



**Mario Rodríguez Peña**

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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.

BSc (Hons) in Biochemistry by University of Salamanca and PhD in Biomedical Research in the University of Valladolid ( **Extraordinary Doctorate Award** with 7 papers published and 4 conference presentations) on the characterization of metabolic changes behind signalling and epigenetics modifications responsible for the transcriptional balance between cytokines IL23 (for Th17 immune response) and IL12 (for Th1) in human monocyte-derived dendritic cells according to several stimuli. This study was part of the **research projects** "SAF2010-15070: Respuesta de las células dendríticas a la infección por hongos y a las células apoptóticas" funded by Spanish Ministry of Science and Innovation, and "CSI003A11-2: Nuevos abordajes para el tratamiento del síndrome de respuesta antiinflamatoria compensadora y las infecciones sistémicas basados en las vías de señalización y regulación transcripcional" funded by regional government of Castile and Leon. The main achievements were:

- "Sirtuin 1 is a key regulator of the IL12 p70/IL23 balance in human dendritic cells. Journal of Biological Chemistry. 2012. 287, p. 35689 - 35701" described how activation of AMPK and increase of nuclear NAD<sup>+</sup> levels activate SIRT1 deacetylase recruited to IL12A promoter. In this study, I optimised DNA accessibility assay, nuclear NAD measurement and protein isolation for posttranslational marks detection by MS.

- "The unfolded protein response and the phosphorylations of activating transcription factor 2 in the trans-activation of il23a produced by beta-glucans Journal of Biological Chemistry. 2014. 289: 22942-22957", with data presented in XXXVI Congress of SEBBM in 2013 and 3rd Madrid Meeting on Dendritic cells and Macrophages in 2014 as **invited talk**, described the MAP-Kinases involved in the phased phosphorylation of ATF2 acetyltransferase to transactivate IL23A.

- "Pharmacological inhibition of eicosanoids and platelet-activating factor signalling impairs zymosan-induced release of IL23 by dendritic cells. Biochemical Pharmacology. 2016. 102, p. 78 - 96", with data presented in Innate Immune Memory conference in UK in 2015 and I National Congress of Young Researchers in Biomedicine in 2016, described Syk activation by Dectins receptors and the joint release of leukotrienes and PAF in the transactivation of IL23A. In this study, I optimised the extraction of eicosanoids and lysophospholipids for MS analysis. During my PhD, I **coordinated** the experimental work of a master student and **lectured** a 3-hour class in "Cellular Signalling" for MSc in Biomedical Research in University of Valladolid during the years 2012/13 and 2013/14. After finishing my PhD, I **revised** for Immunologic Research (Humana Press, Springer) from 1/6/2016.

My first 1-year postdoc in **Royal College of Surgeons in Ireland (RCSI)**, the lipid mediators described in my thesis, along with IL23 and IL17, were found increased in blood plasma of alpha-1 antitrypsin deficiency (AATD) patients (a type of inherited Chronic Obstructive Pulmonary Disorder), thus explaining their predisposition to autoimmunity and resistance to corticoid treatment. After an 8-month second postdoc deciphering modulators of TRAIL signalling in **Trinity College Dublin (TCD)**, my third postdoc in **Maynooth University**



(MU) was part of the **research project** “HRA-POR-2015-1352: Exploring immune signalling pathways that are deregulated in Multiple Sclerosis at the molecular level” from Health Research Board (HRB), an Irish State Agency. The inhibition of SHP2 phosphatase, a proposed Th17 activator in autoimmune disorder Multiple Sclerosis, was studied to counter-regulate Th17 response via IRF7 phosphorylation and IFN $\beta$  release, hallmark of Th1 response, using mainly microglial line CHME3. During this postdoc I optimized a co-immunoprecipitation technique to detect posttranslational marks, **coordinated** the experimental work of a PhD student and delivered a **seminar** in the Seminar Series (BI420) in the year 2019/20 and one **lecture** in Advanced Immunology (BI405) in the year 2020/21 for BSc Biological and Biomedical Sciences in Maynooth University.

My studies drove me to my fourth postdoc in Instituto de Recursos Naturales y Agrobiología de Salamanca (belonging to CSIC), part of the **research project** “COVID-19: anti-infectious and anti-inflammatory action of immunomodulatory parasite molecules in a safe-to-use synthetic format” financed by the CSIC PTI “Salud Global”. The aim was developing new models for the study of the regulation of Th1/Th17 immune responses by *Fasciola hepatica* compounds in animal and human cells to identify new anti-viral and anti-inflammatory molecules. I **supervised** a PhD student during this postdoc. As a **Collaborator Lecturer**, I delivered 184 hours in four different classes regarding Biochemistry for the degrees of Medicine, Pharmacy and Odontology in CEU San Pablo University during the year 2023/24.

## Mario Rodríguez Peña

Surname(s): **Rodríguez Peña**  
Name: **Mario**  
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ScopusID: **56411145300**  
ResearcherID: **AAE-9602-2020**  
Nationality: **Spain**  
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Personal web page: **<https://www.researchgate.net/profile/Mario-Rodriguez-59>**

### Previous positions and activities

|   | Employing entity                                | Professional category                                  | Start date |
|---|---|--|------------|
| 1 | Universidad San Pablo CEU                       | Collaborator Lecturer                                  | 22/01/2024 |
| 2 | Consejo Superior de Investigaciones Científicas | Postdoctoral Researcher                                | 22/11/2021 |
| 3 | Maynooth University (MU)                        | Postdoctoral Researcher                                | 01/08/2019 |
| 4 | Trinity College Dublin (TCD)                    | Research Fellow  | 01/11/2018 |
| 5 | Royal College of Surgeons in Ireland (RCSI)     | Postdoctoral Researcher                                | 02/10/2017 |
| 6 | Universidad de Valladolid                       | FPI-UVa fellow   | 30/07/2010 |
| 7 | Universidad de Valladolid                       | Initiation to research in LOU institutes of UVa fellow | 01/12/2009 |
| 8 | Universidad de Salamanca                        | Collaboration-research fellow of MEPSyD                | 06/11/2008 |

- 1** **Employing entity:** Universidad San Pablo CEU **Type of entity:** University  
**Department:** Chemistry and Biochemistry  
**City employing entity:** Madrid, Community of Madrid, Spain  
**Professional category:** Collaborator Lecturer  
**Email:** pramos@ceu.es  
**Start-End date:** 22/01/2024 - 18/05/2024 **Duration:** 3 months - 28 days  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time  
**Primary (UNESCO code):** 240300 - Biochemistry  
**Applicability in teaching and/or research:** Lecturing experience: 123 hours of Metabolic Biochemistry (20/02/2024 – 10/05/2024) for the Degree in Medicine. 24 hours of Biotechnology (26/02/2024 – 07/05/2024), 24 hours of Biochemistry II (15/04/2024 – 24/04/2024), and 1 hour of Research Seminars (26/04/2024) for the Degree in Pharmacy. 12 hours of Biochemistry (04/03/2024 – 07/03/2024) for the Degree in Odontology.
- 2** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency  
**Department:** Parasitology, Instituto de Recursos Naturales y Agrobiología de Salamanca  
**City employing entity:** Salamanca, Castile and León, Spain  
**Professional category:** Postdoctoral Researcher



**Email:** direccion.irnasa@csic.es

**Start-End date:** 22/11/2021 - 31/12/2022

**Duration:** 1 year - 1 month - 9 days

**Type of contract:** Temporary employment contract

**Dedication regime:** Full time

**Primary (UNESCO code):** 241200 - Immunology

**Secondary (UNESCO code):** 240700 - Cell biology

**Performed tasks:** Technical coordination and development of research on immunomodulation with products from *Fasciola hepatica*. Supervision of a PhD student.

**Identify key words:** Biomedicine; Cell culture; Clinical biology; Cell biology; Molecular biology; Animal disease; Animal parasitology; Viral pathogens of animals; Animal immunology; Helminth pathogens of animals

**Area of leadership and/or management activity:** Public Research Body

- 3** **Employing entity:** Maynooth University (MU) **Type of entity:** University  
**Department:** Biology  
**City employing entity:** Maynooth, Southern and Eastern, Ireland  
**Professional category:** Postdoctoral Researcher **Leadership and management (Y/N):** Yes  
**Phone:** (353) (01) 708 3856  
**Start-End date:** 01/08/2019 - 31/03/2021 **Duration:** 1 year - 8 months  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time  
**Primary (UNESCO code):** 241200 - Immunology  
**Secondary (UNESCO code):** 240700 - Cell biology  
**Performed tasks:** Project: Role of SHP2 in IRF3/7 signaling and modulation of proinflammatory cytokines. Coordination of experimental work of a PhD student.  
**Identify key words:** Biomedicine; Cell culture; Clinical biology; Cell biology; Molecular biology  
**Applicability in teaching and/or research:** A 1-hour seminar in the Seminar Series (BI420) in the year 2019/20 and a 1-hour lecture in Advanced Immunology (BI405) in the year 2020/21 for BSc Biological and Biomedical Sciences.
- 4** **Employing entity:** Trinity College Dublin (TCD) **Type of entity:** University  
**Department:** Genetics  
**City employing entity:** Dublin, Southern and Eastern, Ireland  
**Professional category:** Research Fellow  
**Start-End date:** 01/11/2018 - 14/07/2019 **Duration:** 8 months - 14 days  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time  
**Primary (UNESCO code):** 241200 - Immunology  
**Performed tasks:** Project: Identification of TRAIL signaling modulators.  
**Identify key words:** Biomedicine
- 5** **Employing entity:** Royal College of Surgeons in Ireland (RCSI) **Type of entity:** University  
**Department:** Irish National Centre for Genetic Lung Disease, School of Medicine  
**City employing entity:** Dublin, Southern and Eastern, Ireland  
**Professional category:** Postdoctoral Researcher  
**Start-End date:** 02/10/2017 - 30/09/2018 **Duration:** 1 year  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time  
**Primary (UNESCO code):** 241200 - Immunology  
**Secondary (UNESCO code):** 240700 - Cell biology



**Performed tasks:** Project: Detection of cytokines and lipid mediators of Th17 immune response in AATD patients.

**Identify key words:** Biomedicine; Cell culture; Clinical biology; Cell biology; Molecular biology

- 6** **Employing entity:** Universidad de Valladolid **Type of entity:** University  
**Department:** Biochemistry and Molecular Biology, and Physiology, Instituto de Biología y Genética Molecular  
**City employing entity:** Valladolid, Castile and León, Spain  
**Professional category:** FPI-UVa fellow **Leadership and management (Y/N):** Yes  
**Phone:** (34) 983184835  
**Start-End date:** 30/07/2010 - 18/12/2015 **Duration:** 4 years - 3 months - 16 days

**Type of contract:** Grant-assisted student (pre or post-doctoral, others)

**Dedication regime:** Full time

**Primary (UNESCO code):** 241200 - Immunology

**Secondary (UNESCO code):** 240700 - Cell biology

**Performed tasks:** Project: Regulation of IL23/IL12 (involved in the Th17 and Th1 immune responses) by metabolites, lipid mediators, and epigenetic control of its transcription. Coordination of experimental work of a Master student.

**Identify key words:** Biomedicine; Cell culture; Clinical biology; Cell biology; Molecular biology

**Area of leadership and/or management activity:** University

**Applicability in teaching and/or research:** A 3-hour lecture in the subject "Cellular Signalling" for MSc in Biomedical Research in the years 2012/13 and 2013/14.

- 7** **Employing entity:** Universidad de Valladolid **Type of entity:** University  
**Department:** Biochemistry and Molecular Biology, and Physiology, Instituto de Biología y Genética Molecular  
**City employing entity:** Valladolid, Castile and León, Spain  
**Professional category:** Initiation to research in LOU institutes of UVa fellow  
**Phone:** (34) 983184835  
**Start-End date:** 01/12/2009 - 26/02/2010 **Duration:** 3 months  
**Dedication regime:** Part time  
**Primary (UNESCO code):** 241200 - Immunology  
**Identify key words:** Biomedicine

- 8** **Employing entity:** Universidad de Salamanca **Type of entity:** University  
**Department:** Cellular Biology and Pathology, Instituto de Neurociencias de Castilla y León  
**City employing entity:** Salamanca, Castile and León, Spain  
**Professional category:** Collaboration-research fellow of MEPSyD  
**Phone:** (34) 923294500 - 1881  
**Start-End date:** 06/11/2008 - 01/07/2009 **Duration:** 8 months  
**Dedication regime:** Part time  
**Primary (UNESCO code):** 249000 - Neurosciences  
**Identify key words:** Biomedicine





## Education

### University education

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

- 1 **University degree:** Higher degree  
**Name of qualification:** Master in Biomedical Research  
**Degree awarding entity:** Universidad de Valladolid **Type of entity:** University  
**Date of qualification:** 24/09/2010
  
- 2 **University degree:** Higher degree  
**Name of qualification:** BSc (Hons) in Biochemistry  
**Degree awarding entity:** Universidad de Salamanca **Type of entity:** University  
**Date of qualification:** 11/06/2009

#### Doctorates

**Doctorate programme:** Official Programme of PhD in Biomedical Research  
**Degree awarding entity:** Universidad de Valladolid **Type of entity:** University  
**City degree awarding entity:** Valladolid, Castile and León, Spain  
**Date of degree:** 21/12/2015  
**European doctorate:** No  
**Thesis title:** Activación de IL23A y represión de IL12A por metabolitos en la respuesta inmune Th17  
**Thesis director:** Mariano Sánchez Crespo  
**Thesis co-director:** M<sup>a</sup> Nieves Fernández García  
**Obtained qualification:** Sobresaliente "cum laude"  
**Recognition of quality:** Yes

### Language skills

| Language | Listening skills | Reading skills | Spoken interaction | Speaking skills | Writing skills |
|----------|------------------|----------------|--------------------|-----------------|----------------|
| German   | A2               | A2             | A2                 | A2              | A2             |
| French   | B1               | B2             | B1                 | B1              | B1             |
| English  | C1               | C1             | C1                 | C1              | C1             |



## Teaching experience

### General teaching experience

- 1** **Type of teaching:** Official teaching  
**Name of the course:** Metabolic Biochemistry  
**Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Degree in Medicine  
**Course given:** 2023/2024  
**Start date:** 20/02/2024 **End date:** 10/05/2024  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 12,3  
**Entity:** Universidad San Pablo CEU **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Pharmacy  
**Department:** Chemistry and Biochemistry  
**City of entity:** Madrid, Community of Madrid, Spain  
**Subject language:** Spanish
- 2** **Type of teaching:** Official teaching  
**Name of the course:** Biotechnology  
**Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Degree in Pharmacy  
**Course given:** 2023/2024  
**Start date:** 26/02/2024 **End date:** 07/05/2024  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 2,4  
**Entity:** Universidad San Pablo CEU **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Pharmacy  
**Department:** Chemistry and Biochemistry  
**City of entity:** Madrid, Community of Madrid, Spain  
**Subject language:** Spanish
- 3** **Type of teaching:** Official teaching  
**Name of the course:** Research Seminars  
**Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Degree in Pharmacy  
**Course given:** 2023/2024  
**Start date:** 26/04/2024 **End date:** 26/04/2024  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 0,1  
**Entity:** Universidad San Pablo CEU **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Pharmacy  
**Department:** Chemistry and Biochemistry  
**City of entity:** Madrid, Community of Madrid, Spain





**Subject language:** Spanish

- 4** **Type of teaching:** Official teaching  
**Name of the course:** Biochemistry II  
**Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Degree in Pharmacy  
**Course given:** 2023/2024  
**Start date:** 15/04/2024 **End date:** 24/04/2024  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 2,4  
**Entity:** Universidad San Pablo CEU **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Pharmacy  
**Department:** Chemistry and Biochemistry  
**City of entity:** Madrid, Community of Madrid, Spain  
**Subject language:** Spanish
- 5** **Type of teaching:** Official teaching  
**Name of the course:** Biochemistry  
**Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Degree in Odontology  
**Course given:** 2023/2024  
**Start date:** 04/03/2024 **End date:** 07/03/2024  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 1,2  
**Entity:** Universidad San Pablo CEU **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Pharmacy  
**Department:** Chemistry and Biochemistry  
**City of entity:** Madrid, Community of Madrid, Spain  
**Subject language:** Spanish
- 6** **Type of teaching:** Official teaching  
**Name of the course:** Advanced Immunology 1 (BI405)  
**Type of programme:** Bachelor's degree **Type of teaching:** Virtual  
**Type of subject:** Obligatory  
**University degree:** BSc Biological and Biomedical Sciences  
**Course given:** 2020/2021  
**Start date:** 07/12/2020 **End date:** 07/12/2020  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 0,1  
**Entity:** Maynooth University (MU) **Type of entity:** University  
**Faculty, institute or centre:** Faculty of Science and Engineering  
**Department:** Biology  
**City of entity:** Maynooth, Southern and Eastern, Ireland  
**Subject language:** English
- 7** **Type of teaching:** Official teaching  
**Name of the course:** Seminar Series (BI420)  
**Type of programme:** Bachelor's degree **Type of teaching:** In person theory  
**Type of subject:** Obligatory



**University degree:** BSc Biological and Biomedical Sciences

**Course given:** 2019/2020

**Start date:** 28/02/2020

**End date:** 28/02/2020

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

**Hours/ECTS credits:** 0,1

**Entity:** Maynooth University (MU)

**Type of entity:** University

**Faculty, institute or centre:** Faculty of Science and Engineering

**Department:** Biology

**City of entity:** Maynooth, Southern and Eastern, Ireland

**Subject language:** English

**8** **Type of teaching:** Official teaching

**Name of the course:** Cellular Signalling

**Type of programme:** Master's degree

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**University degree:** Master in Biomedical Research

**Course given:** 2013/2014

**Start date:** 21/11/2013

**End date:** 21/11/2013

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

**Hours/ECTS credits:** 0,3

**Entity:** Universidad de Valladolid

**Type of entity:** University

**Faculty, institute or centre:** Faculty of Medicine

**Department:** Biochemistry and Molecular Biology, and Physiology

**City of entity:** Valladolid, Castile and León, Spain

**Subject language:** Spanish

**9** **Type of teaching:** Official teaching

**Name of the course:** Cellular Signalling

**Type of programme:** Master's degree

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**University degree:** Master in Biomedical Research

**Course given:** 2012/2013

**Start date:** 28/11/2012

**End date:** 28/11/2012

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

**Hours/ECTS credits:** 0,3

**Entity:** Universidad de Valladolid

**Type of entity:** University

**Faculty, institute or centre:** Faculty of Medicine

**Department:** Biochemistry and Molecular Biology, and Physiology

**City of entity:** Valladolid, Castile and León, Spain

**Subject language:** Spanish

## Healthcare experience



## Conferences, courses and seminars focused on medical care

**Type of event:** Workshop

**City of entity:** Salamanca, Castile and León, Spain

**Organising entity:** FELGTBI+

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

**Geographical area:** National

**Type of entity:** Associations and Groups

**Type of participation:** Participatory - invited/keynote talk

**Corresponding author:** Yes

**Date of presentation:** 12/11/2022

Second National Forum of Experts in Sexual Health.

## 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:** COVID-19: anti-infectious and anti-inflammatory action of immunomodulatory parasite molecules in a safe-to-use synthetic format

**Identify key words:** Biomedicine; Clinical biology; Molecular biology

**Geographical area:** National

**Entity where project took place:** Instituto de Recursos Naturales y Agrobiología de Salamanca

**City of entity:** Salamanca, Castile and León, Spain

**Name principal investigator (PI, Co-PI...):** Siles Lucas

**Funding entity or bodies:** Ministerio de Ciencia e Innovación

**Type of entity:** State agency

**Type of entity:** Public

**Code according to the funding entity:** SGL2021-03-022

**Start-End date:** 01/04/2021 - 31/12/2022

**Total amount:** 117.425 €

**Dedication regime:** Full time
- 2 Name of the project:** Exploring immune signalling pathways that are deregulated in Multiple Sclerosis at the molecular level

**Geographical area:** National

**Degree of contribution:** Researcher

**Entity where project took place:** Maynooth University (MU)

**City of entity:** Maynooth, Southern and Eastern, Ireland

**Name principal investigator (PI, Co-PI...):** Marion Butler

**Nº of researchers:** 2

**Funding entity or bodies:** Health Research Board (HRB)

**City funding entity:** Dublin, Southern and Eastern, Ireland

**Type of entity:** University

**Type of entity:** State agency



**Code according to the funding entity:** HRA-POR-2015-1352

**Start-End date:** 01/12/2016 - 31/03/2021

**Total amount:** 255.005 €

**Dedication regime:** Full time

**3 Name of the project:** Respuesta de las células dendríticas a la infección por hongos y a las células apoptóticas

**Geographical area:** National

**Entity where project took place:** Instituto de Biología y Genética Molecular

**Type of entity:** State agency

**City of entity:** Valladolid, Castile and León, Spain

**Name principal investigator (PI, Co-PI....):** Mariano Sánchez Crespo

**Nº of researchers:** 4

**Funding entity or bodies:**

Ministerio de Ciencia e Innovación. Investigación

**Type of entity:** Public

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

**Code according to the funding entity:** SAF2010-15070

**Start-End date:** 2011 - 2014

**Total amount:** 280.000 €

**Dedication regime:** Full time

**4 Name of the project:** Nuevos abordajes para el tratamiento del síndrome de respuesta antiinflamatoria compensadora y las infecciones sistémicas basados en las vías de señalización y regulación transcripcional

**Entity where project took place:** Instituto de Biología y Genética Molecular

**Type of entity:** State agency

**City of entity:** Valladolid, Castile and León, Spain

**Name principal investigator (PI, Co-PI....):** Mariano Sánchez Crespo

**Nº of researchers:** 4

**Funding entity or bodies:**

Junta de Castilla y León

**Type of entity:** Pública

**City funding entity:** Valladolid, Castile and León, Spain

**Code according to the funding entity:** CSI003A11-2

**Start-End date:** 2011 - 2012

**Total amount:** 29.700 €

**Dedication regime:** Full time



## Scientific and technological activities

### Scientific production

#### Publications, scientific and technical documents

- 1 Mario Rodríguez Peña; José Ángel García Guerra. The periodic spiral of elements. Foundations of Chemistry. Springer Nature, 20/07/2024.

**Type of production:** Scientific paper **Format:** Journal

**Corresponding author:** Yes
- 2 Mario Rodríguez Peña; Saioa Márquez; Juan Vladimir de la Rosa; Sara Alonso; Antonio Castrillo; Mariano Sánchez Crespo; Nieves Fernández García. Fungal pattern receptors down-regulate the inflammatory response by a cross-inhibitory mechanism independent of IL-10 production. Immunology. 150 - 2, pp. 184 - 198. 2017.

**Type of production:** Scientific paper **Format:** Journal

**Impact source:** ISI **Category:** Immunology

**Impact index in year of publication:** 4.078

**Position of publication:** 44 **No. of journals in the cat.:** 151
- 3 Mario Rodríguez Peña; Saioa Márquez; Olimpio Montero; Sara Alonso; Javier García Frade; Mariano Sánchez Crespo; Nieves Fernández García. Pharmacological inhibition of eicosanoids and platelet-activating factor signaling impairs zymosan-induced release of IL-23 by dendritic cells. Biochemical Pharmacology. 102, pp. 78 - 96. 2016.

**Type of production:** Scientific paper **Format:** Journal

**Impact source:** ISI **Category:** Science Edition - PHARMACOLOGY & PHARMACY

**Impact index in year of publication:** 5.009 **Journal in the top 25%:** Yes

**Position of publication:** 23 **No. of journals in the cat.:** 255
- 4 Mario Rodríguez Peña; Esther Domingo; Cristina Municio; Yolanda Álvarez; Etzel Hugo; Nieves Fernández García; Mariano Sánchez Crespo. Polarization of the Innate Immune Response by Prostaglandin E2: a Puzzle of Receptors and Signals. Molecular Pharmacology. 85 - 1, pp. 187 - 197. 2014.

**Type of production:** Scientific paper **Format:** Journal

**Impact source:** ISI **Category:** Science Edition - PHARMACOLOGY & PHARMACY

**Impact index in year of publication:** 4.128 **Journal in the top 25%:** Yes

**Position of publication:** 38 **No. of journals in the cat.:** 255
- 5 Mario Rodríguez Peña; Esther Domingo; Sara Alonso; Javier García Frade; José Eiros; Mariano Sánchez Crespo; Nieves Fernández García. The unfolded protein response and the phosphorylations of activating transcription factor 2 in the trans-activation of il23a produced by beta-glucans. Journal of Biological Chemistry. 289 - 33, pp. 22942 - 22957. 2014.

**Type of production:** Scientific paper **Format:** Journal

**Impact source:** ISI **Category:** Science Edition - BIOCHEMISTRY & MOLECULAR BIOLOGY

**Impact index in year of publication:** 4.573 **Journal in the top 25%:** Yes

**Position of publication:** 61

**No. of journals in the cat.:** 290

- 6** Cristina Muncio; Yolanda Álvarez; Olimpio Montero; Etzel Hugo; Mario Rodríguez Peña; Sara Alonso; Nieves Fernández García; Mariano Sánchez Crespo. The response of human macrophages to beta-glucans depends on the inflammatory milieu. PLOS One. 8 - 4, pp. e62016. 2013.

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - MULTIDISCIPLINARY SCIENCES

**Impact index in year of publication:** 3.234

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

**Position of publication:** 9

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

- 7** Yolanda Álvarez; Mario Rodríguez Peña; Cristina Muncio; Etzel Hugo; Sara Alonso; Nieves Ibarrola; Nieves Fernández García; Mariano Sánchez Crespo. Sirtuin 1 is a key regulator of the IL-12 p70/IL-23 balance in human dendritic cells. Journal of Biological Chemistry. 287, pp. 35689 - 35701. 2012.

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

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

**Impact index in year of publication:** 4.573

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

**Position of publication:** 61

**No. of journals in the cat.:** 290

- 8** Yolanda Álvarez; Isela Valera; Cristina Muncio; Etzel Hugo; Francisco Padrón; Lydia Blanco; Mario Rodríguez Peña; Nieves Fernández García; Mariano Sánchez Crespo. Eicosanoids in the Innate Immune Response: TLR and non-TLR routes. Mediators of Inflammation. pp. 201929. 2010.

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** Science Edition - IMMUNOLOGY

**Impact index in year of publication:** 3.236

**Position of publication:** 58

**No. of journals in the cat.:** 148

- 9** Mario Rodríguez Peña. Activación de IL23A y represión de IL12A por metabolitos en la respuesta inmune Th17. ProQuest LLC, 2015. ISBN 978-1339531007

**Type of production:** Scientific book or monograph

**Format:** Book

**Degree of contribution:** Author or co-author of entire book

**Corresponding author:** Yes

## Works submitted to national or international conferences

- 1** **Title of the work:** Interacciones Parásito-Hospedador en la Fasciolosis: Modulación de la Ruta del IFN $\beta$  en Fases Tempranas de la Infección

**Name of the conference:** 44º Congreso SEBBM

**Type of event:** Conference

**Geographical area:** National

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

**Reasons for participation:** Review before acceptance

**City of event:** Málaga, Andalusia, Spain

**Date of event:** 06/09/2022

**End date:** 09/09/2022

**Organising entity:** Sociedad Española de Bioquímica y Biología Molecular

**Type of entity:** Associations and Groups

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

**Publication in conference proceedings:** Yes





María Campo Celada; David Becerro Recio; Judit Serrat; Marta López García; Iván M. Fernández López; Francisco Colina; Javier Sotillo; Javier González Miguel; Mar Siles Lucas; Mario Rodríguez Peña. (Spain): Available on-line at: <[https://congresos.sebbm.es/malaga2022/wp-content/uploads/Resumenes\\_final\\_3.pdf](https://congresos.sebbm.es/malaga2022/wp-content/uploads/Resumenes_final_3.pdf)>.

- 2** **Title of the work:** Influence of the helminth *Fasciola hepatica* in the in vitro Infection of Mammalian Cells with SARS-COV-2  
**Name of the conference:** XXII Congreso de la Sociedad Española de Parasitología (SocEPa)  
**Type of event:** Conference **Geographical area:** National  
**Type of participation:** 'Participatory - poster' **Reasons for participation:** Review before acceptance  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 05/07/2022  
**End date:** 08/07/2022  
**Organising entity:** Sociedad Española de Parasitología (SocEPa) **Type of entity:** Associations and Groups  
**City organizing entity:** Madrid, Community of Madrid, Spain  
**Type of contribution:** Scientific-technical report  
Judit Serrat; Clara Francés Gómez; Mario Rodríguez Peña; María Campo Celada; María Torres Valle; Rafael Sanjuán; Marta López García; David Becerro Recio; Krystyna Cwiklinski; Javier González Miguel; Ron Geller; Mar Siles Lucas. En: *Parajournal*. 1, pp. 340. Community of Madrid (Spain): 03/07/2022. Available on-line at: <[https://socepa.files.wordpress.com/2022/10/parajournal1\\_2022.pdf](https://socepa.files.wordpress.com/2022/10/parajournal1_2022.pdf)>. ISSN 2951-8741
- 3** **Title of the work:** Lipid mediators elicit the activation of IL23A transcription via ATF2 phosphorylation  
**Name of the conference:** I Congreso Nacional de Jóvenes Investigadores en Biomedicina  
**Type of event:** Conference **Geographical area:** National  
**Type of participation:** 'Participatory - poster'  
**City of event:** Valencia, Valencian Community, Spain  
**Date of event:** 28/11/2016  
**End date:** 29/11/2016  
**Organising entity:** Centro de Investigación Príncipe Felipe **Type of entity:** Foundation  
**City organizing entity:** Valencia, Valencian Community, Spain  
Mario Rodríguez Peña; Saioa Márquez; Sara Alonso; Olimpio Montero; Nieves Fernández García; Mariano Sánchez Crespo. Available on-line at: <[https://www.researchgate.net/publication/310610570\\_Lipid\\_mediators\\_elicit\\_the\\_activation\\_of\\_IL23A\\_transcription\\_via\\_ATF2\\_phosphorylation](https://www.researchgate.net/publication/310610570_Lipid_mediators_elicit_the_activation_of_IL23A_transcription_via_ATF2_phosphorylation)>.
- 4** **Title of the work:** Autocrine leukotrienes and platelet-activating factor (1-alkyl-2-acetyl-sn-glycero-3-phosphocholine) underlie the cytokine signature induced by fungal patterns in monocyte-derived dendritic cells  
**Name of the conference:** Innate Immune Memory  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** 'Participatory - poster'  
**City of event:** Hinxton, Cambridgeshire, East Anglia, United Kingdom  
**Date of event:** 18/03/2015  
**End date:** 20/03/2015  
**Organising entity:** Wellcome Trust  
**City organizing entity:** Londres, Inner London, United Kingdom  
Mariano Sánchez Crespo; Mario Rodríguez Peña; Olimpio Montero; Saioa Márquez; Sara Alonso; Nieves Fernández.



**5 Title of the work:** The unfolded protein response and phosphorylation of ATF2 in the trans-activation of il23a

**Name of the conference:** 3rd Madrid Meeting on Dendritic cells and Macrophages

**Type of event:** Conference

**Geographical area:** National

**Type of participation:** Participatory - invited/keynote talk

**Reasons for participation:** Upon invitation

**City of event:** Madrid, Community of Madrid, Spain

**Date of event:** 28/04/2014

**End date:** 29/04/2014

**Organising entity:** Consejo Superior de Investigaciones Científicas

**Type of entity:** State agency

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

Mario Rodríguez Peña. Available on-line at: <[https://www.researchgate.net/publication/267510740\\_The\\_unfolded\\_protein\\_response\\_and\\_phosphorylation\\_of\\_ATF2\\_in\\_the\\_trans-activation\\_of\\_il23a](https://www.researchgate.net/publication/267510740_The_unfolded_protein_response_and_phosphorylation_of_ATF2_in_the_trans-activation_of_il23a)>.

**6 Title of the work:** La fosforilación complementaria de ATF2 transactiva il23a

**Name of the conference:** XXXVI Congreso de la SEBBM

**Type of event:** Conference

**Geographical area:** National

**Type of participation:** Participatory - poster

**Reasons for participation:** Review before acceptance

**City of event:** Madrid, Community of Madrid, Spain

**Date of event:** 03/09/2013

**End date:** 06/09/2013

**Organising entity:** Sociedad Española de Bioquímica y Biología Molecular

**Type of entity:** Associations and Groups

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

**Publication in conference proceedings:** Yes

Mario Rodríguez Peña; Esther Domingo; Sara Alonso; Saioa Márquez; Mariano Sánchez Crespo; Nieves Fernández. Community of Madrid (Spain): 04/09/2013. Available on-line at: <[www.sebbm.com/xxxvicongreso/img/QR/5292print\\_MARIO\\_RODRIGUEZ\\_PENA.pdf](http://www.sebbm.com/xxxvicongreso/img/QR/5292print_MARIO_RODRIGUEZ_PENA.pdf)>.

## R&D management and participation in scientific committees

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

**Performed tasks:** Revisor de Immunologic Research

**Entity where activity was carried out:** Humana Press (Springer)

**City of entity:** United States of America

**Type of activity:** Review of articles in scientific or technological journals

**Start date:** 01/06/2016



## Other achievements

### Scientific societies and professional associations

**Name of the society:** Sociedad Española de Bioquímica y Biología Molecular (SEBBM)

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

**Start date:** 31/08/2016