

The Workshop started at 9.30 am with a Welcome session, including a brief introduction by Giovanni Capranico and the Director of the Department of Pharmacy and Biotechnology, University of Bologna. Then, Tiziana Bonaldi, Director of the scientific unit "Nuclear proteomics to investigate multi-layered gene expression regulation" at the IEO in Milan, introduced the SIBBM Lecture by Philippe Pasero, Head of the "Maintenance of genome integrity during DNA replication" group at the Institute of Human Genetics, Montpellier, France. His lecture, entitled "SAMHD1 acts at stalled replication forks to prevent ssDNA-mediated induction of type I interferons", focused on new aspects of the interrelationships between DNA damage and immunity. Pasero illustrated results showing that the processing of stalled replication forks generating small ssDNA fragments that accumulate in the cytosol thus triggering the gene activation of type I interferons and pro-inflammatory cytokines. Since inflammation contributes to the rejection of cancer cells by the immune system, the existence of a direct link between the replication stress response and inflammation has major implications for cancer therapy.

Then, a Junior Fellow Session followed with short talks. Dr. Francesco Ghini, Postdoc at Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy presented "The acquisition of cell cycle-related competences characterizes the evolution of highly aggressive thyroid cancer"; then Cinzia Cameli, PhD student at the University of Bologna presented her talk on the "Copy number variation analysis in Autism Spectrum Disorders"; finally, I concluded talking about the "TDP1 role in Top1-mediated DNA cleavage repair and cell differentiation in human cells".

Finally, the SIBBM Lecture was followed by a 20-minutes coffee break, allowing people to informally chat and discuss scientific issues.

The meeting was attended by about 60 researchers from Universities and Research Institutions.

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