

Almudena Gómez-Hernández

- ✓ **Date and place of birth:** 15th November 1976, Madrid (Spain).
- ✓ **Married and two children** (3 and 7 years old).
- ✓ **E-mail:** algomezh@ucm.es



EDUCATION

June 2004 - PhD in Biochemistry in Medicine School, Autonoma University of Madrid (Spain). Field of study: Biochemistry. Cardiovascular Area. Title of thesis: "Participation of COX-2 pathway in an experimental and human atherosclerosis. Mechanisms of activation and therapeutic modulation". Summa Cum Laude.

Other studies:

2009- Science Management Course. Complutense University of Madrid.

2005- Master in Monitoring of Clinical Trials. Autonoma University of Madrid.

2003- Science and Technology Management Course. Carlos III University of Madrid.

2000-Pedagogical Aptitude Certificate (CAP). Institute of Educational Sciences, Complutense University of Madrid.

1999- Degree in Chemical Sciences. Specialization: Biochemistry. Complutense University of Madrid.

RESEARCH AND PROFESSIONAL EXPERIENCE

Author of 45 publications and 3 in publication period in the area of diabetes and cardiovascular (since 2002). Participation in 18 research projects, 79 communications to national and international congresses and direction of 3 doctoral theses.

Editorial Board Member of Cardiovascular Diabetology Journal.

Reviewer of papers by the American Journal of Cardiology, Cardiovascular Diabetology, Canadian Journal of Physiology and Pharmacology, Molecular and Cellular Endocrinology and Clinical Nutrition and Hospital Dietetics Journal.

General indicators of the quality of scientific production

Two research six-year terms (1st six-year term: 2001-2006, 2nd six-year term: 2007-2012).

Total appointments: 1228(Google Scholar)

Index h: 17

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11/2010- Present. Associate Professor. Department of Biochemistry and Molecular Biology. Pharmacy School. UCM.

10/2009- 10/2010- Assistant Professor (PhD). Department of Biochemistry and Molecular Biology. Pharmacy School. UCM.

10/2005-01/2009- Teaching Assistant Professor. Department of Biochemistry and Molecular Biology. Pharmacy School. UCM.

06/2004 – 10/2005- Post-doctoral fellow. Vascular Pathology Laboratory. Jimenez Diaz Foundation. UAM.

06/1999- 6/2004. Pre-doctoral fellow. Vascular Pathology Laboratory. Jimenez Diaz Foundation. UAM

PRIZES

2015- Prize of Pharmaceutical Association of Madrid (Prize Juan Abelló). Title: "Role of A insulin receptor and IGF-IR in the growth of atherosclerotic plaque".

2011- Prize Carrasco i Formiguera of Junior Clinical Research in Diabetes. Spanish Society of Diabetes and Lilly.

2008- Prize of Pharmaceutical Association of Madrid (Prize of the General Council of Colleges of Pharmacists). Title:"Hyperplasia of beta pancreatic cells against hepatic insulin resistance: role of hepatopancreatic axis".

2005- Prize of PhD by Royal National Academy of Medicine and San Nicolás Foundation. Title: "Participation of Cox-2 pathway in human and experimental atherosclerosis. Mechanisms of activation and therapeutic modulation".

2005- Extraordinary Prize of PhD.

2003- Finalist Poster in 76nd Scientific Sessions of the American Heart Association.

2001, 2003- Prize for the best communication of XIV and XVI National Congresses of Spanish Society of Atherosclerosis.

PUBLICATIONS

- 1- **Gómez-Hernández A***, López-Pastor AR, Rubio-Longás C, Majewski P, Escribano O, Beneit N, Viana-Huete V, García-Gómez G, Fernández S, Benito M. p85 α brown adipose tissue specific knockout induces resistance to high fat diet-induced obesity and its metabolic complications in male mice. BBA Molecular of Disease 2018 (in review). ***Corresponding author.**
- 2- Lopez-Pastor AR, **Gomez-Hernandez A**, Diaz-Castroverde S, Gonzalez-Asequinolaza G, Gonzalez-Rodriguez A, Garcia G, Fernandez S, Escribano O, Benito M. Liver-specific insulin receptor isoform A expression enhances hepatic glucose uptake and ameliorates liver steatosis in a mouse model of diet-induced obesity. DMM 2018 (in review).
- 3- de Las Heras N, Klett-Mingo M, Ballesteros S, Martín-Fernández B, Escribano Ó, Blanco-Rivero J, Balfagón G, Hribal ML, Benito M, Lahera V, **Gómez-Hernández A**. Chronic Exercise Improves Mitochondrial Function and Insulin Sensitivity in Brown Adipose Tissue.Front Physiol. 2018 Aug 17;9:1122.
- 4- Beneit N, Martín-Ventura JL, Rubio-Longás C, Escribano Ó, García-Gómez G, Fernández S, Sesti G, Hribal ML, Egido J, **Gómez-Hernández A**, Benito M. Potential role of insulin receptor isoforms and IGF receptors in plaque instability of

- human and experimental atherosclerosis. *Cardiovasc Diabetol.* 2018 Feb 20;17(1):31. ***Corresponding and Co-senior author.**
- 5- Escribano O*, Beneit N, Rubio-Longás C, López-Pastor AR, **Gómez-Hernández A***. The role of insulin receptor isoforms in diabetes and its metabolic and vascular complications. *Journal of Diabetes Research* 2017; 1403206. doi: 10.1155/2017/1403206. ***Co-corresponding author.**
 - 6- Beneit N, Fernandez-García CE, Martín-Ventura JL, Perdomo L, Escribano O, Díaz-Castroverde S; Michel JB, Egido J, **Gómez-Hernández A***, Benito M. Expression of insulin receptor (IR) A and B isoforms, IGF-IR, and IR/IGF-IR hybrid receptors in vascular smooth muscle cells and their role in cell migration in atherosclerosis. *Cardiovascular Diabetology* 2016;15:161. ***Corresponding and Co-senior author.**
 - 7- **Gómez-Hernández A***, Beneit N, Díaz-Castroverde S, Escribano O*. Differential Role of Adipose Tissues in Obesity and Related Metabolic and Vascular Complications. *Int J Endocrinol.* 2016; 2016:1216783. Review. ***Co-corresponding author and Co-senior author.**
 - 8- Díaz-Castroverde S, Baos S, Luque M, Di Scala M, González-Aseguinolaza G, **Gómez-Hernández A**, Beneit N, Escribano O and Benito M. Prevalent role of the insulin receptor isoform A in the regulation of hepatic glycogen metabolism and glucose homeostasis. *Diabetologia.* 2016;59(12):2702-2710.
 - 9- Díaz-Castroverde S, **Gómez-Hernández A**, Fernández S, García-Gómez G, Di Scala M, González-Aseguinolaza G, Fernández-Millán E, García-Bravo M, Chambon P, Perdomo L, Beneit N, Escribano O and Benito M. "Insulin receptor isoform A, but not B, ameliorates glucose intolerance in diabetic mice". *Dis Model Mech.* 2016;9(11):1271-1281.
 - 10- **Gómez-Hernández A***, Beneit N, Escribano O, Díaz-Castroverde S, García-Gómez G, Fernández S, Benito M. Severe Brown Fat Lipoatrophy Aggravates Atherosclerotic Process. *Endocrinology* 2016;157(9):3517-28. ***Corresponding author.**
 - 11- **Gómez-Hernández A***, Beneit N, Perdomo L, Escribano Ó, Díaz-Castroverde S, Benito M. Role of insulin receptor A isoform and IGF-1R in the development of atherosclerotic plaque. *An Real Acad Farm* 2016;82:129-142. ***Corresponding author.**
 - 12- Perdomo L, Beneit N, Otero YF, Escribano O, Díaz-Castroverde S, **Gómez-Hernández A***, Benito M. Protector role of oleic acid against cardiovascular insulin resistance and in the early and late cellular atherosclerotic process. *Cardiovasc Diabetol* 2015; 10;14:75. ***Corresponding author.**
 - 13- Fuentes-Antrás J, Picatoste B, **Gómez-Hernández A**, Egido J, Tuñón J, Lorenzo Ó. Updating experimental models of diabetic cardiomyopathy. *J Diabetes Res.* 2015;2015:656795.
 - 14- Escribano O, **Gómez-Hernández A**, Díaz-Castroverde S, Nevado C, García G, Otero YF, Perdomo L, Beneit N, Benito M. Insulin receptor isoform A confers a higher proliferative capability to pancreatic beta cells enabling glucose availability and IGF-I signalling. *Molecular and Cellular Endocrinology* 2015; 409:82-91.
 - 15- **Gómez-Hernández A***, Perdomo L, de Las Heras N, Beneit N, Escribano O, Otero YF, Guillén C, Díaz-Castroverde S, Gozalbo-López B, Cachofeiro V, Lahera V, Benito M. Antagonistic effect of TNF- α and insulin on UCP-2 expression and vascular damage. *Cardiovasc Diabetol.* 2014 Jul 31;13(1):108. ***Corresponding author.**

- 16- **Gómez-Hernández A***, Perdomo L, Escribano O, Benito M. Papel del tejido adiposo blanco, marrón y perivascular en las complicaciones vasculares asociadas a la obesidad. *Anales de la Real Academia Nacional de Farmacia*, ISSN 0034-0618, ISSN-e 1697-4271, N.º. 2, 2014, págs. 322-346. ***Corresponding author.**
- 17- **Gómez-Hernández A***, Escribano O, Perdomo L, Otero YF, Gomez-García G, Fernández S, Beneit N, Benito M. Implication of Insulin Receptor A Isoform and IRA/IGF-IR Hybrid Receptors in the Aortic Vascular Smooth Muscle Cell Proliferation: Role of TNF- α and IGF-II. *Endocrinology*. 2013;154:2352-64. ***Corresponding author.**
- 18- Guillen C, Bartolome A, Vila-Bedmar R, García-Aguilar A, **Gómez-Hernández A**, Benito M. Concerted expression of the thermogenic and bioenergetic mitochondrial protein machinery in brown adipose tissue. *J Cell Biochem*. 2013;114:2306-13.
- 19- **Gómez-Hernández A***, Perdomo L, Escribano Ó, Benito M. Role of brown and perivascular adipose tissue in vascular complications due to obesity. *Clin Investig Arterioscler*. 2013 Jan-Mar; 25(1):36-44. ***Corresponding author.**
- 20- **Gómez-Hernández A***, Perdomo L, Escribano Ó, Benito M. Role of white adipose tissue in vascular complications due to obesity. *Clin Investig Arterioscler*. 2013 Jan-Mar;25(1):27-35. ***Corresponding author.**
- 21- de Las Heras N, Valero-Muñoz M, Ballesteros S, **Gómez-Hernández A**, Martín-Fernández B, Blanco-Rivero J, Cachofeiro V, Benito M, Balfagón G, Lahera V. Factors involved in rosuvastatin induction of insulin sensitization in rats fed a high fat diet. *Nutr Metab Cardiovasc Dis*. 2013 Nov;23(11):1107-14.
- 22- **Gómez-Hernández A**, Otero YF, de las Heras N, Escribano O, Cachofeiro V, Lahera V, Benito M. Brown Fat Lipoatrophy and increased adiposity through a concerted adipocytokines overexpression induces vascular insulin resistance and dysfunction. *Endocrinology*, 2012;153:1242-1255.
- 23- **Gómez-Hernández A**, Otero YF, de las Heras N, Escribano O, Cachofeiro V, Lahera V, Benito M. El papel de la lipoatrofia marrón en las alteraciones metabólicas y vasculares asociadas a la obesidad y al envejecimiento. *Av Diabetol*. 2011;27 (Espec Congr):1-8.
- 24- Escribano O, **Gómez-Hernández A**, Benito M. Beta-Cell hyperplasia induced by hepatic insulin resistance: role of a liver-pancreas endocrine axis through insulin receptor A isoform. *An R. Acad. Nac. Farm*, 2010, 76(1):23-44.
- 25- Escribano O, Guillén C, Nevado C, **Gómez-Hernández A**, Kahn CR, Benito M. Beta-Cell hyperplasia induced by hepatic insulin resistance: role of a liver-pancreas endocrine axis through insulin receptor A isoform. *Diabetes*. 2009; 58: 820-8.
- 26- Sánchez-Galán E, **Gómez-Hernández A**, Vidal C, Martín-Ventura JL, Blanco-Colio LM, Muñoz-García B, Ortega L, Egido J, Tuñón J. Leukotriene B4 enhances the activity of nuclear factor-kappaB pathway through BLT1 and BLT2 receptors in atherosclerosis. *Cardiovasc Res*. 2009; 81: 216-25.
- 27- **Gómez-Hernández A**, Sánchez-Galán E, Ortego M, Martín-Ventura JL, Blanco-Colio LM, Tarín-Vicente N, Jiménez-Nacher JJ, López-Bescos L, Egido J, Tuñón J. Effect of intensive atorvastatin therapy on prostaglandin E2 levels and metalloproteinase-9 activity in the plasma of patients with non-ST-elevation acute coronary syndrome. *Am J Cardiol*. 2008;102:12-8.
- 28- Vidal C*, **Gómez-Hernández A***, Sánchez-Galán E*, González A, Ortega L, Gómez-Gerique JA, Tuñón J, Egido J. Licofelone, a balanced inhibitor of cyclooxygenase and 5-lipoxygenase, reduces inflammation in a rabbit model of atherosclerosis. *J Pharmacol Exp Ther*. 2007; 320: 108-16. (*) Three first authors have contributed equally to the paper.

- 29- **Gómez-Hernández A**, Sánchez-Galán E, Martín-Ventura JL, Vidal C, Blanco-Colio LM, Ortego M, Vega M, Serrano J, Ortega L, Hernández G, Tuñón J, Egido J. Atorvastatin reduces the expression of prostaglandin E2 receptors in human carotid atherosclerotic plaques and monocytic cells: potential implications for plaque stabilization. *J Cardiovasc Pharmacol*. 2006; 47:60-9.
- 30- Martín-Ventura JL, Blanco-Colio LM, **Gómez-Hernández A**, Muñoz-García B, Vega M, Serrano J, Ortega L, Hernández G, Egido J, Tuñón J. El tratamiento con dosis altas de atorvastatina disminuye la inflamación en la aterosclerosis carotídea humana. *Clínica e Investigación en arteriosclerosis*. 2006; 18-23.
- 31- Tuñón J, Sánchez-Galán E, **Gómez-Hernández A**, Vidal C, Martín-Ventura JL, Egido J. Marcadores inflamatorios de riesgo cardiovascular. Más allá de la PCR. *Cardiovascular Risk Factors* 2006; 15: 34-44.
- 32- **Gómez-Hernández A**, Martín-Ventura JL, Sánchez-Galán E, Vidal C, Ortego M, Blanco-Colio LM, Ortega L, Tuñón J, Egido J. Overexpression of COX-2, Prostaglandin E synthase-1 and prostaglandin E receptors in blood mononuclear cells and plaque of patients with carotid atherosclerosis: regulation by nuclear factor-kappaB. *Atherosclerosis*. 2006; 187: 139-49.
- 33- Martín-Ventura JL, Blanco-Colio LM, **Gómez-Hernández A**, Muñoz-García B, Vega M, Serrano J, Ortega L, Hernández G, Tuñón J, Egido J. Intensive treatment with atorvastatin reduces inflammation in mononuclear cells and human atherosclerotic lesions in one month. *Stroke*. 2005; 36: 1796-800.
- 34- Ortego M*, **Gómez-Hernández A***, Vidal C, Sánchez-Galán E, Blanco-Colio LM, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. HMG-CoA reductase inhibitors reduce I kappa B kinase activity induced by oxidative stress in monocytes and vascular smooth muscle cells. *J Cardiovasc Pharmacol*. 2005; 45: 468-75. (*Two first authors contributed equally to the paper.
- 35- Blanco-Colio LM, Martín-Ventura JL, **Gómez-Hernández A**, Egido J. Propiedades anti-inflamatorias e inmunomoduladoras de las estatinas. *Nefrología* 2004;24 Suppl 1:48-49.
- 36- Blanco-Colio LM, Martín-Ventura JL, **Gómez-Hernández A**, Egido J. Statins, inflammation and atherosclerotic damage. *Nefrología*. 2004; 24 Suppl 4:17-20.
- 37- Martín-Ventura JL, Blanco-Colio LM, Muñoz-García B, **Gómez-Hernández A**, Arribas A, Ortega L, Tuñón J, Egido J. NF-kappaB activation and Fas ligand overexpression in blood and plaques of patients with carotid atherosclerosis: potential implication in plaque instability. *Stroke*. 2004; 35: 458-63.
- 38- Blanco-Colio LM, Tuñón J, Martín-Ventura JL, Muñoz-García B, **Gómez-Hernández A**, Ortego M, Egido J. Estatinas. Nuevos efectos pleiotrópicos: antiinflamatorio e inmunomodulador. *Clin Invest* 2003; 15(Supl 3):40-4.
- 39- Ortego M, **Gómez-Hernández A**, Bustos C, Blanco-Colio LM, Hernández-Presa MA, Tuñón J, Egido J. 3-hydroxy-3-methylglutaryl coenzyme a reductase inhibitors increase the binding activity and nuclear level of OCT-1 in mononuclear cells. *European Journal of Pharmacology* 2002; 448:113-121.
- 40- Hernández-Presa MA, Martín-Ventura JL, Ortego M, **Gómez-Hernández A**, Tuñón J, Hernández-Vargas P, Blanco-Colio LM, Mas S, Aparicio C, Ortega L, Vivanco F, Gerique JG, Díaz C, Hernández G, Egido J. Atorvastatin reduces the expression of cyclooxygenase-2 in a rabbit model of atherosclerosis and in cultured vascular smooth muscle cells. *Atherosclerosis*. 2002; 160: 49-58.
- 41- Blanco-Colio LM, Tuñón J, Martín-Ventura JL, Muñoz B, **Gómez-Hernández A**, Ortego M, Egido J. Efectos pleiotrópicos de los inhibidores de la HMG-CoA

- reductasa. I. Efectos antiinflamatorios e inmunomoduladores. Clin Invest Arterioscl 2002;14 (Supl 4): 28-37.
- 42- Blanco-Colio L, Martín-Ventura JL, Ortego M, **Gómez-Hernández A**, Tuñón J, Egido J. Aterosclerosis: Enfermedad inflamatoria de la pared vascular. Clínica, Investigación y Aterosclerosis. 2001.
- 43- Blanco-Colio L, Ortego M, Martín-Ventura JL, **Gómez-Hernández A**, Tuñón J, Egido J. Aterosclerosis: Inflamación, vulnerabilidad de la placa ateromatosa y estatinas. Clínica, Investigación y Aterosclerosis. 2001.

- Chapter books:

- 44- Tuñón J, **Gómez-Hernández A**, Vidal C, Sánchez Galán E, Martín-Ventura JL, Egido J. Capítulo: "Nuevos Biomarcadores de Riesgo Cardiovascular". Libro: Aterosclerosis al Día (VI). Soltero I (ed.). Caracas, Asociación Venezolana de Aterosclerosis 2006; 169-199.
- 45- Egido J, Martín-Ventura JL, Blanco-Colio LM, **Gómez-Hernández A**, Sánchez-Galán E, Vidal C, Tuñón J. Capítulo: "Inflamación y aterosclerosis". Aterotrombosis: De la disfunción Endotelial a la Regeneración Miocárdica. Editorial Línea de Comunicación, Madrid, 2004: 235-245.
- 46- Egido J, Martín-Ventura JL, Blanco-Colio LM, Ruiz-Ortega M, **Gómez-Hernández A**, Tuñón J. Capítulo: "Aterosclerosis y fármacos moduladores de la angiotensina II". Libro: Aterotrombosis: De la disfunción Endotelial a la Regeneración Miocárdica. Editorial Línea de Comunicación, Madrid, 2004:195-203.
- 47- Tuñón J, Martín-Ventura JL, **Gómez-Hernández A**, Blanco-Colio LM, Tarín Vicente N, Egido J. Capítulo: "Etiopatogenia y correlaciones clínicas de la aterotrombosis". Libro: Aterotrombosis: De la disfunción Endotelial a la Regeneración Miocárdica. Editorial Línea de Comunicación, Madrid, 2004:19-37.
- 48- Blanco-Colio LM, Martín-Ventura JL, Ortego M, **Gómez-Hernández A**, Tuñón J, Egido J. Capítulo: "Aterosclerosis: enfermedad inflamatoria en la pared vascular". Arteriosclerosis en Atención Primaria. Biblioteca Básica, 2003:45-53.
- 49- Tuñón J, Ortego M, Tarín N, Martín Ventura JL, **Gómez-Hernández A**, Egido J. Capítulo: "Fisiopatología de la aterosclerosis". Libro: Aterosclerosis al Día (V). I Soltero, (ed). Caracas, Asociación Venezolana de Aterosclerosis, 2002:35-53.

PARTICIPATION IN RESEARCH PROJECTS

1 – Title of the project: Molecular mechanisms of brown adipose tissue formation and browning: resistance to obesity. SAF 2014-51795-R. Funding entity: National R + D + I Plan of the Ministry of Science and Innovation. Duration: from 2015-2017. Main investigator: Manuel R. Benito de las Heras.

2- Project title: Role of the formation and function of brown adipose tissue on patogénesis of obesity: Recovery of brown thermogenic function as antiobesity therapy. Funding entity: National R + D + I Plan of the Ministry of Science and Innovation. Duration: from 2012-2014. Main investigator: Manuel R. Benito.

- 3- Title of the project: CIBERBEM. Financing entity: INSTITUTO DE SALUD CARLOS III. MICINN. Duration: since 2008. Main investigator: Manuel R. Benito.
- 4 - Project title: Impact of insulin resistance states and their compensatory mechanisms by endocrine pancreas on the endothelial / vascular damage. Financing entity: CIBERDEM. Participating Entities: Universidad Complutense de Madrid, IDIBAPS and CIPF. Duration: 2009-2010. Main investigator: Manuel R. Benito.
- 5- Project title: Animal and cell models of insulin resistance. Vascular damage. Financing entity: SAF 2008-00031. Participating Entities: Universidad Complutense de Madrid. Duration: 2008-2010. Main investigator: Manuel R. Benito.
- 6- Título del proyecto: RETIC en Diabetes Mellitus (REDIMET). Entidad financiadora: RD06/0015/0005, Instituto de Salud Carlos III, M.S.C. Entidades Participantes: Universidad Complutense de Madrid. Duración: 2007-2010. Investigador principal: Manuel R. Benito de las Heras.
- 7- Title of the project: Molecular defects in Diabetes mellitus: Gene and Cell Therapy. Funding entity: F.I.S PIO5041, Carlos III Health Institute, M.S.C. Duration: 2006. Main investigator: Manuel R. Benito.
- 8- Title of the project: Network of Diabetes groups: Metabolic and molecular defects in diabetes mellitus and its complications. Gene and cell therapy. Funding entity: G03 / 212, Carlos III Health Institute, M.S.C. Duration: 2003-2005. Main investigator: Manuel R. Benito.
- 9- Project title: Prognostic value of HSP-27 and cathepsin D levels in the síndromes acute coronary: a transnational study. Funding Entity Sanitary Research Fund. Duration: 2005-2008. Main investigator: José Tuñón.
- 10- Title of the project: Regulation of the inflammatory response during the formation and progression of atherosclerotic plaque. Therapeutic approaches. Funding entity: Community of Madrid (CAM 08.4 / 307 / 2001.1.). Duration: June 2002- June 2004. Main investigator: José Tuñón.
- 11- Project title: Effect of HMG-CoA reductase inhibitors on inflammation and apoptosis in human atherosclerotic plaques. Funding entity: Spanish Heart Foundation and Spanish Society of Cardiology. Duration: January 2002 - December 2003. Main investigator: José Tuñón.
- 12- Project title: Effect of inhibition of cyclooxygenase-2 in experimental atherosclerosis. Funding entity: Mapfre Medicina Foundation. Duration: January 2002- December 2003. Main investigator: José Tuñón.
- 13- Title of the project: Regulation of the inflammatory response during the formation and progression of license plate. Financing entity: F.I.S. 03/0134. Duration: January 2001- December 2003. Main Investigador: José Tuñón.
- 14- Title of the project: Regularization of the cellularity of the vascular wall during the formation and progression of the atherosclerotic plaque. Therapeutic modulation. Financing entity: CAM (08.4 / 0021/2003). Duration: January 2002- December 2003. Main investigator: Jesus Egido.
- 15- Title of the project: Study of new diagnostic and therapeutic targets in the disease cardiovascular disease through proteomic analysis. Financing entity: F.I.S. (F.I.S. 01/0605). Duration: January 2001 - December 2004. Main investigator: Jesus Egido.

16- Title of the project: Physiopathology of the instability of the atherosclerotic plaque by the hypercholesterolemia. Financing entity: F.I.S. Duration: January 1998 - December 2000. Main researcher: Jesús Egido

17- Title of contract: Effect of ML3000 vs. the cyclooxygenase inhibitor rofecoxib on the inflammation and the thrombogenicity in an atherosclerosis model in rabbits. Company/financing administration: Lácer. Duration: January 2002 - December 2005. Main investigator: Jesus Egido.

18- Title of contract: Role of atorvastatin in the stabilization of the atherosclerotic lesion: antiinflammatory and antithrombotic effect. Company/financing administration: Parke-Davis. Duration: January 1997- December 1998. Main investigator: Jesús Egido.

NATIONAL AND INTERNATIONAL CONGRESSES

1. **Gómez-Hernández A**, Majewski P, Rubio-Longás C, Beneit N, Viana-Huete V, Escribano Ó, López-Pastor AR, García-Gómez G, Fernández S, Benito M. The lack of p85 α in brown adipose tissue improves thermogenesis and obesity susceptibility. Oral Communication. Annual Meeting CIBERDEM, Barcelona, 17th May 2017.
2. **Gómez-Hernández A**, Beneit N, Majewski P, Escribano O, Viana-Huete V, de las Heras N, García-Gómez G, Fernández S, Rubio-Longás C, Benito M. Role of Brown adipose tissue in the obesity and metabolic and vascular complications associated. Poster. SEH-LELHA Congress. 29-32st March 2017.
3. Beneit N, Fernández-García CE, Martín-Ventura JL, Escribano O, de las Heras N, Michel JB, Egido J, Benito M, **Gómez-Hernández A**. Role of insulin receptor isoforms and IGF receptors in the development of atherosclerotic process. Poster. SEH-LELHA Congress. 29-32st March 2017.
4. Diaz-Castroverde S, Baos S, González-Asequinolaza G, **Gómez-Hernández A**, Beneit N, Escribano O and Benito M. Prevalent role of the insulin receptor isoform A in the regulation of hepatic glycogen metabolism and glucose homeostasis Póster. Ciberdem Annual Meeting 2016, Barcelona.
5. **Gómez-Hernández A**, Beneit, N, Escribano Ó, Díaz-Castroverde S, García-Gómez G, Fernández S, Benito M. Brown adipose tissue-specific insulin receptor inactivation is sufficient to aggravates atherosclerotic process. Póster. Ciberdem Annual Meeting 2016, Barcelona.
6. Escribano O, Diaz-Castroverde S, **Gómez-Hernández A**, Fernández S, García-Gómez G, Fernández-Millan E, Beneit N, Benito M. Insulin receptor isoform A ameliorates glucose intolerance in diabetic mice. Oral Communication. Ciberdem Annual Meeting 2016. Barcelona.
7. Beneit N, Escribano O, Díaz-Castroverde S, Heras N, García-Gómez G, Fernández S, Benito M, **Gómez-Hernández A**. The Lipoatrophy Brown Severe Aggravates the Atherosclerotic Process. Oral communication 21st National Meeting of the Spanish Society of Hypertension Spanish League for the Fight against Arterial Hypertension. Valencia. 2016.
8. Díaz-Castroverde S*, Fernández S, García Gómez G, Fernández-Millán E, Di Scala M, González-Asequinolaza G, **Gómez-Hernández A**, Beneit N, Benito M, Escribano

- O. Gene therapy with insulin receptor isoform A as an approach for the treatment of type 2 diabetes. Oral Communication. XXVIII Congress of the SEBBM. Valencia. 2015. *Scientific Award Margarita Lorenzo.
9. Diaz-Castroverde S, Escribano O, Luque M, **Gómez-Hernández A**, García-Gómez G, Fernández S, González-Asequinolaza G, Di Scala M, Beneit N, Perdomo L and Benito M. Gene therapy with insulin isoform receiver as an approach for the treatment of type 2 diabetes. Oral communication CONGRESS: 51st Annual Meeting EASD. Stockholm, Sweden, 2015.
 10. Beneit N, Perdomo L, Otero YF, Escribano O, Díaz-Castroverde S, de las Heras N, Benito M, **Gómez-Hernández A**. Protective role of oleic acid in cardiovascular resistance to insulin and in the development and instability of atherosclerotic plaque. 8th Research Meeting on Vascular Pathophysiology of the SHE-LELHA. March 11-13, 2015.
 11. Escribano O, Díaz-Castroverde S, **Gómez-Hernández A**, Gómez-García G, Fernández S, Luque M, Beneit N, Benito M. Reversion of type 2 Diabetic phenotype by insulin receptor isoform A gene therapy. Energy homeostasis and metabolic disease Symposium. CNIC. Madrid 7-8th November 2014.
 12. **Gómez-Hernández A**, Perdomo L, Beneit N, Otero YF, Díaz-Castroverde S, Escribano O, Benito M. Differential Role of Palmitate and Oleate on the Resistance to Insulin in Cardiovascular Cells. Oral Communications. XXV National Congress of the Spanish Society of Diabetes Pamplona, April 3-5, 2014.
 13. Beneit N, Perdomo L, Escribano O, Díaz-Castroverde S, de las Heras N, Benito M, **Gómez-Hernández A**. Role of IR isoforms and IGF-1R in the migration of vascular smooth muscle cells. 7th Research Meeting on Vascular Pathophysiology of the SHE-LELHA. March 26-28, 2014.
 14. **Gómez-Hernández A**, Perdomo L, de las Heras N, Beneit N, Escribano O, Guillén C, Díaz-Castroverde S, Cachafeiro V, Lahera V, Benito M. Differential effects of TNF-alpha and insulin on the modulation of UCP-2 and its role in vascular damage. 7th Meeting of Research in Vascular Pathophysiology of the SHE-LELHA. March 26-28, 2014.
 15. Perdomo L, Beneit N, Escribano O, **Gómez-Hernández A**, Benito M. Role of IR Isoforms and IGF-1R in the migration of vascular smooth muscle cells. Poster. IR2013: XII International Symposium on Insulin Receptors and Insulin Action. Barcelona, 7-9 de noviembre de 2013.
 16. Escribano O, Díaz-Castroverde S, Baos S, **Gómez-Hernández A**, Benito M. Prevalent role of insulin receptor isoform A in the regulation of glycogen metabolism in neonatal hepatocytes. Póster. IR2013: XII International Symposium on Insulin. Barcelona, 7-9 november 2013.
 17. **Gómez-Hernández A**, Perdomo L, Escribano O, Otero YF, García-Gómez G, Fernández S, Beneit N, de las Heras N, Benito M. Involvement of IGF-2 and hybrid IRA / IGF-1R receptors in the proliferation of vascular smooth muscle cells. Oral communication 6th Research Meeting on Vascular Pathophysiology of the SEH-LELHA. Valencia, 6-8 March 2013.

18. Escribano O, **Gómez-Hernández A**, Nevado C, García G, Fernández S, Otero YF, Benito M. Prevalent Role of Insulin Receptor Isoform A in Insulin/IGF-I-induced beta-cell hyperplasia. Póster. 48th EASD Annual Meeting. Berlin, Germany AÑO: 2012.
19. **Gómez-Hernández A**, Perdomo L, Escribano O, Otero YF, García-Gómez G, Fernández S, Benito M. The role of the isoform A of the insulin receptor in the proliferation of vascular smooth muscle cells. Oral communication 25th Congress of the Spanish Society of Arteriosclerosis. Reus, 6-8 June 2012.
20. Perdomo L, **Gómez-Hernández A**, Gozalbo-López B, Escribano O, Benito M. The protective role of oleic acid against the action of proinflammatory cytokines in endothelial aortic cells. Poster. 25th Congress of the Spanish Society of Arteriosclerosis. Reus, 6-8 June 2012.
21. **Gómez-Hernández A**, Escribano O, Otero YF, Fernández S, García-Gómez G, Perdomo L, Nieto-Vázquez I, Benito M. Role of IRA in the Aortic Injury in Mouse models of diabetic and Vascular Complications. (Poster nº 104). Keystone Symposia in Complications of Diabetes: Mechanisms of Injury and Failure of Repair (C5). 11-16th March 2012. Boston, Massachusetts.
22. **Gómez-Hernández A**. Lecture given: "The role of brown adipose tissue in metabolic and vascular disorders associated with obesity and aging". Conference: Advances in Diabetes and Obesity. Miguel Hernández de Elche School. Alicante, Spain 2011.
23. **Gómez-Hernández A**, Escribano O, Otero YF, García-Gómez G, Fernández S, Perdomo L, Nieto-Vázquez I, Benito M. Involment of Insulin Receptor A Isoform in the Aortic Atherosclerotic Process. (Oral communication). 4th CIBERDEM Annual Meeting. 23-26 October 2011, Vall de Boí, Lleida.
24. Gozalbo-Lopez, Perdomo L, **Gómez-Hernández A**, Benito M. Unsaturated Fatty Acids Protect from Cytokines Proinflammatory Effect on Endothelial Cells. (Poster, page 169) .4th CIBERDEM Annual Meeting. October 23-26, 2011, Vall de Boí, Lleida.
25. Escribano O, **Gómez-Hernández A**, Nevado C, García G, Fernandez S, Otero YF, Benito M. Role of insulin receptor isoform A in insulin / IGF-1-induced beta-cell hyperplasia. (Poster, page 155). 4th CIBERDEM Annual Meeting. October 23-26, 2011, Vall de Boí, Lleida.
26. **Gómez-Hernández A**, Otero YF, de las Heras N, Escribano O, Cachofeiro V, Lahera V, Benito M. Brown lipoatrophy in aging is sufficient to induce obesity, vascular dysfunction and resistance to vascular insulin. Spanish Society of Cardiology Congress 2010. October 21-23, 2010, Valencia.
27. **Gómez-Hernández A**, Otero YF, de las Heras N, Escribano O, García-Gómez G, Fernández S, Cachofeiro V, Lahera V, Benito M. Role played by brown fat lipoatrophy on vascular alterations in the elderly. 3rd CIBERDEM Annual meeting. October 25-27, 2010, Prullans, Spain.
28. Otero YF, **Gómez-Hernández A**, de las Heras N, Escribano O, Cachofeiro V, Lahera V, Benito M. Brown fat lipoatrophy with age is sufficient to induce obesity,

- vascular dysfunction and vascular insulin resistance. (Poster 1308). 46th EASD Annual Meeting, Stockholm, Sweden, September 20-24, 2010.
29. **Gómez-Hernández A**, Otero YF, from Heras N, Escribano O, Guillén C, Gozalbo-López B, Cachofeiro V, Lahera V, Benito M. The role of UCP-2 and the compensatory mechanisms in the face of resistance insulin in the vascular damage generated in the obese BATIRKO model. XXI Congress of the Spanish Diabetes Society. April 15-17, 2010, Barcelona.
 30. Otero YF, **Gómez-Hernández A**, de Las Heras N, Escribano O, Cachofeiro V, Lahera V, Benito M. The loss of brown adipose tissue associated with aging is sufficient to produce alterations in glucose metabolism and in the endothelial function. XXI Congress of the Spanish Diabetes Society. April 15-17, 2010, Barcelona.
 31. **Gómez-Hernández A**, Otero YF, Escribano O, de las Heras N, Guillén C, Cachofeiro V, Lahera V, Benito M. The lack of Brown adipose tissue associated with aging is sufficient to produce vascular dysfunction and vascular insulin resistance. 2nd CIBERDEM Annual Meeting. October 26-28, 2009, Arnes, Spain.
 32. Escribano O, Nevado C, **Gómez-Hernández A**, Otero YF, Manuel Benito. Differential role of insulin receptor isoforms in the mitogenic response induced by insulin / IGF-1 in pancreatic beta cells. 2nd CIBERDEM Annual Meeting. October 26-28, 2009, Arnes, Spain.
 33. **Gómez-Hernández A**, de las Heras N, Otero YF, Escribano O, Guillén C, Cachofeiro V, Lahera V, Benito M. Compensated and non-compensated insulin resistance induces cardiovascular cardiovascular damage in obese BATIRKO mice. Poster. 45th EASD Annual Meeting, Vienna, September 28-October 02, 2009.
 34. **Gómez-Hernández A**, de las Heras N, Otero YF, Escribano O, Guillén C, Cachofeiro V, Lahera V, Benito M. Compensated and non-compensated insulin resistance induces cardiovascular cardiovascular damage in obese BATIRKO mice. Oral communication Keystone Symposia on Molecular and Cellular Biology. Complications of Diabetes and Obesity. Page 63. February 24- March 1, 2009. Vancouver, Canada.
 35. **Gómez-Hernández A**, de las Heras N, Otero YF, Escribano O, Guillén C, Cachofeiro V, Lahera V and Benito M. Compensated and non-compensated insulin resistance induces cardiovascular cardiovascular damage in obese BATIRKO mice. Poster. 1st CIBERDEM annual meeting 2008. Page 131. October 21-23, 2008, Vall de Núria (Gerona).
 36. Scribe O, Nevado C, **Gómez-Hernández A**, Otero YF, Benito M. Role of Insulin receptor isoform A in the pancreatic beta cell hyperplasia induced by hepatic insulin resistance. Oral communication 1st CIBERDEM annual meeting 2008. Page 45. 21-23 October 2008, Vall de Núria (Girona).
 37. **Gómez-Hernández A**, de las Heras N, Otero YF, Escribano O, Guillén C, Cachofeiro V, Lahera V and Benito M. Insensitive insulin resistance does not compensate for vascular damage in obese BATIRKO mice. Poster. XXXI Spanish Society of Biochemistry and Molecular Biology Congress. Page 260. September 10-13, 2008, Bilbao.

38. Escribano O, Nevado C, **Gómez-Hernández A**, Otero YF, Benito M. Role of the isoform A of the insulin receptor in pancreatic hyperplasia induced by hepatic resistance to insulin. Poster. XXXI Spanish Society of Biochemistry and Molecular Biology Congress. Page 260. September 10-13, 2008, Bilbao.
39. **Gómez-Hernández A**. Insulin resistance and cardiovascular damage. Oral communication Annual Meeting of the Insulin Resistance Program, Area 1, of the CIBERDEM. June 26, 2008, Madrid.
40. **Gómez-Hernández A**, Sánchez-Galán E, Ortego M, Martín-Ventura JL, Blanco-Colio LM, Tarín-Vicente N, Jiménez-Nacher J, López-Bescos L, Egido J, Tuñón J. Intensive treatment with Atorvastatin reduces levels of prostaglandin E2 and plasma metalloproteinase-9 activity in coronary syndrome. Oral communication Spanish Society of Cardiology. October 18-20, 2007, Madrid.
41. **Gómez-Hernández A**, Guillén C, Heras N, Otero YF, Escribano O, Nevado C, Cachofeiro V, Lahera V and Benito M. Endothelial dysfunction and vascular damage in Batirko obese. Oral communication Meeting of the Spanish network of Diabetes and Associated Metabolic Diseases (REDIMET). Page 73. October 16-17, 2007, Cardona (Barcelona).
42. Escribano O, Robledo M, Guillén C, **Gómez-Hernández A**, Otero YF, Nevado C, Benito M. Induction of hyperplasia in response to hepatic resistance to insulin: role of a possible hepatic-pancreatic endocrine axis. Oral communication Meeting of the Spanish network of Diabetes and Associated Metabolic Diseases (REDIMET). Page 21. October 16-17, 2007, Cardona (Barcelona).
43. Nevado C, Escribano O, Guillén C, **Gómez-Hernández A**, Otero YF, Benito M. Differential role of isoforms A and B in mitogenic response to insulin / IGF-1 in pancreatic β cells. Oral communication Meeting of the Spanish network of Diabetes and Associated Metabolic Diseases (REDIMET). Page 23. October 16-17, 2007, Cardona (Barcelona).
44. Otero YF, Escribano O, **Gómez-Hernández A**, Guillén C, Nevado C, Benito M. New cellular models for the study of the cellular signaling of insulin in cardiac tissue. Poster. XXX Congress of the Spanish Society of Biochemistry and Molecular Biology. Page 173. September 12-15, 2007, Málaga.
45. Vidal C, Sánchez-Galán E, **Gómez-Hernández A**, González A, Gómez-Gerique JA, Tuñón J, Egido J. Licofelone, balanced inhibitor of cyclooxygenase and 5-lipoxygenase, reduces neointimal formation and inflammation in a rabbit model of atherosclerosis Poster. European Atherosclerosis Society. Page 73. June 10-13, 2007, Helsinki (Finland).
46. Sánchez-Galán E, Vidal C, **Gómez-Hernández A**, Martín-Ventura JL, Blanco-Colio LM, Tunon J, Egido J. 5-LO / LTA4H pathway and LTB4 receptors are increased in plaques of patients with carotid stenosis. Role of NF-kB activation. Poster. European Atherosclerosis Society. Page 73. June 10-13, 2007, Helsinki (Finland).
47. Benito M, Guillén C, Escribano O, Robledo M, **Gómez-Hernández A**, Otero YF, Valverde AM. Inducible LIRKO shows progressive insulin resistance and beta-cell hyperplasia without liver dysfunction. Poster. Keystone Symposia on Molecular and

Cellular Biology. "Diabetes: Molecular Genetics, Signaling Pathways and Integrated Physiology. Page 55. 14-19 January 2007, Keystone (Canada).

48. Guillén C, Robledo M, Nevado C, Escribano O, Fernández Y, **Gómez-Hernández A**, Benito M. Insulin-toxic effect in mouse beta cell. Poster. XXIX Congress of the Spanish Society of Biochemistry and Molecular Biology. SEBBM page 158. September 10-11, 2006, Elche.
49. Sánchez-Galán E, **Gómez-Hernández A**, Vidal C, Martín-Ventura JL, Blanco-Colio LM, Ortega L, Tuñón J, Egido J. The 5-lipoxygenase and leukotriene A4 hydrolase pathway is augmented in blood mononuclear cells and plaque of patients with carotid atherosclerosis. Oral communication Young Investigator Symposium "Smooth muscle in airway and vascular disease". September 2005, Malmo. Sweden.
50. Vega M, Martín Ventura JL, Egido J, Blanco-Colio L, **Gómez-Hernández A**, Tuñón J, Serrano FJ. Intensive treatment with atorvastatin: effects on blood and atherosclerotic plaque inflammation in patients with severe carotid artery stenosis. Poster. Vascular Biology and Medicine 2005. From Molecules to Man. June 16-19, 2005, Chicago (USA).
51. Barderas MG, Martín-Ventura JL, Blanco-Colio LM, Duran MC, Darde VM, De la Cuesta F, **Gómez-Hernández A**, Tuñón J, Egido J, Vivanco F. Elevated plasma levels of Cathepsin D in patients with acute coronary syndromes. Poster. I Congress of the Spanish Proteomics Society. Page 146. February 2005, Córdoba, Spain.
52. Sánchez-Galán E, **Gómez-Hernández A**, Martín-Ventura JL, Vidal C, Ortego M, Ortega L, Tuñón J, Díaz C, Hernández G, Egido J. Effect of treatment with atorvastatin on the expression of the receptors of PGE2 in patients with carotid atherosclerosis. Oral communication XL National Congress of the Spanish Society of Cardiology. Rev Esp Cardiol 2004; 57:12. October 20-23, 2004, Madrid.
53. **Gómez-Hernández A**, Martín-Ventura JL, Blanco-Colio LM, Muñoz-García B, Hernández-Mérida S, Vega M, Serrano J, Ortega L, Díaz C, Hernández G, Tuñón J, Egido J. Treatment Intensive therapy with atorvastatin reduces blood and plaque inflammation in patients with carotid atherosclerosis within a month. Oral communication XXVII National Congress of the Spanish Society of Arteriosclerosis. Clin. Invest. Arteriosclerosis 2004. 2-6 June 2004, Murcia.
54. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Ortega L, Sánchez-Galán E, Hernández-Mérida S, Vidal C, Tuñón J, Díaz C, Hernández G, Egido J. Augmented NF- κ B and COX-2 expression in plaque and blood mononuclear cells of patients with carotid atherosclerosis. Poster Finalist. 76th Scientific Sessions of the American Heart Association. Circulation 2003; 108 (Suppl IV): 21. 9-12 November 2003, Orlando (USA).
55. Martín-Ventura JL, Blanco-Colio LM, Muñoz-García B, **Gómez-Hernández A**, Hernández-Mérida S, Vega M, Serrano J, Ortega L, Díaz C, Hernández G, Tuñón J, Egido J. Intensive treatment with atorvastatin reduces blood and plaque inflammation in patients with atherosclerotic lesions in one month. Poster. 76th Scientific Sessions of the American Heart Association. Circulation 2003; 108 (Suppl IV): 22. 9-12 November 2003, Orlando (USA).

56. Muñoz-García B, Martín-Ventura JL, Blanco-Colio LM, **Gómez-Hernández A**, Hernández-Mérida S, Vega M, Serrano J, Ortega L, Díaz C, Hernández G, Tuñón J, Egido J. Treatment Intensive with Atorvastatin for a month reduces inflammation in the blood and in the plaque of patients with atherosclerotic lesions. Oral communication Spanish Club for the investigation of dyslipidemia. October 2003, Seville.
57. **Gómez-Hernández A**, Sánchez-Galán E, Martín-Ventura JL, Ortego M, Vidal C, Ortega L, Hernández-Mérida S, Tuñón J, Díaz C, Hernández G, Egido J. Activation of NF- κ B and the expression of Cox-2 is increased in plaque and peripheral blood mononuclear cells of patients with carotid atherosclerosis. Oral communication Spanish Club for the investigation of dyslipidemia. October 2003, Seville.
58. **Gómez-Hernández A**, Egido J. The role of COX-2 and PGE2 receptors in atherosclerosis. Oral communication Meeting of the Spanish cardiovascular network (RECAVA). September 30, 2003, Madrid.
59. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Ortega L, Sánchez-Galán E, Hernández-Mérida S, Vidal C, Tuñón J, Díaz C, Hernández G, Egido J. The expression of the receptors of the Prostaglandin E2 (PGE2) and Cox-2 is increased in the shoulder area of human atherosclerotic plaques. Oral communication XXVI National Congress of the Spanish Society of Arteriosclerosis. Clin. Invest. Arteriosclerosis 2003; 15 Suppl (1): 51-52. May 14-17, 2003, Marbella.
60. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Muñoz B, Blanco-Colio LM, Tuñón J, Díaz C, Hernández G, Egido J. Effect of Atorvastatin on the expression of Prostaglandin E-receptors 2. Oral communication XXXVIII National Congress of the Spanish Society of Cardiology. Rev Esp Cardiol 2002; 55 (Supl.II): 139. October 16-19, 2002, Madrid.
61. Ortego M, **Gómez-Hernández A**, Blanco-Colio LM, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin and simvastatin reduce the activity of I κ B kinase-1 in human monocytes. Oral communication XXXVIII National Congress of the Spanish Society of Cardiology. Rev Esp Cardiol 2002; 55 (Supl.II): 139. October 16-19, 2002, Madrid.
62. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Muñoz B, Blanco-Colio LM, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin decreases the overexpression of Cox-2 and the EP-1 receptor induced by TNF- α and IL-1 β in vascular smooth muscle cells. Oral communication Spanish Club for the investigation of dyslipidemia. October 2002, Menorca.
63. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Blanco-Colio LM, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin decreases the upregulation of COX-2 and EP-1 receptor induced by proinflammatory cytokines in cultured vascular smooth muscle cells. Poster. European Society of Cardiology. European Heart Journal 2002; 23: 174. August 31 - September 4, 2002, Berlin.
64. **Gómez-Hernández A**, Ortego M, Martín-Ventura JL, Blanco-Colio LM, Huesa B, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin decreases overexpression of COX-2 and EP-1 receptor induced by cytokines in vascular smooth muscle cells. Oral communication XV National Congress of the Spanish Society of

- Arteriosclerosis Clin. Invest. Arteriosclerosis 2002,14; 2 (Suppl). 1-4 May 2002, Salamanca.
65. Martín-Ventura JL, Blanco-Colio LM, Hernández-Presa MA, Ortego M, **Gómez-Hernández A**, Arribas A, Ortega L, Tuñón J, Egido J. Augmented NF-kB activation and Fas-Ligand expression in the shoulder of human carotid atherosclerotic plaques. Poster. 74nd Scientific Sessions of the American Heart Association. Circulation 2001; 104 (Suppl II): 66. November 2001, California (USA).
 66. Martín-Ventura JL, Blanco-Colio LM, Ortego M, Hernández-Presa MA, **Gómez-Hernández A**, Arribas A, Ortega L, Egido J. Activation of NF-kB, the expression of fas and caspase ligand -3 active is preferably located in the shoulder area in atherosclerotic plaques of human carotids. Oral communication XXXVII National Congress of the Spanish Society of Cardiology. Rev Esp Cardiol 2001; 54 (Supl II): 8. 7-9 October 2001, Barcelona.
 67. Ortego M, **Gómez-Hernández A**, Blanco-Colio LM, Hernández-Presa MA, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. Inhibitors of HMG-CoA reductase reduce NF activation -kB induced by reactive oxygen species in monocytes and vascular cells. Oral communication Spanish Club for the investigation of dyslipidemia. September 20-22, 2001, Los Angeles de San Rafael.
 68. Martín-Ventura JL, Blanco-Colio LM, Ortego M, Hernández-Presa MA, **Gómez-Hernández A**, Arribas A, Ortega L, Egido J. NF-kB, fas ligand and active caspase 3 are preferably located in the vulnerable area in atherosclerotic plaques of human carotids. Oral communication Spanish Club for the investigation of dyslipidemia. September 20-22, 2001, Los Angeles de San Rafael.
 69. Martín-Ventura JL, Blanco-Colio LM, Ortego M, Hernández-Presa MA, **Gómez-Hernández A**, Arribas A, Ortega L, Egido J. Activation of NF-kB and the expression of fas ligand is preferably localized in the area of the shoulders in atherosclerotic plaques of human carotids. Oral communication XIV National Congress of the Spanish Society of Arteriosclerosis. Clin. Invest. Arteriosclerosis 2001, 13: 2 (Suppl.). 2-5 May 2001, Barcelona.
 70. Martín-Ventura JL, Blanco-Colio LM, Ortego M, **Gómez-Hernández A**, Hernández-Presa MA., Ortega L, Díaz C, Hernández G, Egido J. Atorvastatin decreases the expression of fas and fas ligand in a model of experimental atherosclerosis in rabbit. Oral communication XIV National Congress of the Spanish Society of Arteriosclerosis. Clin. Invest. Arteriosclerosis 2001, 13: 2 (Suppl.). 2-5 May 2001, Barcelona.
 71. Martín-Ventura JL, Blanco-Colio LM, Hernández-Presa MA, Ortego M, **Gómez-Hernández A**, Arribas A, Ortega L, Tuñón J, Egido J. Augmented NF-kB activation and Fas-Ligand expression in the shoulder of human carotid atherosclerotic plaques. Poster. 72nd Congress of the European Atherosclerosis Society. Atherosclerosis 2001; 2: 81. May 20-23, 2001, Glasgow.
 72. Hernández-Presa MA, Martín-Ventura JL, Tuñón J, Ortego M, Mas S, Blanco-Colio LM, **Gómez-Hernández A**, Bustos C, Aparicio C, Ortega L, Díaz C, Hernández G, Egido J. Atorvastatin reduces NF-kB activity and the expression of interleukin-8, metalloproteinase-3 and cyclooxygenase-2 in the atheroma plaque of hyperlipemic rabbits. Poster forum. 73nd Scientific Sessions of the American Heart

- Association. *Circulation* 2000; 102 (Suppl II): 50. November 2000, New Orleans (USA).
73. Ortego M, **Gómez-Hernández A**, Blanco-Colio LM, Hernández-Presa MA, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin and simvastatin inhibit the activation of NFkB induced by reactive species of oxygen in vascular cells. Poster Forum. XXXVI. National Congress of the Spanish Society of Cardiology. *Rev Esp Cardiol* 2000; 53 (Supl II): 144. October 18-21, 2000, Granada.
 74. Hernández-Presa MA, Martín-Ventura JL, Tuñón J, Ortego M, Blanco-Colio LM, **Gómez-Hernández A**, Bustos C, Ortega L, Díaz C, Hernández G, Egido J. Atorvastatin decreases nuclear factor activation NF-kB and the expression of cyclooxygenase-2 in an experimental atherosclerosis model in rabbits. Oral communication XXXVI National Congress of the Spanish Society of Cardiology. *Rev Esp Cardiol* 2000; 53 (Supl II): 17. October 18-21, 2000, Granada.
 75. Ortego M, Hernández-Presa MA, Blanco-Colio LM, **Gómez-Hernández A**, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin and simvastatin interfere in the signaling pathway of NF-kB induced by reactive oxygen species by decreasing the phosphorylation of IκB-α in vascular smooth muscle cells and monocytes. Oral communication XIII National Congress of the Spanish Society of Arteriosclerosis. *Clin. Invest. Arteriosclerosis* 2000 (Suppl.). April 12-15, 2000, Jaca.
 76. Hernández-Presa MA, Tuñón J, Ortego M, Mas S, Martín-Ventura JL, Blanco-Colio LM, **Gómez-Hernández A**, Bustos C, Aparicio C, Ortega L, Gómez-Gerique J, Porres A, Díaz C, Hernández G, Egido J. Atorvastatin decreases the activation of NF-kB and the expression of interleukin-8, metalloproteinase-3 and cyclooxygenase-2 in an experimental atherosclerosis model in rabbits. Oral communication XIII National Congress of the Spanish Society of Arteriosclerosis. *Clin. Invest. Arteriosclerosis* 2000, 12: 1 (Suppl.). April 12-15, 2000, Jaca.
 77. Hernández-Presa MA, Tuñón J, Ortego M, Mas S, Martín-Ventura JL, **Gómez-Hernández A**, Bustos C, Aparicio C, Ortega L, Gómez-Gerique J, Porres A, Díaz C, Hernández G, Egido J. Atorvastatin reduces NF-kB activity and the expression of interleukin-8, metalloproteinase-3 and cyclooxygenase-2 in a rabbit model of atherosclerosis. Poster. XIIth International Symposium on Atherosclerosis. *Atherosclerosis* 2000. Stockholm (Sweden).
 78. Ortego M, Hernández-Presa MA, Blanco-Colio LM, **Gómez-Hernández A**, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. Atorvastatin and Simvastatin interfere with NF-kB pathway activation elicited by reactive oxygen species in vascular smooth muscle cells and monocytes through to decrease in IκB-α phosphorylation. Poster. XIIth International Symposium on Atherosclerosis. *Atherosclerosis* 2000. Stockholm (Sweden).
 79. Ortego M, **Gómez-Hernández A**, Blanco-Colio LM, Hernández-Presa MA, Martín-Ventura JL, Tuñón J, Díaz C, Hernández G, Egido J. HMG-CoA reductase inhibitors interfere with NF-kB pathway activation elicited by reactive oxygen species in vascular smooth muscle cells and monocytes through in IκB-α phosphorylation and IKK-α levels. Poster. International Symposium: New targets of the NF-kB pathway for novel therapies in cancer and inflammation (Ramón Areces Foundation). 2000, Madrid.

DIRECTED THESES

11/12/2010. Title: "Brown lipoatrophy, obesity and vascular damage: mechanisms of resistance to insulin in cardiovascular cells ". Doctoring: Yolanda Fernández Otero. Complutense University of Madrid. Department of Biochemistry and Molecular Biology II. Pharmacy School. Qualification: Summa Cum Laude.

10/30/2014. Title: "Physiopathological importance of isoforms of the insulin receptor in the atherosclerotic process. Protective mechanisms mediated by UCP-2 and oleic acid". Doctoring: Liliana Perdomo. Complutense University of Madrid. Department of Biochemistry and Molecular Biology II. Pharmacy School. Qualification: Summa Cum Laude with European Mention.

05/22/2017. Title: "Role of brown lipoatrophy, isoforms of insulin receptor and IGF-1 receptor in the experimental and human atherosclerosis". Doctoring: Nuria Beneit. Complutense University of Madrid. Department of Biochemistry and Molecular Biology II. Pharmacy School. Qualification: Summa Cum Laude

TEACHING ACTIVITY

2950 hours in the bachelor's degree and Pharmacy degree, in the master's degree in Biochemistry, Molecular Biology and Biomedicine, in the master's degree in Sanitary Analysis of the UCM, in postgraduate courses in the CSIC and in doctoral courses of the UCM and UAM.

Recognition of two five-year periods of teaching activity, five positive evaluations and four very positive evaluations of the teaching activity by DOCENTIA program of the UCM.

Accreditations of Professor, Collaborating Professor and Professor of Private University.

Participation in the academic committee from the 2008/2009 academic year to the present in the Department of Biochemistry and Molecular Biology II. Pharmacy School.

OTHER MERITS

Member of the European Foundation for the Study of Diabetes (EFSD), Spanish Society of Diabetes (SED), of the Spanish Heart Society (SEC) and of the Spanish Society of Biochemistry and Molecular Biology (SEBBM) since 2007.

Realization of 16 specialization courses.

Homologation of training corresponding to category B and C, protection of animals used for experimentation and other scientific purposes, according to Royal Decree 1201/2005.