



**Jesús Miguel Sanz Morales**

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## Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Student Research fellowship in last courses of the Degree (1987-1988) at the Centro de Investigaciones Biológicas (CSIC). Ms.C. in Chemistry (1988) and Ph.D. in Chemistry (1991) by Universidad Complutense Madrid (Spain). Predoctoral Fellowship from Spanish Ministry of Science at the CIB-CSIC under the supervision of Drs. José. L. García and Pedro García (1988-1991) about pneumococcal choline binding proteins. Postdoctoral stay in the University of Cambridge (U.K.) in the laboratory of Prof. Alan R. Fersht (1992-1994) with a Medical Research Council contract and an EMBO long-term Fellowship, studying folding intermediates of barnase. Reincorporation to CIB-CSIC (1994-1997) with a Gregorio Marañón Fellowship and a Postdoctoral Reincorporation Contract from Spanish Ministry of Science, in the laboratory of Dr. Guillermo Giménez, studying the folding of fibroblast growth factor. Associate Professor (1997-2016) and Full Professor (2016-2018) in the Institute for Molecular and Cellular Biology (IBMC, now IDiBE) at the Miguel Hernández University (Elche, Spain). Topics: 1) Stability and folding of proteins; 2) Development of affinity tags for immobilization and purification of recombinant proteins; 3) Antimicrobials against *S. pneumoniae*. Our main findings are summarized as follows:

- First rational design of the accumulation in equilibrium of a kinetic protein folding intermediate.
- First published example of a protein unfolded by submicellar SDS.
- Description of the first example of a  $\beta$  to  $\alpha$  transition in peptides induced by micelles.
- Demonstration of the involvement of the chromosomal protein DnaA in the host range of bacterial plasmids.
- Multivalent display of new antimicrobial molecules on nanoparticles against *Streptococcus pneumoniae*.
- Elaboration of a system for specific immobilization of proteins on graphite electrodes.
- Set up of a mini-bioreactor for decolorization of wastewaters from textile industries using PHA as support.
- Set up of protein immobilization and affinity purification procedures on simple supports using choline-binding modules, that later became 2 marketed products.

Since 2018 I am Staff Researcher at the CIB-CSIC, leading two research lines: 1) Application of protein structure and nanotechnological procedures to fight antimicrobial resistance by *Streptococcus pneumoniae*, and 2) Improving the biotechnological potential of polyhydroxyalkanoates (PHAs).

Along my career, I have been PI of 17 research projects (including 1 EU project) and 5 contracts with companies, supervised 5 Doctoral theses and co-author of 67 scientific publications (most in JCR Q1 journals;). I am co-inventor of 4 patents plus 2 patent applications on course. My management work includes my recent appointment as Collaborator in the AEI-Agencia Estatal de Investigación (Bioscience and Biotechnology Area), and my membership in university accreditation boards as well as in scientific societies boards. In 2006, together with Dr. Beatriz Maestro, I received the V Salvat Prize to the Best Research Project in Biomedical Sciences.



## General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

Number of research merit 6-year periods (Sexenios CNEAI): 6

Date of last research merit period (Sexenio CNEAI): 2013-2018 (Scientific periods) and 2020 (Technology transfer period)

Number of Ph. D. thesis supervised (last 10 years): 2

Number of cites: 2320 (Google Scholar)

Yearly average of cites in last 5 years (not including current year): 142

Total number of peer-reviewed publications: 68 (59 articles, 5 reviews, 1 letter, 3 book chapters)

Research articles in JCR first quarter (Q1): 45/59 (76%)

h-index: 29 (Google Scholar)

Dissemination articles: 2

PI of competitive research projects: 17 (13 national, 1 EU, 3 regional)

PI of industrial contracts: 5

Number of patents: 6 (2 licensed)

Prizes: 1

Number of doctoral thesis supervised: 5

Supervisor of 6 master advanced research projects

Supervisor of 14 bachelor research projects

Pedagogical projects: 4

Updated: 5-May-2022



## Jesús Miguel Sanz Morales

Surname(s): **Sanz Morales**  
Name: **Jesús Miguel**  
ORCID: **0000-0002-4421-9376**  
ResearcherID: **B-2244-2008**  
Contact aut. region/reg.: **Community of Madrid**  
Personal web page: **[https://www.researchgate.net/profile/Jesus\\_Sanz2](https://www.researchgate.net/profile/Jesus_Sanz2)**

### Current professional situation

**Employing entity:** Consejo Superior de Investigaciones Científicas  
**Type of entity:** State agency  
**Department:** Centro de Investigaciones Biológicas Margarita Salas  
**Professional category:** Científico Titular (Staff Researcher) **Educational Management (Yes/No):** No

**City employing entity:** Madrid, Community of Madrid, Spain

**Email:** jmsanz@cib.csic.es

**Start date:** 08/01/2018

**Type of contract:** Civil servant

**Dedication regime:** Full time

**Primary (UNESCO code):** 230101 - Absorption spectroscopy; 230221 - Molecular biology; 230224 - Peptides; 230226 - Physical biochemistry; 230227 - Proteins; 230422 - Stability of macromolecules; 239001 - Design. Synthesis and study new drugs

**Secondary (UNESCO code):** 230220 - Microbiological chemistry; 230291 - Chemical biological macromolecules; 230414 - Polyesters

**Performed tasks:** Folding and engineering of proteins with biotechnological and biomedical interest. Structural analysis of protein stability and interaction with substrates and ligands. Immobilization and purification of proteins. Design of antimicrobials. Nanobiotechnology.

**Identify key words:** Peptides and proteins; Nanostructures; Relation structure-activity; Structural and spectroscopy; Biopolymers; Macromolecular ligand interactions; Spectroscopy of biological systems; Stability and folding/ unfolding of proteins; Molecular mechanism of disease; Structural biology; Molecular design, de novo design

**Field of management activity:** Public Research Body

**Employing entity:** CIBER ENFERMEDADES RESPIRATORIAS (CIBERES)

**Professional category:** Investigador colaborador (Collaborator Researcher)

### Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad Miguel Hernández de Elche	Catedrático de universidad (Full Professor)	17/11/2016
2	Universidad Miguel Hernández (Elche	Profesor Titular de Universidad (Associate Professor)	10/05/1999
3	Universidad Miguel Hernández (Elche		03/10/1997

	Employing entity	Professional category	Start date
		Profesor Titular Interino de Universidad (Tenured Associate Profesor)	
4	Centro de Investigaciones Biológicas (CSIC)	Contrato de Reincorporación de Doctores y Tecnólogos (MEC)	1996
5	Centro de Investigaciones Biológicas (CSIC)	Beca de Investigación de la Fundación Gregorio Marañón con la donación de Boehringer Ingelheim.	1996
6	Centro de Investigaciones Biológicas (CSIC)	Contrato de Reincorporación de Doctores y Tecnólogos (MEC)	1994
7	Centro de Investigaciones Biológicas (CSIC)	Beca de Investigación de la Fundación Gregorio Marañón con la donación de Boehringer Ingelheim.	1994
8	Interdisciplinary Centre for Protein Engineering/University of Cambridge	Beca postdoctoral EMBO	1992
9	Interdisciplinary Centre for Protein Engineering/University of Cambridge	Contrato postdoctoral del Medical Research Council (Reino Unido) Cambridge	1992
10	Centro de Investigaciones Biológicas (CSIC)	Beca Predoctoral de Formación de Personal Investigador (MEC)	1988
11	Centro de Investigaciones Biológicas (CSIC)	Beca de Introducción a la Investigación	1987

- 1** **Employing entity:** Universidad Miguel Hernández **Type of entity:** University de Elche  
**Department:** Bioquímica y Biología Molecular, Instituto Universitario de Biología Molecular y Celular  
**City employing entity:** Elche, Valencian Community, Spain  
**Professional category:** Catedrático de universidad (Full Professor)  
**Start-End date:** 17/11/2016 - 07/01/2018 **Duration:** 1 year - 1 month - 21 days  
**Dedication regime:** Full time
- 2** **Employing entity:** Universidad Miguel Hernández **Type of entity:** University (Elche)  
**Professional category:** Profesor Titular de Universidad (Associate Professor)  
**Start-End date:** 10/05/1999 - 16/11/2016 **Duration:** 17 years - 6 months - 6 days
- 3** **Employing entity:** Universidad Miguel Hernández **Type of entity:** University (Elche)  
**Professional category:** Profesor Titular Interino de Universidad (Tenured Associate Profesor)  
**Start-End date:** 03/10/1997 - 09/05/1999 **Duration:** 1 year - 7 months - 6 days
- 4** **Employing entity:** Centro de Investigaciones Biológicas (CSIC) **Type of entity:** State agency  
**City employing entity:** Madrid,  
**Professional category:** Contrato de Reincorporación de Doctores y Tecnólogos (MEC)  
**Start-End date:** 1996 - 1997 **Duration:** 1 year  
**Type of contract:** Temporary employment contract  
**Applicability in teaching and/or research:** Contrato de Reincorporación del Ministerio de Educación y Ciencia



- 5** **Employing entity:** Centro de Investigaciones Biológicas (CSIC) **Type of entity:** State agency  
**City employing entity:** Madrid,  
**Professional category:** Beca de Investigación de la Fundación Gregorio Marañón con la donación de Boehringer Ingelheim.  
**Start-End date:** 1996 - 1996 **Duration:** 2 months  
**Type of contract:** Grant-assisted student (pre or post-doctoral, others)  
**Applicability in teaching and/or research:** Beca postdoctoral
- 6** **Employing entity:** Centro de Investigaciones Biológicas (CSIC) **Type of entity:** State agency  
**City employing entity:** Madrid,  
**Professional category:** Contrato de Reincorporación de Doctores y Tecnólogos (MEC)  
**Start-End date:** 1994 - 1996 **Duration:** 2 years  
**Type of contract:** Temporary employment contract  
**Applicability in teaching and/or research:** Contrato de reincorporación del Ministerio de Educación y Ciencia
- 7** **Employing entity:** Centro de Investigaciones Biológicas (CSIC) **Type of entity:** State agency  
**City employing entity:** Madrid, Spain  
**Professional category:** Beca de Investigación de la Fundación Gregorio Marañón con la donación de Boehringer Ingelheim.  
**Start-End date:** 1994 - 1994 **Duration:** 2 months  
**Type of contract:** Temporary employment contract  
**Applicability in teaching and/or research:** Beca postdoctoral
- 8** **Employing entity:** Interdisciplinary Centre for Protein Engineering/University of Cambridge  
**City employing entity:** Cambridge, United Kingdom  
**Professional category:** Beca postdoctoral EMBO  
**Start-End date:** 1992 - 1994 **Duration:** 2 years  
**Type of contract:** Grant-assisted student (pre or post-doctoral, others)  
**Applicability in teaching and/or research:** Beca de larga duración de la European Molecular Biology Organization
- 9** **Employing entity:** Interdisciplinary Centre for Protein Engineering/University of Cambridge  
**City employing entity:** Cambridge, United Kingdom  
**Professional category:** Contrato postdoctoral del Medical Research Council (Reino Unido) Cambridge  
**Start-End date:** 1992 - 1992 **Duration:** 5 months  
**Type of contract:** Temporary employment contract  
**Applicability in teaching and/or research:** Contrato postdoctoral del Medical Research Council
- 10** **Employing entity:** Centro de Investigaciones Biológicas (CSIC)  
**City employing entity:** Madrid, Spain  
**Professional category:** Beca Predoctoral de Formación de Personal Investigador (MEC) **Educational Management (Yes/No):** No  
**Start-End date:** 1988 - 1991 **Duration:** 3 years  
**Type of contract:** Grant-assisted student (pre or post-doctoral, others)  
**Applicability in teaching and/or research:** Beca del Ministerio de Educación y Ciencia. Realización de la Tesis Doctoral





- 11** **Employing entity:** Centro de Investigaciones Biológicas (CSIC) **Type of entity:** State agency
- Professional category:** Beca de Introducción a la Investigación **Educational Management (Yes/No):** No
- Start-End date:** 1987 - 1988 **Duration:** 2 years
- Type of contract:** Grant-assisted student (pre or post-doctoral, others)
- Applicability in teaching and/or research:** Beca del CSIC para estudiantes de penúltimo curso de carrera



## Education

### University education

#### 1st and 2nd cycle studies and pre-Bologna degrees

**University degree:** Higher degree  
**Name of qualification:** Licenciado en Ciencias Químicas  
**City degree awarding entity:** Madrid,  
**Degree awarding entity:** Universidad Complutense de Madrid  
**Date of qualification:** 06/1988  
**Average mark:** Excellent

#### Doctorates

**Doctorate programme:** Programa Oficial de Doctorado en Bioquímica y Biología Molecular  
**Degree awarding entity:** Universidad Complutense de Madrid **Type of entity:** University  
**City degree awarding entity:** Madrid,  
**Date of degree:** 02/10/1991  
**Thesis title:** Estudios estructurales y aplicaciones biotecnológicas de la lisozima del bacteriófago Cp-1 de neumococo  
**Thesis director:** José Luis García López  
**Thesis co-director:** Pedro García González  
**Obtained qualification:** Apto cum laude

#### Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

**Training title:** Visualization of macromolecular structure with Chimera (Virtual class)  
**Awarding entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency  
**End date:** 25/11/2021 **Duration in hours:** 24 hours

#### Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

**Title of course/seminar:** Formación en recursos GOUMH para la docencia en la Facultad de Ciencias Experimentales  
**Goals of the course/seminar:** Aprendizaje de nuevas tecnologías de información para la actividad docente  
**Organising entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Faculty, institute or centre:** Facultad de Ciencias Experimentales  
**Duration in hours:** 5 hours





Start-End date: 05/12/2013 - 05/12/2013

**Language skills**

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English		C1	C1	C1	C1

**Teaching experience****General teaching experience**

- 1** **Type of teaching:** Official teaching  
**Name of the course:** M1A: Research Topics  
**University degree:** Master in Molecular and Cellular Integrative Biology  
**Start date:** 2018 **End date:** 2020  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 1  
**Entity:** Centro de Investigaciones Biológicas **Type of entity:** State agency
- 2** **Type of teaching:** Official teaching  
**Name of the course:** M1A: Research Topics  
**University degree:** Master in Molecular and Cellular Integrative Biology  
**Start date:** 2018 **End date:** 2020  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 1  
**Entity:** Centro de Investigaciones Biológicas **Type of entity:** State agency
- 3** **Type of teaching:** Official teaching  
**Name of the course:** Ingeniería de Proteínas  
**Type of programme:** Doctorate  
**University degree:** Biología molecular y celular  
**Start date:** 2010 **End date:** 2013  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 4,5  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 4** **Type of teaching:** Official teaching  
**Name of the course:** Bioquímica y Microbiología Industriales  
**Type of programme:** Bachelor's degree  
**Type of subject:** Core  
**University degree:** Bioquímica  
**Start date:** 1998 **End date:** 2012  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 3,5  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University



- 5** **Name of the course:** Laboratorio Integrado de Experimentación Bioquímica II  
**Type of subject:** Core  
**University degree:** Bioquímica  
**Start date:** 1998 **End date:** 2012  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 2  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 6** **Type of teaching:** Official teaching  
**Name of the course:** Estructura de Macromoléculas  
**Type of programme:** Bachelor's degree  
**Type of subject:** Core  
**University degree:** Bioquímica  
**Start date:** 1997 **End date:** 2011  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 6,5  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 7** **Name of the course:** Laboratorio Integrado de Experimentación Bioquímica I  
**University degree:** Bioquímica  
**Start date:** 1997 **End date:** 2011  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 8** **Type of teaching:** Official teaching  
**Name of the course:** Estudio conformacional de proteínas y ácidos nucleicos  
**Type of programme:** Doctorate  
**University degree:** Biología molecular y celular  
**Start date:** 2007 **End date:** 2007  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 5  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 9** **Type of teaching:** Official teaching  
**Name of the course:** Caracterización Biofísica de Macromoléculas  
**Type of programme:** Doctorate  
**University degree:** Biología molecular y celular  
**Start date:** 2005 **End date:** 2005  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 5  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University
- 10** **Name of the course:** Nanobiotecnología  
**University degree:** Máster en Biotecnología y Bioingeniería  
**Course given:** En la actualidad  
**Start date:** 2014  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Faculty, institute or centre:** Instituto Universitario de Biología Molecular y Celular
- 11** **Type of teaching:** Official teaching  
**Name of the course:** Ingeniería Bioquímica  
**Type of programme:** Grado



**University degree:** Biología

**Course given:** En la actualidad

**Start date:** 2012

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 6

**Entity:** Universidad Miguel Hernández de Elche

**Type of entity:** University

**Mark obtained:** Profesor Mejor Orador del Grado en Biología elegido por el alumnado en votación (curso 2016/17)

**12 Type of teaching:** Official teaching

**Name of the course:** Estructura y Función de Proteínas

**Type of programme:** Grado

**University degree:** Biología

**Course given:** En la actualidad

**Start date:** 2011

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 6

**Entity:** Universidad Miguel Hernández de Elche

**Type of entity:** University

## Experience supervising doctoral thesis and/or final year projects

**1 Project title:** Engineering of the choline-binding modules of *Streptococcus pneumoniae* as potential antimicrobials

**Type of project:** End of course project

**Entity:** Universidad Complutense de Madrid

**Type of entity:** University

**Student:** Miguel Saturio Hornillos

**Date of reading:** 2022

**2 Project title:** Ensayo de péptidos dirigidos a la superficie de *Streptococcus pneumoniae* como nuevos antimicrobianos

**Type of project:** End of Master project

**Entity:** Universidad de Alcalá

**Type of entity:** University

**Student:** Paula Antón Sánchez

**Date of reading:** 2021

**3 Project title:** Nanobiomateriales funcionalizados con antimicrobianos frente a *Streptococcus pneumoniae*

**Type of project:** End of Master project

**Entity:** Universidad Complutense de Madrid

**Type of entity:** University

**Student:** Sergio Cibantos Casamayón

**Date of reading:** 2021

**4 Project title:** Estudio estructural y aplicaciones biomédicas de los módulos de unión a colina: Antimicrobianos frente a *Streptococcus pneumoniae*

**Type of project:** Doctoral thesis

**Co-director of thesis:** Maestro, B.

**Entity:** Universidad Miguel Hernández de Elche

**Type of entity:** University

**City of entity:** Elche,

**Student:** Roig-Molina, E.

**Obtained qualification:** Sobresaliente "Cum Laude"

**Date of reading:** 28/02/2020



- 5** **Project title:** Añadiendo valor a los biopolímeros naturales: nuevos derivados de polihidroxicanoatos funcionalizados con proteínas  
**Type of project:** End of course project  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Sergio Cibantos Casamayón  
**Date of reading:** 2020
- 6** **Project title:** Combinaciones de módulos de unión a colina y ésteres de aminas bicíclicas para el diseño de nuevas formulaciones antimicrobianas frente a *Streptococcus pneumoniae*  
**Type of project:** End of course project  
**Co-director of thesis:** Beatriz Maestro García-Donas  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Student:** Raquel Catalina Porres  
**Date of reading:** 2020
- 7** **Project title:** El reposicionamiento de fármacos como estrategia terapéutica frente a *Streptococcus pneumoniae*  
**Type of project:** End of Master project  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Student:** Laura Ortiz Miravalles  
**Date of reading:** 2020
- 8** **Project title:** La superficie de *Streptococcus pneumoniae* como diana de nuevos antimicrobianos  
**Type of project:** End of course project  
**Co-director of thesis:** Beatriz Maestro García-Donas  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Student:** Laura Ortiz Miravalles  
**Date of reading:** 2019
- 9** **Project title:** Caracterización de la estructura y el plegamiento de módulos de unión a colina de *Streptococcus pneumoniae*  
**Type of project:** Trabajo fin de grado  
**Co-director of thesis:** Emma Roig Molina  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Adrián Román Sarmiento  
**Date of reading:** 2017
- 10** **Project title:** Determinación de la capacidad antimicrobiana frente a *Streptococcus pneumoniae* del módulo BioF  
**Type of project:** Trabajo fin de grado  
**Co-director of thesis:** Beatriz Maestro García-Donas  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Daniel Esteve Moreno  
**Date of reading:** 2017
- 11** **Project title:** Caracterización funcional de mutantes patogénicos de la IMP deshidrogenasa  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Eva María Soriano Jerez  
**Date of reading:** 2016



- 12** **Project title:** Construcción y optimización de soportes bioactivos sostenibles para la degradación de colorantes  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** María Dolores Sarmiento Ferrández  
**Date of reading:** 2016
- 13** **Project title:** Proteínas de la superficie de *Streptococcus pneumoniae*: diseño de nuevas moléculas inactivantes y ensayo como antimicrobianos  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Lorena Albaladejo Tasso  
**Date of reading:** 2016
- 14** **Project title:** Caracterización de la estructura y el plegamiento de derivados del módulo de unión a colina C-LytA  
**Type of project:** Trabajo fin de máster  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Marina Bernabéu Cantó  
**Date of reading:** 2016
- 15** **Project title:** Caracterización del módulo de unión a colina C-CbpD y de péptidos derivados de LytA mediante técnicas espectroscópicas  
**Type of project:** Trabajo fin de máster  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Víctor Marín Delgado  
**Date of reading:** 2016
- 16** **Project title:** Caracterización de la estabilidad del módulo C-CbpD y su afinidad por colina mediante técnicas espectroscópicas  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Víctor Marín Delgado  
**Date of reading:** 2015
- 17** **Project title:** Caracterización de la estructura y el plegamiento de módulo de unión a colina C-CbpF de *Streptococcus pneumoniae*  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Marina Bernabeu Cantó  
**Date of reading:** 2015
- 18** **Project title:** Construcción de soportes bioactivos sostenibles para la degradación de colorantes  
**Type of project:** Trabajo fin de máster  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Emma Roig Molina  
**Date of reading:** 2015
- 19** **Project title:** Caracterización de la estabilidad del módulo C-CPL1 y su afinidad por colina mediante técnicas espectroscópicas  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Francisco Garcia Asencio



**Date of reading:** 2014

- 20** **Project title:** Construcción de soportes bioactivos sostenibles para la degradación de colorantes  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Emma Roig Molina  
**Date of reading:** 2014
- 21** **Project title:** Iniciación a la inmovilización de proteínas y su utilización como terapia enzimática en cáncer. Realización de pruebas de concepto en líneas celulares de diferentes tipos de tumores.  
**Type of project:** Trabajo fin de grado  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** María Fuentes Baile  
**Date of reading:** 2014
- 22** **Project title:** Desarrollo de sistemas para la inmovilización de proteínas y sus aplicaciones biotecnológicas.  
**Type of project:** Doctoral thesis  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Student:** Daniel Bello Gil  
**Obtained qualification:** Apto "Cum Laude"  
**Date of reading:** 21/06/2013
- 23** **Project title:** Desarrollo de nuevos sistemas de inmovilización específica de proteínas en soportes sólidos.  
**Type of project:** Work leading to an ASD  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City of entity:** Elche,  
**Student:** Daniel Bello Gil  
**Date of reading:** 25/01/2012
- 24** **Project title:** Estudio estructural y funcional de proteínas de interés biotecnológico. Aplicaciones y optimización.  
**Type of project:** Doctoral thesis  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City of entity:** Elche,  
**Student:** Víctor Manuel Hernández Rocamora  
**Obtained qualification:** Sobresaliente "cum laude"  
**Date of reading:** 27/03/2009
- 25** **Project title:** Caracterización estructural y funcional del regulador StyR de la ruta de biodegradación de estireno en *Pseudomonas* sp. Y2.  
**Type of project:** Doctoral thesis  
**Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City of entity:** Elche,  
**Student:** María José Rodas Martínez  
**Obtained qualification:** Sobresaliente "cum laude"  
**Date of reading:** 08/06/2007
- 26** **Project title:** Estudio de los determinantes del rango de huésped de pPS10, un plásmido de *Pseudomonas*  
**Type of project:** Doctoral thesis  
**Co-director of thesis:** María Elena Fernández Tresguerres  
**Entity:** Universidad Complutense de Madrid **Type of entity:** University  
**City of entity:** Madrid,





**Student:** Beatriz Maestro García-Donas  
**Obtained qualification:** Sobresaliente "cum laude"  
**Date of reading:** 05/02/2001

## Educational or pedagogical publications, books, articles, etc.

- 1** Sánchez-Angulo, M.; Sanz, J. M.. Proyectos docentes INNOVA de innovación y la mejora en la docencia y la investigación entre el profesorado de la UMH.,  
**Name of the materials:** Impresión en 3D de modelos de estructuras biológicas para Docencia en Biología y Biotecnología con proyección para la docencia de personas invidentes  
**Date of drafting:** 2016  
**Format:** Proyecto docente  
**Justification of material:** Financiación de 500 euros
- 2** Sánchez-Angulo, M.; Sanz, J. M.. Proyectos docentes INNOVA de innovación y la mejora en la docencia y la investigación entre el profesorado de la UMH.,  
**Name of the materials:** Impresión en 3D de modelos de estructuras biológicas para Docencia en Biología y Biotecnología  
**Date of drafting:** 2015  
**Format:** Proyecto docente  
**Justification of material:** Financiación de 900 euros
- 3** Jesús Miguel Sanz Morales; Otros. BioROM. Ayudas al aprendizaje de bioquímica, biotecnología y biología molecular, Available on-line at: <<http://www.biorom.uma.es/indices/index.html>>.  
**Legal deposit:** MA-2361-2009  
**Name of the materials:** Soporte informático para el aprendizaje de bioquímica, biotecnología y biología molecular  
**Date of drafting:** 2009  
**Format:** Software
- 4** Villalaín, J.; Sanz, J.M.. Universidad Miguel Hernandez de Elche,  
**Name of the materials:** Creación de un aula virtual para asignaturas de la licenciatura en Bioquímica  
**Date of drafting:** 2002  
**Format:** Software  
**Justification of material:** Puesta a punto y ensayo de una asignatura virtual, complementaria al aula teórico-práctica, mediante implantación de tecnología inalámbrica, y destinada a la enseñanza de contenidos relacionados con la bioquímica y biotecnología.  
**Corresponding author:** No

## Participation in conferences with talks focused on teacher training

- 1** **Name of the event:** III Reunión de Docencia y Difusión de la Microbiología  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** No  
**City of event:** Bilbao, Basque Country, Spain  
**Organising entity:** SOCIEDAD ESPAÑOLA DE MICROBIOLOGIA  
Impresión en 3D de modelos de estructuras biológicas para Docencia en Biología y Biotecnología con proyección para la docencia de personas invidentes.





- 2** **Name of the event:** 6th Festival of Nanoscience and Nanotechnology - Nanotechnology reaches high school.  
**Type of event:** Seminar  
**Aims of the event:** Divulgation - IES San Fernando, Madrid  
**City of event:** Madrid, Spain  
**Date of presentation:** 05/04/2022  
**Organising entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency  
Nanotechnology: the huge world of the small..
- 3** **Name of the event:** I Jornadas de Innovación Colaborativa JIC2017-UMH  
**Type of event:** Workshop  
**City of event:** Elche,  
**Date of presentation:** 20/06/2017  
**Organising entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
Impresión 3D y docencia en Biología, Bioquímica y Biotecnología. Proyección para la docencia de personas con discapacidad visual..

## Healthcare experience

### Other activities/achievements not included above

- 1** **Other relevant activities:** Coordinador científico - Master in Cellular and Integrative Biology (Mcib)  
**Entity where project took place:** Centro de Investigaciones Biológicas - Universidad Internacional Menendez Pelayo  
**End date:** 2020
- 2** **Other relevant activities:** Vocal de la Comisión de Acreditación de Ciencias Experimentales de la Agencia de Evaluación del Sistema Universitario Vasco (2015-actualidad)  
**Entity where project took place:** UNIBASQ  
**End date:** 2019 **Start date:** 2015
- 3** **Other relevant activities:** Reconocimiento de 6 periodos de actividad docente (Quinquenios).  
**End date:** 2018
- 4** **Other relevant activities:** Vocal de la Comisión de Acreditación para Ciencias de la Salud de la Agencia Nacional de Evaluación de la Calidad y la Acreditación (ANECA) (Programa Academia) (2011-2014)  
**End date:** 28/02/2014
- 5** **Other relevant activities:** Colaborador de la comisión redactora de la solicitud del Grado en Biotecnología por la Universidad Miguel Hernández (2008).  
**End date:** 2008
- 6** **Other relevant activities:** Miembro de la comisión redactora del III Plan Estratégico para la Calidad de la Universidad Miguel Hernández (2006).  
**End date:** 2006



- 7 Other relevant activities:** Miembro de la comisión redactora del Reglamento de la Facultad de Ciencias Experimentales de la Universidad Miguel Hernández (1999)  
**End date:** 1999
- 8 Other relevant activities:** Colaborador científico del área de Biotecnología  
**Entity where project took place:** Agencia Estatal de Investigación (AEI)  
**Start date:** 01/01/2019
- 9 Other relevant activities:** Vocal de la Comisión de Acreditación de Titulaciones del Gobierno Vasco (UNIBASQ)  
**Start date:** 11/04/2018
- 10 Other relevant activities:** Vocal de la Comisión de Complementos Retributivos de la Agencia de Evaluación del Sistema Universitario Vasco (2015-actualidad)  
**Entity where project took place:** UNIBASQ  
**Start date:** 2015
- 11 Other relevant activities:** Evaluador de la Agencia Nacional de Evaluación de la Calidad y la Acreditación (ANECA) (Programa Academia) (2009-2011, 2015-actualidad)
- 12 Other relevant activities:** Evaluador de la Universidad del País Vasco (UPV) para la convocatoria de Ayudas para la recualificación del sistema universitario español

## Scientific and technological experience

### Scientific or technological activities

#### R&D projects funded through competitive calls of public or private entities

- 1 Name of the project:** Ultrastructure and biotechnological scope of choline-binding modules: a synthetic biology approach  
**Entity where project took place:** Spanish National Research Council (CSIC) **Type of entity:** Public Research Body  
**Name principal investigator (PI, Co-PI...):** Sanz, J.M.  
**Nº of researchers:** 2  
**Type of participation:** Principal investigator  
**Code according to the funding entity:** PID2019-105126RB-I00  
**Start-End date:** 01/06/2020 - 31/05/2023 **Duration:** 3 years  
**Participating entity/entities:** Ministerio de Ciencia e Innovación  
**Total amount:** 145.000 €
- 2 Name of the project:** Remodeling of Streptococcus pneumoniae cell wall: structural studies of the StkP and LytA proteins as targets for the development of novel antimicrobials.(Ref BIO2016-79323-R)  
**Entity where project took place:** Centro de Investigaciones Biológicas CSIC (Madrid) and University Miguel Hernandez (Elche), Spain  
**Name principal investigator (PI, Co-PI...):** Sanz, J.M.  
**Nº of researchers:** 2  
**Funding entity or bodies:**



Ministerio de Economía y Competitividad

**Code according to the funding entity:** BIO2016-79323-R

**Start-End date:** 01/01/2017 - 29/12/2020

**Total amount:** 181.500 €

**3 Name of the project:** Estructura de proteínas de la superficie de Streptococcus pneumoniae: diseño de nuevas moléculas inactivantes y ensayo como antimicrobianos

**Type of project:** Basic research (including archaeological digs, etc) **Geographical area:** National

**Degree of contribution:** Coordinator of total project, network or consortium

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**City of entity:** Elche, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 2

**Funding entity or bodies:**

Ministerio de Economía y Competitividad (MINECO), Ref. BIO2013-47684-R

**Start-End date:** 01/01/2014 - 31/12/2016

**Duration:** 3 years

**Total amount:** 205.700 €

**4 Name of the project:** Desarrollo de nuevas aplicaciones de los módulos de unión a colina para la purificación e inmovilización de proteínas (Ref: BFU2010-17824).

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz

**Nº of researchers:** 3

**Funding entity or bodies:**

Ministerio de Ciencia e Innovación

**Type of entity:** Estatal

**City funding entity:** Madrid, Community of Madrid, Spain

**Start-End date:** 01/01/2011 - 31/07/2014

**Participating entity/entities:** Universidad Miguel Hernández

**Total amount:** 121.000 €

**5 Name of the project:** Plataforma de investigación en piel - SKIN RESEARCH PLATFORM (SRP) (ISIC/2012/009)

**Entity where project took place:** Instituto Universitario de Biología Molecular y Celular **Type of entity:** University Research Institute

**Name principal investigator (PI, Co-PI....):** Ferrer-Montiel, A.

**Nº of researchers:** 20

**Funding entity or bodies:**

Generalitat Valenciana

**Type of entity:** Conselleria de Educacion

**City funding entity:** Valencia, Valencian Community, Spain

**Start-End date:** 01/01/2012 - 31/12/2013

**Total amount:** 50.700 €

**6 Name of the project:** Combating Antibiotics Resistant Pneumococci by Novel Strategies Based on in vivo and in vitro Host – Pathogen Interactions (CAREPNEUMO) (Project HEALTH-F3-2009-223111)

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** G.S. Chhatwal (coordinador)



**Nº of researchers:** 2

**Funding entity or bodies:**

Comisión Europea

**Type of entity:** FP7

**City funding entity:** Madrid, Community of Madrid, Spain

**Start-End date:** 2009 - 2012

**Participating entity/entities:** Universidad Miguel Hernández y 14 entidades más.

**Total amount:** 222.000 €

**7 Name of the project:** Ayudas para la contratación de personal de apoyo en organismos de investigación de la Comunidad Valenciana

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz

**Nº of researchers:** 1

**Funding entity or bodies:**

Generalitat Valenciana

**Type of entity:** Autonómico

**City funding entity:** Valencia, Valencian Community, Spain

**Start-End date:** 2010 - 2010

**Participating entity/entities:** Universidad Miguel Hernández

**Total amount:** 9.300 €

**8 Name of the project:** Aproximación molecular al empleo de polihidroxicanoatos como soportes para la inmovilización de proteínas recombinantes y como fuente de ácidos hidroxialcanoicos quirales (Proyecto coordinado, subproyecto nº 2) (Ref: BIO2007-67304-C02-02).

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz (Del subproyecto de la UMH)

**Nº of researchers:** 3

**Funding entity or bodies:**

Ministerio de Educación y Ciencia

**Start-End date:** 2007 - 2010

**Participating entity/entities:** Universidad Miguel Hernández

**Total amount:** 151.250 €

**9 Name of the project:** V Premio Laboratorios SALVAT al Mejor Proyecto de Investigación en Ciencias Biomédicas.

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz

**Nº of researchers:** 2

**Funding entity or bodies:**

Fundación SALVAT Inquifarma

**Type of entity:** Foundation

**Start-End date:** 2006 - 2008

**Participating entity/entities:** Universidad Miguel Hernández

**Total amount:** 30.000 €

**10 Name of the project:** Estructura e ingeniería de proteínas pertenecientes al catabolón del fenilacetil-CoA y rutas relacionadas (Proyecto coordinado, subproyecto nº 4) (Ref: BIO2003-05309-C04-04)

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University



**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz (Del subproyecto de la UMH)

**Nº of researchers:** 2

**Funding entity or bodies:**

Ministerio de Ciencia y Tecnología

**Start-End date:** 2004 - 2007

**Participating entity/entities:** Instituto de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 123.550 €

**11 Name of the project:** Plataforma para la automatización y escalado eficiente de la producción de proteínas recombinantes (PROFIT CIT-010000-2005-32)

**Entity where project took place:** Universidad Miguel **Type of entity:** University  
Hernández de Elche

**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz (Del subproyecto de la UMH)

**Nº of researchers:** 1

**Funding entity or bodies:**

Ministerio de Educación y Ciencia

**Start-End date:** 2005 - 2006

**Participating entity/entities:** Biomedal; Molecular Biology Laboratory; Universidad Miguel Hernández y Universidad Pablo de Olavide.; Universidad de Sevilla

**Total amount:** 32.400 €

**12 Name of the project:** Diseño de Inhibidores de las hidrolasas de la pared celular de neumococo. Aplicación al tratamiento de la neumonía, meningitis y otitis infantiles (Ref 95/2005)

**Entity where project took place:** Universidad Miguel **Type of entity:** University  
Hernández de Elche

**Name principal investigator (PI, Co-PI...):** Jesús M. Sanz

**Nº of researchers:** 1

**Funding entity or bodies:**

Generalitat Valenciana. Escuela Valenciana de Estudios para la Salud

**Start-End date:** 2005 - 2005

**Participating entity/entities:** Instituto de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 3.700 €

**13 Name of the project:** Grupo de caracterización estructural y termodinámica de interacciones macromoleculares implicadas en procesos de relevancia biológica (Ref: GRUPOS03/056)

**Entity where project took place:** Universidad Miguel **Type of entity:** University  
Hernández de Elche

**Name principal investigator (PI, Co-PI...):** José Manuel González Ros

**Nº of researchers:** 7

**Funding entity or bodies:**

Generalidad Valenciana

**Start-End date:** 2003 - 2005

**Participating entity/entities:** Instituto de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 80.952 €

**14 Name of the project:** Construcción de nuevos sistemas de inmovilización y purificación de proteínas en soportes sencillos. Ensayo y aplicación a la purificación de proteínas de interés industrial y biotecnológico. (Ref: BIO2000-0009-P4-04)

**Entity where project took place:** Universidad Miguel **Type of entity:** University  
Hernández de Elche



**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz

**Nº of researchers:** 5

**Funding entity or bodies:**

Ministerio de Ciencia y Tecnología

**Start-End date:** 2001 - 2005

**Participating entity/entities:** BioTools, S.L. y BioMedal, S.A.; Centro de Biología Molecular y Celular. Universidad Miguel Hernández; Centro de Investigaciones Biológicas, CSIC, Madrid

**Total amount:** 60.100 €

**15 Name of the project:** Ingeniería de la expresión coordinada de múltiples genes y uso para la producción y purificación de moléculas de interés industrial. (PROFIT FIT-010000-2003-110)

**Entity where project took place:** Universidad Miguel Hernández **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz (Del subproyecto de la UMH)

**Nº of researchers:** 1

**Funding entity or bodies:**

Ministerio de Ciencia y Tecnología

**Start-End date:** 2003 - 2004

**Participating entity/entities:** BIOMEDAL S.L.; Consejo Superior de Investigaciones Científicas; Universidad Miguel Hernández.; Universidad Pablo de Olavide; Universidad de Sevilla

**Total amount:** 24.250 €

**16 Name of the project:** Estudio bioquímico y genético de las principales rutas que integran el catabolón del fenilacetil coenzima A (Subproyecto nº 4) (Ref: BMC2000-0125-C04-04)

**Entity where project took place:** Universidad Miguel Hernández **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz (Del subproyecto de la UMH)

**Nº of researchers:** 1

**Funding entity or bodies:**

Ministerio de Ciencia y Tecnología

**Start-End date:** 2001 - 2003

**Participating entity/entities:** Centro de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 48.080 €

**17 Name of the project:** Diseño de ligandos inhibidores de la acción de las hidrolasas de la pared celular de *Streptococcus pneumoniae*. (Ref: BM-018/2002)

**Entity where project took place:** Universidad Miguel Hernández **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz

**Nº of researchers:** 1

**Funding entity or bodies:**

Generalitat Valenciana. Escuela Valenciana de Estudios para la Salud.

**Start-End date:** 2002 - 2002

**Participating entity/entities:** Instituto de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 5.771 €

**18 Name of the project:** Caracterización Estructural y Funcional de Proteínas de Relevancia Médica y Biotecnológica. Aplicación a la Reductasa HpaC de *Escherichia coli* W y al Factor de Terminación de la Transcripción del DNA Mitocondrial Humano. (Ref: GV98-05-43)

**Type of entity:** University





**Entity where project took place:** Universidad Miguel Hernández de Elche

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz

**Nº of researchers:** 3

**Funding entity or bodies:**

Generalitat Valenciana. Consellería de Cultura

**Start-End date:** 1999 - 2001

**Participating entity/entities:** Centro de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 26.565 €

**19 Name of the project:** Desarrollo de nuevas generaciones de agentes terapéuticos contra neurodegeneración: bloqueadores de canal abierto (n 98/027-00)

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Antonio Ferrer Montiel

**Funding entity or bodies:**

Fundación la Caixa

**Start-End date:** 1999 - 2001

**Participating entity/entities:** Centro de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 81.738 €

**20 Name of the project:** Desarrollo de nuevos analgésicos mediante cribado de quimiotecas combinatorias sintéticas y naturales.(Ref 1FD97-0662-C02-01)

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Antonio Ferrer Montiel

**Funding entity or bodies:**

CICYT-FEDER

**Start-End date:** 1999 - 2001

**Participating entity/entities:** Centro de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 196.771 €

**21 Name of the project:** Estructura y Función de proteínas de interés clínico y biotecnológico. (Ref: GR00-84)

**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Jesús M. Sanz

**Nº of researchers:** 8

**Funding entity or bodies:**

Generalitat Valenciana. Consellería de Cultura

**Start-End date:** 2000 - 2000

**Participating entity/entities:** Centro de Biología Molecular y Celular. Universidad Miguel Hernández

**Total amount:** 12.020 €

**22 Name of the project:** Targeting the pneumococcal surface to combat antimicrobial resistance. A combined strategy.

**Entity where project took place:** Centro de Investigaciones Biológicas - CSIC **Type of entity:** State agency

**City of entity:** Madrid,

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 4



**Funding entity or bodies:**

Fundación Kaertor

**Start date:** 2018**R&D non-competitive contracts, agreements or projects with public or private entities**

- 1** **Name of the project:** Remodelacion de la pared celular de Streptococcus pneumoniae: estudios estructurales de las proteínas StkP y LytA como objetivo para el desarrollo de nuevos antimicrobianos (Ref. 2018201132)

**Degree of contribution:** Coordinator of total project, network or consortium

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 1

**Funding entity or bodies:** Consejo Superior de Investigaciones Científicas      **Type of entity:** State agency

**City funding entity:** Madrid, Community of Madrid, Spain

**Start date:** 22/11/2018      **Duration:** 1 year

**Total amount:** 5.000 €
- 2** **Name of the project:** LIPOENZYM II - Aplicación de la biotecnología en la mejora medioambiental de los procesos de tintura textil

**Degree of contribution:** Coordinator of total project, network or consortium

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 1

**Participating entity/entities:** Universidad Miguel Hernández de Elche

**Funding entity or bodies:** AITEX - Instituto Tecnológico Textil      **Type of entity:** Technological Centre

**City funding entity:** Alcoy, Valencian Community, Spain

**Start date:** 21/06/2016      **Duration:** 6 months

**Total amount:** 15.528,71 €
- 3** **Name of the project:** LIPOENZYM - Línea de i+d basada en el estudio de aplicación de la biotecnología en la mejora medioambiental de los procesos de tintura textil

**Degree of contribution:** Coordinator of total project, network or consortium

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 1

**Participating entity/entities:** Universidad Miguel Hernández de Elche

**Funding entity or bodies:** AITEX - Instituto Tecnológico Textil      **Type of entity:** Technological Centre

**City funding entity:** Alcoy, Valencian Community, Spain

**Code according to the funding entity:** Convenio 86/15

**Start date:** 15/09/2015      **Duration:** 3 months - 15 days

**Total amount:** 33.548 €
- 4** **Name of the project:** DECOENZYM – Investigación de la degradación de colorantes residuales mediante la aplicación de la tecnología enzimática

**Degree of contribution:** Coordinator of total project, network or consortium

**Name principal investigator (PI, Co-PI....):** Sanz, J.M.

**Nº of researchers:** 1

**Participating entity/entities:** Universidad Miguel Hernández de Elche

**Funding entity or bodies:**

AITEEX - Instituto Tecnológico Textil

**Type of entity:** Technological Centre**City funding entity:** Alcoy, Valencian Community, Spain**Code according to the funding entity:** Convenio 125/14**Start date:** 17/10/2014**Duration:** 3 months**Total amount:** 25.391 €

- 5 Name of the project:** Asesoramiento para la purificación y caracterización del factor humano de crecimiento de osteocitos BMP-7 y otras proteínas de la familia de TGFbeta a partir de plantas de Nicotiana sp.

**Degree of contribution:** Contrato de asesoramiento**Name principal investigator (PI, Co-PI....):** Jesús M Sanz**Nº of researchers:** 1**Participating entity/entities:** Instituto Universitario de Biología Molecular y Celular; Universidad Miguel Hernández**Funding entity or bodies:**

Agrenvec S.L.

**Start date:** 2008**Total amount:** 1.600 €

- 6 Name of the project:** Establecimiento, en el CBMC de la UMH, de una unidad de I+D y transferencia de tecnología mixta entre la UMH y las empresas.

**Degree of contribution:** Researcher**Name principal investigator (PI, Co-PI....):** González-Ros, J.M.**Participating entity/entities:** DiverDrugs, SL; Lipotec, S.A.; Universidad Miguel Hernández de Elche**Funding entity or bodies:**

DiverDrugs, SL

**Type of entity:** Business**City funding entity:** Gavà, Catalonia, Spain

Lipotec, S.A.

**Type of entity:** Business**City funding entity:** Spain**Code according to the funding entity:** Lipotec-Diverdrugs 1.03D**Start date:** 02/07/2003**Duration:** 2 years**Total amount:** 0 €

- 7 Name of the project:** Regular la aportación a la UMH, por parte de las empresas, de los recursos económicos necesarios para dotar de medios humanos adicionales al proyecto "Construcción de nuevos sistemas de inmovilización y purificación de proteínas en soportes sencillos"

**Degree of contribution:** Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Sanz, J.M.**Nº of researchers:** 1**Participating entity/entities:** BIOMEDAL, S.L.; Biotools, B & M Labs, S.A.; Universidad Miguel Hernández de Elche**Funding entity or bodies:**

BIOMEDAL, S.L.

**City funding entity:** Spain**Code according to the funding entity:** BIOTMED 1.02X**Start date:** 15/01/2002**Duration:** 1 year**Total amount:** 9.015,18 €



**8 Name of the project:** Convenio de colaboración para el establecimiento de una unidad de I+D y transferencia de tecnología mixta entre la UMH y la empresa

**Name principal investigator (PI, Co-PI....):** González-Ros, J.M.

**Funding entity or bodies:**

FMC Foodtech S.L.

**Code according to the funding entity:** FMCF1.01X

**Start date:** 30/07/2001

**Duration:** 10 years

**Total amount:** 0 €

**9 Name of the project:** Acuerdo específico de asesoramiento y transferencia de know-how

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** González-Ros, J.M.

**Funding entity or bodies:**

CENTRO DE ACUSTICA APLICADA Y  
EVALUACION NO DESTRUCTIVA

**Type of entity:** Associations and Groups

Ilice Biotech S.L.

**Code according to the funding entity:** Ilice Biotech S.L.

**Start date:** 21/03/2001

**Duration:** 2 years

**Total amount:** 0 €

## Results

### Industrial and intellectual property

**1 Title registered industrial property:** Peptides with antimicrobial activity and their uses

**Inventors/authors/obtainers:** Sanz, J.M.; Maestro, B.; Ortiz, L.; Antón, P.; Prieto, M.A.

**Entity holder of rights:** Consejo Superior de Investigaciones Científicas

**Nº of application:** P202130558

**Country of inscription:** Spain

**Date of register:** 16/06/2021

**Operating aut.region/region:** Spain

**2 Title registered industrial property:** Antimicrobials against Streptococcus pathogens

**Type of industrial property:** Patent of invention

**Inventors/authors/obtainers:** Sanz, J.M.; Maestro, B.; Ortiz-Miravalles, L.

**Entity holder of rights:** Consejo Superior de Investigaciones Científicas

**Nº of application:** P202130070 - PCT/ES2022/070042

**Country of inscription:** Spain

**Date of register:** 28/01/2021

**Spanish patent:** Yes

**Operating aut.region/region:** Spain

**3 Title registered industrial property:** Use of a compound with formula (I) as bactericidal against Streptococcus

**Description of qualities:** Aprobado informe del estado de la técnica

**Type of industrial property:** Patent of invention

**Inventors/authors/obtainers:** Retamosa, M.G.; Maestro, B.; Díez, R.; García, P.; Sanz, J.M.

**Entity holder of rights:** Universidad Miguel Hernández de Elche y CSIC



**Nº of application:** ES201331031

**Country of inscription:** Spain

**Date of register:** 08/07/2013

**Conferral date:** 23/10/2015

**Nº of patent:** ES2526580

**Spanish patent:** Yes

**International non-EU patent:** No

**EU patent:** No

**PCT patent:** No

**4 Title registered industrial property:** Choline-affinity domains to improve the expression, immobilization and purification of polypeptides.

**Type of industrial property:** Patent of invention

**Inventors/authors/obtainers:** Maestro B; Arévalo M; Hernández VM; Cebolla A; Sanz JM

**Entity holder of rights:** Universidad Miguel Hernández

**Nº of application:** 200700281

**Country of inscription:** Spain

**Date of register:** 29/01/2007

**Conferral date:** 11/03/2010

**Nº of patent:** ES2321788

**Spanish patent:** Yes

**Licences:** Yes

**Operating aut.region/region:** Spain

**Companies:** Biomedal S.L. (Sevilla)

**Exclusive use:** Yes

**Results:** Success

**Products:** "kit" de purificación C-LYTAG (<http://tinyurl.com/lytagsystem>)

**5 Title registered industrial property:** Procedures for separation of recombinant proteins in aqueous two-phase systems

**Description of qualities:** Patente extendida a Estados Unidos con referencia US8329877, a Europa con referencia EP2196470 y a Japón con referencia JP5271354

**Type of industrial property:** Patent of invention

**Inventors/authors/obtainers:** Sanz JM; Maestro B; Arévalo M; Velasco I; Cebolla A

**Entity holder of rights:** Universidad Miguel Hernández y Biomedal S.L.

**Nº of application:** 200702504

**Country of inscription:** Spain

**Date of register:** 12/09/2007

**Conferral date:** 01/02/2010

**Nº of patent:** ES2319844

**Spanish patent:** Yes

**International non-EU patent:** Yes

**PCT patent:** Yes

**Licences:** Yes

**Operating aut.region/region:** Spain / United States of America

**Companies:** Biomedal S.L. (Sevilla)

**Exclusive use:** Yes

**Results:** Success

**Products:** "kit" de purificación LYTAG-2-PHASE (<http://tinyurl.com/lytagsystem2>)

**6 Title registered industrial property:** Procedure for the single-step immobilization and/or purification of fusion proteins with biotechnological interest.

**Type of industrial property:** Patent of invention

**Inventors/authors/obtainers:** Sánchez-Puelles JM; Sanz JM; García JL; García E



**Entity holder of rights:** Consejo Superior de Investigaciones Científicas

**N° of application:** 9100732

**Country of inscription:** Spain

**Date of register:** 22/03/1991

**Conferral date:** 16/02/1993

**N° of patent:** ES2032717

**Spanish patent:** Yes

## Scientific and technological activities

### Scientific production

#### Publications, scientific and technical documents

- 1** Fuentes-Baile, M.; Perez-Valenciano, E.; Garcia-Morales, P.; Romero, C. de J.; Bello-Gil, D.; Barbera, V.M.; Rodriguez-Lescure, A.; Sanz, J.M.; Alenda, C.; Saceda, M.. CLytA-DAAO chimeric enzyme bound to magnetic nanoparticles. A new therapeutical approach for cancer patients?. *Int. J. Mol. Sci.*22, pp. 1477. 2021.  
**DOI:** 10.3390/ijms22031477  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** No  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 5.92 **Journal in the top 25%:** Yes  
**Position of publication:** 67 **No. of journals in the cat.:** 295
- 2** Vleugels, M.; Varela-Aramburu, S.; Schoenmakers, S.; Maestro, B.; Palmans, A.; Sanz, J.M.\*; Meijer, E.W.\*. Choline-functionalized supramolecular copolymers: towards antimicrobial activity against *Streptococcus pneumoniae*. *Biomacromolecules*. 22, pp. 5363 - 5373. 2021.  
**Type of production:** Scientific paper  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** Science Edition - POLYMER SCIENCE  
**Impact index in year of publication:** 6.99 **Journal in the top 25%:** Yes  
**Position of publication:** 5 **No. of journals in the cat.:** 90
- 3** Vázquez, R.; Caro-León, F.J.; Nakal, A.; Ruiz, S.; Doñoro, C.; García-Fernández, L.; Vázquez-Lasa, B.; San Román, J.; Sanz, J.M.; García, P.; Aguilar, M.A.. DEAE-chitosan nanoparticles as a pneumococcus-biomimetic material for the development of antipneumococcal therapeutics. *Carbohydr. Polym.*273, pp. 118605. 2021.  
**DOI:** 10.1016/j.carbpol.2021.118605  
**Type of production:** Scientific paper  
**Corresponding author:** No  
**Impact source:** ISI **Category:** Science Edition - POLYMER SCIENCE  
**Impact index in year of publication:** 9.38 **Journal in the top 25%:** Yes  
**Position of publication:** 3 **No. of journals in the cat.:** 90
- 4** Maestro, B.; Zamora-Carreras, H.; Jiménez, M.A.; Sanz, J.M.. Inter-hairpin linker sequences determine the structure of the  $\beta\beta$ -solenoid fold: a "bottom-up" study of pneumococcal LytA choline-binding module. *Int. J. Biol. Macromol.*190, pp. 679 - 692. 2021.

**DOI:** 10.1016/j.ijbiomac.2021.08.223

**Type of production:** Scientific paper

**Corresponding author:** Yes

**Impact source:** ISI

**Impact index in year of publication:** 6.95

**Position of publication:** 6

**Category:** Science Edition - POLYMER SCIENCE

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 90

- 5** Fuentes-Baile, M.; Bello-Gil, D.; Pérez-Valenciano, E.; Sanz, J.M.; García-Morales, P.; Maestro, B.; Ventero, M.P.; Alenda, C.; Barberá, V.M.; Saceda, M.. CLyTA-DAAO, Free and Immobilized in Magnetic Nanoparticles, Induces Cell Death in Human Cancer Cells. *Biomolecules*. 10, pp. 222. 2020.

**DOI:** 10.3390/biom10020222

**Type of production:** Scientific paper

**Position of signature:** 4

**Total no. authors:** 10

**Impact source:** ISI

**Impact index in year of publication:** 4.88

**Position of publication:** 96

**Format:** Journal

**Corresponding author:** No

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** No

**No. of journals in the cat.:** 295

- 6** Fuentes-Baile, M.; Garcia-Morales, P.; Perez-Valenciano, E.; Ventero, M.P.; Sanz, J.M.; de Juan-Romero, C.; Barbera, V.M.; Alenda, C.; Saceda, M.. Cell death mechanisms induced by CLyTA-DAAO 2 chimeric enzyme in human tumor cell lines. *Int.J.Mol.Sci.*21, pp. 8522. 2020.

**DOI:** 10.3390/ijms21228522

**Type of production:** Scientific paper

**Corresponding author:** No

**Impact source:** ISI

**Impact index in year of publication:** 5.92

**Position of publication:** 67

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295

- 7** Mato, A.; Blanco, F.G.; Maestro, B.; Sanz, J.M.; Pérez-Gil, J.; Prieto, M. A.. Dissecting the polyhydroxyalkanoate binding domain of the PhaF phasin: rational design of a minimized affinity tag. *Appl. Environ. Microbiol.*86, pp. e00570-20. 2020.

**DOI:** 10.1128/AEM.00570-20

**Type of production:** Scientific paper

**Corresponding author:** No

**Impact source:** ISI

**Impact index in year of publication:** 4.79

**Position of publication:** 38

**Format:** Journal

**Category:** Science Edition - BIOTECHNOLOGY & APPLIED MICROBIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 159

- 8** Roig-Molina, E.; Sánchez-Angulo, M.; Seele, J.; García-Asencio, F.; Nau, R.; Sanz, J.M.; Maestro, B.. Searching for antipneumococcal targets: Choline-binding modules as phagocytosis enhancers. *ACS Infect. Dis.*6, pp. 954 - 974. 2020.

**DOI:** 10.1021/acsinfecdis.9b00344

**Type of production:** Scientific paper

**Position of signature:** 6

**Total no. authors:** 7

**Impact source:** ISI

**Format:** Journal

**Corresponding author:** Yes

**Category:** Science Edition - CHEMISTRY, MEDICINAL



**Impact index in year of publication:** 5.08  
**Position of publication:** 13

**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 62

- 9** Tarazona, N.A.; Maestro, B.; Revelles, O.; Sanz, J.M.; Prieto, M.A.. Role of leucine zipper-like motifs in the oligomerization of *Pseudomonas putida* phasins. *Biochim. Biophys. Acta Gen. Sub.* 1863, pp. 362 - 370. 2019.

**Type of production:** Scientific paper

**Corresponding author:** No

**Impact source:** ISI

**Impact index in year of publication:** 3,7

**Position of publication:** 19

**Category:** Biophysics

**Journal in the top 25%:** No

**No. of journals in the cat.:** 72

- 10** Roig-Molina, E.; Domenech, M.; Retamosa, M.de G.; Nacher-Vazquez, M.; Rivas, L.; Maestro, B.; García, P.; Garcia, E.; Sanz, J.M.. Widening the antimicrobial spectrum of esters of bicyclic amines: in vitro effect on Gram-positive *Streptococcus pneumoniae* and Gram-negative non-typeable *Haemophilus influenzae* biofilms. *Biochimica et Biophysica Acta - General Subjects.* 1863, pp. 96 - 104. 2019.

**Type of production:** Scientific paper

**Position of signature:** 9

**Total no. authors:** 9

**Impact source:** ISI

**Impact index in year of publication:** 3.7

**Position of publication:** 19

**Format:** Journal

**Corresponding author:** Yes

**Category:** Biophysics

**Journal in the top 25%:** No

**No. of journals in the cat.:** 72

- 11** Bello-Gil, D.; Roig-Molina, E.; Fonseca, J.; Sarmiento-Fernandez, M.D.; Ferrandiz, M.; Franco, E.; Mira, E.; Maestro, B.; Sanz, J.M.. An enzymatic system for decolorisation of wastewater dyes using immobilized CueO laccase-like multicopper oxidase on poly-3-hydroxybutyrate. *Microb. Biotech.* 11, pp. 881 - 892. 2018. Available on-line at: <<https://doi.org/10.1111/1751-7915.13287>>.

**Type of production:** Scientific paper

**Corresponding author:** Yes

**Impact source:** ISI

**Impact index in year of publication:** 4.9

**Position of publication:** 22

**Format:** Journal

**Category:** Biotechnology & Applied Microbiology

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 162

- 12** Bello-Gil, D.; Maestro, B.; Fonseca, J.; Dinjaski, N.; Prieto, M.A.; Sanz, J.M.. Poly-3- hydroxybutyrate functionalization with BioF-tagged recombinant proteins. *Appl. Environ. Microbiol.* 84, pp. e02595-17. 2018.

**DOI:** <https://doi.org/10.1128/AEM.02595-17>

**Type of production:** Scientific paper

**Corresponding author:** Yes

**Impact source:** ISI

**Impact index in year of publication:** 4.1

**Position of publication:** 33

**Format:** Journal

**Category:** Biotechnology and Applied Microbiology

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 162

- 13** Zamora-Carreras, H.; Maestro, B.; Strandberg, E.; Ulrich, A.; Sanz, J.M.\*; Jimenez, M.A.\*. Roles of amphipathicity and hydrophobicity in the micelle-driven structural switch of a 14-mer peptide core from a choline-binding repeat. *Chem. Eur. J.* 24, pp. 5825 - 5839. 2018.

**Type of production:** Scientific paper

**Corresponding author:** Yes

**Impact source:** ISI

**Impact index in year of publication:** 5.2

**Position of publication:** 37

**Format:** Journal

**Category:** Chemistry, multidisciplinary

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 172



- 14** Retamosa, M. de G.; Díez-Martínez, R.; Maestro, B.; García-Fernández, E.; de Waal, B.; Meijer, E. W.; García, P.; Sanz, J. M.. Aromatic esters of bicyclic amines as antimicrobials against *Streptococcus pneumoniae*. *Angew. Chem. Int. Ed.*54, pp. 13673 - 13677. 2015.  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** CHEMISTRY, MULTIDISCIPLINARY  
**Impact index in year of publication:** 11,7 **Journal in the top 25%:** Yes  
**Position of publication:** 11 **No. of journals in the cat.:** 163  
**Relevant results:** doi: 10.1002/anie.201505700
- 15** Zamora-Carreras, H.; Maestro, B.; Strandberg, E.; Ulrich, A. S.; Sanz, J. M.; Jiménez, M. A.. Micelle-Triggered beta-Hairpin to alpha-Helix Transition in a 14-Residue Peptide from a Choline-Binding Repeat of the Pneumococcal Autolysin LytA. *Chem. Eur. J.*21, pp. 8076 - 8089. Wiley-VCH, 2015.  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - CHEMISTRY, MULTIDISCIPLINARY  
**Impact index in year of publication:** 5.8 **Journal in the top 25%:** Yes  
**Position of publication:** 24 **No. of journals in the cat.:** 163
- 16** Obeso, J.; Maestro, B.; Sanz, J. M.; Olivera, E.; Luengo, J. M.. The loss of function of PhaC1 is a survival mechanism that counteracts the stress caused by the overproduction of poly-3-hydroxyalkanoates in *Pseudomonas putida*  $\Delta$ fadBA. *Environ. Microbiol.*17, pp. 3182 - 3194. 2015.  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Microbiology  
**Impact index in year of publication:** 5,9 **Journal in the top 25%:** Yes  
**Position of publication:** 16 **No. of journals in the cat.:** 123
- 17** Silva-Martin, N; Retamosa, M.G.; Maestro, B.; Bartual, S.G.; Rodes, M.J.; García, P.; Sanz, J.M.\*; Hermoso, J.A.\*. Crystal structures of CbpF complexed with atropine and ipratropium reveal clues for the design of novel antimicrobials against *Streptococcus pneumoniae*. *Biochimica et Biophysica Acta (BBA) - General Subjects.* 1840, pp. 129 - 135. Elsevier, 2014.  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** Biophysics  
**Impact index in year of publication:** 4,4 **Journal in the top 25%:** Yes  
**Position of publication:** 14 **No. of journals in the cat.:** 73  
**Relevant results:** J.M. Sanz ha contribuido igualmente que el último autor, y es asimismo autor de correspondencia.
- 18** Bello-Gil, D.; Maestro, B.; Fonseca, J.; Feliu, J.M.; Climent, V.; Sanz, J.M.. Specific and reversible immobilization of proteins tagged to the affinity polypeptide C-LytA on functionalized graphite electrodes. *PLoS ONE.* 9, pp. e87995. 2014.  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - MULTIDISCIPLINARY SCIENCES  
**Impact index in year of publication:** 3.2 **Journal in the top 25%:** Yes  
**Position of publication:** 8 **No. of journals in the cat.:** 56



- 19** Beatriz Maestro; Beatriz Galán; Alfonso Carlos; Germán Rivas; María A. Prieto; Jesús M. Sanz. A New Family of Intrinsically Disordered Proteins: Structural Characterization of the Major Phasin PhaF from *Pseudomonas putida* KT2440. PLoS ONE. 8 - 2, pp. e56904. 2013.  
**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 3.7  
**Position of publication:** 7  
**Relevant results:** Primer modelo descriptivo de la fasina PhaF de *Pseudomonas*. Primer indicio publicado de que gran parte de las fasinas podrían oligomerizar a través de cremalleras de leucina y poseer un alto grado de desorden intrínseco.  
**Format:** Journal  
**Category:** Science Edition - MULTIDISCIPLINARY SCIENCES  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 56
- 20** Sandra Ribes; Jörn Riegelmann; Sandra Redlich; Beatriz Maestro; Bas de Waal; E.W. Meijer; Jesús M. Sanz; Roland Nau. Multivalent choline dendrimers increase phagocytosis of *Streptococcus pneumoniae* R6 by microglial cells. Chemotherapy. 59, pp. 138 - 142. Karger, 2013.  
**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 1,6  
**Position of publication:** 171  
**Format:** Journal  
**Category:** Science Edition - PHARMACOLOGY & PHARMACY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 256
- 21** Esquembre, R; Sanz, J.M.; Wall, G.; Mateo, C.R.; del Monte, F.; Ferrer, M.L.. Thermal Unfolding and Refolding of Lysozyme in Deep Eutectic Solvents and Their Aqueous Dilutions. PHYSICAL CHEMISTRY CHEMICAL PHYSICS. 15, pp. 11248 - 11256. 2013.  
**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 4,2  
**Position of publication:** 5  
**Format:** Journal  
**Category:** Science Edition - PHYSICS, ATOMIC, MOLECULAR & CHEMICAL  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 33
- 22** Hernandez-Rocamora, Victor M.; Reulen, Sanne W. A.; de Waal, Bas; Meijer, E. W.; Sanz, Jesus M.; Merckx, Maarten. Choline dendrimers as generic scaffolds for the non-covalent synthesis of multivalent protein assemblies. CHEMICAL COMMUNICATIONS. 47 - 21, pp. 5997 - 5999. 2011. ISSN 1359-7345  
**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 6.17  
**Position of publication:** 19  
**Format:** Journal  
**Category:** Science Edition - CHEMISTRY, MULTIDISCIPLINARY  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 154
- 23** Rojas-Altuve, Alzoray; Carrasco-Lopez, Cesar; Hernandez-Rocamora, Victor M.; Sanz, Jesus M.; Hermoso, Juan A.. Crystallization and preliminary X-ray diffraction studies of the transcriptional repressor PaaX, the main regulator of the phenylacetic acid degradation pathway in *Escherichia coli* W. ACTA CRYSTALLOGRAPHICA SECTION F-STRUCTURAL BIOLOGY AND CRYSTALLIZATION COMMUNICATIONS. 67, pp. 1278 - 1280. 2011. ISSN 1744-3091  
**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 0.51  
**Position of publication:** 21  
**Format:** Journal  
**Category:** Science Edition - CRYSTALLOGRAPHY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 25



- 24** Galan, B.; Dinjaski, N.; Maestro, B.; de Eugenio, L. I.; Escapa, I. F.; Sanz, J. M.; Garcia, J. L.; Prieto, M. A.. Nucleoid-associated PhaF phasin drives intracellular location and segregation of polyhydroxyalkanoate granules in *Pseudomonas putida* KT2442. *MOLECULAR MICROBIOLOGY*. 79 - 2, pp. 402 - 418. 2011. ISSN 0950-382X  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - MICROBIOLOGY  
**Impact index in year of publication:** 5.01 **Journal in the top 25%:** Yes  
**Position of publication:** 19 **No. of journals in the cat.:** 114
- 25** Maestro, Beatriz; Novakova, Linda; Heseck, Dusan; Lee, Mijoon; Leyva, Eduardo; Mobashery, Shahriar; Sanz, Jesus M.\*; Branny, Pavel. Recognition of peptidoglycan and beta-lactam antibiotics by the extracellular domain of the Ser/Thr protein kinase StkP from *Streptococcus pneumoniae*. *FEBS LETTERS*. 585 - 2, pp. 357 - 363. 2011. ISSN 0014-5793  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOPHYSICS  
**Impact index in year of publication:** 3.54 **Journal in the top 25%:** No  
**Position of publication:** 21 **No. of journals in the cat.:** 74  
**Relevant results:** J.M. Sanz es el autor de correspondencia
- 26** Maestro, Beatriz; Santiveri, Clara M.; Angeles Jimenez, M.; Sanz, Jesus M.. Structural autonomy of a beta-hairpin peptide derived from the pneumococcal choline-binding protein LytA. *PROTEIN ENGINEERING DESIGN & SELECTION*. 24 - 1-2, pp. 113 - 122. 2011. ISSN 1741-0126  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOTECHNOLOGY & APPLIED MICROBIOLOGY  
**Impact index in year of publication:** 2.94 **Journal in the top 25%:** No  
**Position of publication:** 50 **No. of journals in the cat.:** 158
- 27** Isabel de Eugenio, Laura; Galan, Beatriz; Escapa, Isabel F.; Maestro, Beatriz; Sanz, Jesus M.; Luis Garcia, Jose; Prieto, Maria A.. The PhaD regulator controls the simultaneous expression of the pha genes involved in polyhydroxyalkanoate metabolism and turnover in *Pseudomonas putida* KT2442. *ENVIRONMENTAL MICROBIOLOGY*. 12 - 6, pp. 1591 - 1603. 2010. ISSN 1462-2912  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - MICROBIOLOGY  
**Impact index in year of publication:** 5.54 **Journal in the top 25%:** Yes  
**Position of publication:** 14 **No. of journals in the cat.:** 107
- 28** Mingot, Jose-Manuel; Vega, Sonia; Maestro, Beatriz; Sanz, Jesus M.; Nieto, M. Angela. Characterization of Snail nuclear import pathways as representatives of C(2)H(2) zinc finger transcription factors. *JOURNAL OF CELL SCIENCE*. 122 - 9, pp. 1452 - 1460. 2009. ISSN 0021-9533  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - CELL BIOLOGY  
**Impact index in year of publication:** 6.14 **Journal in the top 25%:** Yes  
**Position of publication:** 31 **No. of journals in the cat.:** 162
- 29** Hernandez-Rocamora, Victor M.; Maestro, Beatriz; de Waal, Bas; Morales, Maria; Garcia, Pedro; Meijer, E. W.; Merckx, Maarten; Sanz, Jesus M.. Multivalent Choline Dendrimers as Potent Inhibitors of Pneumococcal Cell-Wall Hydrolysis. *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*. 48 - 5, pp. 948 - 951. 2009. ISSN 1433-7851  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI

**Impact index in year of publication:** 11.83  
**Position of publication:** 5

**Category:** Science Edition - CHEMISTRY,  
 MULTIDISCIPLINARY  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 140

- 30** Maestro, Beatriz; Velasco, Isabel; Castillejo, Isabel; Arevalo-Rodriguez, Miguel; Cebolla, Angel; Sanz, Jesus M.. Affinity partitioning of proteins tagged with choline-binding modules in aqueous two-phase systems. JOURNAL OF CHROMATOGRAPHY A. 1208 - 1-2, pp. 189 - 196. 2008. ISSN 0021-9673

**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 3.76  
**Position of publication:** 6

**Format:** Journal  
**Category:** Science Edition - CHEMISTRY, ANALYTICAL  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 70

- 31** de Eugenio, L. I.; Garcia, J. L.; Garcia, P.; Prieto, M. A.; Sanz, J. M.. Comparative analysis of the physiological and structural properties of a medium chain length polyhydroxyalkanoate depolymerase from Pseudomonas putida KT2442. ENGINEERING IN LIFE SCIENCES. 8 - 3, pp. 260 - 267. 2008. ISSN 1618-0240

**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 1.2  
**Position of publication:** 103

**Format:** Journal  
**Category:** Science Edition - BIOTECHNOLOGY &  
 APPLIED MICROBIOLOGY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 144

- 32** Arias, Sagrario; Sandoval, Angel; Arcos, Mario; Canedo, Librada M.; Maestro, Beatriz; Sanz, Jesus M.; Naharro, German; Luengo, Jose M.. Poly-3-hydroxyalkanoate synthases from Pseudomonas putida U: substrate specificity and ultrastructural studies. MICROBIAL BIOTECHNOLOGY. 1 - 2, pp. 170 - 176. 2008. ISSN 1751-7907

**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 2.53  
**Position of publication:** 62

**Format:** Journal  
**Category:** Science Edition - BIOTECHNOLOGY &  
 APPLIED MICROBIOLOGY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 158

**Relevant results:** Impacto publicado por primera vez en 2011

- 33** Hernandez-Rocamora, Victor M.; Maestro, Beatriz; Molla-Morales, Almudena; Sanz, Jesus M.. Rational stabilization of the C-LytA affinity tag by protein engineering. PROTEIN ENGINEERING DESIGN & SELECTION. 21 - 12, pp. 709 - 720. 2008. ISSN 1741-0126

**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 2.79  
**Position of publication:** 42

**Format:** Journal  
**Category:** Science Edition - BIOTECHNOLOGY &  
 APPLIED MICROBIOLOGY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 144

- 34** de Eugenio, Laura I.; Garcia, Pedro; Luengo, Jose M.; Sanz, Jesus M.; San Roman, Julio; Garcia, Jose Luis; Prieto, Maria A.. Biochemical evidence that phaZ gene encodes a specific intracellular medium chain length polyhydroxyalkanoate depolymerase in Pseudomonas putida KT2442 - Characterization of a paradigmatic enzyme. JOURNAL OF BIOLOGICAL CHEMISTRY. 282 - 7, pp. 4951 - 4962. 2007. ISSN 0021-9258

**Type of production:** Scientific paper  
**Impact source:** ISI  
**Impact index in year of publication:** 5.58

**Format:** Journal  
**Category:** Science Edition - BIOCHEMISTRY &  
 MOLECULAR BIOLOGY  
**Journal in the top 25%:** Yes

**Position of publication:** 40**No. of journals in the cat.:** 263

- 35** Maestro, Beatriz; Sanz, Jesus M.. Extensive unfolding of the C-LytA choline-binding module by submicellar concentrations of sodium dodecyl sulphate. FEBS LETTERS. 581 - 3, pp. 375 - 381. 2007. ISSN 0014-5793  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOPHYSICS  
**Impact index in year of publication:** 3.26 **Journal in the top 25%:** No  
**Position of publication:** 19 **No. of journals in the cat.:** 69
- 36** Maestro, Beatriz; Gonzalez, Ana; Garcia, Pedro; Sanz, Jesus M.. Inhibition of pneumococcal choline-binding proteins and cell growth by esters of bicyclic amines. FEBS JOURNAL. 274 - 2, pp. 364 - 376. 2007. ISSN 1742-464X  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 3.40 **Journal in the top 25%:** No  
**Position of publication:** 91 **No. of journals in the cat.:** 263
- 37** Maestro, B; Sanz, JM. Accumulation of partly folded states in the equilibrium unfolding of the pneumococcal choline-binding module C-LytA. BIOCHEMICAL JOURNAL. 387, pp. 479 - 488. 2005. ISSN 0264-6021  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 4.22 **Journal in the top 25%:** Yes  
**Position of publication:** 62 **No. of journals in the cat.:** 261
- 38** MAESTRO B; SANZ JM; DIAZ-OREJAS R; FERNANDEZ-TRESGUERRES E. Modulation of pPS10 host range by plasmid-encoded RepA initiator protein. Journal of Bacteriology. 185, pp. 1367 - 1375. 2003.  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - MICROBIOLOGY  
**Impact index in year of publication:** 4.18 **Journal in the top 25%:** Yes  
**Position of publication:** 12 **No. of journals in the cat.:** 84
- 39** Galan, B; Kolb, A; Sanz, JM; Garcia, JL; Prieto, MA. Molecular determinants of the hpa regulatory system of Escherichia coli: the HpaR repressor. NUCLEIC ACIDS RESEARCH. 31 - 22, pp. 6598 - 6609. 2003. ISSN 0305-1048  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 6.58 **Journal in the top 25%:** Yes  
**Position of publication:** 24 **No. of journals in the cat.:** 261
- 40** del Pino, MMS; Perez-Mato, I; Sanz, JM; Mato, JM; Corrales, FJ. Folding of dimeric methionine adenosyltransferase III - Identification of two folding intermediates. JOURNAL OF BIOLOGICAL CHEMISTRY. 277 - 14, pp. 12061 - 12066. 2002. ISSN 0021-9258  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY



**Impact index in year of publication:** 6.7  
**Position of publication:** 27

**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 266

- 41** Sanz, JM; Jimenez, MA; Gimenez-Gallego, G. Hints of nonhierarchical folding of acidic fibroblast growth factor. *BIOCHEMISTRY*. 41 - 6, pp. 1923 - 1933. 2002. ISSN 0006-2960

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 4.06

**Journal in the top 25%:** Yes

**Position of publication:** 58

**No. of journals in the cat.:** 266

- 42** Maestro, B; Sanz, JM; Faelen, M; Couturier, M; Diaz-Orejas, R; Fernandez-Tresguerres, E. Modulation of pPS10 host range by DnaA. *MOLECULAR MICROBIOLOGY*. 46 - 1, pp. 223 - 234. 2002. ISSN 0950-382X

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - MICROBIOLOGY

**Impact index in year of publication:** 5.83

**Journal in the top 25%:** Yes

**Position of publication:** 7

**No. of journals in the cat.:** 82

- 43** Lozano, RM; Pineda-Lucena, A; Gonzalez, C; Jimenez, MA; Cuevas, P; Redondo-Horcajo, M; Sanz, JM; Rico, M; Gimenez-Gallego, G. H-1 NMR structural characterization of a nonmitogenic, vasodilatory, ischemia-protector and neuromodulatory acidic fibroblast growth factor. *BIOCHEMISTRY*. 39 - 17, pp. 4982 - 4993. 2000. ISSN 0006-2960

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 4.22

**Journal in the top 25%:** Yes

**Position of publication:** 60

**No. of journals in the cat.:** 310

- 44** Zurdo, J; Gonzalez, C; Sanz, JM; Rico, M; Remacha, M; Ballesta, JPG. Structural differences between *Saccharomyces cerevisiae* ribosomal stalk proteins P1 and P2 support their functional diversity. *BIOCHEMISTRY*. 39 - 30, pp. 8935 - 8943. 2000. ISSN 0006-2960

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 4.22

**Journal in the top 25%:** Yes

**Position of publication:** 60

**No. of journals in the cat.:** 310

- 45** Gonzalez-Barroso, MM; Fleury, C; Jimenez, MA; Sanz, JM; Romero, A; Bouillaud, F; Rial, E. Structural and functional study of a conserved region in the uncoupling protein UCP1: The three matrix loops are involved in the control of transport. *JOURNAL OF MOLECULAR BIOLOGY*. 292 - 1, pp. 137 - 149. 1999. ISSN 0022-2836

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 5.5

**Journal in the top 25%:** Yes

**Position of publication:** 33

**No. of journals in the cat.:** 295

- 46** Sanz, JM; GimenezGallego, G. A partly folded state of acidic fibroblast growth factor at low pH. *EUROPEAN JOURNAL OF BIOCHEMISTRY*. 246 - 2, pp. 328 - 335. 1997. ISSN 0014-2956

**Type of production:** Scientific paper

**Format:** Journal



**Impact source:** ISI

**Impact index in year of publication:** 3.25

**Position of publication:** 69

**Relevant results:** Revista conocida actualmente como FEBS Journal

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295

- 47** ZURDO J; SANZ JM; GONZALEZ C; RICO M; GARCIA-BALLESTA JP. The exchangeable yeast ribosomal acidic protein YP2? shows characteristics of a partly folded state under physiological conditions. *Biochemistry*. 36, pp. 9625 - 9635. 1997.

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 4.22

**Position of publication:** 45

**Format:** Journal

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295

- 48** Padmanabhan, S; Jimenez, MA; Gonzalez, C; Sanz, JM; GimenezGallego, G; Rico, M. Three-dimensional solution structure and stability of phage 434 Cro protein. *BIOCHEMISTRY*. 36 - 21, pp. 6424 - 6436. 1997. ISSN 0006-2960

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 4.62

**Position of publication:** 45

**Format:** Journal

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295

- 49** Sanz, JM; Garcia, P; Garcia, JL. Construction of a multifunctional pneumococcal murein hydrolase by module assembly. *EUROPEAN JOURNAL OF BIOCHEMISTRY*. 235 - 3, pp. 601 - 605. 1996. ISSN 0014-2956

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 3.25

**Position of publication:** 69

**Format:** Journal

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295

**Relevant results:** Revista conocida actualmente como FEBS Journal

- 50** SANZ, JM; FERSHT, AR. MEASUREMENT OF BARNASE REFOLDING RATE CONSTANTS UNDER DENATURING CONDITIONS. *FEBS LETTERS*. 344 - 2-3, pp. 216 - 220. 1994. ISSN 0014-5793

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 3.58

**Position of publication:** 10

**Format:** Journal

**Category:** Science Edition - BIOPHYSICS

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 57

- 51** SANZ, JM; JOHNSON, CM; FERSHT, AR. THE A-STATE OF BARNASE. *BIOCHEMISTRY*. 33 - 37, pp. 11189 - 11199. 1994. ISSN 0006-2960

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 4.62

**Position of publication:** 45

**Format:** Journal

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 295





- 52** SANZ, JM; FERSHT, AR. RATIONALLY DESIGNING THE ACCUMULATION OF A FOLDING INTERMEDIATE OF BARNASE BY PROTEIN ENGINEERING. *BIOCHEMISTRY*. 32 - 49, pp. 13584 - 13592. 1993. ISSN 0006-2960  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 4.62 **Journal in the top 25%:** Yes  
**Position of publication:** 45 **No. of journals in the cat.:** 295
- 53** SANZ, JM; GARCIA, JL; LAYNEZ, J; USOBIAGA, P; MENENDEZ, M. THERMAL-STABILITY AND COOPERATIVE DOMAINS OF CPL1 LYSOZYME AND ITS NH<sub>2</sub>-TERMINAL AND COOH-TERMINAL MODULES - DEPENDENCE ON CHOLINE BINDING. *JOURNAL OF BIOLOGICAL CHEMISTRY*. 268 - 9, pp. 6125 - 6130. 1993. ISSN 0021-9258  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 7.2 **Journal in the top 25%:** Yes  
**Position of publication:** 23 **No. of journals in the cat.:** 295
- 54** SANCHEZPUELLES, JM; SANZ, JM; GARCIA, JL; GARCIA, E. IMMOBILIZATION AND SINGLE-STEP PURIFICATION OF FUSION PROTEINS USING DEAE-CELLULOSE. *EUROPEAN JOURNAL OF BIOCHEMISTRY*. 203 - 1-2, pp. 153 - 159. 1992. ISSN 0014-2956  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 3.25 **Journal in the top 25%:** Yes  
**Position of publication:** 69 **No. of journals in the cat.:** 295  
**Relevant results:** Revista conocida actualmente como FEBS Journal
- 55** SANZ, JM; GARCIA, P; GARCIA, JL. ROLE OF ASP-9 AND GLU-36 IN THE ACTIVE-SITE OF THE PNEUMOCOCCAL CPL1 LYSOZYME - AN EVOLUTIONARY PERSPECTIVE OF LYSOZYME MECHANISM. *BIOCHEMISTRY*. 31 - 36, pp. 8495 - 8499. 1992. ISSN 0006-2960  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY  
**Impact index in year of publication:** 4.62 **Journal in the top 25%:** Yes  
**Position of publication:** 45 **No. of journals in the cat.:** 295
- 56** SANZ, JM; DIAZ, E; GARCIA, JL. STUDIES ON THE STRUCTURE AND FUNCTION OF THE N-TERMINAL DOMAIN OF THE PNEUMOCOCCAL MUREIN HYDROLASES. *MOLECULAR MICROBIOLOGY*. 6 - 7, pp. 921 - 931. 1992. ISSN 0950-382X  
**Type of production:** Scientific paper **Format:** Journal  
**Impact source:** ISI **Category:** Science Edition - MICROBIOLOGY  
**Impact index in year of publication:** 6.09 **Journal in the top 25%:** Yes  
**Position of publication:** 6 **No. of journals in the cat.:** 81
- 57** SANCHEZPUELLES, JM; SANZ, JM; GARCIA, JL; GARCIA, E. CLONING AND EXPRESSION OF GENE FRAGMENTS ENCODING THE CHOLINE-BINDING DOMAIN OF PNEUMOCOCCAL MUREIN HYDROLASES. *GENE*. 89 - 1, pp. 69 - 75. 1990. ISSN 0378-1119  
**Type of production:** Scientific paper **Format:** Journal

**Impact source:** ISI  
**Impact index in year of publication:** 2.01  
**Position of publication:** 46

**Category:** Science Edition - GENETICS & HEREDITY  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 103

- 58** SANZ JM; GARCIA JL. Structural studies of the lysozyme coded by the pneumococcal phage Cp-1. Conformational changes induced by choline. Eur. J. Biochem. 187, pp. 409 - 416. 1990.

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 3.25

**Journal in the top 25%:** Yes

**Position of publication:** 69

**No. of journals in the cat.:** 295

**Relevant results:** Revista conocida actualmente como FEBS Journal

- 59** SANZ, JM; LOPEZ, R; GARCIA, JL. STRUCTURAL REQUIREMENTS OF CHOLINE DERIVATIVES FOR CONVERSION OF PNEUMOCOCCAL AMIDASE - A NEW SINGLE-STEP PROCEDURE FOR PURIFICATION OF THIS AUTOLYSIN. FEBS LETTERS. 232 - 2, pp. 308 - 312. 1988. ISSN 0014-5793

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - BIOPHYSICS

**Impact index in year of publication:** 3.58

**Journal in the top 25%:** Yes

**Position of publication:** 10

**No. of journals in the cat.:** 57

- 60** Manoli, M-T.; Tarazona, N.; Mato, A.; Maestro, B.; Sanz, J.M.; Nogales, J.; Prieto, M.A.. Molecular Basis of Medium-Chain Length- PHA Metabolism of Pseudomonas putida. The Handbook of Polyhydroxyalkanoates. pp. 89 - 114. CRC Press, Boca Raton, Florida, US (Koller, M. Ed), 2021. ISBN 9780367275594

**DOI:** 10.1201/9780429296611

**Type of production:** Book chapter

**Corresponding author:** No

- 61** García E; García P; Sánchez-Puelles, JM; Sanz JM; Díaz E; García JL; López R. Searching for evolutionary design of the pneumococcal cell wall lytic enzymes. Bacterial growth and lysis. pp. 253 - 268. Plenum Press, New York (U.S.A.), 1993.

**Type of production:** Book chapter

**Format:** Book

- 62** LOPEZ; R.; GARCIA; E.; GARCIA; J.L.; DIAZ; E.; ROMERO; A.; SANZ; J.M.; SANCHEZ-PUELLES; J.M.; GARCIA; P.; RONDA; C.. Lytic enzymes of Streptococcus pneumoniae and its bacteriophages: a model of molecular evolution. pp. 77 - 82. Washington DC American Society for Microbiology, 1991.

**Type of production:** Book chapter

**Format:** Book

- 63** Blanco, F.G.; Hernandez, N.; Rivero-Buceta, V.; Maestro, B.; Sanz, J.M.; Mato, A.; Hernandez-Arriaga, A.M.; Prieto, M.A.. From Residues to Added-Value Bacterial Biopolymers as Nanomaterials for Biomedical Applications. Nanomaterials. 11, pp. 1492. 2021.

**DOI:** 10.3390/nano11061492

**Type of production:** Review

**Corresponding author:** No

**Impact source:** ISI

**Category:** Science Edition - PHYSICS, APPLIED

**Impact index in year of publication:** 5.08

**Journal in the top 25%:** Yes

**Position of publication:** 35

**No. of journals in the cat.:** 160

- 64** Zamora-Carreras, H.; Maestro, B.; Sanz, J.M.\*; Jiménez, M.A.\*. Turncoat polypeptides: We adapt to our environment. *ChemBioChem*. 21, pp. 432 - 441. 2020.  
**DOI:** 10.1002/cbic.201900446  
**Type of production:** Review **Format:** Journal  
**Position of signature:** 3  
**Total no. authors:** 4 **Corresponding author:** Yes  
**Impact source:** ISI **Category:** Science Edition - CHEMISTRY, MEDICINAL  
**Impact index in year of publication:** 3.17 **Journal in the top 25%:** No  
**Position of publication:** 37 **No. of journals in the cat.:** 62
- 65** Maestro, B.; Sanz, J.M.. Polyhydroxyalkanoate-associated phasins as phylogenetically heterogeneous, multipurpose proteins. *Microb. Biotech.*10, pp. 1323 - 1337. 2017.  
**Type of production:** Review **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** Microbiology  
**Impact index in year of publication:** 3.9 **Journal in the top 25%:** Yes  
**Position of publication:** 32 **No. of journals in the cat.:** 160
- 66** Maestro, B.; Sanz, J.M.. Choline Binding Proteins from *Streptococcus pneumoniae*: A Dual Role as Enzybiotics and Targets for the Design of New Antimicrobials. *Antibiotics (Basel)*. 5, pp. E21. 2016.  
**Type of production:** Review **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** Science Edition - PHARMACOLOGY & PHARMACY  
**Impact index in year of publication:** 2.9 **Journal in the top 25%:** No  
**Position of publication:** 109 **No. of journals in the cat.:** 267
- 67** Maestro, B.; Sanz, J.M.. Novel approaches to fight *Streptococcus pneumoniae*. Recent patents on anti-infective drug discovery. 2, pp. 188 - 196. 2007.  
**Type of production:** Review **Format:** Journal  
**Corresponding author:** Yes
- 68** Sanz, J.M.; Maestro, B.. Microbes go nano. *Microb. Biotech.*10, pp. 17 - 18. 2017.  
**Type of production:** Letter **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** Biotechnology and Applied Microbiology  
**Impact index in year of publication:** 3.9 **Journal in the top 25%:** Yes  
**Position of publication:** 32 **No. of journals in the cat.:** 160

### Works submitted to national or international conferences

- 1** **Title of the work:** Magnetic nanoparticles functionalized with choline-binding modules as antimicrobials against *Streptococcus pneumoniae*  
**Name of the conference:** NALS 2022 - Nanomaterials applied to life sciences  
**Type of event:** Conference  
**Type of participation:** Participatory - others  
**Corresponding author:** No  
**City of event:** Santander, Spain



**Date of event:** 27/04/2022

**End date:** 29/04/2022

**Organising entity:** Universidad de Cantabria / Instituto de Investigación Sanitaria IDIVAL  
Cibantos, S.; Roig-Molina, E.; Sánchez-Angulo, M.; Seele, J.; García-Asencio, F.; Nau, R.; Sanz, J.M.;  
Maestro, B.

- 2** **Title of the work:** Multivalence effects associated to dynamic benzene-tricarboxamide supramolecular structures: application as antimicrobials  
**Name of the conference:** NALS 2022 - Nanomaterials applied to life sciences  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Santander, Spain  
**Date of event:** 27/04/2022  
**End date:** 29/04/2022  
**Organising entity:** Universidad de Cantabria and Instituto de Investigacion Sanitaria IDIVAL  
Vleugels, M.E.J.; Varela-Aramburu, S.; de Waal, B.; Schoenmakers, S.M.C.; Maestro, B.; Palmans, A.R.A.;  
Sanz, J.M.\*; Meijer, E.W.
- 3** **Title of the work:** Multivalencia y nanotecnología: perspectivas terapéuticas.  
**Name of the conference:** Congreso Innova Health 2021  
**Type of event:** Conference  
**Type of participation:** Participatory - invited/keynote talk  
**Corresponding author:** Yes  
**City of event:** Madrid, Spain  
**Date of event:** 26/10/2021  
**Organising entity:** Executive Forum España  
Sanz.
- 4** **Title of the work:** Choline-functionalized supramolecular polymers as a multivalent platform for pneumococcal targeting  
**Name of the conference:** 3rd Spanish Conference on Biomedical Applications of Nanomaterials (SBAN 2020)  
**Type of participation:** Participatory - poster  
**Corresponding author:** Yes  
**City of event:** Madrid, Spain  
**Date of event:** 03/09/2020  
**End date:** 03/09/2020  
**Organising entity:** Instituto de Ciencia de Materiales (CSIC)  
Vleugels, M.E.J.; Varela-Aramburu, S.; Maestro, B.; Palmans, A.R.; Sanz, J.M.\*; Meijer, E.W.\*.
- 5** **Title of the work:** Synthetic choline binding repeats as antimicrobial switch peptides  
**Name of the conference:** 17th Iberian Peptide Meeting  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Madrid,  
**Date of event:** 05/02/2020  
**End date:** 07/02/2020  
**Organising entity:** Instituto de Química Médica e Instituto de Química-Física Rocasolano (CSIC)



Roig-Molina, E.; Maestro, B.; Hendrikse, S.I.S.; Sánchez-Angulo, M.; Meijer, E.W.; Sanz, J.M. Available on-line at: <<http://epi2020.iqfr.csic.es/>>.

- 6** **Title of the work:** Antimicrobial effect of peptides and peptide dendrimers based on pneumococcal choline-binding repeats  
**Name of the conference:** Spanish Conference on Biomedical Applications of Biomaterials - SBAN19  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Madrid,  
**Date of event:** 06/06/2019  
**End date:** 07/06/2019  
**Organising entity:** Consejo Superior de Investigaciones Científicas  
**Type of entity:** State agency  
Roig-Molina, E.; Maestro, B.; Hendrikse, S.I.S.; Vázquez, R.; García, P.; Sánchez-Angulo, M.; Meijer, E.W.; Sanz, J.M.
- 7** **Title of the work:** Specific immobilization of D-amino acid oxidase on ferromagnetic nanoparticles: a therapeutic perspective on chemo-resistant tumor cell lines  
**Name of the conference:** Spanish Conference on Biomedical Applications of Biomaterials - SBAN19  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Madrid,  
**Date of event:** 06/06/2019  
**End date:** 07/06/2019  
**Organising entity:** Consejo Superior de Investigaciones Científicas  
**Type of entity:** State agency  
Fuentes-Baile, M.; Bello-Gil, D.; Fonseca, J.; Maestro, B.; Saceda, M.; Sanz, J.M.
- 8** **Title of the work:** D-aminoacid oxidase nanoparticles induced cell death in cancer cell lines  
**Name of the conference:** 16th ASEICA international congress  
**Corresponding author:** No  
**City of event:** Valencia, Spain  
**Date of event:** 06/11/2018  
**Organising entity:** Asociación española de investigación sobre el cáncer (ASEICA)  
Fuentes, M.; Ventero, M.P.; Sanz, J.M.; Bello, D.; García, M.P.; Pérez, E.; Barberá, V.; Alenda, C.; Saceda, M.
- 9** **Title of the work:** Insights on D-aminoacid oxidase - induced cell death in cancer cell lines  
**Name of the conference:** 16th ASEICA international congress  
**Corresponding author:** No  
**City of event:** Valencia, Spain  
**Date of event:** 06/11/2018  
**Organising entity:** Asociación española de investigación sobre el cáncer (ASEICA)  
Fuentes, M.; Ventero, M.P.; Sanz, J.M.; García, M.P.; Pérez, E.; Barberá, V.; Alenda, C.; Rodríguez, A.; Gallego, J.; Saceda, M.
- 10** **Title of the work:** Nanobiotecnología citomimética: nuevos antimicrobianos inspirados en multivalencia natural  
**Name of the conference:** V Escuela De Biología Molecular y Celular Integrativa  
**Type of event:** Cursos de verano de la UIMP  
**Type of participation:** Participatory - invited/keynote **Reasons for participation:** Upon invitation talk





**Corresponding author:** Yes

**City of event:** Santander,

**Date of event:** 27/08/2018

**Organising entity:** Universidad Internacional  
Menéndez Pelayo

Sanz, J. M.

**Type of entity:** University

**11 Title of the work:** Mesa redonda: Fronteras en Biología Sintética

**Name of the conference:** V Escuela De Biología Molecular y Celular Integrativa

**Type of event:** Cursos de verano de la UIMP

**Type of participation:** Participatory - others

**Reasons for participation:** Upon invitation

**Corresponding author:** No

**City of event:** Santander,

**Date of event:** 27/07/2018

**Organising entity:** Universidad Internacional  
Menéndez Pelayo

Sanz, J. M.

**Type of entity:** University

**12 Title of the work:** Dendrimeric nanoparticles: multivalency on our side

**Name of the conference:** 1st nanoBIOSOMA symposium on design, development & production of nanocarriers and nanovehicles

**Type of event:** Workshop

**Geographical area:** National

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Madrid, Spain

**Date of event:** 12/07/2018

**End date:** 13/07/2018

**Organising entity:** Nanobiosoma-CM consortium

Sanz, J.M.

**Type of entity:** Autonomous Community of Madrid

**13 Title of the work:** Antimicrobial activity of peptides derived from LytA autolysin against Streptococcus pneumoniae

**Name of the conference:** 7th Congress of European microbiologists - FEMS 2017

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Valencia, Spain

**Date of event:** 09/07/2017

**End date:** 13/07/2017

**Organising entity:** Federation of European Microbiological Societies

Roig-Molina, E.; Maestro, B.; Sanchez-Angulo, M.; Sanz, J. M.

**14 Title of the work:** Externally added choline-binding modules (CBMs) target the pneumococcal cell wall and affect bacterial growth

**Name of the conference:** 7th Congress of European microbiologists - FEMS 2017

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - poster

**Corresponding author:** Yes

**City of event:** Valencia, Spain

**Date of event:** 09/07/2017

**End date:** 13/07/2017





**Organising entity:** Federation of European Microbiological Societies  
Sanchez-Angulo, M.; Maestro, B.; Roig-Molina, E.; Garcia-Asencio, F.; Sanz, J. M.

- 15** **Title of the work:** Addition of choline-binding modules (CBMs) causes aggregation and inhibition of cell separation in *Streptococcus pneumoniae* growth cultures  
**Name of the conference:** 13th European Meeting on the Molecular Biology of the Pneumococcus (Europneumo 2017)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Estocolmo, Sweden  
**Date of event:** 27/06/2017  
**End date:** 30/06/2017  
**Organising entity:** Karolinska Institutet  
Sanchez-Angulo, M.; Maestro, B.; Roig-Molina, E.; Marin-Delgado, V.; Sanz, J. M.
- 16** **Title of the work:** Antimicrobial effect of esters of bicyclic amines on *Streptococcus pneumoniae* biofilms  
**Name of the conference:** 13th European Meeting on the Molecular Biology of the Pneumococcus (Europneumo 2017)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** Participatory - poster  
**Corresponding author:** Yes  
**City of event:** Estocolmo, Sweden  
**Date of event:** 27/06/2017  
**End date:** 30/06/2017  
**Organising entity:** Karolinska Institutet  
Roig-Molina, E.; Domenech-Lucas, M.; Garcia, E.; Sanz, J. M.
- 17** **Title of the work:** Antipneumococcal effect of peptides based on isolated choline-binding repeats  
**Name of the conference:** 13th European Meeting on the Molecular Biology of the Pneumococcus (Europneumo 2017)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Estocolmo, Sweden  
**Date of event:** 27/06/2017  
**End date:** 30/06/2017  
**Organising entity:** Karolinska Institutet  
Roig-Molina, E.; Maestro, B.; Sanchez-Angulo, M.; Vazquez-Fernandez, R.; Garcia, P.; Sanz, J. M.
- 18** **Title of the work:** Antipneumococcal effect of peptides based on isolated choline-binding repeats  
**Name of the conference:** 13th European Meeting on the Molecular Biology of the Pneumococcus (Europneumo 2017)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** Participatory - poster  
**Corresponding author:** Yes  
**City of event:** Estocolmo, Sweden  
**Date of event:** 27/06/2017  
**End date:** 30/06/2017  
**Organising entity:** Karolinska Institutet  
Roig-Molina, E.; Maestro, B.; Sanchez-Angulo, M.; Vazquez-Fernandez, R.; Garcia, P.; Sanz, J. M.



- 19** **Title of the work:** PHA-binding domains of phasins as antipneumococcal polypeptides  
**Name of the conference:** 13th European Meeting on the Molecular Biology of the Pneumococcus (Europneumo 2017)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**Corresponding author:** No  
**City of event:** Estocolmo, Sweden  
**Date of event:** 27/06/2017  
**End date:** 30/06/2017  
**Organising entity:** Karolinska Institutet  
Bernabeu-Canto, M.; Esteve-Moreno, D.; Sanchez-Angulo, M.; Roig-Molina, E.; Sanz, J. M.; Maestro, B.
- 20** **Title of the work:** Actividad antimicrobiana in vitro de péptidos derivados de la autolisina LytA de *Streptococcus pneumoniae*  
**Name of the conference:** Congreso Nacional de Biotecnología - BIOTEC 2017  
**Type of event:** Conference **Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Murcia, Spain  
**Date of event:** 18/06/2017  
**End date:** 21/06/2017  
**Organising entity:** SOCIEDAD ESPAÑOLA DE BIOTECNOLOGIA/ Universidad de Murcia  
Roig-Molina, E.; Maestro, B.; Sánchez-Angulo, M.; Sanz, J. M.
- 21** **Title of the work:** La adición externa de módulos de unión a colina (CBMs) afecta al crecimiento de *Streptococcus pneumoniae* mediante la unión a la pared celular.  
**Name of the conference:** Congreso Nacional de Biotecnología - BIOTEC 2017  
**Type of event:** Conference **Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Murcia, Spain  
**Date of event:** 18/06/2017  
**End date:** 21/06/2017  
**Organising entity:** SOCIEDAD ESPAÑOLA DE BIOTECNOLOGIA/ Universidad de Murcia  
Sánchez-Angulo, M.; Roig-Molina, E.; Maestro, B.; Sanz, J. M.
- 22** **Title of the work:** Diseño de nuevas líneas de antimicrobianos frente a neumococo  
**Name of the conference:** II Jornada de Investigación Biomédica HGUE-IBMC  
**Type of participation:** Participatory - oral communication  
**City of event:** Elche, Spain  
**Date of event:** 03/10/2016  
**End date:** 03/10/2016  
**Organising entity:** Universidad Miguel Hernández de Elche/Generalitat Valenciana/FISABIO/Hospital General de Elche  
Sanz, J.M.
- 23** **Title of the work:** A bioplastic-based enzymatic system for decolourization of wastewater dyes.  
**Name of the conference:** Biospain 2016 - 8th international meeting on Biotechnology  
**Type of participation:** Participatory - oral communication  
**City of event:** Bilbao, Spain



**Date of event:** 28/09/2016  
**End date:** 30/09/2016  
**Organising entity:** ASEBIO/Gobierno Vasco/SPRI/Biobasque  
Roig-Molina, E.

- 24** **Title of the work:** Unraveling the structural chameleonic behavior of peptides derived from the choline-binding repeats of pneumococcal autolysin LytA  
**Name of the conference:** 8th GERMN / 5th Iberian NMR Meeting  
**Type of event:** Conference  
**Type of participation:** 'Participatory - poster  
**City of event:** Valencia,  
**Date of event:** 27/06/2016  
**End date:** 29/06/2016  
**City organizing entity:** Real Sociedad Española de Química,  
Zamora-Carreras, H.; Maestro, B.; Stranderg, E.; Ulrich, A.S.; Sanz, J.M.; Jiménez, M.A.
- 25** **Title of the work:** A bioplastic-based enzymatic system for decolorization of wastewater dyes: use of bacterial laccases immobilized on polyhydroxybutyrate beads.  
**Name of the conference:** Biolberoamérica - BIOTEC 2016  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Salamanca,  
**Date of event:** 05/06/2016  
**End date:** 08/06/2016  
**Organising entity:** SOCIEDAD ESPAÑOLA DE BIOTECNOLOGIA  
Roig-Molina, E.; Bello-Gil, D.; Fonseca, J.; Maestro, B.; Ferrandiz, M.; Franco, E.; Mira, E.; Sanz, J.M.
- 26** **Title of the work:** Targeting the pneumococcal cell wall. Effects of externally added proteins containing choline-binding modules (CBMs) on the growth of *Streptococcus pneumoniae*.  
**Name of the conference:** Biolberoamérica - BIOTEC 2016  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** Yes  
**City of event:** Salamanca,  
**Date of event:** 05/06/2016  
**End date:** 08/06/2016  
**Organising entity:** SOCIEDAD ESPAÑOLA DE BIOTECNOLOGIA  
Sánchez, M.; Maestro, B.; García-Asencio, F.; Sanz, J.M.
- 27** **Title of the work:** Exploring the chameleonic behaviour of peptides derived from the choline-binding domain of pneumococcal autolysin LytA.  
**Name of the conference:** 15º Encuentro peptídico ibérico  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** No  
**City of event:** Oporto, Portugal  
**Date of event:** 10/02/2016  
**End date:** 12/02/2016  
**Organising entity:** Universidad de Oporto  
Zamora-Carreras, H.; Maestro, B.; Strandberg, E.; Ulrich, A.S.; Sanz, J.M.; Jimenez, M.A.



- 28** **Title of the work:** D-aminoacid oxidase nanoparticles induced cell death in cancer cell lines.  
**Name of the conference:** 15th ASEICA International Congress  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Sevilla, Spain  
**Date of event:** 21/10/2015  
**End date:** 23/10/2015  
**Organising entity:** Asociacion española de investigación sobre el cáncer.  
Fuentes, M.; Lucero, P.; Ventero, M.P.; Pérez-Valenciano, E.; Sanz, J.M.; Micol, V.; García, P.; Martínez-Lacaci, I.; Saceda, M.
- 29** **Title of the work:** Nanotechnology based D-aminoacid oxidase enzymathc therapy potentiates the effects of radiotherapy in glioblastoma primary cultures  
**Name of the conference:** 18th ECCO- 40th ESMO European Cancer Congress  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Viena, Austria  
**Date of event:** 25/09/2015  
**End date:** 29/09/2015  
**Organising entity:** European Cancer Organization (ECCO) y European Society for Medical Oncology  
Saceda, M.; Ventero, M.; Barbera, V.; Lucero-Calabuig, P.; Sanz, J.M.; Fernández-Fornos, L.; Espósito, D.; García-Morales, P.
- 30** **Title of the work:** Biología sintética "bottom-up": aproximaciones nanobiotecnológicas  
**Name of the conference:** II Escuela De Biología Molecular y Celular Integrativa  
**Type of event:** Cursos de verano de la UIMP  
**Type of participation:** Participatory - invited/keynote **Reasons for participation:** Upon invitation talk  
**Corresponding author:** Yes  
**City of event:** Santander,  
**Date of event:** 27/07/2015  
**Organising entity:** Universidad Internacional **Type of entity:** University  
Menéndez Pelayo  
Sanz, J. M.
- 31** **Title of the work:** Mesa redonda: Biología Sintética-Ingeniería de Sistemas Biológicos  
**Name of the conference:** II Escuela De Biología Molecular y Celular Integrativa  
**Type of event:** Cursos de verano de la UIMP  
**Type of participation:** Participatory - others **Reasons for participation:** Upon invitation  
**Corresponding author:** No  
**City of event:** Santander,  
**Date of event:** 27/07/2015  
**Organising entity:** Universidad Internacional **Type of entity:** University  
Menéndez Pelayo  
Sanz, J. M.
- 32** **Title of the work:** Structural duality in peptides derived from choline binding repeats  
**Name of the conference:** The 29th annual symposium of The Protein Society  
**Type of event:** Conference **Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster



**City of event:** Barcelona, Spain

**Date of event:** 22/07/2015

**End date:** 25/07/2015

**Organising entity:** The Protein Society

Zamora-Carreras, H.; Silva-Rojas, R.; Maestro, B.; Strandberg, E.; Ulrich, A. S.; Sanz, J. M.; Bruix, M.; Jiménez, M. A.

**33 Title of the work:** Conformational plasticity of choline-binding modules: beta-hairpin to alpha-helix transition of choline-binding repeats triggered by detergent micelles and membrane vesicles.

**Name of the conference:** EUROPNEUMO 2015 - 12th European meeting on the molecular biology of the pneumococcus.

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Oxford, United Kingdom

**Date of event:** 07/07/2015

**End date:** 10/07/2015

**Organising entity:** Universidad de Oxford

Zamora-Carreras, H.; Maestro, B.; Strandberg, E.; Ulrich, A.; Sanz, J. M.; Jiménez, M. A.

**34 Title of the work:** Esters of bicyclic amines: a new generation of antimicrobials against pneumococcus

**Name of the conference:** EUROPNEUMO 2015 - 12th European meeting on the molecular biology of the pneumococcus.

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Oxford, United Kingdom

**Date of event:** 07/07/2015

**End date:** 10/07/2015

**Organising entity:** Universidad de Oxford

Retamosa, M. de G.; Díez-Martínez, R.; Maestro, B.; García-Fernández, E.; de Waal, B.; Meijer, E. W.; García, P.; Sanz, J. M.

**35 Title of the work:** On the interaction between the pneumococcal cell wall and the choline-binding modules (CBMs): evaluation of binding affinities and effect of externally added CBMs to bacterial cultures.

**Name of the conference:** EUROPNEUMO 2015 - 12th European meeting on the molecular biology of the pneumococcus.

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Oxford, United Kingdom

**Date of event:** 07/07/2015

**End date:** 10/07/2015

**Organising entity:** Universidad de Oxford

Sánchez, M.; Maestro, B.; García-Asencio, F.; Sanz, J. M.

**36 Title of the work:** Structural duality in peptides derived from choline binding repeats

**Name of the conference:** 6th European Conference: Chemistry in the Life Sciences

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**City of event:** Lisboa, Portugal

**Date of event:** 10/06/2015



**End date:** 12/06/2015

**Organising entity:** European Association for Chemical and Molecular Sciences

Zamora-Carreras, H.; Silva-Rojas, R.; Maestro, B.; Strandberg, E.; Ulrich, A. S.; Sanz, J. M.; Bruix, M.; Jiménez, M. A.

- 37** **Title of the work:** Radiotherapy gets improved by a nanotechnology-based enzyme therapy  
**Name of the conference:** XVII Congreso de la Sociedad Española de Oncología Radioterápica  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**City of event:** Valencia, Spain  
**Date of event:** 04/06/2015  
**End date:** 06/06/2015  
**Organising entity:** Sociedad Española de Oncología Radioterápica  
Fernández, L.; Barberá, V. M.; García-Morales, P.; Sanz, J. M.; Fuentes, M.; Saceda, M.; Ventero, M. P.; Espósito, D.; Dorado, P.; Garcia, E. Elegida mejor comunicación oral del congreso.,
- 38** **Title of the work:** A new generation of antimicrobials against pneumococcus  
**Name of the conference:** BIOTEC 2014 - Congreso de la Sociedad Española de Biotecnología  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** MADRID,  
**Date of event:** 01/07/2014  
**End date:** 04/07/2014  
**Organising entity:** Sebiot-ANQUE-ICCE  
Retamosa-Hernandez, M. de G.; Díez-Martínez, R.; Maestro, B.; García, P.; Sanz, J.M.
- 39** **Title of the work:** Structure of isolated choline-binding repeats, the robust building blocks of pneumococcal choline-binding proteins.  
**Name of the conference:** XI European Meeting on the Molecular Biology of the Pneumococcus (EuroPneumo 2013)  
**Type of event:** Conference **Geographical area:** Internacional  
**Type of participation:** 'Participatory - poster  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 28/05/2013  
**End date:** 31/05/2013  
**Organising entity:** Consejo Superior de **Type of entity:** State agency  
Investigaciones Científicas e Instituto de Salud Carlos III  
Héctor Zamora; Jesús M. Sanz; M<sup>a</sup> Angeles Jiménez.
- 40** **Title of the work:** Validation of new therapeutic targets in antibacterials throughout an academic Drug Discovery Platform  
**Name of the conference:** XI EUROPEAN MEETING ON THE MOLECULAR BIOLOGY OF THE PNEUMOCOCCUS (EUROPNEUMO 2013)  
**Type of event:** Conference  
**Type of participation:** 'Participatory - poster  
**City of event:** Madrid, Spain  
**Date of event:** 28/05/2013  
**End date:** 31/05/2013  
**Organising entity:** Consejo Superior de Investigaciones Científicas e Instituto Carlos III  
Royo, I.; Aguinagalde, L.; Reines, M.; Marín, N.; Ortega, N.; Yuste, J.; García, E.; García, P.; Sanz, J.M.; Sánchez-Puelles, J.M.





- 41** **Title of the work:** Development of a new affinity immobilization procedure on functionalized graphite electrodes for proteins tagged to choline-binding modules  
**Name of the conference:** 22nd IUBMB & 37th FEBS Congress  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Sevilla,  
**Date of event:** 2012  
Bello; D.; Maestro; B.; Fonseca; J.; Feliu; J.M.; Climent; V.; Sanz; J.M.2012.
- 42** **Title of the work:** Development of a new affinity immobilization procedure on functionalized graphite electrodes for proteins tagged to choline-binding modules  
**Name of the conference:** Biospain 2012/ Congreso de la Sociedad Española de Biotecnología (BIOTEC 2012)  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Bilbao,  
**Date of event:** 2012  
Bello; D.; Maestro; B.; Fonseca; J.; Feliu; J.M.; Climent; V.; Sanz; J.M.2012.
- 43** **Title of the work:** Caracterización estructural y funcional de la lisozima en líquidos iónicos  
**Name of the conference:** XI Congreso de la Sociedad Biofísica de España (SBE)  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Murcia,  
**Date of event:** 2011  
Esquembre; R.; Sanz; J.M.; Wall; J.G.; del Monte; F.; Ferrer; M.L.; Mateo; C.R..2011.
- 44** **Title of the work:** Dendrímeros como partículas biomiméticas para la inmovilización específica de proteínas utilizando módulos de unión a colina.  
**Name of the conference:** XXXIV Congreso de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM)  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2011  
Hernández-Rocamora; V.M.; Maestro; B.; Reulen; S.W.A.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merx; M.; Sanz; J.M.2011.
- 45** **Title of the work:** In vitro immobilization of proteins to polyhydroxyalkanoates by the N-terminal domain of PhaF phasin from *Pseudomonas putida* (BioF tag): A stability study.  
**Name of the conference:** XXXIV Congreso de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM)  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2011  
Bello; D.; Maestro; B.; Prieto; M.A.; Sanz; J.M.2011.



- 46** **Title of the work:** La validez de la técnica de phage-display en cuestión: reconocimiento de falsos positivos y métodos para minimizarlos.  
**Name of the conference:** XXXIV Congreso de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM)  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2011  
Rodes; M.J.; Bello; D.; Retamosa; M.G.; Sanz; J.M.2011.
- 47** **Title of the work:** Specific immobilization and purification of recombinant proteins using diethylaminoethyl-functionalized magnetic nanoparticles  
**Name of the conference:** NanoBio&Med 2011 (Imaginenano 2011)  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Bilbao,  
**Date of event:** 2011  
Sanz; J.M.; Retamosa-Hernández; G.; Maestro; B.; Rodes-Martínez; M.J.; Ferrer; M.L. and Morales; P.2011.
- 48** **Title of the work:** Specific immobilization and purification of recombinant proteins using diethylaminoethyl-functionalized magnetic nanoparticles.  
**Name of the conference:** XXXIV Congreso de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM)  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Barcelona,  
**Date of event:** 2011  
Retamosa; M.G.; Maestro; B.; Rodes; M.J.; Ferrer; M.L.; Morales; P.; Sanz; J.M.2011.
- 49** **Title of the work:** Characterization of the PhaF phasin from *Pseudomonas putida* KT2442: perspectives for the development of active, biodegradable, natural bioplastics  
**Name of the conference:** BIOTEC 2010 - Congreso de la Sociedad Española de Biotecnología/ BIOSPAIN 10 - 5th International meeting on biotechnology.  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Pamplona,  
**Date of event:** 2010  
Maestro; B.; Galán; B.; Prieto; M.A.; Sanz; J.M.2010.
- 50** **Title of the work:** Choline dendrimers as versatile tools for the development of new antibiotics and tissue imaging.  
**Name of the conference:** NanoSpainConf 2010  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Málaga,  
**Date of event:** 2010  
Hernández-Rocamora; V.M.; Maestro; B.; Reulen; S.W.A.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merckx; M.; Sanz; J.M.2010.



- 51** **Title of the work:** Modelo estructural y funcional de la fasina PhaF de *Pseudomonas putida* KT2442 y de su interacción con polihidroxicanoatos: perspectivas biotecnológicas.  
**Name of the conference:** XXXIII Congreso de la Sociedad Española de Bioquímica y Biología Molecular  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Córdoba,  
**Date of event:** 2010  
Maestro; B.; Galán; B.; Prieto; M.A.; Sanz; J.M.2010.
- 52** **Title of the work:** Recognition of peptidoglycan and  $\beta$ -lactam antibiotics by the extracellular domain of the Ser/Thr protein kinase StkP from *Streptococcus pneumoniae*  
**Name of the conference:** International Conference on Antimicrobial Research  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Valladolid,  
**Date of event:** 2010  
Maestro; B.; Nováková; L.; Heseck; D.; Lee; M.; Leyva; E.; Mobashery; S.; Sanz; J.M.; Branny; P.2010.
- 53** **Title of the work:** Caracterización de la fasina PhaF de *Pseudomonas putida* KT2442 y de su unión a polímeros de polihidroxiocanoato.  
**Name of the conference:** XXXII Congreso de la Sociedad Española de Bioquímica y Biología Molecular  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Oviedo,  
**Date of event:** 2009  
Maestro; B.; Galán; B.; Prieto; M.A.; Sanz; J.M.2009.
- 54** **Title of the work:** Role of the bi-modular PhaF protein as DNA binding factor in *Pseudomonas putida* KT2442.  
**Name of the conference:** 14 th. European Congress on Biotechnology. SYMBIOSIS  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2009  
Galán B.; Maestro; B.; García; J.L.; Sanz; J.M.; Prieto; M. A.2009.
- 55** **Title of the work:** Expression of membrane proteins in bacteria: drawbacks and solutions  
**Name of the conference:** Neurosciences seminar: neurosciences and structural biology: new travelmates for a long trip.  
**Type of event:** Workshop **Geographical area:** Local  
**Type of participation:** Participatory - invited/keynote talk  
**City of event:** Soria,  
**Date of event:** 2008  
Sanz; J.M.2008.
- 56** **Title of the work:** Affinity purification of proteins tagged with choline binding modules in aqueous two-phase systems.  
**Name of the conference:** BIOTEC 2008 - Congreso de la Sociedad Española de Biotecnología/ BIOSPAIN 08 - 4th International meeting on biotechnology.  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Granada,



**Date of event:** 2008

Maestro; B.; Velasco; I.; Castillejo; I.; Arévalo-Rodríguez; M.; Cebolla; A.; Sanz; J.M.2008.

- 57** **Title of the work:** Characterization of the PhaF phasin from *Pseudomonas putida* KT2442 and its binding to poly-3-hydroxyoctanoate polymers.  
**Name of the conference:** BIOTEC 2008 - Congreso de la Sociedad Española de Biotecnología/ BIOSPAIN 08 - 4th International meeting on biotechnology.  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Granada,  
**Date of event:** 2008  
Maestro; B.; Leyva; E.; Galán; B.; Prieto; M.A.; Sanz; J.M.2008.
- 58** **Title of the work:** Characterization of the nuclear import pathways of the Snail superfamily of transcription factors.  
**Name of the conference:** XXXI Congreso de la Sociedad Española de Bioquímica y Biología Molecular.  
**Geographical area:** National  
**Type of participation:** Participatory - poster  
**City of event:** Bilbao,  
**Date of event:** 2008  
Mingot; J.M.; Vega; S.; Maestro; B.; Sanz; J.M.; Nieto; M.A.2008.
- 59** **Title of the work:** Dendrimers as potent inhibitors of *Streptococcus pneumoniae* autolysis and cell division  
**Name of the conference:** NanobioEurope 2008  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Barcelona,  
**Date of event:** 2008  
Hernández-Rocamora; V.M.; Maestro; B.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merckx; M.; Sanz; J.M.2008.
- 60** **Title of the work:** Dendrimers as potent inhibitors of *Streptococcus pneumoniae* autolysis and cell division  
**Name of the conference:** NanobioEurope 2008  
**Geographical area:** European Union  
**Type of participation:** Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2008  
Hernández-Rocamora; V.M.; Maestro; B.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merckx; M.; Sanz; J.M.2008.
- 61** **Title of the work:** Diseño y evaluación como antimicrobianos de inhibidores de las proteínas de unión a colina de *Streptococcus pneumoniae*.  
**Name of the conference:** I Jornada de investigación biomédica Hospital General Universitario de Elche - Universidad Miguel Hernández  
**Geographical area:** Local  
**Type of participation:** Participatory - invited/keynote talk  
**City of event:** Elche,  
**Date of event:** 2008  
Sanz; J.M.2008.



- 62** **Title of the work:** Nanopartículas dendríticas como inhibidores de las enzimas líticas de la pared celular de neumococo.  
**Name of the conference:** V Reunión de la Red Nacional de Estructura y Función de Proteínas  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Valencia,  
**Date of event:** 2008  
Hernández-Rocamora; V.M.; Maestro; B.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merckx; M.; Sanz; J.M.2008.
- 63** **Title of the work:** Choline-derivatized dendrimers, a nanotechnological tool to fight pneumococcal diseases  
**Name of the conference:** Meeting for the Study Groups: Design and Synthesis, Structure and Reactivity, and Biomolecular Chemistry. NWO Chemische Wetenschappen  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Lunteren, Holland  
**Date of event:** 2007  
Hernández-Rocamora; V.M.; Maestro; B.; de Waal; B. F.M.; Morales; M.; García; P.; Meijer; E.W.; Merckx; M. and Sanz; J.M.2007.
- 64** **Title of the work:** Desplegamiento de C-LytA por SDS submicelar  
**Name of the conference:** II Reunión Nacional sobre estabilidad y plegamiento de proteínas. Instituto de Biología Molecular y Celular. Universidad Miguel Hernández.  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** San Juan de Alicante,  
**Date of event:** 2007  
Maestro; B.; Sanz; J.M.2007.
- 65** **Title of the work:** Los módulos de unión a colina como método de inmovilización no covalente de proteínas en sistemas de alto rendimiento.  
**Name of the conference:** I Congress of the European Proteomics Association  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Valencia,  
**Date of event:** 2007  
Maestro; B.; Sanz; J.M.2007.
- 66** **Title of the work:** Pneumococcal choline-binding proteins as targets for new antimicrobials.  
**Name of the conference:** Europneumo. 8th European Meeting on the Molecular Biology of Pneumococcus.  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Oeiras, Portugal  
**Date of event:** 2007  
Maestro; B.; González; A.; García; P.; Sanz; J.M.2007.
- 67** **Title of the work:** Efecto del dodecil sulfato sódico en el plegamiento, estabilidad y función del dominio de unión a colina C-LytA  
**Name of the conference:** XXIX Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Elche,

**Date of event:** 2006  
Maestro; B.; Sanz; J.M.2006.

- 68** **Title of the work:** Estudio del mecanismo de acción de StyR mediante mutagénesis dirigida  
**Name of the conference:** XXIX Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Elche,  
**Date of event:** 2006  
Rodes; M.J.; Fernández; C.; Manso; I.; Sanz; J.M.2006.
- 69** **Title of the work:** Ingeniería racional del "tag" de afinidad C-LytA  
**Name of the conference:** XXIX Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Elche,  
**Date of event:** 2006  
Hernández-Rocamora; V.M.; Maestro; B.; Mollá; A.; Sanz; J.M.2006.
- 70** **Title of the work:** Ingeniería de "tags" de afinidad: el módulo de unión a colina C-LytA.  
**Name of the conference:** IV Reunión de la Red Temática Nacional de Estructura y Función de Proteínas  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Bilbao,  
**Date of event:** 2006  
Sanz; J. M.; Hernández; V.M.; Maestro; B.; Mollá; A.2006.
- 71** **Title of the work:** Potencial biotecnológico de los módulos de unión a colina  
**Name of the conference:** XXIX Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** Participatory - invited/keynote talk  
**City of event:** Elche,  
**Date of event:** 2006  
Maestro; B.; Hernández-Rocamora; V.M.; Sanz; J.M.2006.
- 72** **Title of the work:** Potencial biotecnológico de los módulos de unión a colina  
**Name of the conference:** IV Jornadas de la Sociedad Española de Bioquímica "La Empresa Puedes Ser Tú"  
**City of event:** Elche,  
**Date of event:** 2006  
Maestro; B.; Hernández-Rocamora; V.M.; Sanz; J.M.2006.
- 73** **Title of the work:** Taller de Modelos Moleculares Jmol  
**Name of the conference:** XXIX Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** Participatory - others  
**City of event:** Elche,  
**Date of event:** 2006  
Sanz; J. M. 2006.





- 74** **Title of the work:** Effect of sodium dodecyl sulphate on the folding, stability and function of the choline-binding domain C-LytA.  
**Name of the conference:** VI European Symposium of the Protein Society  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 2005  
Maestro; B.; Sanz; J.M..2005.
- 75** **Title of the work:** Estabilidad, plegamiento e ingeniería de proteínas de interés biotecnológico y sus posibles aplicaciones "prácticas"  
**Name of the conference:** I Reunión Nacional sobre estabilidad y plegamiento de proteínas. Centro Nacional de Biotecnología.  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Madrid,  
**Date of event:** 2005  
Sanz; J.M..2005.
- 76** **Title of the work:** Regulación de la ruta de degradación del ácido 3-hidroxifenilpropiónico en Escherichia coli.  
**Name of the conference:** XX Congreso Nacional de Microbiología  
**City of event:** Cáceres,  
**Date of event:** 2005  
Manso; I.; Galán; B.; Sanz; J. M.; Prieto; M. A.; García; J. L.2005.
- 77** **Title of the work:** The choline-binding modules: a powerful biotechnological tool.  
**Name of the conference:** XII European Biotechnology Congress  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Copenhagen, Denmark  
**Date of event:** 2005  
Sanz; J.M..2005.
- 78** **Title of the work:** Choline-binding domains: a biophysical overview of a new tool in biomedicine.  
**Name of the conference:** III Portuguese-Spanish Biophysics Congress  
**Geographical area:** European Union  
**Type of participation:** Participatory - invited/keynote talk  
**City of event:** Lisboa, Portugal  
**Date of event:** 2004  
Sanz; J.M..2004.
- 79** **Title of the work:** Effect of sodium dodecyl sulphate on the folding, stability and function of the choline-binding domain C-LytA.  
**Name of the conference:** III Portuguese-Spanish Biophysics Congress  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Lisboa, Portugal  
**Date of event:** 2004  
Maestro; B.; Sanz; J.M..2004.



- 80** **Title of the work:** Estructuración en dominios del regulador StyR, una proteína implicada en la biodegradación del estireno.  
**Name of the conference:** XXVI Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** La Coruña,  
**Date of event:** 2003  
Rodes; M.J.; Sanz; J.M..2003.
- 81** **Title of the work:** Independencia estructural de los motivos de unión a colina del dominio C-LytA.  
**Name of the conference:** XXVI Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** La Coruña,  
**Date of event:** 2003  
Maestro; B.; Sanz; J.M..2003.
- 82** **Title of the work:** Studies on the receiver domain of StyR, a regulator of the styrene biodegradation pathway of Pseudomonas sp. Y2.  
**Name of the conference:** IV European Biophysics Congress  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Alicante,  
**Date of event:** 2003  
Rodes; M.J.; Sanz; J.M..2003.
- 83** **Title of the work:** Estructura y estabilidad de StyR, una proteína implicada en la biodegradación del estireno.  
**Name of the conference:** XXV Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** León,  
**Date of event:** 2002  
Rodes; M.J.; Sanz; J.M..2002.
- 84** **Title of the work:** Plegamiento del dominio de unión a colina C-LytA: un estudio en equilibrio  
**Name of the conference:** XXV Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** León,  
**Date of event:** 2002  
Maestro; B.; Sanz; J.M..2002.
- 85** **Title of the work:** Análisis de la interacción del factor de terminación transcripcional m-TERF con el DNA mitocondrial.  
**Name of the conference:** IV Congreso Iberoamericano de Biofísica  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Alicante,  
**Date of event:** 2000  
García-Sanz; N.; Mateo; C.R.; Sanz; J.M..2000.



- 86** **Title of the work:** Plasmid and host replication initiator proteins modulate the establishment of plasmid pPS10 in a new host.  
**Name of the conference:** Mobile genetic elements contribution to bacterial adaptability and diversity (MECBAD)  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Praga, Czech Republic  
**Date of event:** 2000  
Maestro; B.; Sanz; J.M.; Faalen; M.; Couturier; M.; Díaz-Orejas; R.; Fernández-Tresguerres; E.2000.
- 87** **Title of the work:** Plasmid and host replication initiator proteins modulate the establishment of plasmid pPS10 in a new host.  
**Name of the conference:** Plasmid Biology 2000. International symposium on molecular biology of bacterial plasmids. Academia de ciencias de la República Checa.  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Praga, Czech Republic  
**Date of event:** 2000  
Maestro; B.; Sanz; J.M.; Faalen; M.; Couturier; M.; Díaz-Orejas; R.; Fernández-Tresguerres; E.2000.
- 88** **Title of the work:** Protección frente a la isquemia transitoria en el cerebro y el corazón por formas modificadas del factor de crecimiento para fibroblastos: estudios estructurales a alta resolución  
**Name of the conference:** III Reunión de la Red Temática Nacional sobre Plegamiento, Estabilidad e Ingeniería de Proteínas.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Guardamar de Segura,  
**Date of event:** 1999  
Lozano; R. M.; Pineda-Lucena; A.; Gonzalez; C.; Jiménez M.A.; Cuevas; P.; Redondo-Horcajo; M.; Sanz; J.M.; Rico; M.; Giménez-Gallego; G.1999.
- 89** **Title of the work:** Equilibrium folding intermediates of an all- $\alpha$  protein: acidic fibroblast growth factor.  
**Name of the conference:** 2nd Portuguese-Spanish Biophysics Congress  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Madrid,  
**Date of event:** 1998  
Sanz; J.M.; Jiménez; M.A.; Giménez-Gallego; G.1998.
- 90** **Title of the work:** Equilibrium folding intermediates of an all- $\alpha$  protein: acidic fibroblast growth factor.  
**Name of the conference:** Workshop on Protein Folding. (Instituto Juan March de estudios e investigaciones)  
**Geographical area:** Non EU International  
**Type of participation:** 'Participatory - poster  
**City of event:** Madrid,  
**Date of event:** 1998  
Sanz; J.M.; Jiménez; M.A.; Giménez-Gallego; G.1998.
- 91** **Title of the work:** Replication initiators involved in plasmid host range.  
**Name of the conference:** Initiation of replication in prokaryotic extrachromosomal elements. (Instituto Juan March de estudios e investigaciones)



**Geographical area:** Non EU International

**Type of participation:** 'Participatory - poster

**City of event:** Madrid,

**Date of event:** 1998

Maestro; B.; Sanz; J.M.; Díaz-Orejas; R.; Faelen; M.; Couturier; M.; Tresguerres; E.F.1998.

- 92** **Title of the work:** Host range determinants of the Pseudomonas plasmid pPS10.  
**Name of the conference:** Evolution and Gene Transfer in Microorganisms. Société Belge de Microbiologie  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Leuven,  
**Date of event:** 1997  
Maestro; B.; Sanz; J.M.; Díaz-Orejas; R.; Fernández-Tresguerres; E.1997.
- 93** **Title of the work:** Host range determinants of the Pseudomonas plasmid pPS10.  
**Name of the conference:** Molecular Biology and Ecology of Plasmid-Mediated Gene Transfer (European Science Foundation)  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Cuenca,  
**Date of event:** 1997  
Maestro; B.; Sanz; J.M.; Díaz-Orejas; R.; Fernández-Tresguerres; E.1997.
- 94** **Title of the work:** Native yeast ribosomal acidic protein YP2? displays features of a 'molten globule' state.  
**Name of the conference:** XIth International Biophysics Congress  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Amsterdam, Holland  
**Date of event:** 1996  
Zurdo; J.; González; C.; Sanz; J.M.; Rico; M.; Ballesta; J.P.G.1996.
- 95** **Title of the work:** Relación estructura-función de diversos estados conformacionales del factor de crecimiento de fibroblastos ácido.  
**Name of the conference:** Reunión de la Red Temática Nacional sobre Plegamiento, Estabilidad e Ingeniería de Proteínas.  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Tarazona,  
**Date of event:** 1996  
Sanz; J.M.; Giménez-Gallego; G.1996.
- 96** **Title of the work:** Yeast ribosomal proteins P1 and P2 fold in a different way. The structural basis for their distinct function  
**Name of the conference:** 24th Meeting of The Federation of European Biochemical Societies.  
**Geographical area:** European Union  
**Type of participation:** 'Participatory - poster  
**City of event:** Barcelona,  
**Date of event:** 1996  
Zurdo; J.; Sanz; J.M.; Jiménez-Díaz; A.; Ballesta; J.P.G.1996.



- 97** **Title of the work:** Immobilization and single-step purification of fusion proteins using the choline-binding domain of pneumococcal murein hydrolases.  
**Name of the conference:** 1st european meeting on molecular biology of pneumococcus.  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Toulouse,  
**Date of event:** 1991  
Sanz; J.M.1991.
- 98** **Title of the work:** Mutagénesis dirigida del centro activo de la lisozima codificada por el bacteriófago Cp-1 de neumococo.  
**Name of the conference:** XIII Congreso Nacional de la Sociedad Española de Microbiología.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Salamanca,  
**Date of event:** 1991  
Sanz; J.M.; García; P.; García; J.L.1991.
- 99** **Title of the work:** Aplicaciones biotecnológicas de los dominios carboxilo-terminales de las peptidoglican-hidrolasas de neumococo y sus bacteriófagos.  
**Name of the conference:** XVII Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Oviedo,  
**Date of event:** 1990  
Sanz; J.M.; Sánchez-Puelles; J.M.; García; E.; García; J.L.1990.
- 100** **Title of the work:** Expresión de los dominios N-terminales de enzimas líticas de neumococo y sus bacteriófagos.  
**Name of the conference:** XVII Congreso Nacional de la Sociedad Española de Bioquímica.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Oviedo,  
**Date of event:** 1990  
Sanz; J.M.; Díaz; E.1990.
- 101** **Title of the work:** Hiperproducción y estudios de dicroísmo circular de la enzima lítica codificada por el fago Cp-1 de neumococo.  
**Name of the conference:** XII Congreso Nacional de la Sociedad Española de Microbiología.  
**Geographical area:** National  
**Type of participation:** 'Participatory - poster  
**City of event:** Pamplona,  
**Date of event:** 1989  
Sanz; J.M.; García; J.L.; García; P. 1989.



## R&D management and participation in scientific committees

### Scientific, technical and/or assessment committees

- 1** **Committee title:** Sociedad Española de Biofísica (SBE)  
**End date:** 2012
- 2** **Committee title:** Sociedad Española de Bioquímica y Biología Molecular (SEBBM)  
**Start date:** 2006
- 3** **Committee title:** Sociedad Española de Biotecnología (SEBIOT)

### Organization of R&D activities

- 1** **Title of the activity:** JPIAMR Junior Researchers Online Workshop  
**Convening entity:** Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) **Type of entity:** State agency  
**Type of participation:** Organiser  
**Start-End date:** 29/06/2021 - 30/06/2021 **Duration:** 2 days
- 2** **Title of the activity:** III Jornadas "Y tú, ¿qué investigas?"  
**Convening entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Type of participation:** Organiser  
**N° assistants:** 380  
**Start-End date:** 06/10/2016 - 07/10/2016
- 3** **Title of the activity:** Coordinador de la Jornada sobre Mecanismos de Financiación de Transferencia de Tecnología  
**Geographical area:** Regional  
**Convening entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City convening entity:** Elche, Valencian Community, Spain  
**Start-End date:** 12/07/2013 - 12/07/2013
- 4** **Title of the activity:** Miembro del comité organizador del congreso BIOTEC2012  
**Convening entity:** SOCIEDAD ESPAÑOLA DE BIOTECNOLOGIA  
**City convening entity:** Bilbao  
**Start-End date:** 19/09/2012 - 21/09/2012
- 5** **Title of the activity:** Miembro del Comité Organizador de la II Reunión del grupo de Plegamiento y Estructura de Proteínas. San Juan (Alicante)  
**Type of activity:** Congreso **Geographical area:** National  
**Start date:** 03/2007





- 6** **Title of the activity:** Coordinador de las IV Jornadas de la Sociedad Española de Bioquímica y Biología Molecular "La Empresa Puedes Ser Tú"  
**Type of activity:** Congreso **Geographical area:** National  
**Start date:** 09/2006
- 7** **Title of the activity:** Miembro del Comité Organizador del XXIX Congreso Nacional de la Sociedad Española de Bioquímica y Biología Molecular  
**Type of activity:** Congreso **Geographical area:** National  
**Start date:** 09/2006
- 8** **Title of the activity:** Miembro del Comité Organizador de la III Reunión de la Red Temática Nacional de Estructura, Estabilidad e Ingeniería de Proteínas. Guardamar del Segura.  
**Type of activity:** Congreso **Geographical area:** National  
**Start date:** 11/1999

## R&D management

**Name of the activity:** Miembro de tribunal evaluador del programa de Becas de Formación de Personal Investigador (2014-actualidad)  
**Type of management:** Evaluador de becas  
**Entity:** Dirección de Política Científica- Gobierno Vasco **Type of entity:** Entidad autonómica  
**Start date:** 16/10/2014 **Duration:** 3 years

## Evaluation and revision of R&D projects and articles

- 1** **Performed tasks:** Evaluador de la Agencia Nacional de Evaluación y Prospectiva (ANEP) (2001-2002, 2008-actualidad)
- 2** **Performed tasks:** Evaluador de Proyectos de Excelencia de la Consejería de Innovación, Ciencia y Empresa de la Junta de Andalucía (2008)
- 3** **Performed tasks:** Evaluador de Proyectos del Fondo para la Investigación Científica y Tecnológica (FONCYT) de Argentina (2009-actualidad)
- 4** **Performed tasks:** Evaluador de la Agencia para la Calidad del Sistema Universitario de Castilla y León (2008, 2010)
- 5** **Performed tasks:** Evaluador de proyectos de I+D del Dpto. de Educación Universidades e Investigación del Gobierno Vasco (2009-2010)
- 6** **Performed tasks:** Evaluador de proyectos de I+D para empresas del Instituto Valenciano de Competitividad Empresarial (IVACE) de la Generalidad Valenciana (2015-actualidad)
- 7** **Performed tasks:** Evaluador de proyectos de I+D para empresas del Instituto de la Mediana y Pequeña Industria Valenciana (IMPIVA) de la Generalidad Valenciana (2007-2012)



## Other achievements

### Stays in public or private R&D centres

- 1** **Entity:** Universidad Miguel Hernández **Type of entity:** University Research Institute  
**Faculty, institute or centre:** Instituto Universitario de Biología Molecular y Celular  
**City of entity:** Elche, Valencian Community, Spain  
**Start-End date:** 08/01/2018 - 31/08/2018 **Duration:** 7 months - 23 days  
**Goals of the stay:** Guest  
**Provable tasks:** Estancia formativa
- 2** **Entity:** Centre for Protein Engineering (University of Cambridge)  
**City of entity:** Cambridge, United Kingdom  
**Start date:** 1992 **Duration:** 2 years - 5 months  
**Name of programme:** Estados intermedios en el plegamiento de proteínas  
**Goals of the stay:** Post-doctoral

### Editorial councils

**Name of the editorial council:** Miembro del "Editorial Board" de la revista Microbial Biotechnology.  
**Start date:** 2016

### Prizes, mentions and distinctions

- 1** **Description:** Premio UMH 2016 a la competitividad investigadora  
**Awarding entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Conferral date:** 2017
- 2** **Description:** Premio UMH 2015 a la competitividad investigadora  
**Awarding entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Conferral date:** 28/10/2016
- 3** **Description:** Premio UMH 2014 a la competitividad investigadora  
**Awarding entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Conferral date:** 04/09/2015
- 4** **Description:** V Premio Laboratorios SALVAT al Mejor Proyecto de Investigación en Ciencias Biomédicas. "Diseño de inhibidores de las proteínas de unión a colina de Streptococcus pneumoniae y su aplicación como agentes terapéuticos".  
**Awarding entity:** Fundación Salvat Inquifarma **Type of entity:** Foundation  
**Conferral date:** 2006



## Summary of other achievements

- 1** **Description of the achievement:** Workshop on nanomedicine for diagnostics and therapy  
**Accrediting entity:** CIBER ENFERMEDADES RESPIRATORIAS (CIBERES)  
**Conferral date:** 22/02/2022
- 2** **Description of the achievement:** Course on visualization of macromolecular structures with Chimera  
**Accrediting entity:** Consejo Superior de Investigaciones Científicas  
**Type of entity:** State agency  
**Conferral date:** 23/11/2021
- 3** **Description of the achievement:** Reconocimiento de 1 periodo de actividad de transferencia tecnológica (2010-2016) (Real Decreto 1086/1989, de 28 de agosto) (Sexenios).  
**Accrediting entity:** CNEAI  
**Conferral date:** 2020
- 4** **Description of the achievement:** Reconocimiento de 5 periodos de actividad investigadora (Real Decreto 1086/1989, de 28 de agosto) (Sexenios).  
**Accrediting entity:** CNEAI  
**Conferral date:** 2018
- 5** **Description of the achievement:** Reconocimiento de 6 periodos de actividad docente (Quinquenios).  
**Conferral date:** 2018
- 6** **Description of the achievement:** Investigador principal de la solicitud del proyecto europeo "Nanostructures against infectious diseases" (NANODIS, Propuesta 604220-1), correspondiente al programa FP7-NMP-2013-LARGE-7 del 7º Programa Marco Europeo, con otros 21 socios europeos.  
**Conferral date:** 2012
- 7** **Description of the achievement:** Solicitante del proyecto europeo OPTIDRUG de la Iniciativa de Medicamentos Innovadores, con otros 7 socios europeos  
**Conferral date:** 2011
- 8** **Description of the achievement:** Coordinador del Grupo de Biotecnología de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM) (2009-2012)
- 9** **Description of the achievement:** Vocal de la Junta Directiva de la Sociedad Española de Biotecnología (SeBIOT) (2010- 2012)