



RSG-Belgium 2015 Symposium

Invitation and call for abstracts

WHEN? 28th of May 2015, 14:00

WHERE? University of Hasselt Building D,
Agoralaan, Campus Diepenbeek, Room C 109

**Keynote lecture by Prof. dr. Tomasz
BURZYKOWSKI**

Registration is free of charge and open to anyone, but for organization purposes, we prefer a short confirmation of your presence by e-mail to rsg-belgium@iscbsc.org

Abstracts for an oral presentation (15 minutes + 5 minutes of questions) can be submitted to rsg-belgium@iscbsc.org before April 5, 2015.

RSG Belgium is a regional student group from the International Society for Computational Biology (ISCB) Student Council. The mission of RSG Belgium is to bring bioinformatics students and young post-docs from different institutions together and offer them additional opportunities which can contribute to the development of their scientific career. Furthermore we also bring students in contact with research happening at an international level to allow them to visualize their work in a much larger scope. In this way, we aim to stimulate the start-up of projects that cross the traditional boundaries of academic research.

We hope to welcome you!

The RSG-Belgium Board

More information:

<http://www.iscbsc.org/rsg/rsg-belgium>



Deoxyribonucleic acid (DNA) is a nucleic acid that contains the genetic instructions used in the development and functioning of all known living organisms and some viruses. DNA molecules are the long-term storage of information. DNA is often compared to a set of blueprints or a recipe, or a code, since it contains the instructions needed to construct other components of cells, such as proteins and RNA molecules. The DNA genes, but other DNA sequences have structural purposes, or are involved in regulating the use of this genetic information.

Chemically, DNA consists of two long polymers of simple units called nucleotides, with the opposite ends of sugars and phosphate groups joined by ester bonds. These two strands run in opposite directions to each other and are therefore anti-parallel. Attached to each sugar is one of four types of bases, called bases. It is the sequence of these four bases along the length that encodes information. This information is read using the genetic code, which specifies the sequence of the amino acids within proteins. The first step in copying stretches of DNA into the related RNA, in a process called transcription.

Within cells, DNA is organized into long structures called chromosomes. These chromosomes are duplicated before cells divide, in a process called DNA replication. Eukaryotic organisms (animals, plants, fungi, and protists) store most of their DNA inside the cell nucleus and some of their DNA in organelles, such as mitochondria or chloroplasts. In contrast, only prokaryotes (bacteria and archaea) store their DNA only in the cytoplasm. Within the chromosome, certain proteins such as histones compact and organize DNA. These compact structures, called nucleosomes, are the basic units of chromatin. The instructions for which parts of the DNA are transcribed.