The relationship between CTCs and CSCs and their clinical influence: Their contribution to translational medicine

The entity of circulating tumor cells (CTCs) has a controversial impact to the clinical field since there are many aspects that have not been well understood and defined. Simultaneously the model of cancer stem cells (CSCs) has been recently introduced in order to explain the hierarchy of tumor growth and the heterogeneity between the cancer cells that consist the tumor. CTCs include the entity of CSCs as a major subset of cells. The mechanism that the stemness phenotype is induced is based on intrinsic and extrinsic stimulants. Hence, CRTCS become the proper sampling entity for diagnostic and prognostic purposes since they can be effectively isolated by using the proper technologies. Also they can become the proper cells in order to detect an assess new "drugable" targets and discover new therapeutic agents. Also the limitations and barriers needs to be considered. All these questions are bringing together the entities of CTCS and CSC as one of the main tools for applying personalized medicine in Oncology.

Biography
Ioannis Papasotiriou is a Medical Geneticist. He graduated from Medical School of Thessaloniki University in 1997. He specialized in Human Genetics in the University of Zurich until 2001. He obtained two Master degrees, one in Molecular Biology in Medicine from the Westminster University and one in Oncology from the University of Nottingham. He completed his promotion (MD) in MLU University in the area of TKIs in human cancer cells lines. Between 2001 and 2004 he established Arzt Genetik Zentrum in Thessaloniki where he was a Director. Since May 2004 he is a CEO and Medical Director of RGCC Ltd. in Greece where the major field of expertise is molecular oncology with main interest in the entity of Cancer stem cell like.

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