

Celergen Clinical Studies: Impact on Cancer

In vitro protective effect of Celergen, a bioactive marine compound, on interleukin-6-related invasiveness of pancreatic cancer.

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The purpose of this study was to assess the effect of Celergen, a marine nutraceutical, against tumor cell invasion in human pancreatic cancer cell line (PSN-I). High invasive clone (HI) and low invasive clone (LI) were established from wild type PSN-I cell line after a repeated invasion assay test. The invasive ability of HI cells and the level of IL-6 in the conditioned medium of HI cells was significantly higher than that one of LI cells but both these parameters were significantly reduced by the addition of Celergen ($p < 0.01$). Exogenous IL-6 administration induced a dose dependent enhancement of invasive ability in both cell populations. Moreover, IL-6 receptor expression was detected in 72 % of HI cells whereas this occurred only in 37 % of LI cells. When co-cultured with Celergen this parameter was significantly downregulated in both cellular subsets ($p < 0.05$). The addition of conditioned medium derived from HI cells (HCM) and LI cells (LCM) enhanced the invasive ability in both cell populations without affecting cell proliferation. The effect of HCM on the invasive ability of HI cells was partially inhibited by the addition of Celergen ($p < 0.01$). In summary, overexpression of IL-6 and its receptor may be one relevant factor contributing to the highly invasive characteristic of the pancreatic cancer cell line we used while a significantly beneficial modulation was obtained by applying this novel marine nutraceutical. This advises to further explore the possibility of marine compounds regulation of IL-6 ligand/receptor and other possible invasive factor interaction in the therapy of this malignancy while further studies are awaited in this setting.

Effect of Celergen, a marine derivative, on in vitro hepatocarcinogenesis.

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Summary of "Effect of Celergen, a marine derivative, on in vitro hepatocarcinogenesis." The aim of this study was to test for a potential anticarcinogenic effect of Celergen, a marine derivative devoid of traceable amounts of inorganic arsenic, on [cell](#) proliferation, cell cycle progression and [apoptosis](#) in the HepG2 human [liver](#) cancer cell line. Celergen significantly inhibited the proliferation of cancer cells in a dose-dependent manner while limiting the cell cycle progression at the G1 phase and significantly inducing apoptosis. Further examination showed that Celergen enhanced expression of the p21(CIP1WAF1), GADD153 genes and downregulated the c-myc gene. These results suggest that Celergen exerts promising chemopreventive properties to be further investigated.

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Effect of Celergen, a marine derivative, on in vitro hepatocarcinogenesis.

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Abstract: The aim of this study was to test for a potential anticarcinogenic effect of Celergen, a marine derivative devoid of traceable amounts of inorganic arsenic, on cell proliferation, cell cycle progression and apoptosis in the HepG2 human liver cancer cell line. Celergen significantly inhibited the proliferation of cancer cells in a dose-dependent manner while limiting the cell cycle progression at the G1 phase and significantly inducing apoptosis. Further examination showed that Celergen enhanced expression of the p21(CIP1WAF1), GADD153 genes and downregulated the c-myc gene. These results suggest that Celergen exerts promising chemopreventive properties to be further investigated.