

## Séminaire externe

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### "On the Emergence of Proto-Bioenergetic Systems and Coupled Chemical Processes ."



Amongst the most ubiquitous energy-currency molecules (ECM's) used in bioenergetics are activated phosphorus (P) species such as adenosine triphosphate, phosphocreatine & phosphoenol pyruvate. Living systems have evolved sophisticated mechanisms to synthesize and use their P-based energy currencies to drive chemical processes selectively. A relay of chemical-to-mechanical-to-chemical energy transduction processes permits pH- $E_h$  gradients to drive ATP formation, whilst enzyme catalysis affords selectivity in P-transfer. A fundamental feature of all bioenergetic systems and one for which a plausible prebiotic model has yet to be found. In my laboratory we have been striving to build a model for the emergence of primitive proto-bioenergetic systems which combine *chemo-selectivity* with *geological plausibility*.

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Invité par Frances Westall

**Vendredi 19 décembre 2014 à 11h**

**Salle de conférence du CBM**