



## DAFTAR PUSTAKA

- Adam, A.A., Abdullah, N.E., Khalifa, E.H., Hassan, L., Elamin, E.M., 2011. Pathology of nasopharyngeal carcinoma in Sudanese patients and its association with Epstein-Barr Virus: A report from a single center in khartoum. *Advances in Tumor Virology* 2011(2): 1-6.
- Adham, M., Kurniawan, A.N., Muhtadi, A.I., Roezin, A., Hermani, B., Gondhowiardjo, S., et al., 2012. Nasopharyngeal carcinoma in Indonesia: Epidemiology, incidence, signs, and symptoms at presentation. *Chinese Journal of Cancer* 3(4):185-196.
- Brennan, B., 2006. Nasopharyngeal carcinoma. *Orphanet Journal of Rare Disease* 1(23): 1–5.
- Chanmee, T., Ontong, P., Konno, K., Itano, N., 2014. Tumor-associated macrophages as major players in the tumor microenvironment. *Cancers* 2014 (6):1670–1690.
- Chen, Y., Song, Y., Du, W., Gong, L., Chang, H., Zou, Z., 2019. Tumor-associated macrophages: an accomplice in solid tumor progression. *Journal of Biomedical Science* 26(78): 1-13.
- Dawson, C.W., Port, R.J., Young, L.S., 2012. The role of the EBV-encoded latent membrane proteins LMP1 and LMP2 in the pathogenesis of nasopharyngeal carcinoma ( NPC ). *Seminars in Cancer Biology* 22: 144–153.
- Federative International Committee on Anatomical Terminology (FICAT), 2008. *Terminologia Histologica: International Terms for Human Cytology and Histology*. Lippincott Williams & Wilkins, Philadelphia.
- Frey, D.M., Droeser, R.A., Viehl, C.T., Zlobec, I., Lugli, A., Zingg, U., et al., 2010. High frequency of tumor-infiltrating FOXP3<sup>+</sup> regulatory T cells predicts improved survival in mismatch repair-proficient colorectal cancer patients. *International Journal of Cancer* 126: 2635-2643
- Globocan, 2018. Cancer today. *Cancer Today gco.iarc.fr*.
- Hanahan, D., Weinberg, R.A., 2011. Hallmarks of Cancer: The Next Generation. *Cell* 144: 646–674.
- Huang, D., Song, S.J., Wu, Z.Z., Wu, W., Cui, X.Y., 2017. Epstein-Barr virus-induced VEGF and GM-CSF drive nasopharyngeal carcinoma metastasis via recruitment and activation of macrophages. *The Journal of Cancer Research* 2017:1916-1930.
- Huang, S.C.M., Tsao, S.W., Tsang, C.M., 2018. Interplay of viral infection , host cell factors and tumor microenvironment in the pathogenesis of nasopharyngeal carcinoma. *Cancers* 10 (106): 1-18.
- Hui, E.P., Chan, A.T., 2018. Epidemiology, etiology, and diagnosis of nasopharyngeal carcinoma.
- Hutt-fletcher, L.M., 2014. Epstein – Barr virus replicating in epithelial cells. *Proceedings of the National Academy of Sciences of the United States of America* 111: 16242–16243.
- Ino, Y., Yamazaki-Itoh, R., Shimada, K., Iwasaki, M., Kosuge, T., Kanai, Y., et al., 2013. Immune cell infiltration as an indicator of the immune



- microenvironment of pancreatic cancer. *British Journal of Cancer* 108: 914-923.
- Jorgensen, N., Persson, G., Hviid, T.V.F., 2019. The tolerogenic function of regulatory T cells in pregnancy and cancer. *Frontiers in Immunology* 10(911): 1-21.
- Krishna, S.M., James, S., Kattoor, J., Balaram, P., 2004. Serum EBV DNA as a biomarker in primary nasopharyngeal carcinoma of Indian origin. *Japanese Journal of Clinical Oncology* 34(6): 307-311.
- Lau, K.M., Cheng, S.H., Lo, K.W., Lee, S.A.K.W., Woo, J.K.S., van Hasselt, C.A., et al., 2007. Increase in circulating Foxp3<sup>+</sup> CD4<sup>+</sup> CD25<sup>high</sup> regulatory T cells in nasopharyngeal carcinoma patients. *British Journal of Cancer* 96: 617-622.
- Liu, J., Li, C., Zhang, L., Liu, K., Jiang, X., Wang, X., et al., 2019. Association of tumour-associated macrophages with cancer cell EMT, invasion, and metastasis of Kazakh oesophageal squamous cell cancer. *Diagnostic Pathology* 14 (55): 1-9.
- Liu, X., Xu D., Huang, C., Guo, Y., Wang, S., Zhu, C., 2019. Regulatory T cells and M2 macrophages present diverse prognostic value in gastric cancer patients with different clinicopathologic characteristics and chemotherapy strategies. *Journal of Translational Medicine* 17(192): 1-11.
- McHugh, M.L., 2012. Interrater reliability: the kappa statistic. *Biochemia Medica* 22(3): 276-282.
- Niedobitek, G., 2000. Epstein-Barr virus infection in the pathogenesis of nasopharyngeal carcinoma. *Journal of Clinical Pathology: Molecular Pathology* 53:248-254.
- Ooft, M.L., Ipenburg, J.A., Sanders, M.E., Kranendonk, M., Hofland, I., de Bree, R., et al., 2017. Prognostic role of tumour-associated macrophages and regulatory T cells in EBV-positive and EBV- negative nasopharyngeal carcinoma. *Journal of Clinical Pathology* 2017 (0): 1-8.
- Ouyang, P.Y., Su, Z., Ma, X.H., Mao, Y.P., Liu, M.Z., 2013. Comparison of TNM staging systems for nasopharyngeal carcinoma, and proposal of a new staging system. *British Journal of Cancer* 109: 2987-2997.
- Poh, A.R., Ernst, M., 2018. Targeting macrophages in cancer: From bench to bedside. *Frontiers in Oncology* 8(49):1-16.
- Resteghini, C., Alfieri, S., Quattrone, P., Dominoni, F., Garzone, G., Orlando, E., et al., 2017. RANK expression in EBV positive nasopharyngeal carcinoma metastasis: a ready-to-treat target? *Oncotarget* 8 (56): 96184-96189.
- Salehiniya, H., Mohammadian, M., Mahdavifar, N., 2018. Nasopharyngeal cancer in the world : epidemiology, incidence, mortality and risk factors. *World Cancer Research Journal* 5 (1):e1046.
- Shitara, K., Nishikawa, H., 2018. Regulatory T cells: a potential target in cancer immunotherapy. *Annals of the New York Academy of Sciences* 1417: 104-115.
- Sousa, S., Brion, R., Lintunen, M., Kronqvist, P., Sandholm, J., Monkkonen, J., et al., 2015. Human breast cancer cells educate macrophages toward the M2 activation status. *Breast Cancer Research* 17:101.



- Sun, W., Wei, F.Q., Li, W.J., Wei, J.W., Zhong, H., Wen, Y.H., et al., 2017. A positive-feedback loop between tumour infiltrating activated Treg cells and type 2-skewed macrophages is essential for progression of laryngeal squamous cell carcinoma. *British Journal of Cancer* 117: 1631-1643.
- Tao, Q., Chan, A.T.C., 2007. Nasopharyngeal carcinoma: molecular pathogenesis and therapeutic developments. *Expert Reviews in Molecular Medicine* 9(12):1-24.
- Tsao, S.W., Tsang, C.M., Lo, K.W., 2017. Epstein – Barr virus infection and nasopharyngeal carcinoma. *Philosophical Transactions of the Royal Society B* 372: 20160270.
- Umar, B., Ahmed, R., 2014. Nasopharyngeal carcinoma, an analysis of histological subtypes and their association with EBV, a study of 100 cases of Pakistani population. *Asian Journal of Medical Sciences* 5(4):16-20.
- Wang, R., Lu, M., Chen, H., Chen, S., Luo, X., Qin, Y., et al., 2011. Increased IL-10 mRNA expression in tumor-associated macrophage correlated with late stage of lung cancer. *Journal of Experimental & Clinical Cancer Research* 30(62): 1-9.
- Wang, J., Huang, H., Lu, J., Bi, P., Wang, F., Liu, X., et al., 2017. Tumor cells induced-M2 macrophage favors accumulation of Treg in nasopharyngeal carcinoma. *International Journal of Clinical Experimental Pathology* 10(8): 8389–8401.
- Wang, L., Yi, T., Kortylewski, M., Pardoll, D.M., Zeng, D., Yu, H., 2009. IL-17 can promote tumor growth through an IL-6–Stat3 signaling pathway. *The Journal of Experimental Medicine* 206(7): 1457-1464.
- Wang, M., Zhao, J., Zhang, L., Wei, F., Lian, Y., Wu, Y., et al., 2017. Role of tumor microenvironment in tumorigenesis. *Journal of Cancer* 8(5):761-773.
- Wang, N., Liang, H., Zen, K., 2014. Molecular mechanisms that influence the macrophage M1–M2 polarization balance. *Frontiers in Immunology* 5(614):1-9.
- Waniczek, D., Lorenc, Z., Śnietura, M., Wesecki, M., 2017. Tumor-associated macrophages and regulatory T cells infiltration and the clinical outcome in colorectal cancer. *Archivum Immunologiae et Therapiae Experimentalis* 65: 445–454.
- Young, L.S., Dawson, C.W., 2014. Epstein-Barr virus and nasopharyngeal carcinoma. *Chinese Journal of Cancer* 33(12):581-590.
- Young, L.S., Murray, P.G., 2003. Epstein – Barr virus and oncogenesis: from latent genes to tumours. *Oncogene* 22:5108–5121.
- Yu, Y., Ke, K., Lv, X., Ling, Y.H., Lu, J., Liang, H., et al., 2018. The prognostic significance of carcinoma-associated fibroblasts and tumor-associated macrophages in nasopharyngeal carcinoma. *Cancer Management and Research* 10: 1935-1946.
- Zamarron, B.F., Chen, W., 2011. Dual roles of immune cells and their factors in cancer development and progression. *International Journal of Biological Sciences* 7(5):651-658.
- Zeng, M., Zeng, Y., 2010. Pathogenesis and etiology of nasopharyngeal carcinoma. *Nasopharyngeal Cancer Multidisciplinary Management*



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- Zhang, Y.L., Li, J., Mo, H.Y., Qiu, F., Zheng, L.M., Qian, C.N., et al., 2010. Different subsets of tumor infiltrating lymphocytes correlate with NPC progression in different ways. *Molecular Cancer* 9(4): 1-11.
- Zhu, Q., Wu, X., Wu, Y., Wang, X., 2016. Interaction between Treg cells and tumor-associated macrophages in the tumor microenvironment of epithelial ovarian cancer. *Oncology Reports* 36: 3472-3478.
- Zhu, Q., Wu, X., Wang, X., 2017. Differential distribution of tumor - associated macrophages and Treg / Th17 cells in the progression of malignant and benign epithelial ovarian tumors. *Oncology Letters* 13: 159–166.