Cancer Science-2013

OMICS Group Conferences
Accelerating Scientific Discovery

3rd World Congress on
Cancer Science & Therapy

October 21-23, 2013 DoubleTree by Hilton Hotel San Francisco Airport, USA

The synthesis and pharmacological evaluations of tetrahydroisoquinolines (THIQs) as anti-breast cancer agents

Kinfe Ken Redda
Florida A&M University, USA

Abstract

An estimated 232,340 new cases of invasive breast cancer are expected to be diagnosed among women in the US during 2013; about 2,240 new cases are expected in men. An estimated 40,030 breast cancer deaths (39,620 women, 410 men) are expected in 2013. Breast cancer ranks second as a cause of cancer death in women (after lung cancer). Cancer incidence and death rates vary considerably among racial and ethnic groups. African American women have higher death rates from breast cancer than any other racial or ethnic group. The nuclear receptor, estrogen receptor (ER) and progesterone receptor (PR) and their associated steroid hormones are known to play essential roles in the growth of breast tumors, and their status is also employed as diagnostic indicators for endocrine responsiveness and tumor recurrence. A number of substituted tetrahydroisoquinolines (THIQs) have been synthesized following the good activity profile (antiproliferative activity) of the parent compound on human endometrial Ishikawa cell lines. An effort to evaluate effect of various substitutions on the phenyl ring of the THIQs towards activity is undertaken. In this regard, high-quality biological testing results were collected for the 50 newly synthesized compounds. Among them, 26 THIQs reported in this study showed significant activity, better or equal activity on *Ishikawa Cell* lines than Tamoxifen.

Biography

Redda has studied the design and synthesis of nitrogen heterocycles as anti-inflammatory and anti-cancer agents for more than 28 years. He authored one book, secured eight patents and published his research findings in numerous peer-reviewed and indexed scientific journals. His research has been presented at national and international scientific meetings in USA, Canada, China and many European countries. He is a member of many national scientific associations. Redda is the recipient of numerous awards for outstanding achievements in teaching, research and service and served as a regular and *ad hoc* reviewer for numerous proposals submitted to the NIH.