

BIOGRAPHICAL SKETCH

NAME: PABLO M. GARCIA-ROVES

DATE AND PLACE OF BIRTH: 11/06/1967, AVILES, SPAIN

CURRENT INSTITUTION: UNIVERSITY OF BARCELONA

POSITION TITLE: ASSOCIATE PROFESSOR

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Oviedo	Ph.D.	06/1999	Biology
University of Oviedo	BSc	09/1992	Biology

A. Research & Professional experience

<i>Universitat de Barcelona, School of Medicine</i>	<i>Associate Professor</i>	<i>2015-to date</i>
<i>IDIBAPS, Barcelona, SPAIN</i>	<i>Ramon y Cajal Scientist</i>	<i>2010-2014</i>
<i>Karolinska Institutet, Stockholm, SWEDEN</i>	<i>Associate Professor</i>	<i>2009-2010</i>
<i>Karolinska Institutet, Stockholm, SWEDEN</i>	<i>Senior Scientist</i>	<i>2007-2009</i>
<i>Karolinska Institutet, Stockholm, SWEDEN</i>	<i>Postdoctoral fellow</i>	<i>2005-2007</i>
<i>Washington University School of Medicine, Saint Louis, USA</i>	<i>Postdoctoral fellow</i>	<i>2001-2004</i>
<i>Loughborough University, England, UK</i>	<i>PhD student visitor</i>	<i>1997-1998</i>

B. Contributions to Science

ARTICLES:

1. Authors (signature): Jansen K.M.; Moreno, S.; **Garcia-Roves, P.M.**; Larsen, T.S. **Title:** Dietary Calanus oil recovers metabolic flexibility and rescues postischemic cardiac function in obese female mice **Journal:** American Journal of Physiology-Heart and Circulatory Physiology, 317(2):H290-H299 **Year:** 2019

2. Authors (signature): Sánchez-de-Diego, C.; Artigas, N.; Pimenta-Lopes, C.; Valer, J.A.; Torrejon, B.; Gama-Pérez, P.; Villena, J.A.; **Garcia-Roves, P.M.**; Rosa, J.L.; Ventura, F. **Title:** Glucose Restriction Promotes Osteocyte Specification by Activating a PGC-1 α -Dependent Transcriptional Program **Journal:** iScience, 15:79-94 **Year:** 2019

3. Authors (signature): Pardo, R.; Vilà M.; Cervela L.; de Marco M.; Gama-Pérez P.; González-Franquesa A.; Statuto L.; Vilallonga R.; Simó R.; **Garcia-Roves P.M.**; Villena J.A. **Title:** Calorie restriction prevents diet-induced insulin resistance independently of PGC-1-driven mitochondrial biogenesis in white adipose tissue **Journal:** The FASEB Journal, 33(2):2343-2358 **Year:** 2019

4. Authors (signature): Ejarque M.; Ceperuelo-Mallafré V.; Serena C.; Maymo-Masip E.; Duran X.; Díaz-Ramos A.; Millan-Scheiding M.; Núñez-Álvarez Y.; Núñez-Roa C.; Gama P.; **Garcia-Roves P.M.**; Peinado M.A.; Gimble J.M.; Zorzano A.; Vendrell J.; Fernández-Veledo S. **Title:** Adipose tissue mitochondrial dysfunction in human obesity is linked to a specific DNA methylation signature in adipose-derived stem cells **Journal:** International Journal of Obesity, 43(6):1256-1268 **Year:** 2019

5. Authors (signature): Posavec Marjanović, M.; Hurtado-Bagès, S.; Lassi, M.; Valero, V.; Malinverni, R.; Delage, H.; Navarro, M.; Corujo, D.; Guberovic, I.; Douet, J.; Gama-Perez, P.; **Garcia-Roves, P.M.**; Ahel, I.; Ladurner, A.G.; Yanes, O.; Bouvet, P.; Suelves, M.; Teperino, R.; Pospisilik, J.A.; Buschbeck, M. **Title:** MacroH2A1.1 regulates mitochondrial respiration by limiting nuclear NAD⁺ consumption **Journal:** Nature Structural & Molecular Biology, 24(11): 902-910 **Year:** 2017

6. Authors (signature): Ramírez, S.; Gómez-Valadés, A.G.; Schneeberger, M.; Varela, L.; Haddad-Tóvolli, R.; Altirriba, J.; Noguera, E.; Drougard, A.; Flores-Martínez, Á.; Imbernón, M.; Chivite, I.; Pozo, M.; Vidal-Itriago, A.; Garcia, A.; Cervantes, S.; Gasa, R.; Nogueiras, R.; Gama-Pérez, P.; **Garcia-Roves, P.M.**; Cano, D.A.; Knauf, C.; Servitja, J.M.; Horvath, T.L.; Gomis, R.; Zorzano, A.; Claret, M. **Title:** Mitochondrial Dynamics Mediated by Mitofusin 1 Is Required for POMC Neuron Glucose-Sensing and Insulin Release Control **Journal:** Cell Metabolism, 25(6):1390-1399 **Year:** 2017

7. Authors (signature): Torres, S.; Matías, N.; Baulies, A.; Nuñez, S.; Alarcon-Vila, C.; Martinez, L.; Nuño, N.; Fernandez, A.; Caballeria, J.; Levade, T.; Gonzalez-Franquesa, A.; **Garcia-Rovés, P.**; Balboa, E.; Zanlungo, S.; Fabrías, G.; Casas, J.; Enrich, C.; Garcia-Ruiz, C.; Fernández-Checa, J.C. **Title:** Mitochondrial GSH replenishment as a potential therapeutic approach for Niemann Pick type C disease **Journal:** Redox Biology, 11:60-72 **Year:** 2017

8. Authors (signature): Claret, M.; **Garcia-Roves, P.M.** **Title:** Editorial: Dissecting the Role of Mitochondria in the Pathophysiology of Type-2 Diabetes and Obesity: Novel Concepts and Challenges **Journal:** Current Diabetes Reviews, 13(4):337 **Year:** 2017

9. Authors (signature): Gómez-Valadés AG, Gonzalez-Franquesa A, Gama-Perez P, Claret M, **Garcia-Roves PM.** **Title:** Emerging Concepts in Diabetes: Mitochondrial Dynamics and Glucose Homeostasis **Journal:** Current Diabetes Reviews, 13(4):370-385 **Year:** 2017

10. Authors (signature): Ejaz, A.; Martinez-Guino, L.; Goldfine, A.B.; Ribas-Aulinas, F.; De Nigris, V.; Ribó, S.; Gonzalez-Franquesa, A.; **Garcia-Roves, P.M.**; Li, E.; Dreyfuss, J.M.; Gall, W.; Kim, J.K.; Bottiglieri, T.; Villarroya, F.; Gerszten, R.E.; Patti, M.E.; Lerin, C. **Title:** Dietary betaine supplementation increases Fgf21 levels to improve glucose homeostasis and reduce hepatic lipid accumulation in mice **Journal:** Diabetes, 65(4):902-12 **Year:** 2016

Earlier publications (relevant to the subject):

1. Authors (signature): Ceperuelo-Mallafré, V.; Ejarque, M.; Serena, C.; Duran, X.; Montori-Grau, M.; Rodríguez, M.A.; Yanes, O.; Núñez-Roa, C.; Roche, K.; Puthanveetil, P.; Garrido-Sánchez, L.; Saez, E.; Tinahones, F.J.; **Garcia-Roves, P.M.**; Gómez-Foix, A.M.; Saltiel, A.R.; Vendrell, J.; Fernández-Veledo, S. **Title:** Adipose tissue glycogen accumulation is associated with obesity-linked inflammation in humans **Journal:** Molecular Metabolism, 5(1):5-18 **Year:** 2015

2. Authors (signature): Párrizas, M.; Brugnara, L.; Esteban, Y.; González-Franquesa, A.; Canivell, S.; Murillo, S.; Gordillo-Bastidas, E.; Cussó, R.; Cadefau, J.A.; **García-Roves, P.M.**; Servitja, J.M.; Novials, A. **Title:** Circulating miR-192 and miR-193b are markers of prediabetes and are modulated by an

exercise intervention **Journal:** Journal of Clinical Endocrinology and Metabolism, 100(3):E407-415
Year: 2015

3. Authors (signature): Boutant, M.; Joffraud, M.; Kulkarni, S.S.; García-Casarrubios, E.; **Garcia-Roves, P.M.**; Ratajczak, J.; Fernández-Marcos, P.J.; Valverde, A.M.; Serrano, M.; Cantó, C. **Title:** SIRT1 enhances glucose tolerance by potentiating brown adipose tissue function **Journal:** Molecular Metabolism, 4(2):118-131 **Year:** 2014

4. Authors (signature): Fucho, R.; Martínez, L.; Baulies, A.; Torres, S.; Tarrats, N.; Fernandez, A.; Ribas, V.; Astudillo, A.M.; Balsinde, J.; **Garcia-Roves, P.M.**; Elena, M.; Bergheim, I.; Lotersztajn, S.; Trautwein, C.; Appelqvist, H.; Paton, A.W.; Paton, J.C.; Czaja, M.J.; Kaplowitz, N.; Fernandez-Checa, J.C.; García-Ruiz, C. **Title:** ASMase regulates autophagy and lysosomal membrane permeabilization and its inhibition prevents early stage non-alcoholic steatohepatitis **Journal:** Journal of Hepatology, 61(5):1126-1134 **Year:** 2014

5. Authors (signature): Fernandez-Ruiz, R.; Vieira, E.; (**Garcia-Roves, P.M.**; Gomis, R.)^{equal contribution} **Title:** Protein tyrosine phosphatase-1B modulates pancreatic β -cell mass **Journal:** PLoS One, 9(2):e90344 **Year:** 2014

6. Authors (signature): (ZachariahTom, R.; **Garcia-Roves, P.M.**)^{equal contribution}; Sjögren, R.J.; Jiang, L.Q.; Holmström, M.H.; Deshmukh, A.S.; Vieira, E.; Chibalin, A.V.; Björnholm, M.; Zierath, J.R. **Title:** Effects of AMPK activation on insulin sensitivity and metabolism in leptin-deficient ob/ob mice **Journal:** Diabetes, 63(5):1560-1571 **Year:** 2014

7. Authors (signature): Schneeberger, M.; Dietrich, M.O.; Sebastián, D.; Imbernón, M.; Castaño, C.; Garcia, A.; Esteban, Y.; Gonzalez-Franquesa, A.; Rodríguez, I.C.; Bortolozzi, A.; **Garcia-Roves, P.M.**; Gomis, R.; Nogueiras, R.; Horvath, T.L.; Zorzano, A.; Claret, M. **Title:** Mitofusin 2 in POMC neurons connects ER stress with leptin resistance and energy imbalance **Journal:** Cell, 155(1):172-187 **Year:** 2013

8. Authors (signature): Holmström, M.H.; Tom, R.Z.; Björnholm, M.; **Garcia-Roves, P.M.**; Zierath, J.R. **Title:** Effect of leptin treatment on mitochondrial function in obese leptin-deficient ob/ob mice **Journal:** Metabolism, 62(9):1258-1267 **Year:** 2013

9. Authors (signature): Holmström, M.H.; Iglesias-Gutierrez, E.; Zierath, J.R.; **Garcia-Roves, P.M.** **Title:** Tissue-specific control of mitochondrial respiration in obesity-related insulin resistance and diabetes **Journal:** American Journal of Physiology-Endocrinology and Metabolism, 302(6):E731-739 **Year:** 2012

10. Authors (signature): **Garcia-Roves, P.M.**; Huss, J.M.; Han, D.H.; Hancock, C.R.; Iglesias-Gutierrez, E.; Chen, M.; Holloszy, J.O. **Title:** Raising plasma fatty acid concentration induces increased biogenesis of mitochondria in skeletal muscle **Journal:** Proceedings of the National Academy of Sciences of the United States of America, 104(25):10709-10713 **Year:** 2007