



UNIVERSITÀ
DEGLI STUDI
DI BRESCIA

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**I SEMINARI DEL DIPARTIMENTO DI MEDICINA
MOLECOLARE E TRASLAZIONALE**

Dr. Giuseppe Pomarico

**Sezione di Biotecnologie - Dipartimento di
Medicina Molecolare e Traslazionale**

The Colours of Life

Venerdì 24 gennaio 2020, ore 13:00

Aula A1, Ed. polifunzionale

Tutti gli interessati sono invitati a partecipare

The beautifully constructed porphyrinoid ligand, perfected over the course of evolution, provides a suitable substrate that in the last decades has been exploited in chemical sensors, as dyes for energy conversion, as catalysts and medicine.

This class of molecules has several advantages: chemical versatility, peculiar photophysical and electrochemical properties and coordination of almost any element of periodic table, and many fields of research took advantage by this richness of properties.

For example the ability of porphyrins to interact with airborne molecules in several ways allowed the development of Electronic Nose, an artificial olfactory system. This device has been used to monitoring the freshness of food and beverage, or to investigate the relationship occurring between volatile organic compounds and pathologies by breathe analysis.

The strong absorption/emission of light allow exploiting porphyrinoids as organic dye in Solar Cells or as photosensitizers in the Photo Dynamic Therapy.

The research carry out on the synthesis, functionalization and applications of porphyrinoids will be overviewed.

