



Department of Chemistry, Biology
and Biotechnologies, University of
Perugia



Institute of Molecular Science
and Technologies of CNR
(CNR-ISTM)

AVVISO DI SEMINARIO

**Il giorno mercoledì 11 Settembre 2019
alle ore 11:00 nell'aula C del
Dipartimento di Chimica, Biologia e Biotecnologie**

la

Dr.ssa Marine Cotte

*Scientist in charge of the ID21 beamline at the European
Synchrotron Radiation Facility (ESRF) of Grenoble (France)*

terrà un seminario dal titolo:

"Chromium and Sunflowers: from van Gogh's paintings to polluted fields"

At first sight, the link between van Gogh's paintings and the cultivated fields could stop to the presence of sunflowers. At second sight, it turns out that both paintings and fields contain chromium. At third sight, it appears that both domains can benefit from synchrotron-based micro-analytical techniques. This is the case at the ID21 beamline, at the European Synchrotron (ESRF). About one third of our activities falls in the domain of cultural heritage, where micro-analyses aim at revealing the composition of tiny fragments from historical and model artefacts. Questions typically tackle either the past of objects (which were the manufacturing processes and how these technologies evolved in time and space) while other questions tackle the evolution/degradation of objects (what are the degradation products made of and how do they form? Which factors contribute to these degradations?).

Another third of our activities is related to biology, medicine and environmental science. Common questions are related to the interactions between exogenous metals (pollutants, implants, drugs...) and organic systems (from cells to animals or plants). How these different materials are modified when put in contact? This seminar will feature the present and future instrumental capabilities of our X-ray microscope and notably illustrated by the dual study of chromium in Sunflowers.

Tutti gli interessati sono invitati a partecipare