CV Date	24/01/2023

Part A. PERSONAL INFORMATION

First Name *	Germaine		
Family Name *	Escames Rosa		
Sex *	Female	Date of Birth *	14/08/1959
ID number Social Security, Passport *	75133944	Phone Number *	(+34) 958241000 - 20363
URL Web	http://www.pharmamel.com		
Email Address	gescames@ugr.es		
Researcher's identification number	Open Researcher and Contributor ID (ORCID) *	0000-0003-1256-7656	
	Researcher ID	N-7501-2016	
	Scopus Author ID	6701603739	

* Mandatory

A.1. Current position

Job Title	Catedrático de Universidad		
Starting date	2016		
Institution	Universidad de Granada		
Department / Centre	Fisiología / Centro de Investigación Biomédica		
Country		Phone Number	
Keywords	Molecular mechanism of disease; Laboratoy animals; Cell culture; Bioenergetics; Cell biology		

A.3. Education

Degree/Master/PhD	University / Country	Year
Doctor en Farmacia	Universidad de Granada	1995
Cursos de Doctorado	Universidad de Granada	1994
Licenciada en Farmacia	Ministerio de Educación y Ciencia	1992

A.4. General quality indicators of scientific production

-Number six-year terms = 4; Last granted in: 2019
-Number of six-year transfer = 1 granted in 2020
-Number of Doctoral Theses supervised in the last 10 years = 29
-Data obtained from the Bibliometrics Unit of the University of Granada through Google Scholar
-Total citations = 13086; in the last 5 years = 5623; total articles in the first quartile (Q1) = 86; h index = 64;
-Position 27 among all UGR researchers according to citations and No. 11 according to h index; in the area of Health Sciences, ranked # 5. -According to the Thomson Reuters Web of Science h-index, my h-index is = 55

Awards

-Award for social involvement in the public universities of Andalusia Research methodology in 2020
-II Granada, City of Science and Innovation Awards: Granada City of Science and Innovation Award for the innovative company 2019
-University of Granada-Caja Rural Granada Knowledge Transfer Awards 2017
-Award from the Social Council to the Research Group CTS-101 "Intercellular Communication" 2016
- OTRI Awards for the best spin off at the UGR 2016

-Granada University Awards for excellence in research work awarded with the 2016 Research and Transfer Award
- Prize II Congress of research students, academy of internal students 2016-University of Granada Award for Scientific Excellence Works 2015

-Premio Universidad de Granada a Trabajos de Excelencia Científica 2015
- Premio en I Congreso de Estudiantes de Investigación Academia de Alumnos Internos por "Melatonin´s oncostatic effect in head and neck cáncer cells: clonogenic assay" 2015
-Primer premio SESVALIA de estética, belleza y prevención del envejecimiento 2006 por el trabajo presentado "Control del estrés oxidativo con el reposo"
- Laboratorios Sesvalia por Control del estrés oxidativo con el reposo, Valencia 2006
- Fundación Hospital Clínico – Premio a la mejor publicación científica 2005
- Universidad de Granada a trabajos de investigación de excelencia 2003
-Premio Fundación Educativa y Científica del Ilustre Colegio Oficial de Médicos de Granada por "El óxido nítrico y el estrés oxidativo del clampaje aórtico" 2003
-Premio Serono a la Investigación de Madrid por trabajo presentado 2002

Part B. CV SUMMARY

Professor at the University of Granada. Director of the Research Group consolidated by the Ministry of Education of the Junta de Andalucía CTS-101: Intercellular Communication. Radioactive Facilities Supervisor. Member of the CIBER for Frailty and Healthy Aging (CIBERfes). I am also a specialist in Clinical Biochemistry. I have developed my research and teaching work for the last 25 years in the Department of Physiology of the Faculty of Medicine of the University of Granada, where it is worth highlighting the studies of the antioxidant role of melatonin and the identification of the mitochondria as the main target of melatonin; its ability to delay aging and neurodegenerative pathologies; its anti-inflammatory activity against the innate immune response, among others. For a few years my activity has focused on the studies of the oncostatic activity of melatonin, and on the adverse effects of radio and chemotherapy. All these studies have been financed with national, regional and local R + D + I projects, as well as different contracts with companies. All the published articles, books and book chapters, as well as the various communications to international and national congresses, and conferences to disseminate the results, have been widely accepted in the scientific community. Through the Fundación Empresa-Universidad we have set up a free radical laboratory in which techniques related to the determination of oxidative stress markers are carried out. We have five international patents on melatonin in the last five years: one of them (number PCT / ES2012 / 070728) has been transferred to a pharmaceutical company. It is a melatonin gel for prevention and cure of mucositis and, currently, a multicenter clinical trial has been completed (EudraCT nº: 2015-001534-13); Two other patents for a melatonin injectable (number = PCT / ES2012 / 070349 and PCT / ES2015 / 070236). With the latter, two phase II clinical trials have been conducted, one in patients with sepsis (EudraCT number: 2008-006782-83) and another in patients with COVID 19 (EudraCT: 2020-001808-42). This patent has been licensed by Spin Off Pharmamel S.L. created by us from the University of Granada. The fourth patent is an international patent (PCT / ES2013 / 070817), also licensed by Pharmamel S.L. This patent consists of a regenerative and anti-aging cream for topical application on the skin and is found in more than 300 points of sale in pharmacies and parapharmacies. I am an Editorial Board and referee for several international magazines. In addition, I maintain collaborations with various Universities: University of San Antonio (Texas, USA) with Professor Russel J Reiter; Pontificia Universidad Católica Argentina, with Prof. Daniel P Cardinali; Institute of Neuroscience of the University of Antioquia (Colombia) with Professor Marlene Jiménez, being Dra Escames international advisor for research projects; Mayo Clinic (USA) with Prof. Quiñones, as well as with various Spanish Universities (Valencia, Oviedo, Complutense Madrid, Zaragoza, Barcelona).

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Publications

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Shao S; Scholtz LU; Gendreizig S; et al; Sudhoff H. 2023. Primary head and neck cancer cell cultures are susceptible to proliferation of Epstein-Barr virus infected lymphocytes BMC Cancer. https://doi.org/10.1186/s12885-022-10481-y

2 **Scientific paper**. Fernandez-Gil BI; Otamendi-Lopez A; Bechtle A; et al; Quiñones-Hinojosa A. 2022. Melatonin Treatment Triggers Metabolic and Intracellular pH Imbalance in Glioblastoma Cells. 11. https://doi.org/10.3390/cells11213467

3 **Scientific paper**. Florido J; Martínez-Ruiz L; Rodríguez-Santana C; et al; Escames G. 2022. Melatonin drives apoptosis in head and neck cancer by increasing mitochondrial ROS generated via reverse electron transport Journal of Pineal Research. 73. https://doi.org/10.1111/jpi.12824

4 **Scientific paper**. González-García P; Díaz-Casado ME; Hidalgo-Gutiérez A; et al; López LC. 2022. The Q-junction and the inflammatory response are critical pathological and therapeutic factors in CoQ deficiency Redox Biology. 55. https://doi.org/10.1016/j.redox.2022.102403

5 **Scientific paper**. Guerra-Librero, A.; Fernandez-Gil. B.I.; Florido, J.; et al; Escames, G. (AC). (14/14). 2021. Melatonin Targets Metabolism in Head and Neck Cancer Cells by Regulating Mitochondrial Structure and Function Antioxidants. MDPI. 10-4, pp.603. ISSN 2076-3921. https://doi.org/10.3390/antiox10040603

6 **Scientific paper**. Lozano, A.; Marruecos, J.; Rubio, J.; et al; Escames, G.; Mesia, R.(12/17). 2021. Randomized placebo-controlled phase II trial of high-dose melatonin mucoadhesive oral gel for the prevention and treatment of oral mucositis in patients with head and neck cancer undergoing radiation therapy concurrent with systemic treatment Clinical & Translational Oncology. SPRINGER INTERNATIONAL PUBLISHING. ISSN 1699-048X. https://doi.org/10.1007/s12094-021-02586-w

7 **Scientific paper**. Rodriguez-Rubio, M.; Figueira, J. C.; Acuña-Castroviejo, D. (AC); Borobia, A.M.; Escames, G.; de la Oliva, P.(3/6). 2020. A phase II, single-center, double-blind, randomized placebo-controlled trial to explore the efficacy and safety of intravenous melatonin in patients with COVID-19 admitted to the intensive care unit (MelCOVID study): a structured summary of a study protocol for a randomized controlled trial Trials. BMC, CAMPUS, 4 CRINAN ST, LONDON N1 9XW, ENGLAND. 21-1, pp.699. ISSN 1745-6215. WOS (1) https://doi.org/10.1186/s13063-020-04632-4

8 **Scientific paper**. Acuña-Castroviejo, D.; Escames, G.; Figueira, J. C.; de la Oliva, P.; Borobia, A M.; Acuña-Fernandez, C.(2/6). 2020. Clinical trial to test the efficacy of melatonin in COVID-19 Journal of Pienal Research. WILEY, 111 RIVER ST, HOBOKEN 07030-5774, NJ USA. 69-3, pp.e12683. ISSN 0742-3098. WOS (2) https://doi.org/10.1111/jpi.12683

9 **Scientific paper**. Fernandez-Gil, B.I. (AC); Guerra-Librero, A.; Qiang, Y.; et al; Escames, G.(1/15). 2019. Melatonin Enhances Cisplatin and Radiation Cytotoxicity in Head and Neck Squamous Cell Carcinoma by Stimulating Mitochondrial ROS Generation, Apoptosis, and Autophagy.Oxidative Medicine and Cellular Longevity. HINDAWI LTD, ADAM HOUSE, 3RD FLR, 1 FITZROY SQ, LONDON, W1T 5HF, ENGLAND. 2019, pp.01-12. ISSN 1942-0900. WOS (18) https://doi.org/10.1155/2019/7187128

10 **Scientific paper**. Shen, Y.Q.; Guerra-Librero, A.; Fernandez-Gil, B.I.; et al; Escames, G. (AC). (17/17). 2018. Combination of melatonin and rapamycin for head and neck cancer therapy: Suppression of AKT/mTOR pathway activation, and activation of mitophagy and apoptosis via mitochondrial function regulation.Journal of pineal research. WILEY, 111 RIVER ST, HOBOKEN 07030-5774, NJ USA. 64-3, pp.e12461. ISSN 1600-079X. WOS (75) https://doi.org/10.1111/jpi.12461

11 **Review**. Rodriguez-Santana C; Florido J; Martinez-Ruiz L; Lopez-Rodriguez A; Acuña D; Escames G. 2023. Role of Melatonin in Cancer: Effect on Clock Genes International Journal of Molecular Sciences. https://doi.org/10.3390/ijms24031919

12 **Review**. Florido J; Rodriguez-Santana C; Martinez-Ruiz L; López-Rodríguez A; Acuña-Castroviejo D; Rusanova I; Escames G (AC). (7/7). 2022. Understanding the Mechanism of Action of Melatonin, Which Induces ROS Production in Cancer Cells Antioxidant. 11. https://doi.org/10.3390/antiox11081621

C.3. Research projects and contracts

1 **Project**. PID2020-115112RB-I00, Estudio preclínico de diferentes formulaciones de melatonina para prevenir la resistencia a fármacos asociada a la sobreexpresión de las bombas de flujo ATP-Dependientes. Ministerio de Economía y Competitividad. Escames, G.(Universidad de Granada). 01/09/2021-31/08/2024. 121.000 €.
2 **Project**. P18-RT-3222, Nueva Estrategia Terapéutica Para Evitar la Resistencia a la Quimio y/o Radioterapia Asociada a la Función Mitocondrial: Evaluación de Diferentes formulaciones de Melatonina. Junta de Andalucía. Escames, G.(Universidad de Granada). 01/01/2020-31/12/2022. 119.652 €.
3 **Project**. B-CTS-071-UGR18, Estudio Preclínico de Diferentes Formulaciones de Melatonina Dirigidas a Reducir la Resistencia a la Quimioterapia Asociada a la Función Mitocondrial. UGR-FEDER. Escames, G.(Universidad de Granada). 01/10/2018-30/09/2022. 33.000 €.
4 **Project**. SAF2017-85903-P, Conexión entre desincronización de los genes reloj y disfunción mitocondrial en la resistencia a la quimioterapia: evaluación de los efectos de la melatonina. Ministerio de Economía y Competitividad. Escames, G.2018-2020. 108.900 €. Principal investigator.
5 **Project**. OC-2015-2-19984, COST Action: Mitochondrial mapping: Evolution - Age - Gender - Lifestyle - Environment (MITOEAGLE). EU. Acuña-Castroviejo, D.2017-2020. Team member.
6 **Project**. PSE/17/001, Evaluación de formulaciones de aMT para el tratamiento de tumores resistentes a la quimioterapia.. Fondo Europeo de Desarrollo Regional. Escames, G.2018-2019. 25.000 €. Principal investigator.
7 **Project**. CB/10/00238., Looking for the connection between clock genes and mitochondrial impairment in aging. Ciber de Fragilidad y Envejecimiento. FECYT (Ministerio de Ciencia e Innovación). Acuña-Castroviejo, D.2016-2019. 57.000 €. Team member.

C.4. Activities of technology / knowledge transfer and results exploitation

1 Escames,G.; Acuña-Castroviejo, D.PCT/ES2020/070234. Composición inyectable de melatonina para el tratamiento de enfermedades virales Spain. 09/05/2020. Universidad de Granada.
2 **Patent of invention**. Escames, G.; Acuña-Castroviejo, D.; Guerra-Librero, A.; Fernández Gil, B.I.; Florido Ruiz, J.PCT/ES2018/070289.. Use of melatonin for the treatment of cancer. Spain. 04/10/2018. Universidad de Granada.
3 **Patent of invention**. Acuña-Castroviejo, D.; Escames, G.; Bueno-Laraño, P.; Mansilla-Roselló, A.; Ferrón-Oriehuela, J.A.; Hernández-Magdalena, J.J.; Calleja-Hernández, M.A.; González-Callejas, D.; Comino-Pardo, A.; Olmedo-Martin, C.PCT/ES2015/070236. Preparación duradera de inyectable de melatonina estable a largo plazo 27/03/2015. Universidad de Granada/FIBAO.
4 **Patent of invention**. Escames, G.; Acuña-Castroviejo, D.; Ortiz-García, F.PCT/ES2012/070728.. Uso de la melatonina para el tratamiento y/o prevención de la mucositis 02/12/2013. Universidad de Granada.
5 **Patent of invention**. Escames, G.; Acuña-Castroviejo, D.PCT/ES2013/070817.. Composición de melatonina o sus derivados con coenzima Q10 y su uso contra el envejecimiento de la piel Spain. 26/11/2013. Universidad de Granada.