

Fecha del CVA
31/07/2025
Parte A. DATOS PERSONALES

Nombre *	Iryna		
Apellidos *	Rusanova Rusanova		
Sexo *	Mujer	Fecha de Nacimiento *	
DNI/NIE/Pasaporte *		Teléfono *	
URL Web			
Dirección Email			
Identificador científico	Open Researcher and Contributor ID (ORCID) *		
	Researcher ID		
	Scopus Author ID		

* Obligatorio

A.1. Situación profesional actual

Puesto	Associate Professor (Profesora Titular)		
Fecha inicio	2023		
Organismo / Institución	University of Granada		
Departamento / Centro	Biochemistry and Molecular Biology I / Faculty of Science		
País	España	Teléfono	
Palabras clave	Mecanismos moleculares de enfermedad; Biología humana; Biología molecular		

A.2. Situación profesional anterior

Periodo	Puesto / Institución / País
2020 - 2022	Professor Assistant Doctor / University of Granada / España
2018 - 2020	Substitute Professor / University of Granada / España
2017 - 2018	Postdoctoral Researcher in Experimental Sciences / Ministry of Economy, Industry and Competitiveness, CIBERFES / España
2013 - 2017	Postdoctoral Researcher for the RETICEF / Ministry of Science and Innovation, Carlos III Institute of Health (RETICS 2012). Referencia RD12/0043/0005 / España

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Doctor in Biotechnology	University of Granada / España	2010
Máster Degree in Biotechnology	University of Granada / España	2008
Diploma of update in Human Genetics	University of Panama / Panamá	2002
Degree in Superior Teaching	Universidad Especializada de Las Américas / Panamá	2000
Bachelor's degree in Medical Biochemistry	Russian State University of Medicine / Rusia	1993

A.4. Indicadores generales de calidad de la producción científica

Número de sexenios de investigación: 2; Número de quinquenios de docencia: 2.

Publicaciones: 36,

Index-h: 17 (Web of Science), h-18 (Scopus),

Total of cites: 738 (Web of Science), 908 (Scopus)

Artículos en Q1: 21.

Parte B. RESUMEN LIBRE DEL CURRÍCULUM

I am an Associate (Titular) Professor at the University of Granada in the Department of Biochemistry and Molecular Biology I, where currently teaching Biochemistry and Metabolism Courses in the Chemistry and Biology Degrees. From 2020 to 2022, I worked as Assistant Professor. Teaching activity I began at the University of Panama, where I lived from 1994 to 2007, and worked as an Assistant Professor and Director of the Biomedical Department from 2002 to 2007. In 2007 I got awarded a State Researcher Fellowship from the National Secretariat of Science, Technology, and Innovation for my Doctoral Study in Spain. Also, in 2007 I got funds from the Government of the Republic of Panama for my first research project, FID08-124. This project was part of my doctoral work, completed in the research group CTS-101: Intercellular Communication under the direction of Prof. Darío Acuña-Castroviejo and Prof. Germaine Escames. In 2010 I obtained the title of Doctor in Biotechnology from the University of Granada, with the qualification of Cum Laude. During the postdoctoral period, I gained experience participating in the International Project with European Funds, which focused on nutrition and obesity metabolism. Since 2012 I have developed my research activity in the CTS-101 group, participating in a number of national and international research projects related to chronic inflammation and mitochondrial dysfunction, aging, sarcopenia, and frailty. The main research issues concern the epigenetic mechanisms of aging-related diseases and the studies of the antioxidant and anti-inflammatory role of melatonin, as well as anti-cancer property of melatonin. I have great coordination skills and extensive experience in the management of techniques that allow the analysis of molecular markers of oxidative stress and inflammation, molecular biology techniques, and HPLC.

I am a member of the CIBER for Frailty and Healthy Aging (CIBERfes), and of the Biotechnology Institute of the University of Granada. In 2020 I began a new research line in the group, focused on the study of endothelial dysfunction in diabetes type 2. Up to 2020, I couldn't apply for state Calls for funds. Nevertheless, I have applied for local financial Calls, and I have been the principal researcher of the project on the study of microRNAs in human serum as predictors and markers of aging and frailty in humans (CeBioTic 2014), one project from a Fund from the Own Plan of the University of Granada for the study of circulating microRNAs expression and markers of oxidative stress in the Mexican population; as well as I obtained the fund in a national competitive call from the private Foundation Rodriguez Pascual. I have a project with FEDER funds and a pre-competitive project financed by the University of Granada. Currently, I am directing two Ph.D. students' theses and three Master's theses (TFMs). Additionally, I have tutored 8 final grade works (TFG). My scientific background includes 36 scientific articles (21 in Q1), co-author and co-editor of three books, and various communications at national and international conferences.

Parte C. MÉRITOS MÁS RELEVANTES

C.1. Publicaciones

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

- 1 **Artículo científico.** Matilde Sbriscia; Dalila Colombaretti; Angelica Giuliani; et al; Jacopo Sabbatinelli; (6/9) Iryna Rusanova. 2025. Triglyceride glucose index predicts long-term mortality and major adverse cardiovascular events in patients with type 2 diabetes. Cardiovascular Diabetology. BMC. 24-1, pp.1-21. <https://doi.org/10.1186/s12933-025-02671-2>

- 2 **Artículo científico.** Laura Martínez Ruiz; Javier Florido; Cesar Rodriguez Santana; et al; Germaine Escames; (15/18) Iryna Rusanova. 2023. Intratumoral injection of melatonin enhances tumor regression in cell line-derived and patient-derived xenografts of head and neck cancer by increasing mitochondrial oxidative stress. *Biomedicine & Pharmacotherapy*. Elsevier France-Editions Scientifiques Medicales Elsevier. 167-115518, pp.1-14. ISSN 0753-3322. <https://doi.org/10.1016/j.biopha.2023.115518>
- 3 **Artículo científico.** Paula Aranda Martínez; José Fernandez Martinez; Yolanda Ramírez Casas; César Rodríguez Santana; (5/7) Iryna Rusanova; Germaine Escames; Darío Acuña Castroviejo. 2023. Chronodisruption and Loss of Melatonin Rhythm, Associated with Alterations in Daily Motor Activity and Mitochondrial Dynamics in Parkinsonian Zebrafish, Are corrected by Melatonin Treatment. *Antioxidants (Basel)*. Basel, Switzerland. 12-954, pp.1-15. ISSN 2076-3921. <https://doi.org/10.3390/antiox12040954>
- 4 **Artículo científico.** Gabriela C. López-Armas; Arailym Yessenbekova; Rocío E. González-Castañeda; et al; (10/10) Iryna Rusanova (AC). 2022. Role of c-miR-21, c-miR-126, Redox Status, and Inflammatory Conditions as Potential Predictors of Vascular Damage in T2DM Patients. *Antioxidants (Basel)*. MDPI- Multidisciplinary Digital Publishing Institute. 11-9, pp.1-20. <https://doi.org/10.3390/antiox11091675>
- 5 **Artículo científico.** Marisol Fernández-Ortiz; Ramy K.A. Sayed; Yolanda Romás-Montoya; et al; Darío Acuña-Castroviejo; (8/10) Iryna Rusanova. 2022. Age and Chronodisruption in Mouse Heart: Effect of the NLRP3 Inflammasome and Melatonin Therapy. *International Journal of Molecular Science*. MDPI- Multidisciplinary Digital Publishing Institute. 23-12, pp.1-20. ISSN 1422-0067. <https://doi.org/doi:10.3390/ijms23126846>
- 6 **Artículo científico.** Ramy Sayed; Marisol Fernández-Ortiz; Ibtissem Rahim; et al; Darío Acuña Castroviejo; (6/10) Iryna Rusanova. 2021. The Impact of Melatonin Supplementation and NLRP3 Inflammasome Deletion on Age-Accompanied Cardiac Damage. *Antioxidants (Basel)*. Multidisciplinary Digital Publishing Institute. 10-8, pp.1-21. ISSN 2076-3921. <https://doi.org/10.3390/antiox10081269>
- 7 **Artículo científico.** Ana Guerra-Librero; Beatriz Fernández-Gil; Javier Florido; et al; Germaine Escames; (9/14) Iryna Rusanova. 2021. Melatonin Targets Metabolism in Head and Neck Cancer Cells by Regulating Mitochondrial Structure and Function. *Antioxidants (Basel)*. Multidisciplinary Digital Publishing Institute. 10-4, pp.1-20. ISSN 2076-3921. <https://doi.org/10.3390/antiox10040603>
- 8 **Artículo científico.** Ramy Ka Sayed; Marisol Fernandez-Ortiz; José Fernandez-Martínez; et al; (10/10) Iryna Rusanova (AC). 2021. The Impact of Melatonin and NLRP3 Inflammasome on the Expression of microRNAs in Aged Muscle. *Antioxidants (Basel)*. Multidisciplinary Digital Publishing Institute. 10-4, pp.1-19. ISSN 2076-3921. <https://doi.org/10.3390/antiox10040524>
- 9 **Artículo científico.** Ibtissem Rahim; Ramy Sayed; Marisol Fernández-Ortiz; et al; Darío Acuña-Castroviejo; (7/10) Iryna Rusanova. 2020. Melatonin alleviates sepsis-induced heart injury through activating the Nrf2 pathway and inhibiting the NLRP3 inflammasome. *Naunyn-Schmiedeberg's Archives of Pharmacology*. German Society of Experimental and Clinical Pharmacology and Toxicology. 394-2, pp.261-277. <https://doi.org/10.1007/s00210-020-01972-5>
- 10 **Artículo científico.** Acuña-Fernández C; Marín JS; Díaz-Casado ME; (4/8) Rusanova I; Darias-Delbey B; Pérez-Guillama L; Florido-Ruiz J; Acuña-Castroviejo D. 2020. DAILY CHANGES IN THE EXPRESSION OF CLOCK GENES IN SEPSIS AND THEIR RELATION WITH SEPSIS OUTCOME AND URINARY EXCRETION OF 6-SULFATOXIMELATONIN. *SHOCK*. LIPPINCOTT WILLIAMS & WILKINS. 53-5, pp.550-559. ISSN 1073-2322. <https://doi.org/10.1097/SHK.0000000000001433>
- 11 **Artículo científico.** (1/7) Rusanova I; Martínez-Ruiz L; Florido J; Rodríguez-Santana C; Guerra-Librero A; Acuña-Castroviejo D; Escames G. 2019. Protective Effects of Melatonin on the Skin: Future Perspectives. *International Journal of Molecular Science*. Multidisciplinary Digital Publishing Institute. 20-19, pp.1-17. ISSN 1422-0067. <https://doi.org/10.3390/ijms20194948>

- 12 Artículo científico.** (1/8) Rusanova I (AC); Fernández-Martínez J; Fernández-Ortiz M; Aranda-Martínez P; Escames G; García-García FJ; Mañas L; Acuña-Castroviejo D. 2019. Involvement of plasma miRNAs, muscle miRNAs and mitochondrial miRNAs in the pathophysiology of frailty. *Experimental Gerontology*. PERGAMON-ELSEVIER SCIENCE LTD. 124-jun 2019, pp.1-11. ISSN 0531-5565. <https://doi.org/10.1016/j.exger.2019.110637>
- 13 Artículo científico.** RKA Sayed; M Fernandez-Ortiz; ME DÍAS-Casado; et al; D Acuña-Castroviejo; (4/9) I RUSANOVA. 2018. The Protective Effect of Melatonin Against Age-Associated Sarcopenia-Dependent Tubular Aggregates Formation, Lactate Depletion and Mitochondrial Changes. *J Gerontol A Biol Sci Med Sci*. OXFORD UNIV PRESS INC. 73-10, pp.1330-1338. ISSN 1079-5006. <https://doi.org/10.1093/gerona/gly059>
- 14 Artículo científico.** (1/9) Iryna Rusanova (AC); María E Diaz-Casado; Marisol Fernandez-Ortiz; et al; Darío Acuña-Castroviejo. 2018. Analysis of Plasma MicroRNAs as Predictors and Biomarkers of Aging and Frailty in Human. *Oxidative Medicine and Cellular Longevity*. Hindawi. e collection-2018. ISSN 1942-0900. <https://doi.org/10.1155/2018/7671850>
- 15 Artículo científico.** Maria Elena Diaz Casado; (2/10) Iryna Rusanova; Paula Aranda; et al; Darío Acuña Castroviejo. 2018. In vivo determination of mitochondrial respiration in MPTP-treated zebrafish reveals the efficacy of melatonin in restoring mitochondrial normalcy. *Zebrafish*. MARY ANN LIEBERT, INC. 15-1, pp.15-26. ISSN 1545-8547. <https://doi.org/10.1089/zeb.2017.1479>
- 16 Artículo científico.** Paola Montes; (2/9) Iryna Rusanova; Paloma García; et al; Darío Acuña-Castroviejo. 2024. Inflammation-miRs Profile in Myelodysplastic Syndrome Patients. *International Journal of Molecular Science*. MDPI. 25-12, pp.1-14. ISSN 1661-6596. <https://doi.org/10.3390/ijms25126784>
- 17 Artículo científico.** Duisenbek A; Avilés Pérez MD; Pérez M; et al; Rusanova I. 2024. Unveiling the Predictive Model for Macrovascular Complications in Type 2 Diabetes Mellitus: microRNAs Expression, Lipid Profile, and Oxidative Stress Markers. *Int J Mol Sci*. MDPI. 25-21, pp.1-23.
- 18 Artículo científico.** Acuña-Castroviejo D.; Venegas C.; Fernández-Órtiz M.; Aranda-Martínez P.; Fernandez-Martinez J.; Rusanova I.; Acuña-Castroviejo D; Escames G. 2018. Pineal versus extrapineal melatonin in aging. *Approaches to Aging Control*. Journal of Spanish Society of Anti-Aging Medicine and Longevity. Evento XXI. 2018-22, pp.22-37.
- 19 Capítulo de libro.** Rocio Gonzalez Castañeda; Gabriela López Armas; (3/4) Iryna Rusanova; Oscar Gonzalez Perez. 2022. Efectos de la pandemia por Covid-19 en el sueño. *NeuroCovid: Efectos de la Covid-19 en el sistema nervioso*. Editorial Universidad de Guadalajara. 1, pp.344-366. ISBN 978-607-571-585-8.
- 20 Revisión bibliográfica.** Ayauly Duisenbek; Gabriela Lopez Armas; Miguel Pérez; et al; (12/12) Iryna Rusanova (AC). 2023. Insights into the Role of Plasmatic and Exosomal microRNAs in Oxidative Stress-Related Metabolic Diseases. *Antioxidants*. Basel, Switzerland. 12-6, pp.1-22. <https://doi.org/10.3390/antiox12061290>
- 21 Revisión bibliográfica.** Javier Florido; César Rodríguez-Santana; Laura Martínez-Ruiz; Alba López-Rodríguez; Darío Acuña-Castroviejo; (6/7) Iryna Rusanova; Germaine Escames. 2022. Understanding the Mechanism of Action of Melatonin, Which Induces ROS Production in Cancer Cells. *Antioxidants (Basel)*. MDPI- Multidisciplinary Digital Publishing Institute. 11-8, pp.1-13. ISSN 2076-3921. <https://doi.org/10.3390/antiox11081621>

C.3. Proyectos y Contratos

- 1 Proyecto.** C-CTS-094-EGR23, Mitocondria y exo-miRNAs, dianas terapéuticas para el tratamiento de la disfunción endotelial en diabetes.. Convocatoria de Proyectos de Investigación Aplicada del Plan Propio de Investigación y Transferencia, financiados por le Programa Operativo FEDER Andalucía 2021-2027. Iryna Rusanova Rusanova. (University of Granada). 15/01/2024-31/12/2026. 10.000 €. Investigador principal.

- 2 **Proyecto.** MT-EXO-DIABET, Evaluación de los microARNs exosomales como marcadores y mediadores de terapia con Melatonina /CoQ10/Ibdenona para la Disfunción Endotelial en Diabetes Mellitus Tipo 2 (MT-EXO-DIABET).. Vicerrectorado de Investigación y Transferencia, Universidad de Granada programa 1 “Proyectos de Investigación Precompetitivos” del Plan Propio de Investigación, 2023. Iryna Rusanova. (University of Granada). 01/01/2024-31/12/2024. 2.500 €. Investigador principal.
- 3 **Proyecto.** Determinación de predictores moleculares del riesgo vascular mediado por la disfunción endotelial en personas con Diabetes Mellitus Tipo 2. FUNDACIÓN EUGENIO RODRIGUEZ PASCUAL. Rusanova 1. (Centro de Investigación Biomédica, Universidad de Granada). 01/01/2022-31/12/2022. 20.000 €. Investigador principal.
- 4 **Proyecto.** LA CONEXIÓN ENTRE GENES RELOJ, MELATONINA Y MITOCONDRIA EN LA SARCOPENIA.. Darío Acuña Castroviejo. (MINISTERIO DE CIENCIA. INNOVACIÓN Y UNIVERSIDADES, INSTITUTO CARLOS). 01/01/2020-30/12/2020. 196.020 €. Miembro de equipo.
- 5 **Proyecto.** Determinación de los MicroRNAs circulantes y el estado Redox como biomarcadores y predictores de la gravedad de Diabetes Mellitus Tipo II en pacientes adultos del estado de Jalisco, México.. Universidad de Granada, Plan Propio. Iryna Rusanova. (Universidad de Granada). 01/12/2019-30/06/2020. 2.000 €. Investigador principal.
- 6 **Proyecto.** NRF2 y defecit de melatonina, la conexión entre cronoinflamación y disfunción mitocondrial durante el envejecimiento y perdida muscular durante el envejecimiento. Ministerio de Sanidad y Consumo. Darío Acuña Castroviejo. (Universidad de Granada). 01/06/2017-31/12/2019. 116.765 €. Miembro de equipo.