Postdoctoral fellows/Staff Scientist in Bioinformatics, Computational Genomics and Computational Biology at the Oncology Institute of Southern Switzerland

The Laboratory of Experimental Oncology (http://iosilab.ti-edu.ch) of the Oncology Institute of Southern Switzerland (IOSI; http://www.eoc.ch/) is seeking a highly motivated scientist with PhD or equivalent degree in the areas of bioinformatics, computational genomics and computational biology to work in the Tumor Biology and Experimental Therapeutic Program.

The Tumor Biology and Experimental Therapeutic Program seeks to integrate basic research on cell cultures and animal models with translational and clinical research to provide a better understanding of the pathogenesis of cancers, such as prostate and breast cancer, to improve clinical management of these diseases and lead to discovery of novel therapeutic strategies. The successful candidate is expected to work in a highly collaborative environment and provide a bridge between basic and clinical research.

The main areas of research in the Tumor Biology and Experimental Therapeutic Program are related to transcription factors and epigenetic regulators in cancer pathogenesis and therapeutic strategies; identification and functional characterization of noncoding RNAs, microRNAs and small RNAs and their exploitation as therapeutic targets in oncology; tumor suppressor pathways and immune modulation in cancer pathogenesis and pro-senescence therapy of cancer.

The candidate is expected to use state-of-the-art bioinformatics tools to assist in the analysis of genome-wide biological datasets such as those generated in microarray and next-generation sequencing studies of the cancer transcriptome and epigenome in experimental and clinical samples. The successful candidate will have specific working experience in the analysis of gene expression, next-generation sequencing data (e.g. RNA-seq, CHIP-seq), promoter analysis, microRNA target prediction, clinical response and survival analysis. Excellent mathematical and statistical knowledge is required. Fluency in R/Bioconductor or Matlab and knowledge of programming or scripting language (e.g., Perl, Ruby, Java, Python) is a must. Familiarity with bioinformatic databases (e.g., NCBI, UCSC, EMBL) and software packages (e.g., BLAST, BLAT, Partek, Limma, Galaxy, IGV, Bowtie, GATK, and Velvet) are of advantage.

Requirements: PhD in bioinformatics, computational biology or related discipline. Excellent knowledge of English, excellent interpersonal and communication skills are required. Basic knowledge in molecular and cell biology, molecular and experimental oncology, and related experimental techniques is highly desirable.

Salary will be commensurate with qualification and experience. Initial appointment: 1-2 years.

Complete applications, inclusive of curriculum vitae, degree certificates, name and address of three references, and a cover letter describing training, work experience and the candidate motivation should be sent to: ornella.guerra@irb.unisi.ch, Laboratory of Experimental Oncology-IOSI, Via Vela 6, 6500 Bellinzona, Switzerland.