

REM

Recognition and Molecular Encapsulation



UCAM
UNIVERSIDAD CATÓLICA
DE MURCIA

Medicine and Informatics Department





GENERAL DESCRIPTION

The Molecular Recognition and Encapsulation Research Group (REM) focuses its work on miniaturization science to solve chemical and biological problems in the clinical, pharmaceutical, care, environment, textile or agri-food sectors, with a special emphasis on molecular biology.

Topics are related to the encapsulation of different targets, mainly by cyclodextrins, optimization of Immunoassay and PCR techniques for analytical diagnostics, sensor technology, micro-analysis development and drug delivery systems, non thermal treatments, by-product, enzymes characterization, developing of polymeric substrates for environmental remediation, food and health analysis, among others.

Partners:





PRINCIPAL MEMBERS

The group is composed by 13 associate professors, 2 predoctoral, 1 postdoctoral and graduate students who every year actively collaborates, under the supervision of a member of the group, in our research lines.



Food Technology and Nutrition Department Titular Professor,
Catholic University of Murcia.
PhD in Chemistry, Polytechnic University of Valencia.
Degree in Chemistry, University of Murcia.

Dr. José Antonio Gabaldón Hernández
Research Head



Food Technology and Nutrition Department Cathedratric
Catholic University of Murcia.
PhD in Biochemistry, University of Murcia.
Degree in Biology, University of Murcia.

Dr. Estrella Núñez Delicado
Research Head



Food Technology and Nutrition Department Postdoctoral Fellowship Catholic University of Murcia.
Doctor in Applied Biological Sciences, Ghent University
Postgraduate in Food Technology, The Hebrew University of Jerusalem
Master in Food Science, Universidad Simón Bolívar
Biologist, Universidad Simón Bolívar (Venezuela)

Dr. Vicente Manuel Gómez López
Senior Researcher

<http://investigacion.ucam.edu/grupos/reconocimiento-y-encapsulacion-molecular/es/composicion>



SELECTED RESEARCH PROJECTS



2017 - 2020

LIFE CLEAN UP:

Field: Waste water treatment

Call: LIFE

Leader: Catholic University of Saint Anthony (UCAM)



13 - 15

DYES4EVER: Demonstration of cyclodextrin techniques in treatment of waste water in textil industry to recover and reuse textil dyes

Field: Waste water treatment

Call: LIFE

Leader: AITEX, Textile Research Institute



12- 15

Development of a basic methodology for the encapsulation of polyphenolic compounds by using cyclodextrins for the design and formulation of functional foods

Field: Functional foods

Call: Murcia Regional Agency of Science and Technology.

Leader: Catholic University of Saint Anthony (UCAM)



06 - 09

Cyclodextrins as complexing agents for bioactive compounds and its use in the elaboration of functional foods.

Field: Functional foods

Call: Ministry of Education and Science of Spain.

Leader: Catholic University of Saint Anthony (UCAM)

<http://investigacion.ucam.edu/grupos/reconocimiento-y-encapsulacion-molecular/es/produccion-cientifica>



SELECTED RESEARCH LINES



Sensorial, biochemical and physico-chemical analysis of novel foods



Nutrition analysis for target population groups



Encapsulation of bioactive compounds by using cyclodextrins



Extraction and characterization of plant origin enzymes



Application of rapid detection techniques (immunoassay and PCR) on food analysis



Determination of oxidative stress biomarkers, antioxidant enzymes and antioxidant activity

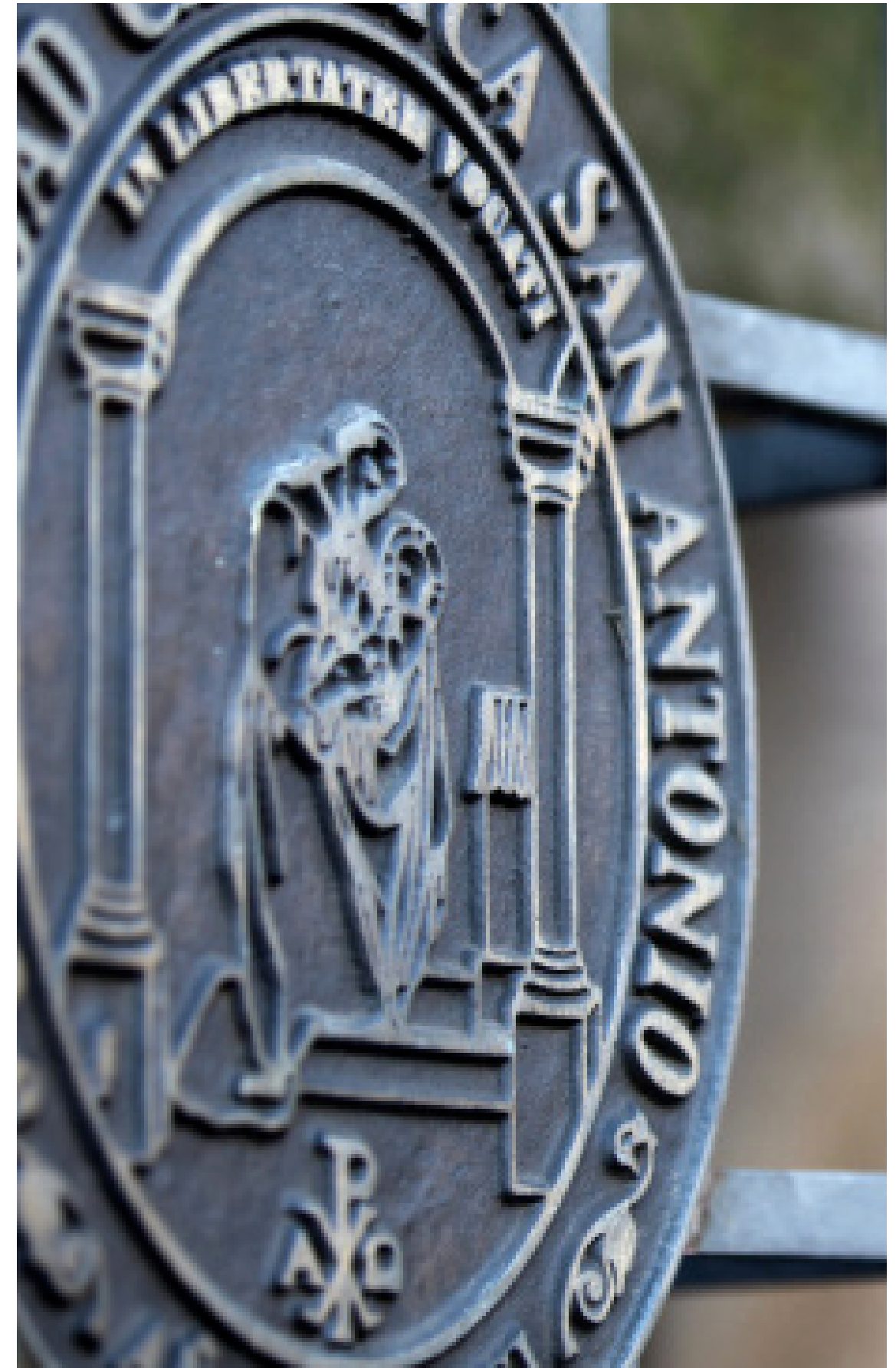
WHAT IS THE OPRI

The International Project Office (OPRI) is an office linked to the Vice-rectorate of Research, and is responsible for the management of international research projects at UCAM.

The OPRI was founded to strengthen the collaboration between our partners all around the world in the field of research. The unit was established in 2012 and has built strong alliances in 36 countries in which the university has to date participated in 41 projects.

The internationalization of the Catholic University of Saint Anthony, through the OPRI, is directed towards all of the university community, researchers as well as students. A total of 160 students have participated already in projects in a variety of countries all over the continent.

CALLS:





UCAM

OPRI

International
Project Office



OPRI

International Project Office UCAM
Vice-rectorate of Research

Catholic University of Saint Anthony
Los Jerónimos Campus, 30107 Guadalupe (Murcia)
Phone number: (+34)968 278 712
opri@ucam.edu
www.investigacion.ucam.edu/opri