

Multiple Drug Resistance in Cancer: Cellular, Molecular and Clinical Approaches - 9789401108263 - 393 pages - 2012 - Martin Clynes - Springer Science & Business Media, 2012

Dietary approaches in cancer FMDs. As a result, many types of cancer cells, but not normal cells, experience functional imbalances, becoming sensitized to toxic agents, including chemotherapy (differential stress sensitization). Conversely, fasting or an FMD initiates an evolutionarily conserved molecular response that makes normal cells but not cancer cells more resistant to stressors, including chemotherapy (differential stress resistance). Consistent with the notion that increased glucose cAMP PKA signalling reduces resistance to toxicity of chemotherapeutic drugs^{12,26,126}, both dexamethasone and rapamycin increase toxicity of doxorubicin in mouse cardiomyocytes and mice²⁶. Use of multiple mechanisms Cancers can employ several resistance mechanisms, either sequentially or concurrently to evade drug treatment. Four examples are described to illustrate this point, including classical chemotherapy and targeted agents: 1. Topoisomerase II inhibitors remain a mainstay of both haematological and solid tumour therapy, but their clinical efficacy is often limited by resistance. Many mechanisms may contribute to this resistance including reduced drug accumulation and/or increased efflux, site specific mutations affecting drug-induced topo II mediated DNA damage, post-tr The cancer stem cell hypothesis states that the cancer-initiating cell is a transformed tissue stem cell, which retains the essential property of self-protection through the activity of multiple drug resistance (MDR) transporters. This resting constitutively drug-resistant cell remains at low frequency among a heterogeneous tumor mass. News. SOCIAL MEDIA. Cellular and Molecular Basis of Cancer. By. Robert Peter Gale. Diethylstilbestrol (DES) increases the risk of breast cancer in women who took the drug, and increases the risk of vaginal cancer in daughters of these women exposed before birth. Long-term use of anabolic steroids may increase the risk of liver cancer and accelerate prostate cancer. Treatment of cancer with chemotherapy drugs alone or with radiation therapy increases the risk of developing a second cancer, as do immunosuppressive drugs given for organ transplantation. Consolidation strategies in ovarian cancer: Observations for future clinical trials. *Gynecol Oncol* 2010;116:66-71. 9. Sato E., Olson S.H., Ahn J. et al. Intraepithelial CD8+ tumor-infiltrating lymphocytes and a high CD8+/regulatory T cell ratio are associated with favorable prognosis in ovarian cancer. The aim of the study was to study the expression of molecular-biological tumor markers in patients with cervical cancer, and their effect on the course of accompanying therapy. Material and methods: The greatest effect in increasing the 5-year survival of patients with cervical cancer was provided by a scheme of accompanying immunotherapy, including EIPHT with plasmapheresis: this effect of the method manifested itself in both positive and negative levels of oncomarkers.