



DIPARTIMENTO DI CHIMICA «G. CIAMICIAN»

## AVVISO DI SEMINARIO

**Mercoledì 08 Marzo 2023 alle ore 16.30  
presso l'Aula II  
del Dipartimento di Chimica “Giacomo Ciamician”  
il**

**Prof. Gwénaël Rapenne**

University of Paul Sabatier Toulouse, France and Nara Institute of Science and Technology, Japan

terrà un seminario dal titolo:

## **PROTOTYPE OF MOLECULAR MOTORS, GEARS AND VEHICLES**

La S. V. è invitata.

Il Direttore del Dipartimento  
Prof. M. Lucarini

Per informazioni:  
Prof. M.L. Focarete



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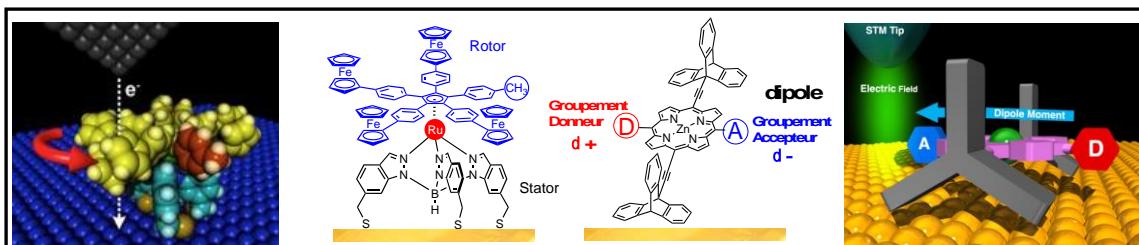


## PROTOTYPE OF MOLECULAR MOTORS, GEARS AND VEHICLES

Gwénaël Rapenne

University of Paul Sabatier Toulouse, France  
Nara Institute of Science and Technology, Japan

Advances in the imaging and manipulation of single molecules by STM has stimulated much interest in the studies of technomimetic molecules,<sup>[1]</sup> i.e. molecules designed to imitate macroscopic objects at the molecular level, also transposing the motions that these objects are able to undergo. I will present the design and synthesis of molecular motors<sup>[2-4]</sup> and gears<sup>[5-9]</sup> built around a ruthenium(II) or an europium(III) center as well as a family of nanocars<sup>[10]</sup> which participated at the 2<sup>nd</sup> Nanocar Race organized in March 2023.



[1]  
*Biomimetic and technomimetic single molecular machines*  
C.

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- [9] *Molecular gears from solution to surfaces* Y. Gisbert, S. Abid, C. Kammerer, G. Rapenne, *Chem. Eur. J.* **2021**, 27, 12019.
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