

Joint Event

9<sup>th</sup> World Congress on

Chromatography

24<sup>th</sup> International meet on

Pharmaceutical Biotechnology

May 13-14, 2019 | Paris, France

## TTYH2- promising colon cancer treatment development

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Most of the cancers harbor molecular alterations in their genomes. These mutations have not yet been comprehensively explored in the colon cancer. TTYH2, a human homologue of the *Drosophila melanogaster* gene *tweety*, is involved in cell proliferation and cell aggregation. The TTYH2 gene may play an important role in regulating both proliferating and metastatic potentials of colorectal cancer. Here, we present in the first part a large scale database sequencing study of colon cancer, frequent in Romania but also in the world. The aim was to demonstrate its power to produce somatic expressions. The tissue specificity of this gene is expressed at higher level in brain and testis and at lower levels in heart, ovary, spleen and peripheral blood leukocytes as well as in the skin. Up-regulated in 13 of 16 renal carcinoma and in 164 total unique samples of colon carcinoma, surgical specimens examined, our results revealed the genetic basis of 180 cases. So, we identified and deeply characterized this driver of neocellular changes. These findings broaden our understanding of colon cancers and leads to new diagnostic and therapeutic approaches using TTYH2 antibodies.