Watson takes aim at curing late-stage cancers

In a paper published in the open-access journal of The Royal Society, National Library of Medicine and Cancer Research Unit of the University of Oxford, James D. Watson outlines a novel hypothesis for tackling late-stage metastatic cancers. At the fulcrum of this hypothesis is a supposition that by targeting a novel enzyme, the tyrosine kinase, one can promote cancer progression.

The common refrain heard by the public is that the foods containing antioxidants, such as blueberries and strawberries, are good for you. Antioxidants contain DNA and protein-damaging molecules known as reactive oxygen species (ROS). However, ROS has a dual role. Watson calls ROS a "positive force for life" because of its role in apoptosis — an internal program that highly stressed cells carry out when they are programmed cell death. One role of apoptosis is to stop cell output at the borders to avoid cancer. Another role of ROS is to generate the free radicals and DNA damage that drive cancer.

Watson concludes his paper with a call to researchers to consider this proposition he regards grossly underexploited. "Unless we can find ways of reducing tumor levels, late-stage cancer's 15 years of now will be as incomparable as it is today."

Mechanism of anti-tumor protein solved

How the master tumor suppressor protein Chêtoz exerts its effects has largely remained unknown, until now. Professor Alva Mills, who discovered Chêtoz in 2007, and colleagues at CSULB have published in Cell Reports that unravel its mechanism of action.

It turns out Chêtoz binds to another protein that is important in keeping DNA-organized in tightly or loosely packed bundles of chromatin, essentially keeping genes switched on or off depending on the tightness of the bundling. When Chêtoz is mutated or missing, it seems to allow another partner, thereby altering patterns of gene expression and blocking the formation of cancer pathways that are affected by cancer levels. In some cases, the alteration increases the activity of the mechanisms of how Chêtoz works to protect people can directly impact the treatment of a diverse array of human cancer types.

See video here

Calls that form part of brain’s 'fear circuit' identified

Neuroscientists at CSULB have located cells that form part of the brain’s ‘fear circuit’, which controls memory and responses. In a new study published in Neuron, Maka et al. report on these cells.

Neuroscience. Assistant Professor Bo Li and collaborator Professor Jia Xue show that these cells are located in a subdivision of the amygdala, called the amygdaloid, that lie deep in the mammalian brain.

They found that somatostatin-positive (SOM) neurons were particularly important for this process. In studying these neurons, they discovered that these take place in neurogenic disorders such as post-traumatic stress disorder (PTSD).

Events raise funds & awareness for vital research at CSULB

The Christina Rena Foundation raised $20,000 for pediatric cancer research at CSULB during its sixth annual Angel’s Wish Gala on February 3, 2013. The funds will be dedicated to support cancer research in the laboratory of CSULB Professor Dr. Linda Van Anholt. The Foundation was formed in honor of Alivia Van Anholt, a Long Island teenager who died of soft tissue sarcoma in January 2007, and is dedicated to supporting children’s cancer research.

The 3rd Annual Chemo Benefit at CSULB, brought 47 participants from the Long Island and NYC area to test their check skills on the same grounds upon which world-class scientists tested biological processes. Supported by NMS Management and assisted in its fruition by Li Chess Waters foundation and head nurse-Grandma Gennady Sokolich, the tournament took place on Sunday, January 13th and was held to raise awareness of autism and funds for research.