Ministerio de Economía y Competitividad
Secretaría de Estado de Investigación, Desarrollo e Innovación

Curriculum vitae
Standardized form

Name: Guadalupe Sabio

Date: January 2019

PERSONAL DATA

Family name: ***Sabio*** *Forename:* ***Guadalupe***

ID/Passport no: 33978254D *Date of birth : 04/06/1977* *Gender: F*
Nacionality: Spanish

PRESENT PROFESIONAL POSITION

Institution: *Centro Nacional de Investigaciones Cardiovasculares*
Faculty, School or Institute: *Instituto de Salud Carlos III*
Department: Fisiopatología del Miocardio
Address: Melchor Fernández Almagro, 3
Post Cod: 28029 Province: Madrid
Country: Spain

Telephone (indicate prefix, number and extension): 91 453 12 00 ext 2204
Fax: 91 453 12 46
E-mail: gsabio@cnic.es

Field of study (UNESCO codes): 2302.19, 2302.21, 2411.03, 2411.04, 3206.02
Professional status: Associated Professor Start date: October 2016
Administrative status
☒ Permanent Staff ☐ Hired on contracts ☐ Acting ☐ Fellowship holder

☐ Others specify:

Full-time ☒
Part-time ☐

PRESENT RESEARCH AREA

Brief summary (key words).

Stress Kinases, *Diabetes, Obesity, Hepatic Metabolism, Cardiovascular Diseases*

ACADEMIC BACKGROUND

Bachelor	*Centre*	*Date*
Degree in Veterinary Sciences and Animal Health	University of Extremadura	1995 - 2000
Master´s degree	Dept. Bioquímica Y Biología Molecular, Facultad de Veterinaria, University of Extremadura	2001
PhD at MRC	Phosphophorylation Unit, Dundee, Scotland and University of Extremadura, Spain	March 2005

LANGUAGES (N = NORMAL, G = GOOD, P = PERFECTLY)

Language	*Speaking*	*Reading*	*Writing*
English	G	G	G

PAST SCIENTIFIC EXPERIENCE

Position	R&D Centre	Institution	Start Date	End Date
Graduate Student fellowship	University of Extremadura	Spanish Ministry of Education	1999	2000
Fellowship	Dundee (Scotland) and University of Extremadura	Spanish Ministry of Education	2001	2005
Research Associate	University of Massachussets Medical School	Howard Hughes Medical Institute	2005	2009
Investigador RyC	Ctro. Nacional de Biotecnología	CSIC	Nov. 2009	2010
Assistant Professor	Centro Nacional de Investigaciones Cardiovasculares	Instituto de Salud Carlos III, Ministerio de Economía y Competitividad	2011	2016

PARTICIPATION IN RESEARCH PROJECTS

MAJOR GRANTS

p38s in metabolism, four kinases with diffent functions that share a common name. EUIN2017-85875. Call "Europa Investigación 2017" Ministerio de Economía y Competitividad. Amount € 10.000. 01/09/2017- 31/08/2019

"Inmunidad Tumoral e Inmunoterapia del Cancer"- **IMMUNOTHERCAN-CM- ref: 2017/BMD-3733**. Coordinated project, PI of the OBECANCER Group at CNIC: Guadalupe Sabio. Grupos CAM 2017. Comunidad de Madrid. 01/01/2018- 31/12/2021.Total amount granted: **€ 952.472,28**

Inhibición de P38gamma como posible diana terapéutica para el cáncer hepático- Exp: IN[17]_BBM_BAS_0066 /Leonardo Fundación **BBVA/ 2017-2018/** Amount € 39.999,21.

Interacción entre Metabolismo Sistemático y Celular en Cancer. /Ministerio de Economía y Competitividad. Redes de excelencia 2016 / **SAF2016-81975-REDT** / 2017-2019/ Amount: € 20.000

The key role of muscle in obesity-induced diabetes: a new function for p38 family /
Principal Investigator: Guadalupe Sabio.
EFSD/Lilly Programme 2016 / 2017 / Amount: € 99.900

Redes de señalización de MKK3/6 en homeostasis y enfermedad /
Principal Investigator: Guadalupe Sabio.

SAF2016-79126-R / Ministerio de Economía y Competitividad / 2017- 2019 / Amount: € 302.500
Quinasas del estrés en el cáncer y las enfermedades metabólicas
Principal Investigator: Guadalupe Sabio
SAF2013-43506-R Ministerio de Economía y Competitividad / 2014 -2016 /Amount: € 266.200

Inmunidad tumoral e inmunoterapia del cáncer.
Principal Investigator: Guadalupe Sabio.
Comunidad de Madrid. 2012 – 2016 (S2010/BMD-2326) / Amount for our group: €115,000

Papel de la obesidad en el desarrollo del cáncer hepático.
Principal Investigator: Guadalupe Sabio
Ministerio de Ciencia e Innovación (SAF2010-19347) / 2011 – 2013 / Amount: €193,600

CNIC Assistant Professor and Group Leader Start-up pack.
PI. Guadalupe Sabio. Funding scheme and organization responsible:
CNIC, Spanish National Centre for Cardiovascular Research / 2011-2014 /Amount: €300,000

Role of obesity in the development of hepatocellular carcinoma.
Principal Investigator: Guadalupe Sabio.
European Commission. European Research Council Starting Independent Researcher Grant (ERC-StG-260464). 2010-2016 / Amount: €1,498,043

Role of p38MAPK family and microRNA in obesity, chronic inflammation and development of hepatocellular carcinoma.
Principal Investigator: Guadalupe Sabio
European Foundation for the Study of Diabetes (EFSD 0203) / 01/09/2010 – 30/09/2012 /
Amount: €100,000

Papel de la obesidad en el desarrollo del cáncer hepático
Principal Investigator: Guadalupe Sabio
Loreal – Unesco, 2010 / Amount: €20,000

Papel de la obesidad en el desarrollo del cáncer hepático
Principal Investigator: Guadalupe Sabio
Ministerio de Ciencia e Innovación. (RYC-2009-04972) / 2009-2014

GRANT´S PARTICIPATIONS

Chemical genetics analysis targeted to the mouse prostate epithelium.
Principal Investigator: Roger J Davis 2006-2008 **National Institute of Health** (USA)

Mechanism of Neurodegeneration.
Principal Investigator: Roger J Davis 2005-2011 **National Institute of Health** (USA)

Structure and Function of the p38 MAP Kinase Signal Transduction Pathway.
Principal Investigator: Roger J Davis 1998-2009 **Howard Hughes Medical Institute**

Calpaínas en los procesos de supervivencia y apoptosis neuronal. Regulación por proteínas quinasas y fosfatasas
Principal Investigator: Francisco Centeno Velázquez 2004/2007 **Consejería de Educación, Ciencia y Tecnología** (Junta de Extremadura)

Papel de serina-treonina fosfatasa 2A (PP2A) en procesos neurodegenerativos y su regulación por litio. Principal Investigator: Francisco Centeno Velázquez 2003 **Consejería de sanidad y consumo** (Junta de Extremadura).

Papel de serina-treonina fosfatasas en los procesos de la apoptosis neuronal. Mecanismos neuroprotectores de litio.
Principal Investigator: Francisco Centeno Velázquez 2002-2005 **Ministerio de ciencia y tecnología**

Papel de Serina-Treonina fosfatasas en procesos neurodegenerativos: regulación por litio II.
Principal Investigator: Francisco Centeno Velázquez 2002 **Consejería de Sanidad y Consumo** (Junta de Extremadura)

Señales intracelulares implicadas en la inducción y represión de apoptosis en células granulares de cerebelo. Papel neuroprotector de agentes antioxidantes litio y valproato.
Principal Investigator: Francisco Centeno Velázquez 2001-2003 **Consejería de educación ciencia y tecnología** (Junta de Extremadura)

Papel de Serina-Treonina fosfatasas en procesos neurodegenerativos: regulación por litio II.
Principal Investigator: Francisco Centeno Velázquez 2001 **Consejería de Sanidad y Consumo** (Junta de Extremadura)

Papel de Serina-Treonina fosfatasas en la apoptosis neuronal mecanismos protectores de litio.
Principal Investigator: Francisco Centeno Velázquez 2000-2003 **Ministerio de Educación y Ciencia**

Efecto de neurofarmacos en el envejecimiento y enfermos con procesos neurodegenerativos:mejora de su calidad de vida.
Principal Investigator: Francisco Centeno Velázquez 2000 **Consejería de Sanidad y Consumo** (Junta de Extremadura)

Papel de serina-treonina fostatasas en los procesos neurodegenerativos: regulación por litio
Principal Investigator: Francisco Centeno Velázquez. 2001 **Consejería de Sanidad y Consumo** (Junta de Extremadura)

PARTICIPATION IN RESEARCH CONTRACTS OF SPECIAL RELEVANCE WITH COMPANIES AND/OR PRIVATE OR PUBLIC FUNDING BODIES

Contract Title: ***Expression of recombinant human arginase***
Financial Entity*:* Alexis Corporation
From*:* 2001 To: *2001* IP: Francisco Centeno Velázquez

Contract Title: ***Structure and Function of the p38 MAP Kinase Signal Transduction Pathway***
Financial Entity: Howard Hughes Medical Institute
From: 2005 To: 2009 IP : Roger J Davis

PUBLICATIONS

Leiva M et al **Sabio G.** "Neutrophil infiltration reprograms circadian genes controlling liver metabolism" **Nature Communications** (under 2nd revision)

Manieri E, et al, **Sabio G**. Adiponectin activation of p38α and AMPK accounts for gender differences in hepatocellular carcinoma development. **Journal of Experimental Medicine** (under 2nd revision)

Tomás-Loba et al **Sabio G.** p38gamma is essential for cell cycle progression and liver tumourigenesis ***Nature*** 2018. Accepted. In press. IF: 41.57

Löffler MC, Mayer AE, Trujillo Viera J, Loza Valdes A, El-Merahbi R, Ade CP, Karwen T, Schmitz W, Slotta A, Erk M, Janaki-Raman S, Matesanz N, Torres JL, Marcos M, **Sabio G**, Eilers M, Schulze A, Sumara G. Protein kinase D1 deletion in adipocytes enhances energy dissipation and protects against adiposity. **EMBO J**. 15;37(22). 2018 Nov 2. IF: 10.55

Cunarro J, Buque X, Casado S, Lugilde J, Vidal A, Mora A, **Sabio G**, Nogueiras R, Aspichueta P, Diéguez C, Tovar S. p107 Deficiency Increases Energy Expenditure by Inducing Brown-Fat Thermogenesis and Browning of White Adipose Tissue **Mol Nutr Food Res**. 2018 Nov 1:e1801096

Quiñones M, Al-Massadi O, et al, **Sabio G**, Nogueiras R. p53 in AgRP neurons is required for protection against diet-induced obesity via JNK1. **Nat Commun**. 2018 Aug 24;9(1):3432. IF: 12.35

Matesanz N#, Nikolic#, et al **Sabio G** p38a blocks brown adipose tissue thermogenesis through p38d inhibition. **PLoS Biol.** 2018 Jul 6;16(7):e2004455. IF: 9.16

Notario L, Alari-Pahissa E, Albentosa A, Leiva M, **Sabio G**, Lauzurica P. Anti-CD69 therapy induces rapid mobilization and high proliferation of HSPCs through S1P and mTOR. **Leukemia**. 2018 Feb 27. IF: 10.02

Porteiro B, Fondevila MF, Buque X, Gonzalez-Rellan MJ, Fernandez U, Mora A, Beiroa D, Senra A, Gallego R, Fernø J, López M, **Sabio G**, Dieguez C, Aspichueta P, Nogueiras R. Pharmacological stimulation of p53 with low-dose doxorubicin ameliorates diet-induced nonalcoholic steatosis and steatohepatitis. Mol Metab. 2018 Feb;8:132-143. IF: 6.29

Matesanz N, Bernardo E, Acín-Pérez R, Pérez-Sieira S, Hernández-Cosido L, Moltalvo V, Mora A, Rodríguez E, Leiva-Vega L, Lechuga AV, Álvarez C, Ruiz-Cabello J, Torres JL, Centeno F, Marcos M, Enríquez JA, Nogueiras R and **Sabio G**. MKK6 controls T3-mediated browning of white adipose tissue. ***Nature Comm***. 2017 Oct 11;8(1):856 IF: 11.47

Martínez-Sánchez N, et al, **Sabio G**, Villarroya F & López M. The central actions of thyroid hormones on energy balance are mediated by a hypothalamic AMPK-ER stress-JNK1 axis. ***Cell Metabolism*** 2017 Jul 5;26(1):212-229.e12.. IF:17.

Porteiro B, Iglesias C, Tovar S, Ferno J., Velasquez D, González-Terán B, Vidal A, Malagon MM, Pombo C, **Sabio G**, Zalvide J, Dieguez C, Lopez M, Nogueiras R *Hepatic p63 regulates steatosis via IKKβ/ER stress*. ***Nature Comm.*** 2017 May 17;8:15673.

González-Terán B, Matesanz N, Nikolic I, Verdugo MA, Sreeramkumar V, Hernández-Cosido L, Mora A, Crainiciuc G, Sáiz ML, Bernardo E, Leiva-Vega L, Rodríguez E, Bondía V, Torres JL, Perez-Sieira S, Ortega L, Cuenda A, Sanchez-Madrid F, Nogueiras R, Hidalgo A, Marcos M, **Sabio G.** *p38γ and p38δ reprogram liver metabolism by modulating neutrophil infiltration*. ***EMBO J***. 2016 Mar 1;35(5):536-52. IF: 10.43

González-Terán B, López JA, Rodríguez E, Leiva L, Martínez Martínez S. Jiménez Borreguero LJ, Redondo JM, Vázquez J, **Sabio G** p38 and δ promote heart hypertrophy by targeting the mTOR-inhibitory protein DEPTOR for degradation. ***Nat. Communications*** 2016 Jan 22;7:10477. IF: 11.47.

Manieri E, **Sabio G**. Stress kinases in the modulation of metabolism and energy balance. ***J Mol Endocrinol***. 2015 Oct;55(2):R11-22. Review. IF: 3.08

Vernia S, Cavanagh-Kyros J, Garcia-Haro L, **Sabio G**, Barrett T, Jung DY, Kim JK, Xu J, Shulha HP, Garber M, Gao G, Davis RJ. The PPARα-FGF21 hormone axis contributes to metabolic regulation by the hepatic JNK signaling pathway. ***Cell Metab***. 2014 Sep 2;20(3):512-25. IF. 16.74.

Sabio G, Davis RJ. TNF and MAP kinase signalling pathways. ***Seminars in Immunology***. 2014. 26(3):237-45 Review. IF. 5.17.

Escolano A, Martínez-Martínez S, Alfranca A, Urso K, Izquierdo HM, Delgado M, Martín F, **Sabio G**, Sancho D, Gómez-Del Arco P, Redondo JM. *Specific calcineurin targeting in macrophages confers resistance to inflammation via MKP-1 and p38.* ***EMBO J.*** 2014 16:33(10): 1117-33 IF 10.74.

González-Terán B, Cortés JR, Manieri E, Matesanz N, Verdugo A, Rodríguez ME, González-Rodríguez A, Valverde A, Martín P, Roger J. Davis and **Sabio G** *eEF2 controls TNFalpha translation in LPS-induced hepatitis.* ***J Clin Invest.*** 123-1, pp. 164 – 178. 02/01/2013 IF: 13

Imbernon M, Beiroa D, Vázquez MJ, Morgan DA, Veyrat-Durebex C, Porteiro B, Díaz-Arteaga A, Busquets S, Velásquez DA, Al-Massadi O, Varela L, Gándara M, López-Soriano FJ, Gallego R, Seoane LM, Argiles JM, López M, Davis RM, **Sabio G**, Rohner-Jeanrenaud F, Rahmouni K, Dieguez C, Nogueiras R. *Central Melanin-Concentrating Hormone Influences Liver and Adipose Metabolism Via Specific Hypothalamic Nuclei and Efferent Autonomic/JNK1 Pathways* ***Gastroenterology***. 144-3, pp. 636-649.e6. 03/2013 IF: 12.8.

Noubade R, Krementsov DN, Del Rio R, Thornton T, Nagaleekar V, Saligrama N, Spitzack A, Spach K, **Sabio G,** Davis RJ, Rincon M, Teuscher C. *Activation of p38 MAPK in CD4 T cells controls IL-17 production and autoimmune encephalomyelitis.* ***Blood*** (2011) 118: 3290-300 IF: 9.06.

Nagaleekar VK, **Sabio G**, Aktan I, Chant A, Howe IW, Thornton TM, Benoit PJ, Davis RJ, Rincon M, Boyson JE. *Translational Control of NKT Cell Cytokine Production by p38 MAPK*. ***J Immunol.*** 2011 Apr 1;186(7):4140-6. IF: 5.52.

C Cellurale*, **G Sabio*,** N. J. Kennedy, P. Sandy, T. Jacks, and R. J. Davis. ***Mol Cell Biol*** *Requirement of JNK for Ras-initiated Tumor Formation* 2011 Apr;31(7):1565-76 IF: 5.3. (*equal contribution)

G Sabio, M I Cerezo-Guisado, P Reino, F A Inesta-Vaquera, S Rousseau, J S C Arthur, D G Campbell, F Centeno y A Cuenda. *p38gamma regulates nuclear PSF and RNA interaction with the tumour suppressor hDlg in response to osmotic shock.* ***J Cell Sci.*** 2010 Aug 1;123(Pt 15):2596-604. IF: 6.2.

Sabio G, Davis RJ. *cJun NH(2)-terminal kinase 1 (JNK1): roles in metabolic regulation of insulin resistance.* ***Trends Biochem Sci.*** 2010 Sep;35(9):490-6. IF: 14.

G Sabio, J Cavanagh-Kyros, T Barrett, DY Jung, H J Ko, H Ong, C Morel, A Mora, J Reilly, J K. Kim, and R J. Davis. *Role of the hypothalamic–pituitary–thyroidaxis in metabolic regulation by JNK1* ***Genes and development***. 24(3):256-64. 2010 IF: 14

Remy G, Risco AM, González-Terán B, Iñesta-Vaquera FA, **Sabio G**, Davis RJ, Cuenda A. *Differential activation of p38MAPK isoforms by MKK6 and MKK3* ***Cellular Signalling.*** 22(4):660-7. 2010 IF: 4.3

G Sabio, N. Kennedy, J Cavanagh-Kyros, H J Ko, DY Jung, S. Gray, JY. Jun, T Barrett, J K. Kim, and RJ. Davis *Role of muscle JNK1 in obesity-induced insulin resistance****. Mol. Cell. Biol.*** 2010 Jan;30(1):106-15 IF: 5.52.

G Sabio, J Cavanagh-Kyros, H J Ko, DY Jung, SGray, JY. Jun, T Barrett, A Mora, J K. Kim, and RJ. Davis *Prevention of Steatosis by Hepatic JNK1* ***Cell Metabolism*** 10, 491-498 2009 IF: 16

Wood CD, Thornton TM, **Sabio G,** Davis RA, and Rincon M *Nuclear localization of p38 MAPK in response to DNA damage.* ***Int J Biol Sci*** 5(5) 428-37 2009 FI: 3.16

M Das, **G Sabio,** F Jiang, M Rincón, RA. Flavell and R J. Davis . *Induction of hepatitis by JNK-mediated expression of TNFα.* ***Cell*** 136(2) 249-60 2009 FI: 30

Iñesta-Vaquera, F; Centeno, F; del Reino, P**; Sabio, G;** Peggie, M; Cuenda, A *Proteolysis of the tumor suppressor hDlg in response to osmotic stress is mediated by caspases and independent of phosphorylation.* ***FEBS Journal*** 276 (2) 387-400 2009 Jan FI: 3.57

G Sabio, M Das, A Mora, Z Zhang, J Y. Jun3, H JinKo, T Barrett, J K. Kim, and R J. Davis *A Stress Signaling Pathway in Adipose Tissue Regulates Hepatic Insulin Resistance.* ***Science***. 2008 Dec 5;322(5907):1539-43. FI: 29.8

Thornton TM, Pedraza-Alva G, Deng B, Wood CD, Aronshtam A, Clements JL, **Sabio G**, Davis RJ, Matthews DE, Doble B, Rincon M. *Phosphorylation by p38 MAPK as an alternative pathway for GSK3beta inactivation*. **Science** 320 (5876) 667-70 2008 FI: 29.78

F Iñesta Vaquera, **G Sabio,** Y Kuma and A Cuenda. *"Alternative p38 pathways". Chapter in "Topics in Current Genomics".* Stress'Activated protein Kinases DOI 10.1007/4735_2007_0239 320 (5876) (667-70) (capítulo de libro)

G. Sabio, S. Arthur, Y. Kuma, M. Peggie, J. Carr, V. Murray-Tait, F. Centeno, M. Goedert, N.A. Morrice y A. Cuenda. *p38gamma regulates the localisation of SAP97 in the cytoskeleton by modulating its interaction with GKAP.* ***EMBO J.*** 23;24(6):1134-45 2005 IF: 10.05

Y. Kuma, **G. Sabio,** J. Bain, N. Shpiro, R. Márquez y A. Cuenda *BIRB0796 inhibits all p38MAPK isoforms in vitro and in vivo.* ***J Biol Chem.*** 2005 280(20) 19472-9 IF: 5.58.

L. D. Costanzo, **G. Sabio,** A. Mora, N.E. King, N.Zimmermann, M. E. Rothenberg, F. Centeno, and D. W. Christianson. *Crystal Structure of Human Arginase I and Exploration of Inhibition in Asthma Pathology*. ***Proc. Natl. Acad. Sci. USA*** 102 (37) 13058-63 2005 IF: 10.23.

G. Sabio, S. Reuver, C. Feijoo, M. Hasegawa, G.T. Thomas, F. Centeno, S. Kuhlendahl, S. Leal-Ortiz, M. Goedert, C. Garner y A. Cuenda. *Stress- and mitogen-induced phosphorylation of the synapse-associated protein SAP90/PSD95 by activation of SAPK3/p38γ and ERK1/ERK2.* ***Biochem. J.*** 2004. 380 (19-30) IF: 4.27

Mora A, **G. Sabio** & F. Centeno. *Neuroprotective effects of lithium—pointing out protein phosphatases as drug targets?* ***Curr. Med. Chem.*** 2003. 3, 335/339 IF: 4.40

Mora A, **Sabio G,** Risco AM, Cuenda A, Alonso JC, Soler G & Centeno F. *Lithium blocks the PKB and GSK3 dephosphorylation induced by ceramide through protein phosphatase-2A.* ***Cell Signal***. 14, 552/562 2002. IF: 4.36

Mora A, **G. Sabio**, J.C. Alonso, G. Soler & F. Centeno. *Different dependence of lithium and valproate on PI3K/PKB pathway.* ***Bipolar Disord***. 2002. 4.195/200 IF: 3.09

A. Mora, **G. Sabio,** R.A. González-Polo, A. Cuenda, D.R. Alessi, J.C. Alonso, J.M. Fuentes, G. Soler & F. Centeno *Lithium inhibits caspase 3 activation and dephosphorylation of PKB and GSK3 induced by K+ deprivation in cerebellar granule cells.* ***J. Neurochem.*** 78, 199/206 2001. IF: 4.83

G. Sabio, A. Mora, M. del A. Rangel, A. Quesada, C. F. Marcos, J.C. Alonso & F. Centeno. *Glu-256 is a main structural determinant for oligomerization of human arginase I.* ***FEBS Lett.*** 501, 161/165 2001 IF: 3.64

R.A. González-Polo, A. Mora, N. Clemente, **G. Sabio**, F. Centeno, G. Soler & J.M. Fuentes *Mechanisms of MPP+ incorporation into Cerebellar Granule Cells*. ***Brain Res. Bull.*** 56, 119/123 2001 FI: 1.78

MOST OUTSTANDING PUBLICATIONS

Tomás-Loba et al **Sabio G.** p38gamma is essential for cell cycle progression and liver tumourigenesis ***Nature*** 2018. Accepted. In press. IF: 41.57

Matesanz N#, Nikolic#, et al **Sabio G** p38a blocks brown adipose tissue thermogenesis through p38d inhibition. **PLoS Biol.** 2018 Jul 6;16(7):e2004455. FI: 9.16

Matesanz N, Bernardo E, Acín-Pérez R, Pérez-Sieira S, Hernández-Cosido L, Moltalvo V, Mora A, Rodríguez E, Leiva-Vega L, Lechuga AV, Álvarez C, Ruiz-Cabello J, Torres JL, Centeno F, Marcos M, Enríquez JA, Nogueiras R and **Sabio G**. MKK6 controls T3-mediated browning of white adipose tissue. ***Nature Comm***. 2017 Oct 11;8(1):856 IF: 11.47

González-Terán B, Matesanz N, Nikolic I, Verdugo MA, Sreeramkumar V, Hernández-Cosido L, Mora A, Crainiciuc G, Sáiz ML, Bernardo E, Leiva-Vega L, Rodríguez E, Bondía V, Torres JL, Perez-Sieira S, Ortega L, Cuenda A, Sanchez-Madrid F, Nogueiras R, Hidalgo A, Marcos M, **Sabio G.** p38γ and p38δ reprogram liver metabolism by modulating neutrophil infiltration **EMBO J.** 2016 Mar 1;35(5):536-52.. IF: 10.43

González-Terán B, López JA, Rodríguez E, Leiva L, Martínez Martínez S. Jiménez Borreguero LJ, Redondo JM, Vázquez J, **Sabio G** p38 and δ promote heart hypertrophy by targeting the mTOR-inhibitory protein DEPTOR for degradation. **Nat. Communications** 2016 Jan 22;7:10477. IF: 11.47

Martínez-Sánchez N, et al, **Sabio G**, Villarroya F & López M. The central actions of thyroid hormones on energy balance are mediated by a hypothalamic AMPK-ER stress-JNK1 axis. ***Cell Metabolism*** 2017 Jul 5;26(1):212-229.e12.. IF:17.

González-Terán B, Cortés JR, Manieri E, Matesanz N, Verdugo A, Rodríguez ME, González-Rodríguez A, Valverde A, Martín P, Roger J. Davis and **Sabio G** eEF2 controls TNF translation in LPS-induced hepatitis. **J Clin Invest.** 123-1, pp. 164 – 178. 02/01/2013 IF: 13

Sabio G, Davis RJ. cJun NH(2)-terminal kinase 1 (JNK1): roles in metabolic regulation of insulin resistance. **Trends Biochem Sci**. 2010 Sep;35(9):490-6. IF: 14

G Sabio, N. Kennedy, J Cavanagh-Kyros, H J Ko, DY Jung, S. Gray, JY. Jun, T Barrett, J K. Kim, and RJ. Davis Role of muscle JNK1 in obesity-induced insulin resistance. **Mol. Cell. Biol**. 2010 Jan;30(1):106-15 IF: 5.52

G Sabio, J Cavanagh-Kyros, T Barrett, DY Jung, H J Ko, H Ong, C Morel, A Mora, J Reilly, J K. Kim, and R J. Davis. Role of the hypothalamic–pituitary–thyroidaxis in metabolic regulation by JNK1 **Genes and development**. 24(3):256-64. 2010 IF: 14

G Sabio, M I Cerezo-Guisado, P Reino, F A Inesta-Vaquera, S Rousseau, J S C Arthur, D G Campbell, F Centeno y A Cuenda. p38gamma regulates nuclear PSF and RNA interaction with the tumour suppressor hDlg in response to osmotic shock**. J Cell Sci**. 2010 Aug 1;123(Pt 15):2596-604. IF: 6.2

G Sabio, J Cavanagh-Kyros, H J Ko, DY Jung, SGray, JY. Jun, T Barrett, A Mora, J K. Kim, and RJ. Davis Prevention of Steatosis by Hepatic JNK1 **Cell Metabolism** 10, 491-498 2009 IF: 16

M Das, **G Sabio,** F Jiang, M Rincón, RA. Flavell and R J. Davis . Induction of hepatitis by JNK-mediated expression of TNFα. **Cell** 136(2) 249-60 2009 FI: 30

G Sabio, M Das, A Mora, Z Zhang, J Y. Jun3, H JinKo, T Barrett, J K. Kim, and R J. Davis A Stress Signaling Pathway in Adipose Tissue Regulates Hepatic Insulin Resistance. **Science**. 2008 Dec 5;322(5907):1539-43. FI: 29.8

G. Sabio, S. Arthur, Y. Kuma, M. Peggie, J. Carr, V. Murray-Tait, F. Centeno, M. Goedert, N.A. Morrice y A. Cuenda. p38gamma regulates the localisation of SAP97 in the cytoskeleton by modulating its interaction with GKAP**. EMBO J**. 23;24(6):1134-45 2005 IF: 10.05

PATENTS AND UTILITY MODELS

- Inventors (in order of authorship): Guadalupe Sabio, Antonia Tomás-Loba, Ana Martínez, Carmen Gil , Bárbara González-Terán, Elisa Manieri.
  Title: **"*P38 inhibitors for the treatment and prophylaxys of liver cancer* "**
  Application Form No: WO2016EP63532 20160613
  Priority Country: European Union Priority Date: 15/12/2016.
  Holder Entity: CNIC-CSIC. Other Countries which the patent has been extended to: European Union

- Inventors (in order of authorship): Guadalupe Sabio**,** Bárbara González
  Title***: "eEF2/eEf2K as therapeutic target for treating TNFalpha-related diseases"***
  Application Form No: EP20120190570 20121030 Priority Country: Spain
  Priority Date: 7/05/2014
  Holder Entity: Fundación Centro Nacional de Investigaciones Cardiovasculares

- Inventors (in order of authorship): Guadalupe Sabio, Bárbara González, Edgar Bernardo, Nuria Matesanz , Angeles Verdugo, Miguel Marcos, Lourdes Hernández, Luis Ortega.
  Title: "***P38 MAPK gamma and delta for use as biomarkers of NAFLD***"
  Application Form No: EP20120164807 20120419
  Priority Country: Spain Priority Date: 23/10/2013
  Holder Entity: Fundación Centro Nacional de Investigaciones Cardiovasculares, Consejo Superior de Investigaciones Científicas, Universidad de Salmanca.

- Inventors (in order of authorship): Roger Davis, Guadalupe Sabio, Madhumita Das.
  Title: **"*Interleukin 6 and tumor necrosis factor alpha as biomarker of JNK inhibition"***
  Application Form No: US20090631335 20091204
  Priority Country: US Priority Date: 22/07/2010
  Holder Entity: University of Massachusetts. Other Countries which the patent has been extended to: EEUU

THESIS SUPERVISED

- Title: *Quinasas del estrés en el metabolismo y la fisiología del tejido adiposo*
  University: Universidad Autónoma de Madrid
  Student: **Rafael Romero** Premio extraordinario de carrera
  Estimated date: 2023

- Title: *Papel del sistema inmune en la patología hepática*
  University: Universidad Autónoma de Madrid
  Student: **María Crespo (accéssit Arquímedes)**
  Estimated date: 2022

- Title: *Papel de las MAPKK en el metabolismo cardiaco*
  University: Universidad Autónoma de Madrid
  Student: **Ayelen Santamans**
  Estimated date: 2020

- Title: *Papel de MKK6 en el control del cáncer hepático*
  University: Universidad Autónoma de Madrid
  Student: **Leticia Herrera Melle (accéssit Arquímedes) Premio Nacional de carrera**

  Estimated date: 2020

- Title: *Quinasas del estrés en el cáncer y las enfermedades metabólicas*
  University: Universidad Autónoma de Madrid
  Student: **María del Valle Montalvo Romeral.**
  Estimated date: 2019

- Title: *Mecanismos de control de la diabetes: MAPK quinasas y MicroRNAS*
  University: Universidad Autónoma de Madrid
  Student: **Edgar Bernardo Vasco**
  Date: 5 May 2017
  Qualification: Cum Laude

- Title: *Papel de las quinasas del estrés en el desarrollo del cáncer hepático inducido por la obesidad*
  University: Universidad Autónoma de Madrid
  Student: **Elisa Manieri**
  Date: 8 September 2016
  Qualification: Cum Laude

- Title: *Regulatory role of p38gamma and p38delta in inflammation and cardiovascular system in homeostasis and disease*
  University: Universidad Autónoma de Madrid
  Student: **Bárbara González Terán**
  Date: 16 June 2016
  Qualification: Cum Laude, Thesis extraordinary award

- Title: *Papel de las p38MAPK en el desarrollo del daño hepático producido por obesidad*
  University: Universidad Autónoma de Madrid
  Student: **Ángeles Verdugo Becerra**
  Date: 25 October 2013
  Qualification: Cum Laude

ORGANIZATION OF R+D ACTIVITIES

- Event: **EMBO Workshop "Organ Crosstalk in Energy Balance and Metabolic Disease"**
  Type of Participation: Organizer
  Meeting Place: Cadiz
  Year: 2019

- Event: **EMBO Workshop "Metabolic Disorders and Liver Cancer"**
  Type of Participation: Organizer
  Meeting Place: Barceló Illetas Albatros, Islas Baleares
  Year: 2017

- Event: **Symposium at XXXIX Congreso de la SEBBM**. "Stress kinase signaling in health and disease"
  Type of Participation: Organizer
  Meeting Place: Salamanca
  Year: 2016

- Event: **Second INMUNOTHERCAN Symposium.** Inflammation and Immunity in Cancer.
  Type of Participation: Organizer
  Meeting Place: CNB
  Year: 2015
- Event: **CNIC Conferences**. Energy homeostatis and metabolic disease. Instituto de Salud Carlos III. Madrid. Spain
  Type of Participation: Organizer
  Meeting Place: CNIC. Spain
  Year: 2014

OTHER ACHIEVEMENTS

MEMBER OF SCIENTIFIC COMMITTEE

- EMBO Workshop "Metabolic Disorders and Liver Cancer". Barceló Illetas Albatros, Islas Baleares. 2017
- Second INMUNOTHERCAN Symposium. Inflammation and Immunity in Cancer. CNB 2015
- Symposium XXXIX Congreso de la SEBBM. "Stress kinase signaling in health and disease" Salamanca 2016
- Organization of CNIC Conferences 2014. Energy homeostatis and metabolic disease. Instituto de Salud Carlos III
- ERC Evaluator starting grant. 2017
- Evaluador WHRI-Academy (Cofund Marie Curie action). 2016
- Evaluador de MRC. 2017
- ANEP (Spain). 2013- current.
- Grants Evaluation Pannel: Fondo Sectorial de Investigación en Salud y Seguridad Social (México). 2011
- Agencia Nacional de Promoción Científica y Tecnológica (ANPCyT) y Fondo para la Investigación Científica y Tecnológica (FONCyT). 2014- current.
- Jury of the award "Premio Periodismo Accenture".
- Peer-Reviewer MCB. 2011- current.
- Peer-Reviewer PNAS. 2017
- Peer-Reviewer JAAC. 2018 -
- Peer-Reviewer Nat Commun. 2018 -

- Grants Review (SAF) Agencia Nacional de Evaluación y Prospectiva. 2017
- Grants Review. (Loreal). Agencia Nacional de Evaluación y Prospectiva. 2015
- Jury member of the "Principe de Girona" awards 2014
- Director of the L'Oréal-UNESCO For Women in Science evaluation committee 2018

FELLOWSHIPS

- 1999/00. Graduate Student fellowship from the Spanish Ministry of Education.
- 2001-2004. Predoctoral Fellowship of the Spanish Ministry of Education.
- 2002 Fellowship from Spain Ministry to work for five months at University of Dundee.
- 2002 Cell signalling fellowship to work for two months at University of Dundee.
- 2003 Short-term Fellowship from EMBO to work for three months at University of Dundee.
- 2003 Fellowship from Spain Ministry to work for six months at University of Dundee.
- 2003 Fellowship from Extremadura to work for three months at University of Dundee.
- 2004 FEBS Fellowship to work for two months at University of Dundee.
- 2004 Fellowship from Extremadura to work for three months at University of Dundee.
- 2004 Fellowship from Spain Ministry to work for six months at University of Dundee.
- 2005-2009. Research Associate at Howard Hughes Medical Institute working at the UMASS Medical School in the Program of Molecular Medicine. Mentor: Roger J Davis.
- 2009. Research JAE Doc. Centro Nacional de Biotecnolgía,CSIC, Madrid.
- Nov 2009. Ramón y Cajal. Centro Nacional de Biotecnolgía,CSIC, Madrid.

ORGANIZING OUTREACH ACTIVITIES

- *ACERCATE program*: Training to students of last year of high-school during two weeks in three consecutive editions 2015-2016-2017-2018-2019
- A family day at the CNIC: Kids form 3-13 years old came to CNIC a Satuday and we talk about the importance of the diet and we perform diferent experiment to bring the science to the children (2015, 2016, 2017, 2018)
- Day of the Immunology (2016) we talk about the importance of the vaccination and we perform different experiment to bring the science to the children (2016)
- Women's Day in Science (2016) we have a teathre that explain the importance of the education to get the equality, we also record a video with testimonies of women scientists from the CNIC (2016)
- Repsol day with children we talk about the importance of the research and the scientific method, and the the importance of the education to get the equality (2016)
- *Acércate al CNIC*: 200 kids came to CNIC and we discuss about research career and the diferent possibilities) (2016-2017)

- School visit to explain how is the scientist career and what is the scientific method (2015, 2016, 2017, 2018)

HONORS

- Premio nacional Astra Zeneca for Research 2018
- Premio nacional de Investigación en salud Jesús Serra 2018
- EMBO Young Investigator 2018
- Young investigador award Investigador SEBBM-Biotools 2016
- Award: 10 most important female scientists in Spain. 2014, 2015 and 2016.
- Premio Asociación Extremeña de Alcorcón 2014
- Siete Estrellas Award Comunidad de Madrid 2014
- Impulsa award of Science . Principe de Girona 2012
- Young research Loreal-Unesco Spain . 2010
- Best PhD Thesis Award from the University of Extremadura, Spain (2005). Title: Role of the interaction of the stress-activated protein kinase SAPK3 with proteins containing PDZ domains
- Best Master's Thesis Award from the University of Extremadura, Spain (2001)
- Award for studies in Veterinary Sciences from the University of Extremadura for the highest grade of the year (2000)
- Best Graduate Student of the Year Award from the University of Extremadura, Spain (2000)
- 1st award in Nutrition from Eukanuba, University of Extremadura, Facultad de Veterinaria (1999)

STUDENT´s ACADEMICAL SUPERVISION

- Participation in the RESCNIC program for médicos residentes (years 2012 to 2016)
  Venue: Fundación Centro Nacional de Investigaciones Cardiovasculares Carlos III
  N.º of students supervised: 5
- Participation in the summer training program CICERONE for university students (years 2011 to 2016) Venue: Instituto de Salud Carlos III
  N.º of students supervised: 11
- Participation in the training of FP students (years 2011 to 2016)
  N.º of students supervised: 8
- Participation in the external training AECC (years 2010 to 2016)
  N.º of students supervised: 4
- Participation in the external *training during the career* (years 2012 to 2016)
  N.º of students supervised: 10, 2 accesit award Arquimides

MASTER´S FINAL PROJECTS

Title: "Papel fisiológico de las quinasas p38 en adipocitos",
University: Grado de Biotecnología, Universidad de Salamanca

Student: **Cristina Casanueva Benítez-Cano**
Qualification: Sobresaliente
Date: 2018

- Title: MKK6: a novel player in pathological cardiac hypertrophy and sudden cardiac death
  University: Universidad Autónoma de Madrid
  Student: **Rafael Romero**
  Qualification:
  Date: 2018

- Title: p38 MAPKs: friends or foes for thermogenesis?
  University: Universidad Autónoma de Madrid
  Student: **Marta Pulgarín**
  Qualification:
  Date: 2018

- Title: Liver MKK6 as regulator of body homeostasis
  University: Universidad Autónoma de Madrid
  Student: **Ana Belen Plata**
  Qualification: Sobresaliente
  Date: 2017

- Title: El papel de los neutrofilos en el control del ritmo circadino del hígado
  University: Universidad de Alcalá de Henares
  Student: **María Crespo**
  Qualification: Sobresaliente. Acess award in the "Premio Arquímides"
  Date: 2017

- Title: Role of muscle p38MAPK signaling in metabolism
  University: Universidad Autónoma de Madrid
  Student: **Leticia Herrera Melle**
  Qualification: Sobresaliente. Acess award in the "Premio Arquímides"
  Date: 2016

- Title: Implication of p38MAPK Pathway in exercise-induced cardic hypertropy
  University: Universidad Autónoma de Madrid
  Student: **Laura Sanz Terradillo**
  Qualification: Sobresaliente
  Date: 2015

- Title: Caracterización de la función de MKK6 en distintos tipos celulares
  University: Autónoma de Madrid
  Student: **Caballero Sánchez Beatriz**
  Qualification: Sobresaliente
  Date: 2014

- Title: p38δ: a starting point to understand diet-induced phenotypes through Akt and Fgf21
  University: Autónoma de Madrid
  Student: **Sara Bernárdez Noya**
  Qualification: Sobresaliente
  Date: 2014

- Title: Role of p38MAPK and MicroRNAS in Obesity and associated diseases
  University: Universidad Complutense de Madrid
  Student: **Edgar Bernardo Vasco**
  Qualification: Sobresaliente

Date: 2013

- Title: Role of p38MAPK and miRNAS in the diabetes
  Universidad: Universidad Autónoma de Madrid
  Student: **María del Valle Montalvo Romeral**
  Qualification: Notable
  Date: 2013

- Title: Role of p38MAPK pathway in liver damage
  University: Universidad Autónoma de Madrid
  Student: **Bárbara González Terán**
  Qualification: Sobresaliente
  Date: 2011

PROJECT AT THE END OF THE DEGREE SUPERVISED

- Title: JNK controla el dimorfismo sexual en el padecimiento de HCC
  University: Universidad Autónoma de Madrid
  Student: **Delia Irene Fernandez**
  Qualification: Sobresaliente
  Date: 2017

- Title: "p38 MAPKs regulan el crecimiento hepático"
  University: Universidad de Alcalá de Henares, Madrid
  Student: **Laura Sanz Terradillos**.
  Qualification: Sobresaliente
  Date: 2014

- Title: Papel de MKK3 en la aparición de diabetes inducida por obesidad
  University: Universidad de Alcalá de Henares
  Student: **Leticia Herrera Melle**
  Date: 2013
  1er Premio al mejor trabajo de final de carrera de la Comunidad de Madrid. Colegio de Biólogos

- Title: Role of PPAR alpha in liver cancer
  University: Alcalá de Henares
  Student: **Laura Esteban**
  Date: 2014
  Finalista al mejor trabajo de final de Carrera de la Comunidad de Madrid

- Title: Papel de la vía de p38MAPK en la hipertrofia cardiaca
  University: Universidad de Alcalá de Henares
  Student: **Miriam Castillo**
  Date: 2013

- Title: Papel de p38 gamma y p38 delta en desarrollo de tumores hepáticos
  University: Autónoma de Madrid
  Student: **Beatriz Caballero**
  Date: 2013

UNIVERSITY TEACHING

- Teacher at Master Oficial de Biomedicina Molecular (2010 – to date)
  Universidad Autónoma de Madrid
- Course: "Introducción a la Cardiología" 2013

- Seminar: "Investiga Tu Futuro" Extremadura 2012, 2013

SELECTION OF THE MOST IMPORTANT INVITED LECTURES IN SCIENTIFIC EVENTS

Sistam, Bariloche, Argentina. 2018. Adipose tissue, not only fat

Congreso Intenacional de Inmunología. CanCun, México. 2018. Neutrophils are key players in the regulation of liver Metabolism.

First CSCB EMBO YIP joint conference. Suzhou, China. 2018**.** A stress kinase works as a Cyclin Dependent Kinase inducing cell cycle entry and hepatocellular carcinoma.

EMBO. Metabolic disorders and liver cancer. Palma de Mallorca 2017. p38 MAPKs in steatosis and liver cáncer. Sabio G

XXI reunión científica Plasencia. Charla inaugural. Febero 2017. Nuevas estrategias en la lucha contra la obesidad. Sabio G

ERA Career Day Toledo (23-24 May 2017). Charla Plenaria. Cuando tu passion es la ciencia. Sabio G

SEBBM-BIOTOOLS Young Award Lecture: for scientific work in Spain. The emerging role of stress kinases in tissue homeostasis and pathophysiology. Salamanca 2016. Guadalupe Sabio

PhD Day CNIC. Building bridges between the lab and the society. Madrid 2016. Sabio G

SAIC SAI SAFE meeting. Mar de Plata. Argentina. La vía de la p38 en el control de la fisiología cardiaca. 2016 Sabio G

CIB Madrid. p38gamma: A new target for liver cancer. 2016 Sabio G

CNB Madrid Ciclo **de seminarios los amigos del DIO.** Role of p38gamma and delta in metabolic diseases. 2016 Sabio G

University of Aberdeen. 2015. Stess kinase in health and disease. 2015 Sabio G

University of Massachusetts. p38γ and δ promote heart hypertrophy by targeting the mTOR-inhibitory protein DEPTOR for degradation. 2015 Sabio G

The Third South American South American Symposium in Signal Transduction and Molecular Medicine. Argentina. Role of p38γ and δ in heart growth Sabio G 2015.

University of Buenos Aires. Stress kinases in health and disease. Sabio G 2015.

Winter Retreat of our Institute for Diabetes and Obesity. Helmholtz Diabetes Center, Munich. "Unveiling the role of MKK6 in energy balance and obesity". Sabio G 2014.

Young Physiologists symposium. (Budapest) "Reprograming of liver metabolism by alternative p38-mediated modulation of neutrophil migration" Sabio G 2014

Frontiers in Obesity Research by ERC`S Meeting. (Santiago de Compostela)
"MKK6 signalling contributes to obesity and insulin resistance" Sabio G 2014.

3rd Madrid Meeting on DCS and Macrophages. (Madrid) *"Neutrophils are key inductor of steatosis through the activation of p38g/d.*" Sabio G. 2014.

Keystone conference. 2014. (Dublin) *"Lipid Pathways in Biology and diseases. Lack of p38γ/δ in liver steatosis*" González Terán B, Verdugo Becerra A, Matesanz N, Bernardo E, Francisco Leiva LG, Rodríguez E, Ligos JM, Rincón M, Torres Triana JL, Coronel OR, Cuenda A, Martín P, Marcos Martín M, Sabio G .

1st Immunothercan Symposium. 2013 (Madrid) *"Role of stress kinases in liver diseases*" Sabio G

University of Cambridge Metabolic Research Laboratories. *JNK, multiple mechanisms in the control diabetes.* **G Sabio** 2010

Metabolic disorders. IBC. 2009 (Boston)
"JNK1 as a Potential Target for Therapeutic Treatment of Metabolic Syndrome"
G Sabio; M Das; A Mora; Z Zhang; J Y Jun3; H JinKo; T Barrett; J K Kim; R J Davis.