Dokumenttyp:journal article
Autor(en) des Beitrags:
Dorn, J; Bayani, J; Yousef, G M; Yang, F; Magdolen, V; Kiechle, M; Diamandis, E P; Schmitt, M
Titel des Beitrags:
Clinical utility of kallikrein-related peptidases (KLK) in urogenital malignancies.
Abstract:
Kallikrein-related peptidases (KLK), which represent a major tissue-associated proteolytic system, stand for a rich source of biomarkers that may allow molecular classification, early diagnosis and prognosis of human malignancies as well as prediction of response or failure to cancer-directed drugs. International research points to an important role of certain KLKs in female and male urogenital tract malignancies, in addition to cancers of the lung, brain, skin, head and neck, and the gastrointestinal tract. Regarding the female/male urogenital tract, remarkably, all of the KLKs are expressed in the normal prostate, testis, and kidney whereas the uterus, the ovary, and the urinary bladder are expressing a limited number of KLKs only. Most of the information regarding KLK expression in tumour-affected organs is available for ovarian cancer; all of the 12 KLKs tested so far were found to be elevated in the malignant state, depicting them as valuable biomarkers to distinguish between the normal and the cancerous phenotype. In contrast, for kidney cancer, a series of KLKs was found to be downregulated, while other KLKs were not expressed. Evidently, depending on the type of cancer or cancer stage, individual KLKs may show characteristics of a Janus-faced behaviour, by either expanding or inhibiting cancer progression and metastasis.

Zeitschriftentitel / Abkürzung: