



BIO PARK

CHARLEROI BRUSSELS SOUTH

news

The Biopark Charleroi Brussels South Newsletter

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Cell Therapy

A flourishing cell therapy sector	2
MaSTherCell	4
Bone Therapeutics	5
Pluriomics: the "new kid"	6
The "cell therapy" ecosystem	7

Biopark Training: going further, faster, thanks to the ESF	9
In brief	10

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In brief

RIBOSOME BIOGENESIS: A COMPLEX ASSEMBLY LINE

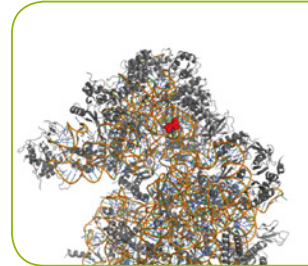
Ribosomes convert genetic information into operational proteins. The components of this cellular nano-machine are known, as are most of the *workers* involved in manufacturing them. Among the various stages of ribosome biogenesis, the **RNA Metabolism Laboratory** (IBMM), headed by **Denis Lafontaine**, is paying particular attention to the addition of chemical groups to ribosomal RNA (rRNA), and trying to identify the order in which these changes are made, as well as the few remaining unknown *workers* involved in the process.

In two recent articles, published in *PNAS* and *Nucleic Acids Research*, the team describes the discovery of two of these *workers*: the

Bud23-Trm112 complex, responsible for rRNA methylation, and the Kre33/NAT10 acetyltransferase, which carries out two modifications to the rRNA and one on the transfer RNA.

The study of ribosome biogenesis is essential to further our understanding of ribosomopathies, diseases resulting from incorrectly assembled ribosomes and that predispose sufferers to cancer. But much remains to be discovered: in a special edition of *Nature Structural & Molecular Biology* on non-coding RNA, published in January, Denis Lafontaine explains that contrary to all expectations, not all of a cell's ribosomes are the same. Indeed, the differences lie in the

modifications to the rRNA that may affect the ribosome's ability to translate certain mRNA. The researcher suspects that this mechanism is involved in the development of cancer, following the differential translation of messenger RNA-encoding proto-oncogenes and tumour suppressors like p53. The researcher and his team will endeavour to follow this line of enquiry over the next few years.



N.J.

i-TECH INCUBATOR JOINS FORCES WITH THE MIT

The team at the **i-Tech Incubator** has joined forces with the Massachusetts Institute of Technology (MIT) to compete in the *Innovators Under 35* challenge. The challenge rewards young researchers whose cutting edge work has had or will have an impact on the world, and was launched by the *MIT Technology Review*, the oldest tech magazine in the world. The Incubator will be involved in selecting candidates.

N.J.

CANCER IMMUNOTHERAPY: AN INTERNATIONAL SYMPOSIUM

On 2 April, **Biopark Training** will hold an international symposium on cancer immunotherapy. The fruit of a partnership with the ULB's Health Cluster, the event will take place on the Erasme campus. A number of European experts will discuss the most promising immunotherapy strategies and present their clinical results. Foundation level immunology courses will also be delivered at the Biopark in the run-up to the symposium.

📄 Find out more at www.biopark.be/bioparkformation/symposium.html

There is also a brand new way to interact with Biopark Training through its website: the team is eager to hear your suggestions so that it can deliver courses that meet your needs.

📄 Tell us what you think at <http://www.biopark.be/bioparkformation/feedback.html>

N.J.