

## BIBLIOGRAPHY

- Abdel-Rahman, S. Z., el-Zein, R. A., Anwar, W. A. and Au, W. W. (1996). A multiplex PCR procedure for polymorphic analysis of GSTM1 and GSTT1 genes in population studies. *Cancer Lett.* **107**(2): 229-233.
- Agrawal, N., Frederick, M. J., Pickering, C. R., Bettegowda, C., Chang, K., Li, R. J., Fakhry, C., Xie, T. X., Zhang, J., Wang, J., Zhang, N., El-Naggar, A. K., Jasser, S. A., Weinstein, J. N., Trevino, L., Drummond, J. A., Muzny, D. M., Wu, Y., Wood, L. D., Hruban, R. H., Westra, W. H., Koch, W. M., Califano, J. A., Gibbs, R. A., Sidransky, D., Vogelstein, B., Velculescu, V. E., Papadopoulos, N., Wheeler, D. A., Kinzler, K. W. and Myers, J. N. (2011). Exome sequencing of head and neck squamous cell carcinoma reveals inactivating mutations in NOTCH1. *Science.* **333**(6046): 1154-1157.
- Ai, L., Vo, Q. N., Zuo, C., Li, L., Ling, W., Suen, J. Y., Hanna, E., Brown, K. D. and Fan, C. Y. (2004). Ataxia-telangiectasia-mutated (ATM) gene in head and neck squamous cell carcinoma: promoter hypermethylation with clinical correlation in 100 cases. *Cancer Epidemiol Biomarkers Prev.* **13**(1): 150-156.
- Al-Hadyan, K. S., Al-Harbi, N. M., Al-Qahtani, S. S. and Alsbeih, G. A. (2012). Involvement of single-nucleotide polymorphisms in predisposition to head and neck cancer in Saudi Arabia. *Genet Test Mol Biomarkers.* **16**(2): 95-101.
- Al-Kaabi, A., van Bockel, L. W., Pothen, A. J. and Willems, S. M. (2014). p16INK4A and p14ARF gene promoter hypermethylation as prognostic biomarker in oral and oropharyngeal squamous cell carcinoma: a review. *Dis Markers.* **2014:** 260549.
- 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**(7): 1455-1462.
- Argiris, A., Karamouzis, M. V., Raben, D. and Ferris, R. L. (2008). Head and neck cancer. *Lancet.* **371**(9625): 1695-1709.
- Asokan, G. S., Jeelani, S. and Gnanasundaram, N. (2014). Promoter hypermethylation profile of tumour suppressor genes in oral leukoplakia and oral squamous cell carcinoma. *J Clin Diagn Res.* **8**(10): ZC09-12.

- Auranen, A., Song, H., Waterfall, C., Dicioccio, R. A., Kuschel, B., Kjaer, S. K., Hogdall, E., Hogdall, C., Stratton, J., Whittemore, A. S., Easton, D. F., Ponder, B. A., Novik, K. L., Dunning, A. M., Gayther, S. and Pharoah, P. D. (2005). Polymorphisms in DNA repair genes and epithelial ovarian cancer risk. *Int J Cancer.* **117**(4): 611-618.
- Baez, A. (2008). Genetic and environmental factors in head and neck cancer genesis. *J Environ Sci Health C Environ Carcinog Ecotoxicol Rev.* **26**(2): 174-200.
- Balaram, P., Sridhar, H., Rajkumar, T., Vaccarella, S., Herrero, R., Nandakumar, A., Ravichandran, K., Ramdas, K., Sankaranarayanan, R., Gajalakshmi, V., Munoz, N. and Franceschi, S. (2002). Oral cancer in southern India: the influence of smoking, drinking, paan-chewing and oral hygiene. *Int J Cancer.* **98**(3): 440-445.
- Bardhan, K. and Liu, K. (2013). Epigenetics and colorectal cancer pathogenesis. *Cancers (Basel).* **5**(2): 676-713.
- Bartsch, H., Nair, U., Risch, A., Rojas, M., Wikman, H. and Alexandrov, K. (2000). Genetic polymorphism of CYP genes, alone or in combination, as a risk modifier of tobacco-related cancers. *Cancer Epidemiol Biomarkers Prev.* **9**(1): 3-28.
- Bartsch, H., Rojas, M., Nair, U., Nair, J. and Alexandrov, K. (1999). Genetic cancer susceptibility and DNA adducts: studies in smokers, tobacco chewers, and coke oven workers. *Cancer Detect Prev.* **23**(6): 445-453.
- Baylin, S. B., Esteller, M., Rountree, M. R., Bachman, K. E., Schuebel, K. and Herman, J. G. (2001). Aberrant patterns of DNA methylation, chromatin formation and gene expression in cancer. *Hum Mol Genet.* **10**(7): 687-692.
- Baylin, S. B. and Jones, P. A. (2011). A decade of exploring the cancer epigenome - biological and translational implications. *Nat Rev Cancer.* **11**(10): 726-734.
- Benhamou, S., Tuimala, J., Bouchardy, C., Dayer, P., Sarasin, A. and Hirvonen, A. (2004). DNA repair gene XRCC2 and XRCC3 polymorphisms and susceptibility to cancers of the upper aerodigestive tract. *Int J Cancer.* **112**(5): 901-904.
- Bhattacharjee, A., Chakraborty, A. and Purkaystha, P. (2006). Prevalence of head and neck cancers in the north east-An institutional study. *Indian J Otolaryngol Head Neck Surg.* **58**(1): 15-19.

- Biselli, J. M., de Angelo Calsaverini Leal, R. C., Ruiz, M. T., Goloni-Bertollo, E. M., Maniglia, J. V., Rossit, A. R. and Pavarino-Bertelli, E. C. (2006). GSTT1 and GSTM1 polymorphism in cigarette smokers with head and neck squamous cell carcinoma. *Braz J Otorhinolaryngol.* **72**(5): 654-658.
- Boccia, S., Cadoni, G., Sayed-Tabatabaei, F. A., Volante, M., Arzani, D., De Lauretis, A., Cattel, C., Almadori, G., van Duijn, C. M., Paludetti, G. and Ricciardi, G. (2008). CYP1A1, CYP2E1, GSTM1, GSTT1, EPHX1 exons 3 and 4, and NAT2 polymorphisms, smoking, consumption of alcohol and fruit and vegetables and risk of head and neck cancer. *J Cancer Res Clin Oncol.* **134**(1): 93-100.
- Bose, P., Brockton, N. T. and Dort, J. C. (2013). Head and neck cancer: from anatomy to biology. *Int J Cancer.* **133**(9): 2013-2023.
- Boyer, S. N., Wazer, D. E. and Band, V. (1996). E7 protein of human papilloma virus-16 induces degradation of retinoblastoma protein through the ubiquitin-proteasome pathway. *Cancer Res.* **56**(20): 4620-4624.
- Boyle, J. O., Hakim, J., Koch, W., van der Riet, P., Hruban, R. H., Roa, R. A., Correo, R., Eby, Y. J., Ruppert, J. M. and Sidransky, D. (1993). The incidence of p53 mutations increases with progression of head and neck cancer. *Cancer Res.* **53**(19): 4477-4480.
- Bussu, F., Sali, M., Gallus, R., Vellone, V. G., Zannoni, G. F., Autorino, R., Dinapoli, N., Santangelo, R., Martucci, R., Graziani, C., Micciche, F., Almadori, G., Galli, J., Delogu, G., Sanguinetti, M., Rindi, G., Valentini, V. and Paludetti, G. (2013). HPV infection in squamous cell carcinomas arising from different mucosal sites of the head and neck region. Is p16 immunohistochemistry a reliable surrogate marker? *Br J Cancer.* **108**(5): 1157-1162.
- Cadoni, G., Boccia, S., Petrelli, L., Di Giannantonio, P., Arzani, D., Giorgio, A., De Feo, E., Pandolfini, M., Galli, P., Paludetti, G. and Ricciardi, G. (2012). A review of genetic epidemiology of head and neck cancer related to polymorphisms in metabolic genes, cell cycle control and alcohol metabolism. *Acta Otorhinolaryngol Ital.* **32**(1): 1-11.
- Cao, Y., Miao, X. P., Huang, M. Y., Deng, L., Hu, L. F., Ernberg, I., Zeng, Y. X., Lin, D. X. and Shao, J. Y. (2006). Polymorphisms of XRCC1 genes and risk of nasopharyngeal carcinoma in the Cantonese population. *BMC Cancer.* **6**: 167.

## Bibliography

- Capoluongo, E., Almadori, G., Concolino, P., Bussu, F., Santonocito, C., Vendittelli, F., Galli, J., Zuppi, C., Ameglio, F., Paludetti, G. and Giardina, B. (2007). GSTT1 and GSTM1 allelic polymorphisms in head and neck cancer patients from Italian Lazio Region. *Clin Chim Acta.* **376**(1-2): 174-178.
- Carmona, F. J. and Esteller, M. (2010). Epigenomics of human colon cancer. *Mutat Res.* **693**(1-2): 53-60.
- Chandarana, S. P., Lee, J. S., Chanowski, E. J., Sacco, A. G., Bradford, C. R., Wolf, G. T., Prince, M. E., Moyer, J. S., Eisbruch, A., Worden, F. P., Giordano, T. J., Kumar, B., Cordell, K. G., Carey, T. E. and Chepeha, D. B. (2013). Prevalence and predictive role of p16 and epidermal growth factor receptor in surgically treated oropharyngeal and oral cavity cancer. *Head Neck.* **35**(8): 1083-1090.
- Chatterjee, S., Chakrabarti, S., Sengupta, B., Poddar, S., Biswas, D., Sengupta, S. and Talukder, G. (2009). Prevalence of CYP1A1 and GST polymorphisms in the population of northeastern India and susceptibility of oral cancer. *Oncol Res.* **17**(9): 397-403.
- Chaturvedi, A. K., Anderson, W. F., Lortet-Tieulent, J., Curado, M. P., Ferlay, J., Franceschi, S., Rosenberg, P. S., Bray, F. and Gillison, M. L. (2013). Worldwide trends in incidence rates for oral cavity and oropharyngeal cancers. *J Clin Oncol.* **31**(36): 4550-4559.
- Chaturvedi, A. K., Engels, E. A., Pfeiffer, R. M., Hernandez, B. Y., Xiao, W., Kim, E., Jiang, B., Goodman, M. T., Sibug-Saber, M., Cozen, W., Liu, L., Lynch, C. F., Wentzensen, N., Jordan, R. C., Altekruse, S., Anderson, W. F., Rosenberg, P. S. and Gillison, M. L. (2011). Human papillomavirus and rising oropharyngeal cancer incidence in the United States. *J Clin Oncol.* **29**(32): 4294-4301.
- Chaudhary, A. K., Singh, M., Sundaram, S. and Mehrotra, R. (2009). Role of human papillomavirus and its detection in potentially malignant and malignant head and neck lesions: updated review. *Head Neck Oncol.* **1**: 22.
- Chen, A. M., Zahra, T., Daly, M. E., Farwell, D. G., Luu, Q., Gandour-Edwards, R. and Vaughan, A. T. (2013). Definitive radiation therapy without chemotherapy for human papillomavirus-positive head and neck cancer. *Head Neck.* **35**(11): 1652-1656.
- Chen, C. Z. (2005). MicroRNAs as oncogenes and tumour suppressors. *N Engl J Med.* **353**(17): 1768-1771.

- Chen, J., Cheng, M., Yi, L. and Jiang, C. B. (2011). Relationship between CYP1A1 genetic polymorphisms and renal cancer in China. *Asian Pac J Cancer Prev.* **12**(9): 2163-2166.
- Chen, Y. J., Chang, J. T., Liao, C. T., Wang, H. M., Yen, T. C., Chiu, C. C., Lu, Y. C., Li, H. F. and Cheng, A. J. (2008). Head and neck cancer in the betel quid chewing area: recent advances in molecular carcinogenesis. *Cancer Sci.* **99**(8): 1507-1514.
- Cheng, L., Sturgis, E. M., Eicher, S. A., Char, D., Spitz, M. R. and Wei, Q. (1999). Glutathione-S-transferase polymorphisms and risk of squamous-cell carcinoma of the head and neck. *Int J Cancer.* **84**(3): 220-224.
- Cho, E. Y., Hildesheim, A., Chen, C. J., Hsu, M. M., Chen, I. H., Mittl, B. F., Levine, P. H., Liu, M. Y., Chen, J. Y., Brinton, L. A., Cheng, Y. J. and Yang, C. S. (2003). Nasopharyngeal carcinoma and genetic polymorphisms of DNA repair enzymes XRCC1 and hOGG1. *Cancer Epidemiol Biomarkers Prev.* **12**(10): 1100-1104.
- Chocolatewala, N. M. and Chaturvedi, P. (2009). Role of human papilloma virus in the oral carcinogenesis: an Indian perspective. *J Cancer Res Ther.* **5**(2): 71-77.
- Croce, C. M. (2008). Oncogenes and cancer. *N Engl J Med.* **358**(5): 502-511.
- Csejtei, A., Tibold, A., Koltai, K., Varga, Z., Szanyi, I., Gobel, G., Prantner, I., Steffler, D., Feher, G., De Blasio, A., Ember, I. and Kiss, I. (2009). Association between XRCC1 polymorphisms and head and neck cancer in a Hungarian population. *Anticancer Res.* **29**(10): 4169-4173.
- Curtin, N. J. (2012). DNA repair dysregulation from cancer driver to therapeutic target. *Nat Rev Cancer.* **12**(12): 801-817.
- Dayyani, F., Etzel, C. J., Liu, M., Ho, C. H., Lippman, S. M. and Tsao, A. S. (2010). Meta-analysis of the impact of human papillomavirus (HPV) on cancer risk and overall survival in head and neck squamous cell carcinomas (HNSCC). *Head Neck Oncol.* **2**: 15.
- De Stefani, E., Deneo-Pellegrini, H., Mendilaharsu, M. and Ronco, A. (1999). Diet and risk of cancer of the upper aerodigestive tract--I. *Foods. Oral Oncol.* **35**(1): 17-21.

- Demokan, S., Chuang, A. Y., Pattani, K. M., Sidransky, D., Koch, W. and Califano, J. A. (2014). Validation of nucleolar protein 4 as a novel methylated tumour suppressor gene in head and neck cancer. *Oncol Rep.* **31**(2): 1014-1020.
- Deng, Z., Hasegawa, M., Yamashita, Y., Matayoshi, S., Kiyuna, A., Agena, S., Uehara, T., Maeda, H. and Suzuki, M. (2012). Prognostic value of human papillomavirus and squamous cell carcinoma antigen in head and neck squamous cell carcinoma. *Cancer Sci.* **103**(12): 2127-2134.
- Dianova, II, Sleeth, K. M., Allinson, S. L., Parsons, J. L., Breslin, C., Caldecott, K. W. and Dianov, G. L. (2004). XRCC1-DNA polymerase beta interaction is required for efficient base excision repair. *Nucleic Acids Res.* **32**(8): 2550-2555.
- Dikshit, R. P. and Kanhere, S. (2000). Tobacco habits and risk of lung, oropharyngeal and oral cavity cancer: a population-based case-control study in Bhopal, India. *Int J Epidemiol.* **29**(4): 609-614.
- Dillon, N. (2006). Gene regulation and large-scale chromatin organization in the nucleus. *Chromosome Res.* **14**(1): 117-126.
- Dong, S. M., Sun, D. I., Benoit, N. E., Kuzmin, I., Lerman, M. I. and Sidransky, D. (2003). Epigenetic inactivation of RASSF1A in head and neck cancer. *Clin Cancer Res.* **9**(10 Pt 1): 3635-3640.
- Dong, Y., Zhao, H., Li, H., Li, X. and Yang, S. (2014). DNA methylation as an early diagnostic marker of cancer (Review). *Biomed Rep.* **2**(3): 326-330.
- El-Naggar, A. K., Lai, S., Clayman, G., Lee, J. K., Luna, M. A., Goepfert, H. and Batsakis, J. G. (1997). Methylation, a major mechanism of p16/CDKN2 gene inactivation in head and neck squamous carcinoma. *Am J Pathol.* **151**(6): 1767-1774.
- Esteller, M. (2008). Epigenetics in cancer. *N Engl J Med.* **358**(11): 1148-1159.
- Esteller, M., Corn, P. G., Baylin, S. B. and Herman, J. G. (2001). A gene hypermethylation profile of human cancer. *Cancer Res.* **61**(8): 3225-3229.
- Etoh, T., Kanai, Y., Ushijima, S., Nakagawa, T., Nakanishi, Y., Sasako, M., Kitano, S. and Hirohashi, S. (2004). Increased DNA methyltransferase 1 (DNMT1) protein expression correlates significantly with poorer tumour differentiation and frequent DNA hypermethylation of multiple CpG islands in gastric cancers. *Am J Pathol.* **164**(2): 689-699.

- Evans, A. J., Henner, W. D., Eilers, K. M., Montalto, M. A., Wersinger, E. M., Andersen, P. E., Cohen, J. I., Everts, E. C., McWilliams, J. E. and Beer, T. M. (2004). Polymorphisms of GSTT1 and related genes in head and neck cancer risk. *Head Neck.* **26**(1): 63-70.
- Feinberg, A. P. (2001). Cancer epigenetics takes center stage. *Proc Natl Acad Sci U S A.* **98**(2): 392-394.
- Feinberg, A. P. and Vogelstein, B. (1983a). Hypomethylation distinguishes genes of some human cancers from their normal counterparts. *Nature.* **301**(5895): 89-92.
- Feinberg, A. P. and Vogelstein, B. (1983b). Hypomethylation of ras oncogenes in primary human cancers. *Biochem Biophys Res Commun.* **111**(1): 47-54.
- Ferlay, J., Soerjomataram, I., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., Parkin, D. M., Forman, D. and Bray, F. (2015). Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer.* **136**(5): E359-386.
- Field, J. K., Kiaris, H., Howard, P., Vaughan, E. D., Spandidos, D. A. and Jones, A. S. (1995). Microsatellite instability in squamous cell carcinoma of the head and neck. *Br J Cancer.* **71**(5): 1065-1069.
- Flores-Obando, R. E., Gollin, S. M. and Ragin, C. C. (2010). Polymorphisms in DNA damage response genes and head and neck cancer risk. *Biomarkers.* **15**(5): 379-399.
- Ford, J. G., Li, Y., O'Sullivan, M. M., Demopoulos, R., Garte, S., Taioli, E. and Brandt-Rauf, P. W. (2000). Glutathione S-transferase M1 polymorphism and lung cancer risk in African-Americans. *Carcinogenesis.* **21**(11): 1971-1975.
- 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**(7059): 716-721.
- Ganguly, N. and Parihar, S. P. (2009). Human papillomavirus E6 and E7 oncoproteins as risk factors for tumourigenesis. *J Biosci.* **34**(1): 113-123.
- Garavello, W., Foschi, R., Talamini, R., La Vecchia, C., Rossi, M., Dal Maso, L., Tavani, A., Levi, F., Barzan, L., Ramazzotti, V., Franceschi, S. and Negri, E. (2008). Family history and the risk of oral and pharyngeal cancer. *Int J Cancer.* **122**(8): 1827-1831.

- Garte, S. (1998). The role of ethnicity in cancer susceptibility gene polymorphisms: the example of CYP1A1. *Carcinogenesis*. **19**(8): 1329-1332.
- Garte, S., Gaspari, L., Alexandrie, A. K., Ambrosone, C., Autrup, H., Autrup, J. L., Baranova, H., Bathum, L., Benhamou, S., Boffetta, P., Bouchardy, C., Breskvar, K., Brockmoller, J., Cascorbi, I., Clapper, M. L., Coutelle, C., Daly, A., Dell'omo, M., Dolzan, V., Dresler, C. M., Fryer, A., Haugen, A., Hein, D. W., Hildesheim, A., Hirvonen, A., Hsieh, L. L., Ingelman-Sundberg, M., Kalina, I., Kang, D., Kihara, M., Kiyohara, C., Kremers, P., Lazarus, P., Le Marchand, L., Lechner, M. C., van Lieshout, E. M., London, S., Manni, J. J., Maugard, C. M., Morita, S., Nazar-Stewart, V., Noda, K., Oda, Y., Parl, F. F., Pastorelli, R., Persson, I., Peters, W. H., Rannug, A., Rebbeck, T., Risch, A., Roelandt, L., Romkes, M., Ryberg, D., Salagovic, J., Schoket, B., Seidegard, J., Shields, P. G., Sim, E., Sinnott, D., Strange, R. C., Stucker, I., Sugimura, H., To-Figueras, J., Vineis, P., Yu, M. C. and Taioli, E. (2001). Metabolic gene polymorphism frequencies in control populations. *Cancer Epidemiol Biomarkers Prev.* **10**(12): 1239-1248.
- Gattas, G. J., de Carvalho, M. B., Siraque, M. S., Curioni, O. A., Kohler, P., Eluf-Neto, J. and Wunsch-Filho, V. (2006). Genetic polymorphisms of CYP1A1, CYP2E1, GSTM1, and GSTT1 associated with head and neck cancer. *Head Neck*. **28**(9): 819-826.
- Genden, E. M., Sambur, I. M., de Almeida, J. R., Posner, M., Rinaldo, A., Rodrigo, J. P., Strojan, P., Takes, R. P. and Ferlito, A. (2013). Human papillomavirus and oropharyngeal squamous cell carcinoma: what the clinician should know. *Eur Arch Otorhinolaryngol*. **270**(2): 405-416.
- Ghosh, A., Ghosh, S., Maiti, G. P., Sabbir, M. G., Alam, N., Sikdar, N., Roy, B., Roychoudhury, S. and Panda, C. K. (2009). SH3GL2 and CDKN2A/2B loci are independently altered in early dysplastic lesions of head and neck: correlation with HPV infection and tobacco habit. *J Pathol*. **217**(3): 408-419.
- Glombitza, F., Guntinas-Lichius, O. and Petersen, I. (2010). HPV status in head and neck tumours. *Pathol Res Pract*. **206**(4): 229-234.
- Goldberg, A. D., Allis, C. D. and Bernstein, E. (2007). Epigenetics: a landscape takes shape. *Cell*. **128**(4): 635-638.
- Gonzalez, F. J. (1988). The molecular biology of cytochrome P450s. *Pharmacol Rev*. **40**(4): 243-288.

## Bibliography

- Green, M. R. and Sambrook, J. (2012). Molecular Cloning: A Laboratory Manual. Cold Spring Harbor Laboratory Press. **1**: 44-47.
- Gronau, S., Koenig-Greger, D., Jerg, M. and Riechelmann, H. (2003). Gene polymorphisms in detoxification enzymes as susceptibility factor for head and neck cancer? *Otolaryngol Head Neck Surg.* **128**(5): 674-680.
- Guerrero-Preston, R., Michailidi, C., Marchionni, L., Pickering, C. R., Frederick, M. J., Myers, J. N., Yegnasubramanian, S., Hadar, T., Noordhuis, M. G., Zizkova, V., Fertig, E., Agrawal, N., Westra, W., Koch, W., Califano, J., Velculescu, V. E. and Sidransky, D. (2014). Key tumour suppressor genes inactivated by "greater promoter" methylation and somatic mutations in head and neck cancer. *Epigenetics.* **9**(7): 1031-1046.
- Gugatschka, M., Dehchamani, D., Wascher, T. C., Friedrich, G. and Renner, W. (2011). DNA repair gene ERCC2 polymorphisms and risk of squamous cell carcinoma of the head and neck. *Exp Mol Pathol.* **91**(1): 331-334.
- Gupta, P. C. and Ray, C. S. (2004). Epidemiology of betel quid usage. *Ann Acad Med Singapore.* **33**(4 Suppl): 31-36.
- Ha, P. K. and Califano, J. A. (2006). Promoter methylation and inactivation of tumour-suppressor genes in oral squamous-cell carcinoma. *Lancet Oncol.* **7**(1): 77-82.
- Ha, P. K., Chang, S. S., Glazer, C. A., Califano, J. A. and Sidransky, D. (2009). Molecular techniques and genetic alterations in head and neck cancer. *Oral Oncol.* **45**(4-5): 335-339.
- Hasegawa, M., Nelson, H. H., Peters, E., Ringstrom, E., Posner, M. and Kelsey, K. T. (2002). Patterns of gene promoter methylation in squamous cell cancer of the head and neck. *Oncogene.* **21**(27): 4231-4236.
- Hashibe, M., Brennan, P., Benhamou, S., Castellsague, X., Chen, C., Curado, M. P., Dal Maso, L., Daudt, A. W., Fabianova, E., Fernandez, L., Wunsch-Filho, V., Franceschi, S., Hayes, R. B., Herrero, R., Koifman, S., La Vecchia, C., Lazarus, P., Levi, F., Mates, D., Matos, E., Menezes, A., Muscat, J., Eluf-Neto, J., Olshan, A. F., Rudnai, P., Schwartz, S. M., Smith, E., Sturgis, E. M., Szeszenia-Dabrowska, N., Talamini, R., Wei, Q., Winn, D. M., Zaridze, D., Zatonski, W., Zhang, Z. F., Berthiller, J. and Boffetta, P. (2007). Alcohol drinking in never users of tobacco, cigarette smoking in never drinkers, and the

## Bibliography

- risk of head and neck cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium. *J Natl Cancer Inst.* **99**(10): 777-789.
- Hashibe, M., Brennan, P., Chuang, S. C., Boccia, S., Castellsague, X., Chen, C., Curado, M. P., Dal Maso, L., Daudt, A. W., Fabianova, E., Fernandez, L., Wunsch-Filho, V., Franceschi, S., Hayes, R. B., Herrero, R., Kelsey, K., Koifman, S., La Vecchia, C., Lazarus, P., Levi, F., Lence, J. J., Mates, D., Matos, E., Menezes, A., McClean, M. D., Muscat, J., Eluf-Neto, J., Olshan, A. F., Purdue, M., Rudnai, P., Schwartz, S. M., Smith, E., Sturgis, E. M., Szeszenia-Dabrowska, N., Talamini, R., Wei, Q., Winn, D. M., Shangina, O., Pilarska, A., Zhang, Z. F., Ferro, G., Berthiller, J. and Boffetta, P. (2009). Interaction between tobacco and alcohol use and the risk of head and neck cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium. *Cancer Epidemiol Biomarkers Prev.* **18**(2): 541-550.
- Hashibe, M., Brennan, P., Strange, R. C., Bhisey, R., Cascorbi, I., Lazarus, P., Oude Ophuis, M. B., Benhamou, S., Foulkes, W. D., Katoh, T., Coutelle, C., Romkes, M., Gaspari, L., Taioli, E. and Boffetta, P. (2003). Meta- and pooled analyses of GSTM1, GSTT1, GSTP1, and CYP1A1 genotypes and risk of head and neck cancer. *Cancer Epidemiol Biomarkers Prev.* **12**(12): 1509-1517.
- He, X. F., Wei, W., Liu, Z. Z., Shen, X. L., Yang, X. B., Wang, S. L. and Xie, D. L. (2014). Association between the CYP1A1 T3801C polymorphism and risk of cancer: evidence from 268 case-control studies. *Gene.* **534**(2): 324-344.
- Heath, S., Willis, V., Allan, K., Purdie, K., Harwood, C., Shields, P., Simcock, R., Williams, T. and Gilbert, D. C. (2012). Clinically significant human papilloma virus in squamous cell carcinoma of the head and neck in UK practice. *Clin Oncol (R Coll Radiol).* **24**(1): e18-23.
- Hiyama, T., Yoshihara, M., Tanaka, S. and Chayama, K. (2008). Genetic polymorphisms and head and neck cancer risk (Review). *Int J Oncol.* **32**(5): 945-973.
- 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**(7): 682-699.
- Hong, A. M., Grulich, A. E., Jones, D., Lee, C. S., Garland, S. M., Dobbins, T. A., Clark, J. R., Harnett, G. B., Milross, C. G., O'Brien, C. J. and Rose, B. R.

- (2010). Squamous cell carcinoma of the oropharynx in Australian males induced by human papillomavirus vaccine targets. *Vaccine*. **28**(19): 3269-3272.
- Horton, J. K., Watson, M., Stefanick, D. F., Shaughnessy, D. T., Taylor, J. A. and Wilson, S. H. (2008). XRCC1 and DNA polymerase beta in cellular protection against cytotoxic DNA single-strand breaks. *Cell Res.* **18**(1): 48-63.
- Hsieh, L. L., Chien, H. T., Chen, I. H., Liao, C. T., Wang, H. M., Jung, S. M., Wang, P. F., Chang, J. T., Chen, M. C. and Cheng, A. J. (2003). The XRCC1 399Gln polymorphism and the frequency of p53 mutations in Taiwanese oral squamous cell carcinomas. *Cancer Epidemiol Biomarkers Prev.* **12**(5): 439-443.
- Huang, M. J., Yeh, K. T., Shih, H. C., Wang, Y. F., Lin, T. H., Chang, J. Y., Shih, M. C. and Chang, J. G. (2002). The correlation between CpG methylation and protein expression of P16 in oral squamous cell carcinomas. *Int J Mol Med.* **10**(5): 551-554.
- Huang, W. Y., Olshan, A. F., Schwartz, S. M., Berndt, S. I., Chen, C., Llaca, V., Chanock, S. J., Fraumeni, J. F., Jr. and Hayes, R. B. (2005). Selected genetic polymorphisms in MGMT, XRCC1, XPD, and XRCC3 and risk of head and neck cancer: a pooled analysis. *Cancer Epidemiol Biomarkers Prev.* **14**(7): 1747-1753.
- Hung, R. J., Hall, J., Brennan, P. and Boffetta, P. (2005). Genetic polymorphisms in the base excision repair pathway and cancer risk: a HuGE review. *Am J Epidemiol.* **162**(10): 925-942.
- Jancova, P., Anzenbacher, P. and Anzenbacherova, E. (2010). Phase II drug metabolizing enzymes. *Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub.* **154**(2): 103-116.
- Jayalekshmi, P. A., Gangadharan, P., Akiba, S., Koriyama, C. and Nair, R. R. (2011). Oral cavity cancer risk in relation to tobacco chewing and bidi smoking among men in Karunagappally, Kerala, India: Karunagappally cohort study. *Cancer Sci.* **102**(2): 460-467.
- Jelonek, K., Gdowicz-Klosok, A., Pietrowska, M., Borkowska, M., Korfanty, J., Rzeszowska-Wolny, J. and Widlak, P. (2010). Association between single-nucleotide polymorphisms of selected genes involved in the response to DNA

- damage and risk of colon, head and neck, and breast cancers in a Polish population. *J Appl Genet.* **51**(3): 343-352.
- Jiao, L., Hassan, M. M., Bondy, M. L., Wolff, R. A., Evans, D. B., Abbruzzese, J. L. and Li, D. (2008). XRCC2 and XRCC3 gene polymorphism and risk of pancreatic cancer. *Am J Gastroenterol.* **103**(2): 360-367.
- Jithesh, P. V., Risk, J. M., Schache, A. G., Dhanda, J., Lane, B., Liloglou, T. and Shaw, R. J. (2013). The epigenetic landscape of oral squamous cell carcinoma. *Br J Cancer.* **108**(2): 370-379.
- Johns, L. E. and Houlston, R. S. (2000). Glutathione S-transferase mu1 (GSTM1) status and bladder cancer risk: a meta-analysis. *Mutagenesis.* **15**(5): 399-404.
- Johnson, R. D., Liu, N. and Jasin, M. (1999). Mammalian XRCC2 promotes the repair of DNA double-strand breaks by homologous recombination. *Nature.* **401**(6751): 397-399.
- Jones, P. A. and Martienssen, R. (2005). A blueprint for a Human Epigenome Project: the AACR Human Epigenome Workshop. *Cancer Res.* **65**(24): 11241-11246.
- Jung, A. C., Briolat, J., Millon, R., de Reynies, A., Rickman, D., Thomas, E., Abecassis, J., Clavel, C. and Waslyk, B. (2010). Biological and clinical relevance of transcriptionally active human papillomavirus (HPV) infection in oropharynx squamous cell carcinoma. *Int J Cancer.* **126**(8): 1882-1894.
- Kang, K. J., Min, B. H., Ryu, K. J., Kim, K. M., Chang, D. K., Kim, J. J., Rhee, J. C. and Kim, Y. H. (2014). The Role of the CpG Island Methylator Phenotype on Survival Outcome in Colon Cancer. *Gut Liver.*
- Kaur, J., Demokan, S., Tripathi, S. C., Macha, M. A., Begum, S., Califano, J. A. and Ralhan, R. (2010). Promoter hypermethylation in Indian primary oral squamous cell carcinoma. *Int J Cancer.* **127**(10): 2367-2373.
- Khleif, S. N., DeGregori, J., Yee, C. L., Otterson, G. A., Kaye, F. J., Nevins, J. R. and Howley, P. M. (1996). Inhibition of cyclin D-CDK4/CDK6 activity is associated with an E2F-mediated induction of cyclin kinase inhibitor activity. *Proc Natl Acad Sci U S A.* **93**(9): 4350-4354.
- Khelifi, R., Kallel, I., Hammami, B., Hamza-Chaffai, A. and Rebai, A. (2014). DNA repair gene polymorphisms and risk of head and neck cancer in the Tunisian population. *J Oral Pathol Med.* **43**(3): 217-224.

- Kietthubthew, S., Sriplung, H., Au, W. W. and Ishida, T. (2006). Polymorphism in DNA repair genes and oral squamous cell carcinoma in Thailand. *Int J Hyg Environ Health.* **209**(1): 21-29.
- Ko, Y., Abel, J., Harth, V., Brode, P., Antony, C., Donat, S., Fischer, H. P., Ortiz-Pallardo, M. E., Thier, R., Sachinidis, A., Vetter, H., Bolt, H. M., Herberhold, C. and Bruning, T. (2001). Association of CYP1B1 codon 432 mutant allele in head and neck squamous cell cancer is reflected by somatic mutations of p53 in tumour tissue. *Cancer Res.* **61**(11): 4398-4404.
- Koskinen, W. J., Chen, R. W., Leivo, I., Makitie, A., Back, L., Kontio, R., Suuronen, R., Lindqvist, C., Auvinen, E., Molijn, A., Quint, W. G., Vaheri, A. and Aaltonen, L. M. (2003). Prevalence and physical status of human papillomavirus in squamous cell carcinomas of the head and neck. *Int J Cancer.* **107**(3): 401-406.
- Kostrzewska-Poczekaj, M., Gawecki, W., Illmer, J., Rydzanicz, M., Gajecka, M., Szyfter, W. and Szyfter, K. (2013). Polymorphisms of DNA repair genes and risk of squamous cell carcinoma of the head and neck in young adults. *Eur Arch Otorhinolaryngol.* **270**(1): 271-276.
- Kowalski, M., Przybylowska, K., Rusin, P., Olszewski, J., Morawiec-Sztandera, A., Bielecka-Kowalska, A., Pietruszewska, W., Mlynarski, W., Janusz, S. and Majsterek, I. (2009). Genetic polymorphisms in DNA base excision repair gene XRCC1 and the risk of squamous cell carcinoma of the head and neck. *J Exp Clin Cancer Res.* **28**: 37.
- Kreimer, A. R., Clifford, G. M., Boyle, P. and Franceschi, S. (2005). Human papillomavirus types in head and neck squamous cell carcinomas worldwide: a systematic review. *Cancer Epidemiol Biomarkers Prev.* **14**(2): 467-475.
- Krupa, R., Sliwinski, T., Wisniewska-Jarosinska, M., Chojnacki, J., Wasylecka, M., Dziki, L., Morawiec, J. and Blasiak, J. (2011). Polymorphisms in RAD51, XRCC2 and XRCC3 genes of the homologous recombination repair in colorectal cancer--a case control study. *Mol Biol Rep.* **38**(4): 2849-2854.
- Kulkarni, M. R. (2013). Head and neck cancer burden in India. *Int J Head and Neck Surg.* **4**(1): 29-35.
- Kulkarni, V. and Saranath, D. (2004). Concurrent hypermethylation of multiple regulatory genes in chewing tobacco associated oral squamous cell carcinomas and adjacent normal tissues. *Oral Oncol.* **40**(2): 145-153.

- Kumar, A., Pant, M. C., Singh, H. S. and Khandelwal, S. (2012). Associated risk of XRCC1 and XPD cross talk and life style factors in progression of head and neck cancer in north Indian population. *Mutat Res.* **729**(1-2): 24-34.
- Kumar, M., Agarwal, S. K. and Goel, S. K. (2009). Lung cancer risk in north Indian population: role of genetic polymorphisms and smoking. *Mol Cell Biochem.* **322**(1-2): 73-79.
- Laantri, N., Jalbout, M., Khyatti, M., Ayoub, W. B., Dahmoul, S., Ayad, M., Bedadra, W., Abdoun, M., Mesli, S., Kandil, M., Hamdi-Cherif, M., Boualga, K., Bouaouina, N., Chouchane, L., Benider, A., Ben-Ayed, F., Goldgar, D. and Corbex, M. (2011). XRCC1 and hOGG1 genes and risk of nasopharyngeal carcinoma in North African countries. *Mol Carcinog.* **50**(9): 732-737.
- Lajer, C. B. and von Buchwald, C. (2010). The role of human papillomavirus in head and neck cancer. *APMIS.* **118**(6-7): 510-519.
- Laskar, R. S., Ghosh, S. K. and Talukdar, F. R. (2014). Rectal cancer profiling identifies distinct subtypes in India based on age at onset, genetic, epigenetic and clinicopathological characteristics. *Mol Carcinog.*
- Lavender, N. A., Benford, M. L., VanCleave, T. T., Brock, G. N., Kittles, R. A., Moore, J. H., Hein, D. W. and Kidd, L. C. (2009). Examination of polymorphic glutathione S-transferase (GST) genes, tobacco smoking and prostate cancer risk among men of African descent: a case-control study. *BMC Cancer.* **9**: 397.
- Lechner, M., Fenton, T., West, J., Wilson, G., Feber, A., Henderson, S., Thirlwell, C., Dibra, H. K., Jay, A., Butcher, L., Chakravarthy, A. R., Gratrix, F., Patel, N., Vaz, F., O'Flynn, P., Kalavrezos, N., Teschendorff, A. E., Boshoff, C. and Beck, S. (2013). Identification and functional validation of HPV-mediated hypermethylation in head and neck squamous cell carcinoma. *Genome Med.* **5**(2): 15.
- Lee, C. H., Lee, K. W., Fang, F. M., Wu, D. C., Shieh, T. Y., Huang, H. L., Chen, C. H., Chen, P. H., Chen, M. K., Kuo, S. J., Chang, C. H., Tsai, Y. S., Chiang, S. L., Tu, H. P., Chen, B. H. and Ko, Y. C. (2011). The use of tobacco-free betel-quid in conjunction with alcohol/tobacco impacts early-onset age and carcinoma distribution for upper aerodigestive tract cancer. *J Oral Pathol Med.* **40**(9): 684-692.

- Leemans, C. R., Braakhuis, B. J. and Brakenhoff, R. H. (2011). The molecular biology of head and neck cancer. *Nat Rev Cancer.* **11**(1): 9-22.
- Leme, C. V., Raposo, L. S., Ruiz, M. T., Biselli, J. M., Galbiatti, A. L., Maniglia, J. V., Pavarino-Bertelli, E. C. and Goloni-Bertollo, E. M. (2010). [GSTM1 and GSTT1 genes analysis in head and neck cancer patients]. *Rev Assoc Med Bras.* **56**(3): 299-303.
- Lewis, J. S., Jr., Thorstad, W. L., Chernock, R. D., Haughey, B. H., Yip, J. H., Zhang, Q. and El-Mofty, S. K. (2010). p16 positive oropharyngeal squamous cell carcinoma:an entity with a favorable prognosis regardless of tumour HPV status. *Am J Surg Pathol.* **34**(8): 1088-1096.
- Li, C., Hu, Z., Lu, J., Liu, Z., Wang, L. E., El-Naggar, A. K., Sturgis, E. M., Spitz, M. R. and Wei, Q. (2007). Genetic polymorphisms in DNA base-excision repair genes ADPRT, XRCC1, and APE1 and the risk of squamous cell carcinoma of the head and neck. *Cancer.* **110**(4): 867-875.
- Li, X., Hu, F., Wang, Y., Yao, X., Zhang, Z., Wang, F., Sun, G., Cui, B. B., Dong, X. and Zhao, Y. (2014). CpG island methylator phenotype and prognosis of colorectal cancer in Northeast China. *Biomed Res Int.* **2014**: 236361.
- Lindahl Allen, M., Koch, C. M., Clelland, G. K., Dunham, I. and Antoniou, M. (2009). DNA methylation-histone modification relationships across the desmin locus in human primary cells. *BMC Mol Biol.* **10**: 51.
- Ling, Y., Huang, G., Fan, L., Wei, L., Zhu, J., Liu, Y., Zhu, C. and Zhang, C. (2011). CpG island methylator phenotype of cell-cycle regulators associated with TNM stage and poor prognosis in patients with oesophageal squamous cell carcinoma. *J Clin Pathol.* **64**(3): 246-251.
- Liu, C., Yin, Q., Jiao, G., Zhou, X., Ying, M., Gao, W., Hu, J., Wei, L., Wang, N. and Wang, Y. (2014). Association between the XRCC1 Arg399Gln polymorphism and head and neck cancer susceptibility: a meta-analysis based on case-control studies. *DNA Cell Biol.* **33**(6): 378-387.
- Lleras, R. A., Smith, R. V., Adrien, L. R., Schlecht, N. F., Burk, R. D., Harris, T. M., Childs, G., Prystowsky, M. B. and Belbin, T. J. (2013). Unique DNA methylation loci distinguish anatomic site and HPV status in head and neck squamous cell carcinoma. *Clin Cancer Res.* **19**(19): 5444-5455.
- Lochhead, P., Kuchiba, A., Imamura, Y., Liao, X., Yamauchi, M., Nishihara, R., Qian, Z. R., Morikawa, T., Shen, J., Meyerhardt, J. A., Fuchs, C. S. and Ogino,

- S. (2013). Microsatellite instability and BRAF mutation testing in colorectal cancer prognostication. *J Natl Cancer Inst.* **105**(15): 1151-1156.
- Lohavanichbutr, P., Houck, J., Fan, W., Yueh, B., Mendez, E., Futran, N., Doody, D. R., Upton, M. P., Farwell, D. G., Schwartz, S. M., Zhao, L. P. and Chen, C. (2009). Genomewide gene expression profiles of HPV-positive and HPV-negative oropharyngeal cancer: potential implications for treatment choices. *Arch Otolaryngol Head Neck Surg.* **135**(2): 180-188.
- Lou, Y., Peng, W. J., Cao, D. S., Xie, J., Li, H. H. and Jiang, Z. X. (2013). DNA repair gene XRCC1 polymorphisms and head and neck cancer risk: an updated meta-analysis including 16344 subjects. *PLoS One.* **8**(9): e74059.
- Loureiro, G. J., Silva, E. F., Rinck-Junior, J. A., Chone, C. T. and Lima, C. S. (2011). CYP1A1, GSTM1 and GSTT1 polymorphisms, tobacco and alcohol status and risk of head and neck squamous cell carcinoma. *Tumour Biol.* **32**(6): 1209-1215.
- Lu, J., Getz, G., Miska, E. A., Alvarez-Saavedra, E., Lamb, J., Peck, D., Sweet-Cordero, A., Ebert, B. L., Mak, R. H., Ferrando, A. A., Downing, J. R., Jacks, T., Horvitz, H. R. and Golub, T. R. (2005). MicroRNA expression profiles classify human cancers. *Nature.* **435**(7043): 834-838.
- Lujambio, A., Ropero, S., Ballestar, E., Fraga, M. F., Cerrato, C., Setien, F., Casado, S., Suarez-Gauthier, A., Sanchez-Cespedes, M., Git, A., Spiteri, I., Das, P. P., Caldas, C., Miska, E. and Esteller, M. (2007). Genetic unmasking of an epigenetically silenced microRNA in human cancer cells. *Cancer Res.* **67**(4): 1424-1429.
- Macfarlane, L. A. and Murphy, P. R. (2010). MicroRNA: Biogenesis, Function and Role in Cancer. *Curr Genomics.* **11**(7): 537-561.
- Mack, G. S. (2006). Epigenetic cancer therapy makes headway. *J Natl Cancer Inst.* **98**(20): 1443-1444.
- Majumder, M., Sikdar, N., Paul, R. R. and Roy, B. (2005). Increased risk of oral leukoplakia and cancer among mixed tobacco users carrying XRCC1 variant haplotypes and cancer among smokers carrying two risk genotypes: one on each of two loci, GSTM3 and XRCC1 (Codon 280). *Cancer Epidemiol Biomarkers Prev.* **14**(9): 2106-2112.

## Bibliography

- Mammas, I. N., Sourvinos, G., Zaravinos, A. and Spandidos, D. A. (2011). Vaccination against human papilloma virus (HPV): epidemiological evidence of HPV in non-genital cancers. *Pathol Oncol Res.* **17**(1): 103-119.
- Margueron, R. and Reinberg, D. (2010). Chromatin structure and the inheritance of epigenetic information. *Nat Rev Genet.* **11**(4): 285-296.
- Maruya, S., Issa, J. P., Weber, R. S., Rosenthal, D. I., Haviland, J. C., Lotan, R. and El-Naggar, A. K. (2004). Differential methylation status of tumour-associated genes in head and neck squamous carcinoma: incidence and potential implications. *Clin Cancer Res.* **10**(11): 3825-3830.
- Mascolo, M., Siano, M., Ilardi, G., Russo, D., Merolla, F., De Rosa, G. and Staibano, S. (2012). Epigenetic disregulation in oral cancer. *Int J Mol Sci.* **13**(2): 2331-2353.
- Masood, N., Yasmin, A. and Kayani, M. A. (2013). Genetic deletions of GSTM1 and GSTT1 in head and neck cancer: review of the literature from 2000 to 2012. *Asian Pac J Cancer Prev.* **14**(6): 3535-3539.
- Matullo, G., Dunning, A. M., Guarnera, S., Baynes, C., Polidoro, S., Garte, S., Autrup, H., Malaveille, C., Peluso, M., Aioldi, L., Veglia, F., Gormally, E., Hoek, G., Krzyzanowski, M., Overvad, K., Raaschou-Nielsen, O., Clavel-Chapelon, F., Linseisen, J., Boeing, H., Trichopoulou, A., Palli, D., Krogh, V., Tumino, R., Panico, S., Bueno-De-Mesquita, H. B., Peeters, P. H., Lund, E., Pera, G., Martinez, C., Dorronsoro, M., Barricarte, A., Tormo, M. J., Quiros, J. R., Day, N. E., Key, T. J., Saracci, R., Kaaks, R., Riboli, E. and Vineis, P. (2006). DNA repair polymorphisms and cancer risk in non-smokers in a cohort study. *Carcinogenesis.* **27**(5): 997-1007.
- Maurya, S. S., Anand, G., Dhawan, A., Khan, A. J., Jain, S. K., Pant, M. C. and Parmar, D. (2014). Polymorphisms in drug-metabolizing enzymes and risk to head and neck cancer: evidence for gene-gene and gene-environment interaction. *Environ Mol Mutagen.* **55**(2): 134-144.
- McIlwain, C. C., Townsend, D. M. and Tew, K. D. (2006). Glutathione S-transferase polymorphisms: cancer incidence and therapy. *Oncogene.* **25**(11): 1639-1648.
- McIntyre, M. C., Ruesch, M. N. and Laimins, L. A. (1996). Human papillomavirus E7 oncoproteins bind a single form of cyclin E in a complex with cdk2 and p107. *Virology.* **215**(1): 73-82.

- McLaughlin, J. K., Gridley, G., Block, G., Winn, D. M., Preston-Martin, S., Schoenberg, J. B., Greenberg, R. S., Stemhagen, A., Austin, D. F., Ershow, A. G. and et al. (1988). Dietary factors in oral and pharyngeal cancer. *J Natl Cancer Inst.* **80**(15): 1237-1243.
- McWilliams, J. E., Evans, A. J., Beer, T. M., Andersen, P. E., Cohen, J. I., Everts, E. C. and Henner, W. D. (2000). Genetic polymorphisms in head and neck cancer risk. *Head Neck.* **22**(6): 609-617.
- McWilliams, R. R., Bamlet, W. R., Cunningham, J. M., Goode, E. L., de Andrade, M., Boardman, L. A. and Petersen, G. M. (2008). Polymorphisms in DNA repair genes, smoking, and pancreatic adenocarcinoma risk. *Cancer Res.* **68**(12): 4928-4935.
- Mehanna, H., Jones, T. M., Gregoire, V. and Ang, K. K. (2010). Oropharyngeal carcinoma related to human papillomavirus. *BMJ.* **340**: c1439.
- Merchant, A., Husain, S. S., Hosain, M., Fikree, F. F., Pitiphat, W., Siddiqui, A. R., Hayder, S. J., Haider, S. M., Ikram, M., Chuang, S. K. and Saeed, S. A. (2000). Paan without tobacco: an independent risk factor for oral cancer. *Int J Cancer.* **86**(1): 128-131.
- Merlo, A., Herman, J. G., Mao, L., Lee, D. J., Gabrielson, E., Burger, P. C., Baylin, S. B. and Sidransky, D. (1995). 5' CpG island methylation is associated with transcriptional silencing of the tumour suppressor p16/CDKN2/MTS1 in human cancers. *Nat Med.* **1**(7): 686-692.
- Mishra, A. and Meherotra, R. (2014). Head and neck cancer: global burden and regional trends in India. *Asian Pac J Cancer Prev.* **15**(2): 537-550.
- Mitra, S. A., Mitra, A. P. and Triche, T. J. (2012). A central role for long non-coding RNA in cancer. *Front Genet.* **3**: 17.
- Molina, P. E., Happel, K. I., Zhang, P., Kolls, J. K. and Nelson, S. (2010). Focus on: Alcohol and the immune system. *Alcohol Res Health.* **33**(1-2): 97-108.
- Mondal, R. and Ghosh, S. K. (2013). Accumulation of mutations over the complete mitochondrial genome in tobacco-related oral cancer from northeast India. *Mitochondrial DNA.* **24**(4): 432-439.
- Mondal, R., Ghosh, S. K., Choudhury, J. H., Seram, A., Sinha, K., Hussain, M., Laskar, R. S., Rabha, B., Dey, P., Ganguli, S., Nathchoudhury, M., Talukdar, F. R., Chaudhuri, B. and Dhar, B. (2013). Mitochondrial DNA copy number and risk of oral cancer: a report from Northeast India. *PloS one.* **8**(3): e57771.

- Nair, J., Ohshima, H., Friesen, M., Croisy, A., Bhide, S. V. and Bartsch, H. (1985). Tobacco-specific and betel nut-specific N-nitroso compounds: occurrence in saliva and urine of betel quid chewers and formation in vitro by nitrosation of betel quid. *Carcinogenesis*. **6**(2): 295-303.
- Nair, U., Bartsch, H. and Nair, J. (2004). Alert for an epidemic of oral cancer due to use of the betel quid substitutes gutkha and pan masala: a review of agents and causative mechanisms. *Mutagenesis*. **19**(4): 251-262.
- Nebert, D. W. and Dalton, T. P. (2006). The role of cytochrome P450 enzymes in endogenous signalling pathways and environmental carcinogenesis. *Nat Rev Cancer*. **6**(12): 947-960.
- Negri, E., Boffetta, P., Berthiller, J., Castellsague, X., Curado, M. P., Dal Maso, L., Daudt, A. W., Fabianova, E., Fernandez, L., Wunsch-Filho, V., Franceschi, S., Hayes, R. B., Herrero, R., Koifman, S., Lazarus, P., Lence, J. J., Levi, F., Mates, D., Matos, E., Menezes, A., Muscat, J., Eluf-Neto, J., Olshan, A. F., Rudnai, P., Shangina, O., Sturgis, E. M., Szeszenia-Dabrowska, N., Talamini, R., Wei, Q., Winn, D. M., Zaridze, D., Lissowska, J., Zhang, Z. F., Ferro, G., Brennan, P., La Vecchia, C. and Hashibe, M. (2009). Family history of cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium. *Int J Cancer*. **124**(2): 394-401.
- Negri, E., Franceschi, S., Bosetti, C., Levi, F., Conti, E., Parpinel, M. and La Vecchia, C. (2000). Selected micronutrients and oral and pharyngeal cancer. *Int J Cancer*. **86**(1): 122-127.
- Ng, H. H. and Bird, A. (1999). DNA methylation and chromatin modification. *Curr Opin Genet Dev*. **9**(2): 158-163.
- Nosheen, M., Ishrat, M., Malik, F. A., Baig, R. M. and Kayani, M. A. (2010). Association of GSTM1 and GSTT1 gene deletions with risk of head and neck cancer in Pakistan: a case control study. *Asian Pac J Cancer Prev*. **11**(4): 881-885.
- Ogi, K., Toyota, M., Ohe-Toyota, M., Tanaka, N., Noguchi, M., Sonoda, T., Kohama, G. and Tokino, T. (2002). Aberrant methylation of multiple genes and clinicopathological features in oral squamous cell carcinoma. *Clin Cancer Res*. **8**(10): 3164-3171.
- Ogino, S., Noshio, K., Kirkner, G. J., Kawasaki, T., Meyerhardt, J. A., Loda, M., Giovannucci, E. L. and Fuchs, C. S. (2009). CpG island methylator phenotype,

- microsatellite instability, BRAF mutation and clinical outcome in colon cancer. *Gut.* **58**(1): 90-96.
- Olivieri, E. H., da Silva, S. D., Mendonca, F. F., Urata, Y. N., Vidal, D. O., Faria Mde, A., Nishimoto, I. N., Rainho, C. A., Kowalski, L. P. and Rogatto, S. R. (2009). CYP1A2\*1C, CYP2E1\*5B, and GSTM1 polymorphisms are predictors of risk and poor outcome in head and neck squamous cell carcinoma patients. *Oral Oncol.* **45**(9): e73-79.
- Olshan, A. F., Watson, M. A., Weissler, M. C. and Bell, D. A. (2002). XRCC1 polymorphisms and head and neck cancer. *Cancer Lett.* **178**(2): 181-186.
- Ozdag, H., Teschendorff, A. E., Ahmed, A. A., Hyland, S. J., Blenkiron, C., Bobrow, L., Veerakumarasivam, A., Burtt, G., Subkhankulova, T., Arends, M. J., Collins, V. P., Bowtell, D., Kouzarides, T., Brenton, J. D. and Caldas, C. (2006). Differential expression of selected histone modifier genes in human solid cancers. *BMC Genomics.* **7**: 90.
- Pan, Q. H., Cao, Y., Xu, J. F., Chen, L. Z., Feng, Q. S., Zeng, Y. X. and Jia, W. H. (2007). [Family-based association study of XRCC1 gene polymorphisms in nasopharyngeal carcinoma]. *Zhonghua Yu Fang Yi Xue Za Zhi.* **41 Suppl:** 12-16.
- Park, S. J., Rashid, A., Lee, J. H., Kim, S. G., Hamilton, S. R. and Wu, T. T. (2003). Frequent CpG island methylation in serrated adenomas of the colorectum. *Am J Pathol.* **162**(3): 815-822.
- Parkin, D. M., Bray, F., Ferlay, J. and Pisani, P. (2005). Global cancer statistics, 2002. *CA Cancer J Clin.* **55**(2): 74-108.
- Patel, S. G. and Shah, J. P. (2005). TNM staging of cancers of the head and neck: striving for uniformity among diversity. *CA: a cancer journal for clinicians.* **55**(4): 242-258.
- Paz-Elizur, T., Sevilya, Z., Leitner-Dagan, Y., Elinger, D., Roisman, L. C. and Livneh, Z. (2008). DNA repair of oxidative DNA damage in human carcinogenesis: potential application for cancer risk assessment and prevention. *Cancer Lett.* **266**(1): 60-72.
- Peng, J., Liu, H. Z. and Zhu, Y. J. (2014). Null Glutathione S-transferase T1 and M1 genotypes and oral cancer susceptibility in China and India--a meta-analysis. *Asian Pac J Cancer Prev.* **15**(1): 287-290.

## Bibliography

- Perez-Ordonez, B., Beauchemin, M. and Jordan, R. C. (2006). Molecular biology of squamous cell carcinoma of the head and neck. *J Clin Pathol.* **59**(5): 445-453.
- Perez, L. O., Crivaro, A., Barbisan, G., Poleri, L. and Golijow, C. D. (2013). XRCC2 R188H (rs3218536), XRCC3 T241M (rs861539) and R243H (rs77381814) single nucleotide polymorphisms in cervical cancer risk. *Pathol Oncol Res.* **19**(3): 553-558.
- Petti, S. (2009). Lifestyle risk factors for oral cancer. *Oral Oncol.* **45**(4-5): 340-350.
- Pezzuto, F., Buonaguro, L., Caponigro, F., Ionna, F., Starita, N., Annunziata, C., Buonaguro, F. M. and Tornesello, M. L. (2015). Update on Head and Neck Cancer: Current Knowledge on Epidemiology, Risk Factors, Molecular Features and Novel Therapies. *Oncology.*
- Poeta, M. L., Manola, J., Goldwasser, M. A., Forastiere, A., Benoit, N., Califano, J. A., Ridge, J. A., Goodwin, J., Kenady, D., Saunders, J., Westra, W., Sidransky, D. and Koch, W. M. (2007). TP53 mutations and survival in squamous-cell carcinoma of the head and neck. *N Engl J Med.* **357**(25): 2552-2561.
- Rafii, S., O'Regan, P., Xinarianos, G., Azmy, I., Stephenson, T., Reed, M., Meuth, M., Thacker, J. and Cox, A. (2002). A potential role for the XRCC2 R188H polymorphic site in DNA-damage repair and breast cancer. *Hum Mol Genet.* **11**(12): 1433-1438.
- Ragin, C. C., Modugno, F. and Gollin, S. M. (2007). The epidemiology and risk factors of head and neck cancer: a focus on human papillomavirus. *J Dent Res.* **86**(2): 104-114.
- Ragin, C. C., Taioli, E., Weissfeld, J. L., White, J. S., Rossie, K. M., Modugno, F. and Gollin, S. M. (2006). 11q13 amplification status and human papillomavirus in relation to p16 expression defines two distinct etiologies of head and neck tumours. *Br J Cancer.* **95**(10): 1432-1438.
- Rahman, M., Sakamoto, J. and Fukui, T. (2003). Bidi smoking and oral cancer: a meta-analysis. *Int J Cancer.* **106**(4): 600-604.
- Ramachandran, S., Ramadas, K., Hariharan, R., Rejnish Kumar, R. and Radhakrishna Pillai, M. (2006). Single nucleotide polymorphisms of DNA repair genes XRCC1 and XPD and its molecular mapping in Indian oral cancer. *Oral Oncol.* **42**(4): 350-362.

## Bibliography

- Ramshankar, V. and Krishnamurthy, A. (2013). Human papilloma virus in head and neck cancers-role and relevance in clinical management. Indian J Surg Oncol. **4**(1): 59-66.
- Robertson, K. D. (2005). DNA methylation and human disease. Nat Rev Genet. **6**(8): 597-610.
- Roessler, J., Ammerpohl, O., Gutwein, J., Steinemann, D., Schlegelberger, B., Weyer, V., Sariyar, M., Geffers, R., Arnold, N., Schmutzler, R., Bartram, C. R., Heinrich, T., Abbas, M., Antonopoulos, W., Schipper, E., Hasemeier, B., Kreipe, H. and Lehmann, U. (2014). The CpG island methylator phenotype in breast cancer is associated with the lobular subtype. Epigenomics. 1-13.
- Roessler, J., Ammerpohl, O., Gutwein, J., Steinemann, D., Schlegelberger, B., Weyer, V., Sariyar, M., Geffers, R., Arnold, N., Schmutzler, R., Bartram, C. R., Heinrich, T., Abbas, M., Antonopoulos, W., Schipper, E., Hasemeier, B., Kreipe, H. and Lehmann, U. (2015). The CpG island methylator phenotype in breast cancer is associated with the lobular subtype. Epigenomics. **7**(2): 187-199.
- Rojas, M., Cascorbi, I., Alexandrov, K., Kriek, E., Auburtin, G., Mayer, L., Kopp-Schneider, A., Roots, I. and Bartsch, H. (2000). Modulation of benzo[a]pyrene dioleopoxide-DNA adduct levels in human white blood cells by CYP1A1, GSTM1 and GSTT1 polymorphism. Carcinogenesis. **21**(1): 35-41.
- Romanowicz-Makowska, H., Smolarz, B., Gajecka, M., Kiwerska, K., Rydzanicz, M., Kaczmarczyk, D., Olszewski, J., Szyfter, K., Blasiak, J. and Morawiec-Sztandera, A. (2012). Polymorphism of the DNA repair genes RAD51 and XRCC2 in smoking- and drinking-related laryngeal cancer in a Polish population. Arch Med Sci. **8**(6): 1065-1075.
- Rosas, S. L., Koch, W., da Costa Carvalho, M. G., Wu, L., Califano, J., Westra, W., Jen, J. and Sidransky, D. (2001). Promoter hypermethylation patterns of p16, O6-methylguanine-DNA-methyltransferase, and death-associated protein kinase in tumours and saliva of head and neck cancer patients. Cancer Res. **61**(3): 939-942.
- Rothenberg, S. M. and Ellisen, L. W. (2012). The molecular pathogenesis of head and neck squamous cell carcinoma. J Clin Invest. **122**(6): 1951-1957.
- Rouissi, K., Ouerhani, S., Hamrita, B., Bougatef, K., Marrakchi, R., Cherif, M., Ben Slama, M. R., Bouzouita, M., Chebil, M. and Ben Ammar Elgaaied, A. (2011).

- Smoking and polymorphisms in xenobiotic metabolism and DNA repair genes are additive risk factors affecting bladder cancer in Northern Tunisia. *Pathol Oncol Res.* **17**(4): 879-886.
- Sabitha, K., Reddy, M. V. and Jamil, K. (2010). Smoking related risk involved in individuals carrying genetic variants of CYP1A1 gene in head and neck cancer. *Cancer Epidemiol.* **34**(5): 587-592.
- Saito, Y., Takazawa, H., Uzawa, K., Tanzawa, H. and Sato, K. (1998). Reduced expression of E-cadherin in oral squamous cell carcinoma: relationship with DNA methylation of 5' CpG island. *Int J Oncol.* **12**(2): 293-298.
- Sakai, T., Toguchida, J., Ohtani, N., Yandell, D. W., Rapaport, J. M. and Dryja, T. P. (1991). Allele-specific hypermethylation of the retinoblastoma tumour-suppressor gene. *Am J Hum Genet.* **48**(5): 880-888.
- Sam, S. S., Thomas, V., Reddy, K. S., Surianarayanan, G. and Chandrasekaran, A. (2010). Gene-environment interactions associated with CYP1A1 MspI and GST polymorphisms and the risk of upper aerodigestive tract cancers in an Indian population. *J Cancer Res Clin Oncol.* **136**(6): 945-951.
- Sam, S. S., Thomas, V., Reddy, S. K., Surianarayanan, G. and Chandrasekaran, A. (2008). CYP1A1 polymorphisms and the risk of upper aerodigestive tract cancers in an Indian population. *Head Neck.* **30**(12): 1566-1574.
- Sana, J., Faltejskova, P., Svoboda, M. and Slaby, O. (2012). Novel classes of non-coding RNAs and cancer. *J Transl Med.* **10**: 103.
- Sanchez-Cespedes, M., Esteller, M., Wu, L., Nawroz-Danish, H., Yoo, G. H., Koch, W. M., Jen, J., Herman, J. G. and Sidransky, D. (2000). Gene promoter hypermethylation in tumours and serum of head and neck cancer patients. *Cancer Res.* **60**(4): 892-895.
- Sankaranarayanan, R., Masuyer, E., Swaminathan, R., Ferlay, J. and Whelan, S. (1998). Head and neck cancer: a global perspective on epidemiology and prognosis. *Anticancer Res.* **18**(6B): 4779-4786.
- Scheffner, M., Werness, B. A., Huibregtse, J. M., Levine, A. J. and Howley, P. M. (1990). The E6 oncoprotein encoded by human papillomavirus types 16 and 18 promotes the degradation of p53. *Cell.* **63**(6): 1129-1136.
- Seitz, H. K. and Stickel, F. (2010). Acetaldehyde as an underestimated risk factor for cancer development: role of genetics in ethanol metabolism. *Genes Nutr.* **5**(2): 121-128.

- Sethi, S., Ali-Fehmi, R., Franceschi, S., Struijk, L., van Doorn, L. J., Quint, W., Albashiti, B., Ibrahim, M. and Kato, I. (2012). Characteristics and survival of head and neck cancer by HPV status: a cancer registry-based study. *Int J Cancer.* **131**(5): 1179-1186.
- Shaffi, S. M., Shah, M. A., Bhat, I. A., Koul, P., Ahmad, S. N. and Siddiqi, M. A. (2009). CYP1A1 polymorphisms and risk of lung cancer in the ethnic Kashmiri population. *Asian Pac J Cancer Prev.* **10**(4): 651-656.
- Shah, G., Chaturvedi, P. and Vaishampayan, S. (2012). Areca nut as an emerging etiology of oral cancers in India. *Indian J Med Paediatr Oncol.* **33**(2): 71-79.
- Shah, P. P., Saurabh, K., Pant, M. C., Mathur, N. and Parmar, D. (2009). Evidence for increased cytochrome P450 1A1 expression in blood lymphocytes of lung cancer patients. *Mutat Res.* **670**(1-2): 74-78.
- Sharan, R. N., Mehrotra, R., Choudhury, Y. and Asotra, K. (2012). Association of betel nut with carcinogenesis: revisit with a clinical perspective. *PLoS One.* **7**(8): e42759.
- Sharma, A., Mishra, A., Das, B. C., Sardana, S. and Sharma, J. K. (2006). Genetic polymorphism at GSTM1 and GSTT1 gene loci and susceptibility to oral cancer. *Neoplasma.* **53**(4): 309-315.
- Sharma, J. D., Kalita, M., Barbhuiya, J. A., Lahon, R., Sharma, A., Barman, D., Kataki, A. C. and Roy, B. D. (2014). Descriptive report on pattern of variation in cancer cases within selected ethnic groups in Kamrup Urban District of Assam, 2009-2011. *Asian Pac J Cancer Prev.* **15**(15): 6381-6386.
- Sharma, P., Saxena, S. and Aggarwal, P. (2010a). Trends in the epidemiology of oral squamous cell carcinoma in Western UP: an institutional study. *Indian J Dent Res.* **21**(3): 316-319.
- Sharma, R., Ahuja, M., Panda, N. K. and Khullar, M. (2010b). Combined effect of smoking and polymorphisms in tobacco carcinogen-metabolizing enzymes CYP1A1 and GSTM1 on the head and neck cancer risk in North Indians. *DNA Cell Biol.* **29**(8): 441-448.
- Sharma, S., Kelly, T. K. and Jones, P. A. (2010c). Epigenetics in cancer. *Carcinogenesis.* **31**(1): 27-36.
- Shaw, R. J., Hall, G. L., Lowe, D., Bowers, N. L., Liloglou, T., Field, J. K., Woolgar, J. A. and Risk, J. M. (2007). CpG island methylation phenotype

- (CIMP) in oral cancer: associated with a marked inflammatory response and less aggressive tumour biology. *Oral Oncol.* **43**(9): 878-886.
- Shaw, R. J., Liloglou, T., Rogers, S. N., Brown, J. S., Vaughan, E. D., Lowe, D., Field, J. K. and Risk, J. M. (2006). Promoter methylation of P16, RARbeta, E-cadherin, cyclin A1 and cytoglobin in oral cancer: quantitative evaluation using pyrosequencing. *Br J Cancer.* **94**(4): 561-568.
- Shen, F. F., Zhou, F. Y., Xue, Q. S., Pan, Y., Zheng, L., Zhang, H., Wang, L. D. and Zheng, H. F. (2013). Association between CYP1A1 polymorphisms and esophageal cancer: a meta-analysis. *Mol Biol Rep.* **40**(10): 6035-6042.
- Shunyu, N. B. and Syiemlieh, J. (2013). Prevalence of head and neck cancer in the state of Meghalaya: Hospital-based study.
- Simard, E. P., Torre, L. A. and Jemal, A. (2014). International trends in head and neck cancer incidence rates: differences by country, sex and anatomic site. *Oral Oncol.* **50**(5): 387-403.
- Singh, A. P., Shah, P. P., Ruwali, M., Mathur, N., Pant, M. C. and Parmar, D. (2009). Polymorphism in cytochrome P4501A1 is significantly associated with head and neck cancer risk. *Cancer Invest.* **27**(8): 869-876.
- Singh, M., Shah, P. P., Singh, A. P., Ruwali, M., Mathur, N., Pant, M. C. and Parmar, D. (2008). Association of genetic polymorphisms in glutathione S-transferases and susceptibility to head and neck cancer. *Mutat Res.* **638**(1-2): 184-194.
- Singh, R. D., Haridas, N., Shah, F. D., Patel, J. B., Shukla, S. N. and Patel, P. S. (2014). Gene polymorphisms, tobacco exposure and oral cancer susceptibility: a study from Gujarat, West India. *Oral Dis.* **20**(1): 84-93.
- Sinha, P., Logan, H. L. and Mendenhall, W. M. (2012). Human papillomavirus, smoking, and head and neck cancer. *Am J Otolaryngol.* **33**(1): 130-136.
- Soya, S. S., Vinod, T., Reddy, K. S., Gopalakrishnan, S. and Adithan, C. (2007). Genetic polymorphisms of glutathione-S-transferase genes (GSTM1, GSTT1 and GSTP1) and upper aerodigestive tract cancer risk among smokers, tobacco chewers and alcoholics in an Indian population. *Eur J Cancer.* **43**(18): 2698-2706.
- Steger, G. and Corbach, S. (1997). Dose-dependent regulation of the early promoter of human papillomavirus type 18 by the viral E2 protein. *J Virol.* **71**(1): 50-58.

## Bibliography

- Stransky, N., Egloff, A. M., Tward, A. D., Kostic, A. D., Cibulskis, K., Sivachenko, A., Kryukov, G. V., Lawrence, M. S., Sougnez, C., McKenna, A., Shefler, E., Ramos, A. H., Stojanov, P., Carter, S. L., Voet, D., Cortes, M. L., Auclair, D., Berger, M. F., Saksena, G., Guiducci, C., Onofrio, R. C., Parkin, M., Romkes, M., Weissfeld, J. L., Seethala, R. R., Wang, L., Rangel-Escareno, C., Fernandez-Lopez, J. C., Hidalgo-Miranda, A., Melendez-Zajgla, J., Winckler, W., Ardlie, K., Gabriel, S. B., Meyerson, M., Lander, E. S., Getz, G., Golub, T. R., Garraway, L. A. and Grandis, J. R. (2011). The mutational landscape of head and neck squamous cell carcinoma. *Science*. **333**(6046): 1157-1160.
- Sturgis, E. M., Castillo, E. J., Li, L., Zheng, R., Eicher, S. A., Clayman, G. L., Strom, S. S., Spitz, M. R. and Wei, Q. (1999). Polymorphisms of DNA repair gene XRCC1 in squamous cell carcinoma of the head and neck. *Carcinogenesis*. **20**(11): 2125-2129.
- Su, P. F., Huang, W. L., Wu, H. T., Wu, C. H., Liu, T. Y. and Kao, S. Y. (2010). p16(INK4A) promoter hypermethylation is associated with invasiveness and prognosis of oral squamous cell carcinoma in an age-dependent manner. *Oral Oncol*. **46**(10): 734-739.
- Subapriya, R., Thangavelu, A., Mathavan, B., Ramachandran, C. R. and Nagini, S. (2007). Assessment of risk factors for oral squamous cell carcinoma in Chidambaram, Southern India: a case-control study. *Eur J Cancer Prev*. **16**(3): 251-256.
- Supic, G., Kozomara, R., Jovic, N., Zeljic, K. and Magic, Z. (2011). Prognostic significance of tumour-related genes hypermethylation detected in cancer-free surgical margins of oral squamous cell carcinomas. *Oral Oncol*. **47**(8): 702-708.
- Suzen, H. S., Guvenc, G., Turanli, M., Comert, E., Duydu, Y. and Elhan, A. (2007). The role of GSTM1 and GSTT1 polymorphisms in head and neck cancer risk. *Oncol Res*. **16**(9): 423-429.
- Syrjanen, K., Syrjanen, S. and Pyrhonen, S. (1982). Human papilloma virus (HPV) antigens in lesions of laryngeal squamous cell carcinomas. *ORL J Otorhinolaryngol Relat Spec*. **44**(6): 323-334.
- Tachezy, R., Klozar, J., Salakova, M., Smith, E., Turek, L., Betka, J., Kodet, R. and Hamsikova, E. (2005). HPV and other risk factors of oral cavity/oropharyngeal cancer in the Czech Republic. *Oral Dis*. **11**(3): 181-185.

- Tae, K., Lee, H. S., Park, B. J., Park, C. W., Kim, K. R., Cho, H. Y., Kim, L. H., Park, B. L. and Shin, H. D. (2004). Association of DNA repair gene XRCC1 polymorphisms with head and neck cancer in Korean population. *Int J Cancer.* **111**(5): 805-808.
- Tahara, T., Shibata, T., Nakamura, M., Okubo, M., Yamashita, H., Yoshioka, D., Yonemura, J., Ishizuka, T., Hirata, I. and Arisawa, T. (2011). Polymorphisms of DNA repair and xenobiotic genes predispose to CpG island methylation in non-neoplastic gastric mucosa. *Helicobacter.* **16**(2): 99-106.
- Talukdar, F. R., Ghosh, S. K., Laskar, R. S., Kannan, R., Choudhury, B. and Bhowmik, A. (2014). Epigenetic pathogenesis of human papillomavirus in upper aerodigestive tract cancers. *Mol Carcinog.*
- Talukdar, F. R., Ghosh, S. K., Laskar, R. S. and Mondal, R. (2013). Epigenetic, genetic and environmental interactions in esophageal squamous cell carcinoma from northeast India. *PLoS One.* **8**(4): e60996.
- Tanaka, N., Odajima, T., Ogi, K., Ikeda, T. and Satoh, M. (2003). Expression of E-cadherin, alpha-catenin, and beta-catenin in the process of lymph node metastasis in oral squamous cell carcinoma. *Br J Cancer.* **89**(3): 557-563.
- Teodoridis, J. M., Hardie, C. and Brown, R. (2008). CpG island methylator phenotype (CIMP) in cancer: causes and implications. *Cancer Lett.* **268**(2): 177-186.
- Teodoridis, J. M., Strathdee, G. and Brown, R. (2004). Epigenetic silencing mediated by CpG island methylation: potential as a therapeutic target and as a biomarker. *Drug Resist Updat.* **7**(4-5): 267-278.
- Termine, N., Panzarella, V., Falaschini, S., Russo, A., Matranga, D., Lo Muzio, L. and Campisi, G. (2008). HPV in oral squamous cell carcinoma vs head and neck squamous cell carcinoma biopsies: a meta-analysis (1988-2007). *Ann Oncol.* **19**(10): 1681-1690.
- Thomas, G. J. and Speight, P. M. (2001). Cell adhesion molecules and oral cancer. *Crit Rev Oral Biol Med.* **12**(6): 479-498.
- Townsend, D. M. and Tew, K. D. (2003). The role of glutathione-S-transferase in anti-cancer drug resistance. *Oncogene.* **22**(47): 7369-7375.
- Toyota, M., Ahuja, N., Ohe-Toyota, M., Herman, J. G., Baylin, S. B. and Issa, J. P. (1999a). CpG island methylator phenotype in colorectal cancer. *Proc Natl Acad Sci U S A.* **96**(15): 8681-8686.

- Toyota, M., Ho, C., Ahuja, N., Jair, K. W., Li, Q., Ohe-Toyota, M., Baylin, S. B. and Issa, J. P. (1999b). Identification of differentially methylated sequences in colorectal cancer by methylated CpG island amplification. *Cancer Res.* **59**(10): 2307-2312.
- Tsai, H. C. and Baylin, S. B. (2011). Cancer epigenetics: linking basic biology to clinical medicine. *Cell Res.* **21**(3): 502-517.
- van Kempen, P. M., van Bockel, L., Braunius, W. W., Moelans, C. B., van Olst, M., de Jong, R., Stegeman, I., van Diest, P. J., Grolman, W. and Willems, S. M. (2014). HPV-positive oropharyngeal squamous cell carcinoma is associated with TIMP3 and CADM1 promoter hypermethylation. *Cancer Med.* **3**(5): 1185-1196.
- Venuti, A., Badaracco, G., Rizzo, C., Mafera, B., Rahimi, S. and Vigili, M. (2004). Presence of HPV in head and neck tumours: high prevalence in tonsillar localization. *J Exp Clin Cancer Res.* **23**(4): 561-566.
- Vineis, P. (2002). The relationship between polymorphisms of xenobiotic metabolizing enzymes and susceptibility to cancer. *Toxicology.* **181-182**: 457-462.
- Viswanathan, M., Tsuchida, N. and Shanmugam, G. (2003). Promoter hypermethylation profile of tumour-associated genes p16, p15, hMLH1, MGMT and E-cadherin in oral squamous cell carcinoma. *Int J Cancer.* **105**(1): 41-46.
- Vondracek, M., Xi, Z., Larsson, P., Baker, V., Mace, K., Pfeifer, A., Tjalve, H., Donato, M. T., Gomez-Lechon, M. J. and Grafstrom, R. C. (2001). Cytochrome P450 expression and related metabolism in human buccal mucosa. *Carcinogenesis.* **22**(3): 481-488.
- Weber, M., Davies, J. J., Wittig, D., Oakeley, E. J., Haase, M., Lam, W. L. and Schubeler, D. (2005). Chromosome-wide and promoter-specific analyses identify sites of differential DNA methylation in normal and transformed human cells. *Nat Genet.* **37**(8): 853-862.
- Wei, B., Xu, Z., Zhou, Y., Ruan, J., Cheng, H., Xi, B., Zhu, M., Jin, K., Zhou, D., Hu, Q., Wang, Q., Wang, Z., Yan, Z., Xuan, F., Huang, X., Zhang, J. and Zhou, H. (2012). Association of GSTM1 null allele with prostate cancer risk: evidence from 36 case-control studies. *PloS one.* **7**(10): e46982.

- Wei, Y., Zhou, T., Lin, H., Sun, M., Wang, D., Li, H. and Li, B. (2013). Significant associations between GSTM1/GSTT1 polymorphisms and nasopharyngeal cancer risk. *Tumour Biol.* **34**(2): 887-894.
- Weisenberger, D. J., Siegmund, K. D., Campan, M., Young, J., Long, T. I., Faasse, M. A., Kang, G. H., Widschwendter, M., Weener, D., Buchanan, D., Koh, H., Simms, L., Barker, M., Leggett, B., Levine, J., Kim, M., French, A. J., Thibodeau, S. N., Jass, J., Haile, R. and Laird, P. W. (2006). CpG island methylator phenotype underlies sporadic microsatellite instability and is tightly associated with BRAF mutation in colorectal cancer. *Nat Genet.* **38**(7): 787-793.
- Werbrouck, J., De Ruyck, K., Duprez, F., Van Eijkeren, M., Rietzschel, E., Bekaert, S., Vral, A., De Neve, W. and Thierens, H. (2008). Single-nucleotide polymorphisms in DNA double-strand break repair genes: association with head and neck cancer and interaction with tobacco use and alcohol consumption. *Mutat Res.* **656**(1-2): 74-81.
- Winder, D. M., Ball, S. L., Vaughan, K., Hanna, N., Woo, Y. L., Franzer, J. T., Sterling, J. C., Stanley, M. A., Sudhoff, H. and Goon, P. K. (2009). Sensitive HPV detection in oropharyngeal cancers. *BMC Cancer.* **9**: 440.
- Wong, T. S., Man, M. W., Lam, A. K., Wei, W. I., Kwong, Y. L. and Yuen, A. P. (2003). The study of p16 and p15 gene methylation in head and neck squamous cell carcinoma and their quantitative evaluation in plasma by real-time PCR. *Eur J Cancer.* **39**(13): 1881-1887.
- Worsham, M. J., Chen, K. M., Ghanem, T., Stephen, J. K. and Divine, G. (2013). Epigenetic modulation of signal transduction pathways in HPV-associated HNSCC. *Otolaryngol Head Neck Surg.* **149**(3): 409-416.
- Yadav, D. S., Devi, T. R., Ihsan, R., Mishra, A. K., Kaushal, M., Chauhan, P. S., Bagadi, S. A., Sharma, J., Zamoawia, E., Verma, Y., Nandkumar, A., Saxena, S. and Kapur, S. (2010). Polymorphisms of glutathione-S-transferase genes and the risk of aerodigestive tract cancers in the Northeast Indian population. *Genet Test Mol Biomarkers.* **14**(5): 715-723.
- Yalniz, Z., Demokan, S., Suoglu, Y., Ulusan, M. and Dalay, N. (2011). Simultaneous methylation profiling of tumour suppressor genes in head and neck cancer. *DNA Cell Biol.* **30**(1): 17-24.

- Yang, Y., Tian, H. and Zhang, Z. J. (2008). [Association of the XRCC1 and hOGG1 polymorphisms with the risk of laryngeal carcinoma]. *Zhonghua Yi Xue Za Chuan Xue Za Zhi.* **25**(2): 211-213.
- Ye, Z., Song, H. and Guo, Y. (2004). Glutathione S-transferase M1, T1 status and the risk of head and neck cancer: a meta-analysis. *J Med Genet.* **41**(5): 360-365.
- Yeh, C. C., Sung, F. C., Tang, R., Chang-Chieh, C. R. and Hsieh, L. L. (2005). Polymorphisms of the XRCC1, XRCC3, & XPD genes, and colorectal cancer risk: a case-control study in Taiwan. *BMC Cancer.* **5**: 12.
- Yen, C. Y., Liu, S. Y., Chen, C. H., Tseng, H. F., Chuang, L. Y., Yang, C. H., Lin, Y. C., Wen, C. H., Chiang, W. F., Ho, C. H., Chen, H. C., Wang, S. T., Lin, C. W. and Chang, H. W. (2008). Combinational polymorphisms of four DNA repair genes XRCC1, XRCC2, XRCC3, and XRCC4 and their association with oral cancer in Taiwan. *J Oral Pathol Med.* **37**(5): 271-277.
- Yu, H. S., Oyama, T., Isse, T., Kitagawa, K., Pham, T. T., Tanaka, M. and Kawamoto, T. (2010). Formation of acetaldehyde-derived DNA adducts due to alcohol exposure. *Chem Biol Interact.* **188**(3): 367-375.
- Yuan, H., Li, H., Ma, H., Niu, Y., Wu, Y., Zhang, S., Hu, Z., Shen, H. and Chen, N. (2012). Genetic polymorphisms in key DNA repair genes and risk of head and neck cancer in a Chinese population. *Exp Ther Med.* **3**(4): 719-724.
- Zaravinos, A., Mammas, I. N., Sourvinos, G. and Spandidos, D. A. (2009). Molecular detection methods of human papillomavirus (HPV). *Int J Biol Markers.* **24**(4): 215-222.
- Zhang, Y., Ni, Y., Zhang, H., Pan, Y., Ma, J. and Wang, L. (2012). Association between GSTM1 and GSTT1 allelic variants and head and neck squamous cell carcinoma. *PloS one.* **7**(10): e47579.
- Zhou, S. F., Liu, J. P. and Chowbay, B. (2009). Polymorphism of human cytochrome P450 enzymes and its clinical impact. *Drug Metab Rev.* **41**(2): 89-295.
- Zienoldiny, S., Campa, D., Lind, H., Ryberg, D., Skaug, V., Stangeland, L., Phillips, D. H., Canzian, F. and Haugen, A. (2006). Polymorphisms of DNA repair genes and risk of non-small cell lung cancer. *Carcinogenesis.* **27**(3): 560-567.

## Bibliography

- Zuo, C., Ai, L., Ratliff, P., Suen, J. Y., Hanna, E., Brent, T. P. and Fan, C. Y. (2004). O6-methylguanine-DNA methyltransferase gene: epigenetic silencing and prognostic value in head and neck squamous cell carcinoma. *Cancer Epidemiol Biomarkers Prev.* **13**(6): 967-975.
- zur Hausen, H. (2002). Papillomaviruses and cancer: from basic studies to clinical application. *Nat Rev Cancer.* **2**(5): 342-350.