- CURRICULUM VITAE-

Names: Adrián Mario
Surname: Ramos
Workplace: Nephrology and Hypertension Laboratory, Fundación Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD)
Lab website: http://www.cifra2-cm.com/index.php/grupo-fjd/

Academic qualifications

Degree: Biochemist (Faculty of Chemical Sciences, National University of Córdoba, Argentina).
Doctorate (PhD): Doctorate in Chemical Sciences (Faculty of Chemical Sciences, Córdoba National University, Argentina).

Professional situation

Professional category: Researcher of the IIS-FJD - Associated Researcher of the Nephrology and Hypertension Laboratory.
Current position: Principal Investigator - Group Leader.

Previous positions and activities

- Researcher of the Miguel Servet 1 and 2 Scientific Programs (Instituto de Salud Carlos iii, Ministry of Science, Innovation and University, Spain)
- Posdoctoral researcher of the "Consorcio de Investigación del Fracaso Renal Agudo de la Comunidad de Madrid (CIFRA)".
- Posdoctoral Researcher ascribed to a research project (Centro de Investigaciones Biológicas (CIB, CSIC, Spain).
- Postdoctoral stay: Postdoctoral fellow of the Fundación Carolina at the Laboratory of Antitumor Drugs, Centro de Investigaciones Biológicas, CSIC, Spain.
- Posdoctoral researcher (Clinical Biochemistry Department, Faculty of Chemical Sciences, Córdoba National University, Argentina).
- Predoctoral fellow of the "Consejo de Investigaciones de la Provincia de Córdoba" (CONICOR) at the Clinical Biochemistry Department, Faculty of Chemical Sciences, Córdoba National University, Argentina.
- Postgraduate fellow of the Asociación de Bioquímicos de Córdoba at the Clinical Biochemistry Department, Faculty of Chemical Sciences, Córdoba National University, Argentina.
- Biochemist of the Central Laboratory at the Hospital Córdoba, Córdoba, Argentina.
- Resident Biochemist at the Central Laboratory, Hospital Córdoba, Córdoba, Argentina (elected by public merit competition, Ministerio de Salud de la Provincia de Córdoba, Argentina).

R&D projects funded through competitive calls of public national or international/european entities

1) Type of participation: Principal Investigator

1.1- ID Number: PI18/01133

Name of the project: "Expression analysis and role of the interferon pathway in the acute and progressive renal damage".
Funding entity: Fondo de Investigación Sanitaria (FIS) – Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Start-End date: 2018-2020 (3 years).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Principal Investigator: Adrián M. Ramos.

1.2- ID Number: PI15/01460

Name of the project: "Role of the chemokine CCL20 in the renal pathogenesis: participation in the evolution from the acute to chronic injury and potential use as therapeutic target and biomarker".
Start-End date: 2016-2018 (3 years).

Funding entity: Fondo de Investigación Sanitaria (FIS) –Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Principal Investigator: Adrián M. Ramos.

1.3- ID Number: PI11/02242
Name of the project: "Use of polymeric nanomedicines in the treatment of acute and chronic renal damage by calcineurin inhibitors and bacterial toxins".
Start-End date: 2012-2014 (3 years).
Funding entity: Fondo de Investigación Sanitaria (FIS) –Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Principal Investigator: Adrián M. Ramos.

1.4- ID Number: PI08/1083
Name of the project: "Relationships between apoptosis, transdiferentiation and inflammation in the kidney injury: therapeutical intervention".
Start-End date: 2009-2011 (3 years).
Funding entity: Fondo de Investigación Sanitaria (FIS) –Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Principal Investigator: Adrián M. Ramos.

1.5- ID Number: CP07/0020
Name of the project: "Strategies of prevention and regression of the nephrotoxicity produced by drugs of clinical interest".
Start-End date: 2007-2010 (3 years).
Funding entity: Fondo de Investigación Sanitaria (FIS) –Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Principal Investigator: Adrián M. Ramos.

2) Type of participation: Associated Researcher in Thematic Networks

2.1- ID Number: B2017/BMD-3686
Name of the project: "CIFRA2-CM. Consorcio para la investigación del fracaso renal agudo. Fisiopatología, nuevas terapias, biomarcadores y modelos experimentales".
Start-End date: 2017-2021 (5 years).
Funding entity: Consejería de educación, juventud y deportes, Comunidad Autónoma de Madrid.
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Coordinator: Lisardo Boscá Gomar
Responsible IIS-FJD node: Dr Alberto Ortiz Arduan

2.2- ID Number: RD06-0016-0003/RD12-0021-0001/RD16-0009-0001
Name of the project: Redinren. Red de Investigación Renal.
Start-End date: 2006-2012/2013-2016/2017-2021.
Funding entity: Fondo de Investigación Sanitaria (FIS) – Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).
Coordinator: Dr Alberto Ortiz Arduan
Responsible IIS-FJD node: Dr Alberto Ortiz Arduan

3) Type of participation: Associated Researcher in International Thematic Networks and Projects

3.1- ID Number: ERAPERMED2018-142

Name of the project: KIDNEY ATTACK. Multidimensional stratification for treatment of acute kidney injury.
Start-End date: 2019-2021 (3 years)
Funding entity: ERA-Net, ERA-PerMed
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).

3.2- ID Number: FP7-PEOPLE-2013-ITN – 608332
Name of the project: "Clinical and system –omics for the identification of the MOlecular DEterminants of established Chronic Kidney Disease (iMODE-CKD)"
Start-End date: 2013-2017 (5 years)
Funding entity: European Union
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).

3.3- ID Number: FP7-HEALTH.2011.2.4.3-1 PRIORITY Project number279277
Name of the project: "Proteomic prediction and Raas Inhibition prevention Of early diabetic nephRopathy In TYpe 2 diabetic patients with normoalbuminuria (PRIORITY)"
Start-End date: 2012-2017 (6 years)
Funding entity: European Union
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).

3.4- ID Number: PIE13/00051
Name of the project: "DiabetesCancerConnect:Targeting common inflammatory markers and signaling pathways in diabetes mellitus and cancer"
Start-End date: 2014-2016 (3 years)
Funding entity: Fondo de Investigación Sanitaria (FIS) – Instituto de Salud Carlos iii (Ministerio de Ciencia, Innovación y Universidades de España).
Entity where project took place: Instituto de Investigación Sanitaria/Fundación Jiménez Díaz (IIS-FJD).

Selected Publications

Responsible or Corresponding Author

1. Effective Nephroprotection Against Acute Kidney Injury with a Star-Shaped Polyglutamate-Curcuminoid Conjugate. Córdoba-David G, Duro-Castano A, Castelo-Branco AC, González-Guerrero C, Cannata P, Sanz AB, Vicent MJ, Ortiz A, **Ramos AM**. *Sci Rep 2020 [Epub ahead of print]*.

2. Design and Optimization Strategies for the Development of New Drugs That Treat Chronic Kidney Disease**. Ramos AM**, Fernández-Fernández B , Pérez-Gómez MV, Carriazo Julio SM, Sanchez-Niño MD, Sanz A, Ruiz-Ortega M, Ortiz A**.** *Expert Opin Drug Discov. 2019; 15 (1), 101-115.*

3. CCL20 blockade increases the severity of nephrotoxic folic acid-induced acute kidney injury. González-Guerrero C, Morgado-Pascual JL, Cannata-Ortiz P, Ramos-Barron MA, Gómez-Alamillo C, Arias M, Mezzano S, Egido J, Ruiz-Ortega M, Ortiz A, **Ramos AM**. *J Pathol. 2018;246(2):191-204.*

4. TLR4-mediated inflammation is a key pathogenic event leading to kidney damage and fibrosis in cyclosporine nephrotoxicity. González-Guerrero C, Cannata-Ortiz P, Guerri C, Egido J, Ortiz A, **Ramos AM**. *Arch Toxicol. 2017;91(4):1925-1939.*

5. Calcineurin inhibitors cyclosporine A and tacrolimus induce vascular inflammation and endothelial activation through TLR4 signaling. Rodrigues-Diez R, González-Guerrero C, Ocaña-Salceda C, Rodrigues-Diez RR, Egido J, Ortiz A, Ruiz-Ortega M, **Ramos AM**. *Sci Rep. 2016;6:27915.*

6. TNF-related weak inducer of apoptosis (TWEAK) regulates junctional proteins in tubular epithelial cells via canonical NF-κB pathway and ERK activation. Berzal S, González-Guerrero C, Rayego-Mateos S, Ucero Á, Ocaña-Salceda C, Egido J, Ortiz A, Ruiz-Ortega M, **Ramos AM**. *J Cell Physiol. 2015;230(7):1580-93.*

7. Designing drugs that combat kidney damage. **Ramos AM**, González-Guerrero C, Sanz A, Sanchez-Niño MD, Rodríguez-Osorio L, Martín-Cleary C, Fernández-Fernández B, Ruiz-Ortega M, Ortiz A. *Expert Opin Drug Discov. 2015;10(5):541-56.*

8. Tumor necrosis factor-like weak inducer of apoptosis (TWEAK) and kidney disease. Ruiz-Ortega M, Ortiz A, **Ramos AM**. *Curr Opin Nephrol Hypertens. 2014;23(1):93-100.*

9. Calcineurin inhibitors recruit protein kinases JAK2 and JNK, TLR signaling and the UPR to activate NF-κB-mediated inflammatory responses in kidney tubular cells. González-Guerrero C, Ocaña-Salceda C, Berzal S, Carrasco S, Fernández-Fernández B, Cannata-Ortiz P, Egido J, Ortiz A, **Ramos AM**. *Toxicol Appl Pharmacol. 2013;272(3):825-41.*

10. Progress in the development of animal models of acute kidney injury and its impact on drug discovery. Sanz AB, Sanchez-Niño MD, Martín-Cleary C, Ortiz A, **Ramos AM**. *Expert Opin Drug Discov. 2013 ;8(7):879-95.*

11. A polymeric nanomedicine diminishes inflammatory events in renal tubular cells. Ucero AC, Berzal S, Ocaña-Salceda C, Sancho M, Orzáez M, Messeguer A, Ruiz-Ortega M, Egido J, Vicent MJ, Ortiz A, **Ramos AM**. *PLoS One. 2013;8(1):e51992.*

12. GSK3, snail, and adhesion molecule regulation by cyclosporine A in renal tubular cells. Berzal S, Alique M, Ruiz-Ortega M, Egido J, Ortiz A, **Ramos AM**. *Toxicol Sci. 2012;127(2):425-37.*

Others

1. Interleukin 17A Participates in Renal Inflammation Associated to Experimental and Human Hypertension. Orejudo M, Rodrigues-Diez RR, Rodrigues-Diez R, Garcia-Redondo A, Santos-Sánchez L, Rández-Garbayo J, Cannata-Ortiz P, **Ramos AM**, Ortiz A, Selgas R, Mezzano S, Lavoz C, Ruiz-Ortega M. Front Pharmacol, 10, 1015 2019 Sep 13 eCollection 2019.

2. Advances in understanding the role of angiotensin-regulated proteins in kidney diseases. Sanz AB, **Ramos AM**, Soler MJ, Sanchez-Niño MD, Fernandez-Fernandez B, Perez-Gomez MV, Ortega MR, Alvarez-Llamas G, Ortiz A. *Expert Rev Proteomics. 2018;*16 (1), 77-92.

3. Cell death-based approaches in treatment of the urinary tract-associated diseases: a fight for survival in the killing fields. Martin-Sanchez D, Fontecha-Barriuso M, Sanchez-Niño MD, **Ramos AM**, Cabello R, Gonzalez-Enguita C, Linkermann A, Sanz AB, Ortiz A. *Cell Death Dis. 2018, 25;9(2):118*.

4. Lesinurad: what the nephrologist should know. Sanchez-Niño MD, Zheng-Lin B, Valiño-Rivas L, Sanz AB, **Ramos AM**, Luño J, Goicoechea M, Ortiz A. *Clin Kidney J. 2017;10(5):679-687.*

5. Translational science in chronic kidney disease. Sanchez-Niño MD, Sanz AB, **Ramos AM**, Ruiz-Ortega M, Ortiz A. *Clin Sci (Lond). 2017;131(14):1617-1629.*

6. Clinical proteomics in kidney disease as an exponential technology: heading towards the disruptive phase. Sanchez-Niño MD, Sanz AB, **Ramos AM**, Fernandez-Fernandez B, Ortiz A. *Clin Kidney J. 2017;10(2):188-191.*

7. Inflammatory Cytokines as Uremic Toxins: "Ni Son Todos Los Que Estan, Ni Estan Todos Los Que Son". Castillo-Rodríguez E, Pizarro-Sánchez S, Sanz AB, **Ramos AM**, Sanchez-Niño MD, Martin-Cleary C, Fernandez-Fernandez B, Ortiz A. *Toxins (Basel). 2017 Mar 23;9(4).*

8. Downregulation of kidney protective factors by inflammation: role of transcription factors and epigenetic mechanisms. Ruiz-Andres O, Sanchez-Niño MD, Moreno JA, Ruiz-Ortega M, **Ramos AM**, Sanz AB, Ortiz A. *Am J Physiol Renal Physiol. 2016;311(6):F1329-F1340.*

9. Out of the TWEAKlight: Elucidating the Role of Fn14 and TWEAK in Acute Kidney Injury. Sanz AB, Ruiz-Andres O, Sanchez-Niño MD, Ruiz-Ortega M, Ramos AM, Ortiz A.Semin Nephrol. 2016 May;36(3):189-98

10. TWEAK and the progression of renal disease: clinical translation. Sanz AB, Izquierdo MC, Sanchez-Niño MD, Ucero AC, Egido J, Ruiz-Ortega M, **Ramos AM**, Putterman C, Ortiz A. *Nephrol Dial Transplant. 2014;29 Suppl 1:i54-i62.*

11. Unilateral ureteral obstruction: beyond obstruction. Ucero AC, Benito-Martin A, Izquierdo MC, Sanchez-Niño MD, Sanz AB, **Ramos AM**, Berzal S, Ruiz-Ortega M, Egido J, Ortiz A. *Int Urol Nephrol. 2014;46(4):765-76.*

12. TWEAK transactivation of the epidermal growth factor receptor mediates renal inflammation. Rayego-Mateos S, Morgado-Pascual JL, Sanz AB, **Ramos AM**, Eguchi S, Batlle D, Pato J, Keri G, Egido J, Ortiz A, Ruiz-Ortega M. *J Pathol. 2013;231(4):480-94.*

Complete publications record
Available at ResearchID (http://www.researcherid.com)

Teaching experience

1) Direction of doctoral thesis

1.1- Title of the thesis: "Nuevas dianas moleculares de la inflamación en modelos de daño renal. Estrategias de intervención terapéutica".
Obtained qualification: Sobresaliente *Cum Laude.* 2018 Best Thesis Award (IIS-FJD)
Student: Cristian González Guerrero
Universtity: Universidad Autónoma de Madrid (UAM)
Date: 03/02/2017
Thesis Director: Dr Adrián M. Ramos

1.2- Title of the thesis: "Identificación de nuevos mecanismos patogénicos de la inflamación renal por inhibidores de calcineurina".
Obtained qualification: Sobresaliente *Cum Laude*
Student: Carlos Ocaña Salceda
Universtity: Universidad Autónoma de Madrid (UAM)
Date: 12/06/2015
Thesis Director: Dr Adrián M. Ramos

1.3- Title of the thesis: "Mecanismos reguladores de la apoptosis, inflamación y de la transición epitelio-mesénquima: intervención terapéutica en la enfermedad renal experimental"
Obtained qualification: Sobresaliente *Cum Laude.* 2015 Best Thesis Award (IIS-FJD)
Student: Sergio Berzal Gómez
Universtity: Universidad Autónoma de Madrid (UAM)
Date: 19/09/2014
Thesis Director: Dr Adrián M. Ramos

1.4- Title of the thesis: "Role of the interferon pathway in the acute kidney injury".
Obtained qualification: Ongoing
Student: Gina Marcela Córdoba David
Universtity: Universidad Autónoma de Madrid (UAM)
Thesis Director: Dr Adrián M. Ramos

1.5- Title of the thesis: "Role of the interferon pathway in the acute kidney injury".
Obtained qualification: Ongoing
Student: Jorge García Giménez
Universtity: Universidad Autónoma de Madrid (UAM)
Thesis Director: Dr Adrián M. Ramos

General teaching experience

1) Direction of Master Final Projects

1.1. Title: "Role of CCL20 in kidney pathology: participation in the acute kidney injury to chronic kidney disease transition and potential utility as therapeutic target and progression biomarker".
Student: Rubén Sánchez Mayoral

Institution: Universidad Carlos III de Madrid (UC3M)
Supervisor: Dr Adrián M. Ramos

1.2- Title: "Proinflammatory effects of calcineurin inhibitors in pancreatic β cells as mechanism leading to new-onset diabetes after transplantation (NODAT)".
Student: Sara Rodríguez Sánchez
Institution: Universidad Autónoma de Madrid (UAM)
Supervisor: Dr Adrián M. Ramos

1.3- Title: "Evaluación de los niveles sistémicos y urinarios de CCL20 en la enfermedad renal crónica humana".
Student: Diego García Ayuso
Institution: Universidad de Alcalá
Supervisor: Dr Adrián M. Ramos

1.4- Title: "Identification of molecular mechanisms of the innate immunity as potential pharmacological target in acute and progressive kidney injury".
Student: Laura Sánchez Flores
Institution: Universidad Autónoma de Madrid (UAM)
Supervisor: Dr Adrián M. Ramos

2) Supervision of Visiting Students
2.1- Title: "Role of Alamendine/MrgD interaction in acute kidney injury".
Postodoctoral Researcher: Regiane Cardoso Castelo Branco
Institution: Scholarship of Internship and Research in a Foreign Country (BEPE), FAPESP, Brazil
Supervisor: Dr Adrián M. Ramos

2.2-Urdergraduate Student: Naoli García Gálvez (Programa Delfín)
Universtity: Escuela Superior de Medicina, IPN, México
Supervisor: Dr Adrián M. Ramos
2.3- Title: "Modulation of the reticulum stress response by a natural extract derived from *Limonium duriusculum* during nephrotoxicity induced by CsA in renal tubular cells".
PhD Student: Azzeddine Redouane Salah
Universtity: Université Frères Mentour,Constantine, Algéria
Supervisor: Dr Adrián M. Ramos

2.4- Postgraduate Student: Raquel Sánchez Baltasar
Supervisor: Dr Adrián M. Ramos

3) University teaching
Position: Graduate teaching assistant-Head of laboratory practical works.
Workplace: Departamento de Bioquímica Clínica, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Argentina.
Length of service: 01/04/1991-22/08/2002 (10 years, 11 months)

Summary of the curriculum

University degree in Biochemistry (Clinical Chemistry orientation) and PhD degree in Chemical Sciences in the Chemical Sciences Faculty of the Córdoba National University (Argentina). Teaching assignments in the Department of Clinical Biochemist (Chemical Sciences Faculty of the Córdoba National University) for more than 10 years. Five years of experience in the clinical field, as Resident Biochemist based on merit and Head of Laboratory Section in the clinical laboratory of a high complexity regional hospital. Postdoctoral stay in the Laboratory of Antitumoral Drugs of the Centro de Investigaciones Biológicas (CIB), CSIC, Madrid, under the direction of Dr Patricio Aller (PhD) developing studies that contributed to understand mechanisms of apoptosis triggered by arsenic trioxide in myeloid cells. (Blood. 2005; 15;105:4013-20 and many others). Associated postdoctoral researcher of the thematic network consortium for the study of the acute kidney injury (CIFRA) in the research group of Dr Alberto Ortiz Arduan (Md, PhD) (1st-rated Spanish nephrologist according to MedScape) of the IIS-FJD in

Madrid to address the study of renal pathology (2007). Admission by public competition to the prestigious scientific program Miguel Servet of the ISC*iii* (2008-20015) and then incorporated into the research staff of the IIS-FJD as a group leader currently working at the Nephrology and Hypertension Laboratory. The main research interest is focused on the study of inflammatory and innate immunity pathophysiological mechanisms involved in acute and progressive kidney injury. Active research lines: i) Experimental renoprotection therapies with new or repurposed drugs; ii) Mechanisms of nephrotoxicity of current immunosuppressants used in organ transplant; iii) Autoinflammation in the course of acute and progressive kidney injury. Main scientific contributions in the renal pathology field: description of novel mechanisms and molecular targets of: i) calcineurin inhibitors (Toxicol Sci**.** 2012;127:425-37; Toxicol Appl Pharmacol. 2013;272:825-41; Sci Rep. 2016 13;6:27915;Arch Toxicol. 2017;91:1925-1939), ii) cytokines Tweak and CCL20 (J. Cell Physiol. 2015;230:1580-93; J. Pathol. 246(2):191-204) and iii) experimental nanomedicines used in nephroprotection (PLoSOne. 2013;8:e51992; Sci Rep 2020). The research group has been receiving continued financial support from relevant national (5 funded projects as Principal Investigator) and international scientific bodies. Participation as researcher of local and national cooperative research networks (CIFRA2 and RedinRen). Human resources formation: direction of 4 finished and 2 ongoing doctoral thesis and numerous master thesis.