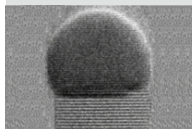


At the front page of IRIG

Watch your steps while growing nanowires

Many emerging opto-electronics devices are based on single-photon emitters. Electron microscopes with effusion cells have been developed in order to monitor *in situ* the deposition of complex semiconductor nanostructures by molecular beam epitaxy.

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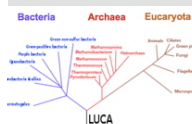
**Edith Bellet-Amalric
Pheliqs**

ACS Nano, 2022

The biogenesis of iron-sulfur centers, a very ancient origin

The assembly machinery of Fe-S clusters did not appear with oxygenation on Earth but well before, and opens new perspectives for the understanding of the very first metabolisms related to the origin of life.

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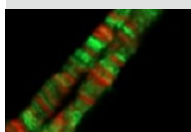
**Sandrine Ollagnier
CBM**

Nature Ecology & Evolution, 2023

Study of a fly protein point out towards a non-catalytic role for the RNA methyltransferase PCIF1 in gene expression

It is important not restricting the function of enzymes to their sole catalytic role and the interest of thoroughly examining the evolution of proteins in eukaryotes in order to discover unsuspected or hidden mechanisms of action.

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**Marie-Odile Fauvarque
BGE**

Cell Report, 2023

Medical implants: autonomous tomorrow?

Implantable medical devices are currently used to replace deficient vital organs (heart, kidneys, pancreas, etc.). An implantable fuel cell has been developed and it passed conclusive tests on animals.

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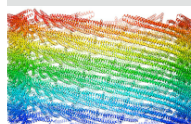
**Lionel Dubois
SyMMES**

RCS Adv, 2023
Electrochimica Acta, 2023

ESCRT-III membrane neck cleavage mechanism revealed

First high resolution images of the ESCRT-III complex, showing membrane-coated tubular structures that constitute a minimal machinery that can cleave membrane necks *via* membrane fission.

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**Winfried Wiessenhorn
IBS**

Nat Struct Mol Biol, 2023

Spintronic memristor based neural network

Spintronic devices have been integrated in an architecture combining a Binary Ensemble Convolutional Neural Network. Specific tools allowed to evaluate this disruptive combination that is less complex and consumes less power.

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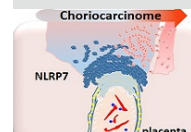
**Guillaume Prenat
Spintec**

IEEE Transactions on Computer-Aided, 2022

NLRP7 protein disguises placental cancer from the mother

The behavior of the NLRP7 protein shows its contribution to the growth and tumorigenesis of placental cancer, known as gestational choriocarcinoma. These results targeting the NLRP7 protein open the way to new therapies.

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**Nadia Alfaidy
Biosante**

Cells, 2023

Editing histones to explore epigenetic regulation of plant development

A novel approach in plants has revealed the true functional impact of histones, revealing the key role of a modification carried by histone H3, in cell fate and metabolic regulation of stem lignin composition.

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**Christel Carles
LPCV**

New Phytologist, 2023

The enzyme laccase to detoxify food aflatoxins

Laccase is an enzyme for processing aflatoxins, which are a major food safety concern. Experimental and theoretical approaches were combined to evaluate the ability of this enzyme to detoxify these mycotoxins.




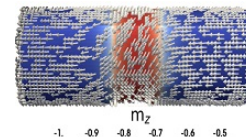
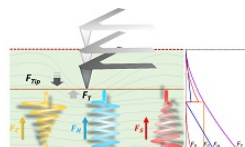
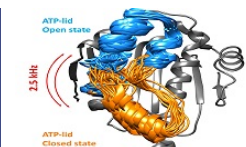
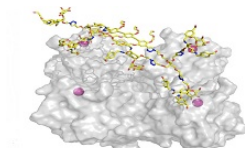
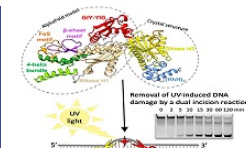
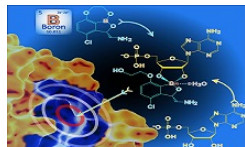
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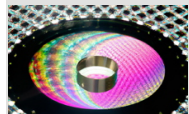
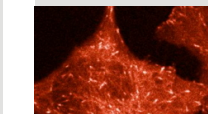





**Luigi Genovese
MEM**

Journal of Biological Chemistry, 2023

Other scientific news of the IRIG laboratories

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	<p>A new prodrug activation mechanism</p> <p>READ MORE</p>		

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<p>Johan Decelle - ERC Consolidator 2022</p>  <p>READ MORE</p>	<p>Nicolas Kaeffer awarded Junior Researcher 2022 from the Transversal Energy Division of the French Chemical Society</p>  <p>READ MORE</p>	<p>SCF Transversal Energy Division Thesis Awarded to Caroline Keller</p>  <p>READ MORE</p>
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