and Wilson, C. (2008). The interleukin-8 pathway in cancer. *Clin Cancer Res* 14, 6735-6741.

Weinberger, P.M., Yu, Z., Haffty, B.G., Kowalski, D., Harigopal, M., Brandsma, J., Sasaki, C., Joe, J., Camp, R.L., Rimm, D.L., et al. (2006). Molecular classification identifies a subset of human papillomavirus--associated oropharyngeal cancers with favorable prognosis. *J Clin Oncol* 24, 736-747.

Werner, J.A., Dunne, A.A., and Myers, J.N. (2003). Functional anatomy of the lymphatic drainage system of the upper aerodigestive tract and its role in metastasis of squamous cell carcinoma. *Head Neck* 25, 322-332.

Westendorf, J.J., Kahler, R.A., and Schroeder, T.M. (2004). Wnt signaling in osteoblasts and bone diseases. *Gene* 341, 19-39.

WHO (2004). Global Status Report on Alcohol (Geneva, Department of Mental Health and Substance Abuse, WHO).

Williams, C., Ponten, F., Moberg, C., Soderkvist, P., Uhlen, M., Ponten, J., Sitbon, G., and Lundeberg, J. (1999). A high frequency of sequence alterations is due to formalin fixation of archival specimens. *Am J Pathol* 155, 1467-1471.

Williams, T.M., Medina, F., Badano, I., Hazan, R.B., Hutchinson, J., Muller, W.J., Chopra, N.G., Scherer, P.E., Pestell, R.G., and Lisanti, M.P. (2004). Caveolin-1 gene disruption promotes mammary tumorigenesis and dramatically enhances lung metastasis in vivo. Role of Cav-1 in cell invasiveness and matrix metalloproteinase (MMP-2/9) secretion. *J Biol Chem* 279, 51630-51646.

World Health Organization (WHO) (2004). ICD-10: International Statistical Classification of Disease and Related Health Problems. (Geneva, World Health Organization).

Wu, M., Gunning, W., and Ratnam, M. (1999). Expression of folate receptor type alpha in relation to cell type, malignancy, and differentiation in ovary, uterus, and cervix. *Cancer Epidemiol Biomarkers Prev* 8, 775-782.

Yao, M., Chang, K., Funk, G.F., Lu, H., Tan, H., Wacha, J., Dornfeld, K.J., and Buatti, J.M. (2007). The failure patterns of oral cavity squamous cell carcinoma after intensity-modulated radiotherapy-the university of iowa experience. *Int J Radiat Oncol Biol Phys* 67, 1332-1341.

Ye, H., Yu, T., Temam, S., Ziober, B.L., Wang, J., Schwartz, J.L., Mao, L., Wong, D.T., and Zhou, X. (2008). Transcriptomic dissection of tongue squamous cell carcinoma. *BMC Genomics* 9, 69.

Yee, D.S., Tang, Y., Li, X., Liu, Z., Guo, Y., Ghaffar, S., McQueen, P., Atreya, D., Xie, J., Simoneau, A.R., et al. (2010). The Wnt inhibitory factor 1 restoration in prostate cancer cells was associated with reduced tumor growth, decreased capacity of cell migration and invasion and a reversal of epithelial to mesenchymal transition. *Mol Cancer* 9, 162.

Yen, C.Y., Chen, C.H., Chang, C.H., Tseng, H.F., Liu, S.Y., Chuang, L.Y., Wen, C.H., and Chang, H.W. (2009). Matrix metalloproteinases (MMP) 1 and MMP10 but not MMP12 are potential oral cancer markers. *Biomarkers* 14, 244-249.

Yoon, H.S., Hong, S.H., Kang, H.J., Ko, B.K., Ahn, S.H., and Huh, J.R. (2003). Bfl-1 gene expression in breast cancer: its relationship with other prognostic factors. *J Korean Med Sci* 18, 225-230.

Zain, R., and Ghazali, N. (2001). A review of epidemiological studies of oral cancer and precancer in Malaysia. *Ann Dent University Malaya* 8, 50-56.

Zain, R., Ikeda, N., and Yaacob, M. (1995). Oral mucosal lesion survey of adults in Malaysia. October 1993-February 1994. Joint Project Ministry of Health Malaysia, Aichigakuin University, Japan and University Malaya, Malaysia.

Zain, R.B. (2001). Cultural and dietary risk factors of oral cancer and precancer--a brief overview. *Oral Oncol* 37, 205-210.

Zain RB (1999). Nutritional and habitual factors for oral cancer and precancer among selected Malaysians (Indians, Malays and the Indigenous people of Sarawak). (Kuala Lumpur).

Zain, R.B., Ikeda, N., Gupta, P.C., Warnakulasuriya, S., van Wyk, C.W., Shrestha, P., and Axell, T. (1999). Oral mucosal lesions associated with betel quid, areca nut and tobacco chewing habits: consensus from a workshop held in Kuala Lumpur, Malaysia, November 25-27, 1996. *J Oral Pathol Med* 28, 1-4.

Zain, R.B., Ikeda, N., Razak, I.A., Axell, T., Majid, Z.A., Gupta, P.C., and Yaacob, M. (1997). A national epidemiological survey of oral mucosal lesions in Malaysia. *Community Dent Oral Epidemiol* 25, 377-383.

Zelevsky, M.J., Harrison, L.B., Fass, D.E., Armstrong, J., Spiro, R.H., Shah, J.P., and Strong, E.W. (1990). Postoperative radiotherapy for oral cavity cancers: impact of anatomic subsite on treatment outcome. *Head Neck* 12, 470-475.

Ziober, A.F., Patel, K.R., Alawi, F., Gimotty, P., Weber, R.S., Feldman, M.M., Chalian, A.A., Weinstein, G.S., Hunt, J., and Ziober, B.L. (2006). Identification of a gene signature for rapid screening of oral squamous cell carcinoma. *Clin Cancer Res* 12, 5960-5971.