Date of the CVA	27/11/2019

Section A. PERSONAL DATA

Name and Surname	ANA ISABEL ROJO SANCHIS		
DNI/NIE/Passport		Age	41
Researcher's identification number	Researcher ID		
	Scopus Author ID		
	ORCID	0000-0002-0312-5867	

A.1. Current professional situation

Institution	Universidad Autonoma de Madrid			
Dpt. / Centre	Biochemistry / Medicine Faculty			
Address	ARZOBISPO MORCILLO-4., ARZOBISPO MORCILLO-4., 28029, MADRID			
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Professional category	Assistant Professor		Start date	2017
UNESCO spec. code				
Keywords				

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Doctorate in Biochemistry	Universidad Autónoma de Madrid	2006
Advanced Study Certificate-Diploma	Universidad Autónoma de Madrid	2003
Degree in Biological science specialized in molecular biology	Universidad Autónoma de Madrid	2002
Degree in Biochemistry	Universidad Autónoma de Madrid	2001

A.3. General quality indicators of scientific production

During my scientific carrier, I have published 40 articles from 2003 to 2019 in peer reviewed international journals. Furthermore, I would like to emphasize that through my entire career I presented than 30 poster and oral communications in different National and International Meetings. In 2016, I have been accrediatated by ANECA as associate Professor. Since February 2011 the “Instituto de Salud Carlos III” has supported my accreditation as Principal Investigator that allowed me to apply for several grants. Nowadays, I am principal investigator of the grant "NRF2: therapeutic and biomarker validation in ALS" funded by the Tatiana de Guzmán el Bueno Foundation.

Section B. SUMMARY OF THE CURRICULUM

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

1 **Scientific paper**. C Elliot; et al. (/2). 2018. A role for APP in Wnt signalling links synapse loss with ?-amyloid production.Transl Psychiatry.

2 **Scientific paper**. Ana I Rojo; et al. (/1). 2018. Deficiency in the transcription factor NRF2 worsens inflammatory parameters in a mouse model with combined tauopathy and amyloidopathy.Redox Biology.

3 **Scientific paper**. Marta Pajares; et al. 2018. Transcription factor NFE2L2/NRF2 modulates chaperone-mediated autophagy through the regulation of LAMP2A Autophagy.

4 **Scientific paper**. KJ Sellers; et al. 2017. Amyloid ? synaptotoxicity is Wnt-PCP dependent and blocked by fasudil.Alzheimers and Dementia.

5 **Scientific paper**. I Gameiro; et al. (/6). 2017. Discovery of the first dual GSK3? inhibitor/Nrf2 inducer. A new multitarget therapeutic strategy for Alzheimer's disease Scientific Reports.

6 **Scientific paper**. Al Rojo; et al. 2017. NRF2 deficiency replicates transcriptomic changes in Alzheimer's patients and worsens APP and TAU pathology Redox Biology. 13, pp.444-451.
7 **Scientific paper**. N Robledinos-Anton; et al. 2017. Transcription factor NRF2 controls the fate of neural stem cells in the subgranular zone of the hippocampus.Redox Biology. 13, pp.393-401.
8 **Scientific paper**. Marta Pajares; et al. 2016. Nrf2 as a regulator of macroautophagy genes Autophagy.
9 **Scientific paper**. P Rada; et al. (/2). 2015. WNT-3A Regulates an Axin1/NRF2 Complex That Regulates Antioxidant Metabolism in Hepatocytes.Antioxidant Redox Signaling.
10 **Scientific paper**. Al Rojo; et al. (/1). 2014. Lack of PTEN activates the oncogenic activity of transcription factor NRF2 independently of KEAP1 Antioxidant Redox Signaling. 21-18, pp.2498-2514.
11 **Scientific paper**. D Simon; et al. (/5). 2013. Dysfunction of the PI3K-Akt-GSK-3 pathway is a common feature in cell culture and in vivo models of prion disease Neuropathol Appl Neurobiol. Neuropathol Appl Neurobiol.
12 **Scientific paper**. ÁJ García-Yagüe; et al. (/3). 2013. Nuclear import and export signals control the subcellular localization of Nurr1 protein in response to oxidative stress.Journal Biochemistry. J Biol Chem. 288-8, pp.5506-5517.
13 **Scientific paper**. Al Rojo; et al. (/1). 2012. Signaling pathways activated by the phytochemical nordihydroguaiaretic acid contribute to a Keap1-independent regulation of Nrf2 stability: Role of glycogen synthase kinase-3.Free Radical and Biological Medicine. 52-2, pp.473-487.
14 **Scientific paper**. Al Rojo; et al. (/1). 2012. Structural and functional characterization of Nrf2 degradation by the glycogen synthase kinase 3/beta-TrCP axis.Molecular and Cellular Biology. 32-17, pp.3486-3499.
15 **Scientific paper**. Al Rojo; et al. (/1). 2011. Pharmacological targeting of the transcription factor Nrf2 at the basal ganglia provides disease modifying therapy for experimental parkinsonism Antioxidant Redox Signalling. 14-12, pp.2347-2360.
16 **Scientific paper**. Al Rojo; et al. (/1). 2011. SCF/{beta}-TrCP promotes glycogen synthase kinase 3-dependent degradation of the Nrf2 transcription factor in a Keap1-independent manner.Molecular and Cellular Biology. 31-6, pp.1121-1133.
17 **Scientific paper**. NG Innamorato; et al. (/3). 2010. Different susceptibility to the Parkinson's toxin MPTP in mice lacking the redox master regulator Nrf2 or its target gene heme oxygenase-1 PlosOne. 5-7, pp.11838-11848.
18 **Scientific paper**. JA Flores; et al. (/3). 2010. Fibroblast growth factor-1 within the ventral tegmental area participates in motor sensitizing effects of morphine Neuroscience. 165-1, pp.198-211.
19 **Scientific paper**. Al Rojo; et al. (/1). 2010. Nrf2 regulates microglial dynamics and neuroinflammation in experimental Parkinson's disease Glia. 58-5, pp.588-598.
20 **Scientific paper**. S Espada; et al. (/4). 2010. The purinergic P2Y(13) receptor activates the Nrf2/HO-1 axis and protects against oxidative stress-induced neuronal death Free Radical Biological Medicine. 49-3, pp.416-426.
21 **Scientific paper**. J Megías; et al. (/4). 2009. Heme oxygenase-1 induction modulates microsomal prostaglandin E synthase-1 expression and prostaglandin E(2) production in osteoarthritic chondrocytes Biochemical Pharmacology. 77-12, pp.1806-1813.
22 **Scientific paper**. S Espada; et al. (/2). 2009. The muscarinic M1 receptor activates Nrf2 through a signaling cascade that involves protein kinase C and inhibition of GSK-3beta: connecting neurotransmission with neuroprotection Journal Neurochemistry. 110-3, pp.1107-1119.
23 **Scientific paper**. Al Rojo; et al. (/1). 2008. Functional interference between glycogen synthase kinase-3 beta and the transcription factor Nrf2 in protection against kainate-induced hippocampal cell death Molecular and cellular neurosciences. 39-1, pp.125-132.
24 **Scientific paper**. Al Rojo; RM de Sagarra; A Cuadrado. (/1). 2008. GSK-3beta down-regulates the transcription factor Nrf2 after oxidant damage: relevance to exposure of neuronal cells to oxidative stress Journal of Neurochemistry. 105-1, pp.192-202.

25 **Scientific paper**. AO Rosa; et al. (/4). 2008. Nrf2-mediated haeme oxygenase-1 up-regulation induced by cobalt protoporphyrin has antinociceptive effects against inflammatory pain in the formalin test in mice Pain. 137-2, pp.332-339.
26 **Scientific paper**. NG Innamorato; et al. (/2). 2008. The transcription factor Nrf2 is a therapeutic target against brain inflammation Journal of immnulogy. 181-1, pp.680-689.
27 **Scientific paper**. AI Rojo; et al. (/1). 2007. Chronic inhalation of rotenone or paraquat does not induce Parkinson's disease symptoms in mice or rats Experimental Neurology. 208-1, pp.120-126.
28 **Scientific paper**. M Salazar; et al. (/2). 2006. Glycogen synthase kinase-3beta inhibits the xenobiotic and antioxidant cell response by direct phosphorylation and nuclear exclusion of the transcription factor Nrf2 Journal of Biological Chemistry. 281-21, pp.14841-14851.
29 **Scientific paper**. AI Rojo; et al. (/1). 2006. Persistent penetration of MPTP through the nasal route induces Parkinson's disease in mice European Journal of Neuroscience. 24-7, pp.1874-1884.
30 **Scientific paper**. AI Rojo; et al. (/1). 2006. Regulation of heme oxygenase-1 gene expression through the phosphatidylinositol 3-kinase/PKC-zeta pathway and Sp1 Free radical biology & medicine. 41-2, pp.247-261.
31 **Scientific paper**. M Salinas; et al. (/5). 2004. Protein kinase Akt/PKB phosphorylates heme oxygenase-1 in vitro and in vivo FEBS Letter. 578-1-2, pp.90-94.
32 **Scientific paper**. AI Rojo; et al. (/1). 2004. Regulation of Cu/Zn-superoxide dismutase expression via the phosphatidylinositol 3 kinase/Akt pathway and nuclear factor-kappaB Journal of Neuroscience. 24-33, pp.7324-7334.
33 **Scientific paper**. D Martín; et al. (/2). 2004. Regulation of heme oxygenase-1 expression through the phosphatidylinositol 3-kinase/Akt pathway and the Nrf2 transcription factor in response to the antioxidant phytochemical carnosol.Journal Biological Chemistry. 279-10, pp.8919-8929.
34 **Scientific paper**. L Sánchez-Martín; et al. (/4). 2004. Signaling through the leukocyte integrin LFA-1 in T cells induces a transient activation of Rac-1 that is regulated by Vav and PI3K/Akt-1 Journal Biological Chemistry. 279-16, pp.16194-16205.
35 **Scientific paper**. M Pérez; et al. (/2). 2003. Prion peptide induces neuronal cell death through a pathway involving glycogen synthase kinase 3.Biochemical Journal. 15-372, pp.129-136.
36 **Review**. Antonio Cuadrado; et al. (/2). 2019. Therapeutic targeting of the NRF2 and KEAP1 partnership in chronic diseases.Nat Rev Drug Discov.
37 **Review**. A Cuadrado; et al. 2018. Transcription factor NRF2 as a therapeutic target for chronic diseases: a systems medicine approach Pharmacological Reviews.
38 **Review**. M Pajares; A Cuadrado; AI Rojo. 2017. Modulation of proteostasis by transcription factor NRF2 and impact in neurodegenerative diseases Redox Biology.
39 **Review**. AI Rojo; et al. (/1). 2014. Redox control of microglial function: molecular mechanisms and functional significance.Antioxidant Redox Signaling. 21-12, pp.1766-1801.
40 **Review**. A Cuadrado; AI Rojo. (/2). 2008. Heme oxygenase-1 as a therapeutic target in neurodegenerative diseases and brain infections Current pharmaceutical design. 14-5, pp.429-442.

C.2. Participation in R&D and Innovation projects

1 NRF2: biomarcador y evaluación como diana terapéutica para la Esclerosis lateral amiotrófica. Fundación Tatiana de Guzmán el Bueno. Ana I Rojo. (Universidad Autónoma de Madrid). 2019-2022. 80.000 €.
2 Desarrollo de fármacos activadores de NRF2 para terapias innovadoras de la enfermedad de Alzheimer Comunidad de Madrid. A Cuadrado. (Universidad Autónoma de Madrid). 2018-2020.
3 Developing preclinical and clinical biomarkers of NRF2 pathway activation for therapeutic application in neurodegenerative diseases. Network of Centres of excelllence in neurodegeneration (COEN). P Shaw. (Universidad Autónoma de Madrid). 2018-2020.
4 Advanced theranostic approach in cancer combining photodynamic therapy and nanparticles M.ERA-NET. A Cuadrado. (Universidad Autónoma de Madrid). 2016-2020.

5 Knowledge transfer in redox biology for developing advanced molecular tools in neurodegenerative diseases - focus on the signature of Nrf2 transcription factor in diagnosis and therapy European Union. G Manda. ("Victor Babes" National Institute of Pathology (IVB)). 2016-2020.
6 Targeting Nrf2 with SFX-01 to modify Parkinson´s disease progression in the AAV6-alpha-synuclein mouse model EVGENE (Biopharma company). A Cuadrado. (Universidad Autónoma de Madrid). 2016-2020.
7 Papel de NRF2 en la función y el destino del cerebro con Alzheimer MINECO. I Lastres-Becker. (Universidad Autónoma de Madrid). 2017-2019.
8 Nuevos Análogos del Sulforafano: Síntesis Enantioselectiva y Actividad Biológica. I Fernández Fernández. (University of Seville). 2013-2018.
9 Red de investigación en NRF2 como nodo del "patogenosoma" (NRF2-net) Redes de Excelencia. MINECO. (Universidad Autónoma de Madrid). 2016-2017.
10 EU Training Network on Innovative THERApeutics and companion diagNOSTICS for a common mechanism disease cluster (THERANOSTICS) Marie Sklodowska-Curie Innovative Training Networks. Harald Schmidt. (International Consortium). 2015-2017.
11 Metabolismo oxido-reductor y la enfermedad de Parkinson: validación de nuevas dianas terapeúticas y nuevos biomarcadores CIBER ENFERMEDADES NEURODEGENERATIVAS (CIBERNED). (CIBER ENFERMEDADES NEURODEGENERATIVAS (CIBERNED)). 2015-2017.
12 Papel de NRF2 como modulador antioxidante de la neuroinflamación en la enfermedad de Alzheimer MINECO. I Lastres-Becker. (Universidad Autónoma de Madrid). 2014-2016.
13 Nrf2 as the master regulator of oxidative stress in Alzheimer disorders Network of Centres of Excellence in Neurodegeneration (COEN). A Cuadrado. (International Consortium). 2013-2015.
14 Targeting Nrf2 with BG-12 to modify Parkinson's disease progression in the AAV6-alpha-synuclein mouse model Biogen Idec. (Universidad Autónoma de Madrid). 2013-2015.
15 NRF2 as a molecular target for amyloid pathology Nutricia Medical (Danone group). A Cuadrado. (Universidad Autónoma de Madrid). 2012-2013.
16 Transcription factor Nrf2 as a new therapeutic target for Parkinson's disease Intramural program of CIBERNED. A Cuadrado. (CIBER ENFERMEDADES NEURODEGENERATIVAS (CIBERNED)). 2011-2013.
17 The transcription factor Nrf2 as a target to reduce neurodegeneration and neuroinflammation in Parkinson's disease Michael J Fox Foundation for Parkinson's Research. A. Cuadrado. (Universidad Autónoma de Madrid). 2009-2010.
18 Regulación del factor de transcripción Nrf2, organizador central de la respuesta antioxidante celular, por la vía PI3K/Akt/GSK-3b. Ministerio de Ciencia y Tecnología. A. Cuadrado. (Universidad Autónoma de Madrid). 2007-2010.
19 Estudio de la vía antioxidante Nrf2/HO-1: regulación por PI3K/Akt y análisis de su utilidad en terapia génica y celular de la enfermedad de Parkinson en modelos animales Ministerio de Ciencia y Tecnología. A. Cuadrado. (Universidad Autónoma de Madrid). 2005-2007.

C.3. Participation in R&D and Innovation contracts

C.4. Patents