

DSV 2017 Seminars



UNIVERSITÀ
DEGLI STUDI DI TRIESTE

DIPARTIMENTO DI
SCIENZE DELLA VITA

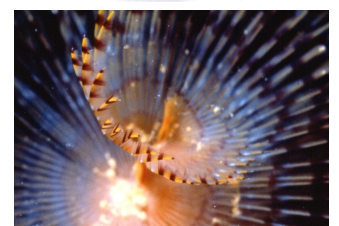
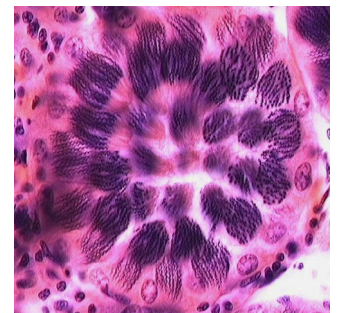
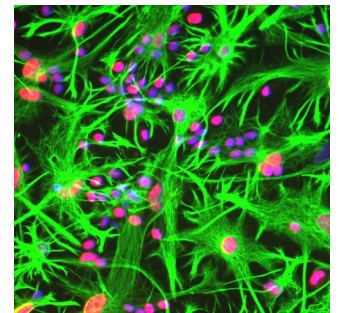
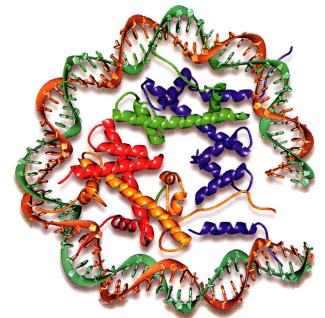
PhD Program in Molecular Biomedicine and JUMBO PhD

November 20, 2017 - 14:00

Seminar Room, Building Q – Via Giorgieri, 5 Trieste

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Transcriptional control in health and disease

The advent of high throughput next generation sequencing (NGS) has created unprecedented opportunities to unravel how the information encoded in the genome is organized, indexed and interpreted by cells. This has accelerated the pace of genome-wide profiling of expressed sequences, both coding and non-coding, the detailing of epigenetic marks (DNA and chromatin modifications), and allowed to infer physical accessibility and tri-dimensional organization of our genome. This genomic revolution is now permitting systems-based analyses of development, homeostasis and disease.

Here we will dwell into how new NGS technologies can be applied to the study of gene regulation, in particular we will focus on the (i) identification of new categories of distal regulatory regions, (ii) understanding how oncogenic transcription factors drive oncogenic transformation and (iii) will provide insights on the mechanism of action of small molecule inhibitors which are now in clinical trials for the treatment of several cancers.