東北大学グローバルCOE

Network Medicine 創生拠点

NM高等教育セミナー

James E. Trosko 博士

(Professor, Michigan State University, USA)

Human Adult Stem Cells in Human Cancer and Human Aging: The Role of Evolution, Warburg and Barker Hypotheses in Understanding Stem Cell Biology

2012年12月5日(水) 16時-17時
医学部5号館201号室

While the origin of human cancers is still being debated, this presentation will examine the evidence in support of either the "Stem Cell Theory" or the "De-Differentiation or "Reprogramming" Theory of Carcinogenesis. Several concepts related to the genesis of cancers including (a) The Multi-stage, Multi-mechanism concept of carcinogenesis; (b)evolution of earth's physical environment ultimately allowed the appearance of anaerobic microbiological life forms that metabolized via glycolysis;(b) the evolution of photosynthetic algae led to the oxygenation of the environment and to proto-eukaryotes after the symbiotic marriage of bacteria that could produce energy via aerobic respiration or oxidative phosphorylation; (d) the Warburg metabolism of cancers; (e) the concept of "cancer stem cells" and "cancer non-stem cells" in all tumors; (f) the Barker hypothesis which states that many chronic diseases later in life might be the result of in utero embryonic/fetal exposures to a variety of factors.

本セミナーは医学履修課程特別セミナー等を兼ねています。受講学生は履修簿を持参し、セミナー修了後にサインを受けること。聴講は自由大歓迎です。学部生の皆さんもぜひどうぞ。

拠点リーダー 岡 芳知 ／ 世話人 出澤 真理 (細胞組織学分野)
問い合わせ先: 内線8026