

CURRICULUM VITAE

December 2013

Name: Jorge Moscat, PhD
Citizenship: Spanish citizen and US citizen

Lab Address: Jorge Moscat, PhD
Professor and Program Director
NCI-Designated Cancer Center
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Education:

1975-1980 BS in Biochemistry, Universidad Complutense, Madrid
1981-1984 PhD in Biochemistry and Molecular Biology, Universidad Complutense, Madrid

Brief Chronology of Employment:

1983-1985, 1985-1990 Researcher, Department of Internal Medicine, Hospital Clinico San Carlos, Madrid
Group Leader, Department of Experimental Medicine, Hospital Gregorio Marañón, Madrid

1987&1988 Guest Researcher, Laboratory of Cellular and Molecular Biology, National Cancer Institute, NIH, Bethesda, Maryland

1990-1993 Associate Professor (Research Scientist) CSIC (Spanish National Research Council)

1993-2006 Professor, Center for Molecular Biology CSIC (Spanish National Research Council), on Special Leave since July 2006

1996-2000 Director Laboratory GlaxoWellcome-CSIC of Molecular and Cellular Biology

1998-2002 Director of the Institute for Molecular Biology CSIC (Spanish National Research Council)

2004-2006 Scientific Director (Coordinator) of the Biology and Biomedicine Institutes of the Spanish National Research Council (CSIC)

2006-2008 Professor, Department of Genome Science, University of Cincinnati College of Medicine

2007-2008 Interim Chairman, Department of Genome Science/Molecular Oncogenesis, University of Cincinnati College of Medicine

2008-2011 Professor and Chairman, Department of Cancer and Cell Biology, University of Cincinnati College of Medicine

2008-2011 Associate Director, University of Cincinnati Cancer Center

2011- Professor, NCI-Cancer Center, Sanford-Burnham Medical Research Institute

2012- Scientific Director, Cancer Metabolism, Sanford-Burnham Medical Research Institute

2013- Director, Cell Death and Survival Networks Program, NCI-Cancer Center, Sanford-Burnham Medical Research Institute

2013- Adjunct Professor, Department of Pharmacology, School of Medicine, University of

California San Diego

Honours and Awards:

- 1980 Undergraduate Fellowship from Le Petit Pharmaceutical Laboratories (Dow Chemical Co.)
- 1981 Postgraduate Fellowship from the Spanish Education and Science Ministry
- 1982 Postgraduate Fellowship from the Spanish National Institute of Health
- 1984 Short-term Fellowship from Spanish Health Ministry, for studies in the Institute of Pharmacology "Mario Negri", Milano, Italy
- 1985 & 1986 Short-term Fellowships from the British Council to work at the Department of Biochemistry, AFRC Institute of Animal Physiology, Cambridge, U.K.
- 1987 Long-term Fellowship from "Juan March" Foundation to work at the National Cancer Institute, NIH, Bethesda, USA
- 1989 & 1991 Awards of the Spanish Cancer Scientific Association
- 1995 Elected member of the European Molecular Biology Organization (EMBO)
- 1998 Award of the Foundation for Health Sciences
- 1999 Award of the Spanish Royal Academy of Sciences
- 2000 Award of the Carmen and Severo Ochoa Foundation
- 2001 Award of the Juan March Foundation
- 2002 Member of the Editorial Board of EMBO Journal
- 2002 Member of the Editorial Board of EMBO Reports
- 2006 Elected Member of the Academia Europaea
- 2010-2012 Ad hoc member of NIH Cancer Molecular Pathobiology and Cancer Etiology Study Sections
- 2010 Member review panel NCI Cancer and Inflammation Program
- 2011 Member panel on NCI Provocative Questions (Salk Institute, La Jolla)
- 2012- Permanent member of NIH Cancer Etiology Study Section
- 2012 Ad hoc member NIH Tumor Cell Biology Study Section
- 2012- Member of the Scientific Advisory Board of the Institute for Diabetes and Obesity of the Helmholtz Zentrum München (Germany)

International Conference invitations

Speaker : "Role of a Phosphatidylcholine-Specific Phospholipase C in Cell Growth and Oncogene-Mediated Transformation" at the Biochemical Society-Sociedad Espanola de Bioquimica Joint Meeting: "Membrane Structure and Function", Bilbao (Spain 1989).

Speaker: "Implicacion de mecanismos de transduccion de señales mediados por fosfolipasas en la actividad celular" at the XVII Congress of the Spanish Biochemical Society, Oviedo (Spain 1990).

Speaker: "Participacion de isotipos de la proteina quinasa C en el crecimiento tumoral y metastasis" en el IV Curso Internacional para Postgraduados de la Fundacion Ramon Areces (Spain 1992).

Speaker: "Phosphatidylcholine hydrolysis and mitogenic signalling" at the meeting on Small DNA tumor viruses: Mechanisms of malignant transformation and clinical significance (Norway 1992).

Speaker: "Phosphatidylcholine hydrolysis and mitogenic signalling" at the 3th IMT Symposium on Cell cycle, Signal transduction and Oncogenesis (Germany, 1992).

Speaker: "Involvement of protein kinase C subspecies during mitogenic activation by phosphatidylcholine hydrolysis" at the 1993 Summer Course of the Universidad Complutense: Cell Signal Transduction, Second Messengers and Protein Phosphorylation in Health and Disease" (El Escorial, Spain, 1993).

Speaker: "Phosphatidylcholine hydrolysis and PKC activation during mitogenic signal transduction" at the 7th Harden Satellite Meeting: Intracellular Phospholipases, (Oxford, UK, 1993).

Speaker: "Role of phosphatidylcholine hydrolysis and PKC activation during mitogenic signal transduction" at the 3rd International Conference on Lipid Mediators in Health and Disease (Jerusalem, Israel, 1993).

Speaker: "Role of phosphatidylcholine hydrolysis and ζ PKC activation during NF- κ B activation" at the Gordon Research Conference "Second Messengers and Protein Phosphorylation" (Kimball Union Academy, Meriden, NH, USA, 1994).

Speaker: "Cell signalling through the Protein Kinase C pathway" at the Fundación Ramón Areces Symposium "The Molecular Basis of Cancer: Diagnostic and Therapeutic Implications" (Madrid, Spain, 1996).

Speaker: "Señalización mitogénica de las metástasis" at the Universidad Internacional Menéndez Pelayo (Santander, Spain, 1996).

Speaker and Session Chairman: "Regulation and signal transduction of ζ PKC" at the 24th FEBS Meeting (Barcelona, Spain, 1996).

Speaker: "Identification and molecular characterization of novel protein regulators of the atypical protein kinase C subspecies" at the "21st European Symposium Hormones and Cell Regulation" (Mont Sainte Odile, Alsace, France 1996).

Speaker: " ζ PKC: a new target for antiproliferative interactions" at the symposium "Anticancer Targets and Strategies for the Twenty-first Century" (Castres, France 1996).

Speaker: "Cell signalling through the atypical PKCs" at the "EMBO workshop Frontiers of Molecular Biology" (Rome, Italy 1996).

Speaker and Organizer: "Signalling cell proliferation and survival through the PKC pathway" at the Fundación Ramón Areces International Symposium: "Signalling Cell Stress and Proliferation: New Targets for Novel Therapies in Cancer and Inflammation" (Madrid, Spain 1997).

Speaker: "Control of proliferation and survival through the atypical PKC pathways" at the Gordon Research Conference "Glycolipid and Sphingolipid Biology" (Ventura, California, 1998).

Speaker: "Novel and selective ways to regulate the Protein Kinase C atypical subspecies" at the "Signal Transduction and Second Messengers III Keystone Symposium" (Taos, New Mexico, 1998).

Speaker: "Signalling survival and proliferation through the atypical PKC pathways" at the "6th Annual Congress of Immunology of the British Society for Immunology" (Harrogate Centre, UK, 1998).

Speaker and Session Chairman: "Regulation of the NF- κ B pathway by the atypical PKCs" at the "C.N.R.S. Conference Jacques Monod" (Aussois, France, 1999).

Speaker: "Identification of p62 as a novel critical component of the NF- κ B Pathway" at the Keystone Symposium "NF- κ B Regulation and Function: From Basic Research to Drug Development" (Tahoe City, California, 2000).

Speaker and Organizer: "Regulation and role of the atypical PKCs in cell survival" at the Juan March Workshop "Control of Signaling by Protein Phosphorylation" (Madrid, Spain, 2000).

Speaker and Organizer: "Novel interactions in the atypical PKC pathway toward NF- κ B" at the Fundación Ramón Areces Symposium "Novel Targets in the NF- κ B Pathway for Novel Therapies in Cancer and Inflammation" (Madrid, Spain, 2000).

Plenary Lecture: "Novel components in the atypical PKC survival signaling cascades" at the "Annual Meeting of the Austria Biochemical Society" (Innsbruck, Austria, 2000).

Speaker: "Regulation and role of the atypical PKC isoforms in cell survival during tumor transformation" at the Indiana University 41st International Symposium on Regulation of Enzyme Activity and Synthesis (Indiana, 2000).

Speaker: "Adapters and regulators of the atypical PKCs in the NF- κ B pathway" at the University of Gent Symposium "NF- κ B: Regulation, Gene Expression and Disease" (Gent, 2001).

Speaker and Organizer: "Regulation of NF- κ B activation and function by ζ PKC" at the Juan March Workshop "Control of NF- κ B signal transduction in inflammation and innate immunity" (Madrid, Spain, 2002).

Speaker and Session Chairman: "Adapters and regulators in the atypical PKC pathways" at the "Molecular Medicine III" workshop (Pamplona, Spain, 2002).

Speaker and Session Chairman: "Control of NF- κ B and the immune response by ζ PKC and its modulators Par-4 and p62" at the "Keystone Symposium NF- κ B: Biology and Pathology" (Snowbird, Utah 2004).

Speaker and Session Chairman: "Biology of the atypical PKCs and their adapter p62 in vivo" at the "13th International Symposium on Molecular Cell Biology of Macrophages" (Osaka, Japan, 2004)

Speaker and Organizer: "Specificity and cross-talks in the PKC ζ inflammatory pathways" at the Cantoblanco Workshops in Biology "Signaling Networks in Immunity and Inflammation" (Madrid, Spain, 2005)

Speaker and Session Chairman: "The PKC ζ /Par4 complex in inflammation and cancer" at the "International Symposium on Translational Research India, 2005)

Apoptosis

Speaker: "Signal Integration and cross-talks in the atypical PKC pathways" at the International Symposium of Kobe University 21st Century COE Program on Signal Transduction, In Memory of Prof. Yasutomi Nishizuka (Kobe, Japan, 2006)

Speaker: "PKC ζ Signaling in the NF- κ B Pathways" at the Keystone Symposium NF- κ B: 20 Years on the Road from Biochemistry to Pathology" (Banff, Alberta 2006).

Speaker and Organizer: "Bifunctional role of PKC ζ in inflammation and cell damage" at the CNIO Cancer Conference "Inflammation and Cancer" (Madrid, Spain, 2006)

Speaker: "Signaling specificity and diversity through the atypical PKC adapter p62" at the FEBS Special Meeting on Cellular Signaling (Dubrovnik, Croatia, 2006)

Speaker and Organizer: "p62 in obesity and bone remodeling" at the Canto Blanco Workshop in Biology "The Molecular Cell Biology of Obesity and Bone Remodelling" (Madrid, Spain, 2006)

Speaker and Organizer: "The atypical PKCs and their adapters in cancer" at the Canto Blanco Workshop in Biology "Signaling and Metabolic Pathways in Cancer" (Madrid, Spain, 2007)

Speaker: "Inflammation and cancer by the atypical PKC regulators Par-4 and p62" at the "Biomed Conference on Inflammation and Chronic Disease" (Barcelona, Spain, 2007)

Speaker: "The atypical PKC pathways in inflammation and cancer" at the FEBS/ESF Workshop on "16th Protein Kinase Meeting Dynamics of Cell Signal Systems (Oslo, Norway, 2008).

Speaker: "The p62/aPKC complex in the control of NF- κ B in lung cancer" at the 67th Annual Meeting of the Japanese Cancer Association (Nagoya, Japan, 2008)

Speaker: "The biology of PKCzeta in inflammation and cancer" in I Workshop DIFHEMAT-CM "From lymphoid differentiation to cancer" (Madrid, Spain, 2008)

Speaker: "The p62/PKC ζ complex: new critical players in lung and intestinal tumorigenesis" in the AACR special conference in "Mouse Models of Cancer" (San Francisco, USA, 2009)

Speaker: "The p62/atypical PKC complex: a novel hub in cancer" in the FASEB Summer Research Conference "Lipid Signaling Pathways in Cancer" (Arizona, USA, 2009)

Speaker: "The p62/atypical PKC complex in cancer and metabolism" in the CNIO Cancer Conference "The Energy of Cancer" (Madrid, Spain, 2009)

Speaker: “The p62/aPKC regulation of NF-κB in cancer and obesity-induced inflammation” in the Keystone Symposium “NF-κB in inflammation and disease” (Santa Fe, USA, 2010)

Speaker: “PKCζ control of inflammation in obesity and cancer” in the IRB International Symposia “Macrophages and Inflammation” (Barcelona, Spain, 2010)

Speaker and Organizer: “Obesity and Inflammation by p62” in the International Cincinnati Cancer Symposium on “NF-κB, cancer, inflammation and Obesity” (Cincinnati, USA, 2011)

Speaker: “Physiology and pathology of p62 signaling” in the “Autophagy in Stress, Development and Disease” Gordon Research Conference (Ventura, USA, 2012)

Speaker and Organizer: “Tumor suppressor role of PKCζ in the metabolism of cancer cells” in the SBMRI Workshop on “Cancer Metabolism” (La Jolla, USA, 2012)

Speaker: “p62 and PKCζ, partners in metabolism and cancer” in the “Diabetes and Obesity” EMBL Symposium (Heidelberg, Germany, 2012)

Speaker: “p62 and PKCζ, two partners in metabolism and cancer” in the “Metabolism from Signaling to Disease” Alliance Forum Meeting (Heidelberg, Germany, 2012)

Speaker: “p62: A Multifunctional Signaling Molecule in Inflammation and Metabolism” in the “Autophagy, Inflammation and Immunity” Keystone Symposium (Montreal, Canada, 2013)

Speaker: “Nutrient sensing and stress in cancer” in the Cold Spring Harbor-Asia symposium on “Cell Signaling in Metabolism, Inflammation and Cancer” (Suzhou, China, 2013)

Main Seminars

Invited Speaker, Children's Hospital, Boston 1990

Invited Speaker, Harvard Medical School, Boston 1991

Invited Speaker, Glaxo U.K, London 1994

Invited Speaker, Chester Beatty Laboratories, London 1995

Invited Speaker, EMBL, Heidelberg 1995

Invited Speaker, Friedrich Miescher-Institut, Basel 1995

Invited Speaker, Dana Farber Cancer Institute, Boston 1995

Invited Speaker, Tularik Inc., San Francisco 1996

Invited Speaker, Glaxo-Wellcome U.K., Stevenage 1996

Invited Speaker, Glaxo-Wellcome USA, RTP 1996

Invited Speaker, National Cancer Institute, NIH, Bethesda 1996

Invited Speaker, Friedrich Miescher-Institut, Basel 1997

Invited Speaker, Mayo Clinic, Rochester Minnesota 1998

Invited Speaker, Albert Einstein College of Medicine, New York 1999

Invited Speaker, University of Virginia at Charlottesville, Virginia 2000

Invited Speaker, Gent University, Gent 2000

Invited Speaker, University of Illinois at Chicago, Chicago 2001

Invited Speaker, Pfizer USA, Groton 2002

Invited Speaker, Wyeth USA, Boston 2002

Invited Speaker, Biogen Inc., Boston 2002

Invited Speaker, University of Pittsburgh Medical Center, Pittsburgh 2002

Invited Speaker, Institut de Biologie Moléculaire et Cellulaire-CNRS, Strasbourg 2003

Invited Speaker, Cancer Center of the University of Illinois at Chicago 2003

Invited Speaker, Pfizer USA, Saint Louis 2003

Invited Speaker, Biogen-Idec, Boston 2004

Invited Speaker, University of Cincinnati, Cincinnati 2005

Invited Speaker, Cincinnati Children's Hospital, Cincinnati 2006

Invited Speaker, Washington University School of Medicine, Saint Lous 2007
 Invited Speaker, Brown University, Providence 2007
 Invited Speaker, Ohio State University Cancer Center, Columbus 2007
 Invited Speaker, Genentech, San Francisco 2009
 Invited Speaker, Harvard, Boston 2010
 Invited Speaker, Sanford-Burnham Medical Research Institute, San Diego 2010
 Invited Speaker, Indiana University, Indianapolis, 2010
 Invited Speaker, Spanish National Cancer Institue (CNIO), Madrid, 2010
 Invited Speaker, National Center of Biotechnology, Madrid, 2010
 Invited Speaker, Centre of Molecular Biology Severo Ochoa, Madrid, 2010
 Invited Speaker, Spanish National Cardiovascular Institute (CNIC), Madrid 2011
 Invited Speaker, University of California San Diego, 2012
 Invited Speaker, University of California Riverside, 2012
 Invited Speaker, University of California Davis, 2012
 Invited Speaker, University of California Santa Barbara, 2012
 Invited Speaker, Stony Brook Cancer Center, NY, 2013
 Invited Speaker, Loyola University School of Medicine, Chicago, 2013
 Invited Speaker, NIH-Frederick, Washington DC, 2013
 Invited Speaker, University of Southern California, Los Angeles, 2013
 Invited Speaker, University of California San Diego, Dept. Pharmacology, 2013
 Invited Speaker, University of California San Diego, Dept. Bioengineering, 2013
 Invited Speaker, Case Western Reserve, Cleveland, 2013

Research Support (selection from 1993)

European Union:

1992-1995 Science Plan of the EEC (CT920769) "Characterization of elements in the stromelysin promoter responsive to growth factors, oncogenes and PC-PLC"- \$250,000. PI: Jorge Moscat
 1993-1996 BIOMED-I of the EU (CT931007) "Analysis of the signalling pathways regulating HIV transcription in human T lymphocytes and monocytes as potential targets for anti-AIDS intervention"- \$280,000. PI: Jorge Moscat
 1997-2000 BIOTEC-2 of the EU (CT972071) "Identification of signal transduction molecules as targets for biotechnology derived immunosuppressive drugs"- \$1,443,000. PI: Jorge Moscat

Spanish Government Agencies:

1993-1996 CICYT-Ministry of Education (SAF93-0018) "Protein kinase C ζ and stromelysin expression"- \$150,000 PI: Jorge Moscat
 1994-1997 CICYT-Ministry of Education (PB93-0180) "Identification and characterization of novel activators of ζ PKC"- \$280,000 PI: Jorge Moscat
 1996-1999 CICYT-Ministry of Education (SAF96-0216) "Mechanism of regulation of the atypical PKCs"- \$200,000 PI: Jorge Moscat
 1997-2000 DGICYT-Ministry of Education (PM96-0002-C02) "Role of Par-4 on ζ PKC regulation"- \$400,000 PI: Jorge Moscat
 1999-2002 CICYT-Ministry of Education (SAF99-0053) "Molecular mechanisms for the regulation of the IKKs by the atypical PKCs"- \$300,000 PI: Jorge Moscat
 2000-2001 DGICYT-Ministry of Education (2FD1997-1429) "Characterisation of the transcriptional

- regulation of Par-4 during oncogenic transformation"- \$300,000 PI: Jorge Moscat
- 2002-2005 DGI-Ministry of Education (SAF2002-01807) "NF- κ B activation and the immune response in p62-deficient mice"- \$210,000 PI: Jorge Moscat
- 2006-2008 DGI-Ministry of Education (SAF2005-00174) "Role of the PKC ζ /p62 signalling module in Th2 differentiation and asthma"- \$336,000 PI: Jorge Moscat

Private Companies and Foundations:

- 1992-1995 Glaxo "Identification of the PKC involved in tumor transformation by PC-PLC"- \$400,000. PI: Jorge Moscat
- 1996-2001 Glaxo-Wellcome "New anti-tumour targets in the atypical PKC pathways"- \$3,000,000. PI: Jorge Moscat
- 2002-2005 Juan March Foundation "Regulators and adapters in the atypical PKC Pathways"- \$1,100,000 PI: Jorge Moscat
- 2004-2006 Pfizer Inc "Role of PKC ζ in inflammation"- \$750,000 PI: Jorge Moscat
- 2004-2005 Biogen-Idec "Molecular Biology and Immunology of the p62/ ζ PKC pathway"- \$111,000 PI: Jorge Moscat
- 2004-2006 Faes Pharma, "p62 a novel therapeutic target in bone disease"- \$1,100,000 PI: Maria T. Diaz-Meco
- 2006-2009 Fundación "La Caixa", "PKC ζ /Par-4 in Ras-induced transformation"- \$157,000 PI: Jorge Moscat
- 2006-2009 CSIC-UC collaborative agreement, "Biology and Pathology of the atypical PKCs"- \$600,000 PI: Jorge Moscat
- 2007-2010 FAES Pharma, "Drug discovery of inhibitors of the atypical PKC/Par-4 pathway"- \$2,017,209 PIs: Jorge Moscat

National Institutes of Health and Department of Defense:

Active:

R01CA172025-A1 (PI: Jorge Moscat) 07/01/2013-06/30/2018
Protein Kinase C ζ Targets in Intestinal Cancer Stem Cells. NCI

DoD Synergistic Award PC120893P3 (PIs: Jorge Moscat and Maria T. Diaz-Meco) 05/01/2013-04/30/2016
Targeting the Adipocyte-Tumor Cell Interaction in Prostate Cancer Treatment

R01CA132847 (PI: Jorge Moscat) 08/01/2009-05/31/2015
Role and mechanism of action of p62/Sqstm1 in Ras-induced tumorigenesis in lung. NCI

R01CA132847-S1 (PI: Jorge Moscat) 09/01/2013-08/31/2014
Control of lung cancer metabolism by PKC ζ . NCI

R01AI072581 (PI: Jorge Moscat) 01/15/2008-12/31/2013
The p62/atypical PKC signaling complex in Th2 differentiation and asthma. NIAID

R01DK088107 (PI: Jorge Moscat) 04/01/2010-03/31/2014
Obesity-induced inflammation and insulin resistance by the p62/PKCzeta signaling. NIDDK

Completed Recently:

R21CA150297 (PI: Serge P Nana-Sinkam) 02/05/2010-01/31/2012
MicroRNA Expression in Lung Cancer Development and Progression. NCI

Pending:

R01CA185545 (PI: Jorge Moscat) Pending
p62/sequestosome-1 in Obesity-induced Hepatocellular Carcinogenesis (NCI)

R01DK101011 (PI: Jorge Moscat) Pending
Obesity-induced inflammation by the NBR1-MEKK2/3 pathway. NIDDK

Training Record

Graduate Students:

"Mechanisms that control the release of arachidonic acid: Role of the PI-PLC". Carmen Herrero Matesanz. Ph.D. degree 1984-1989.

"Role of the PC-PLC in cell growth and transformation" Maria Teresa Diaz-Meco. Ph.D. degree 1989-1991.

"Hydrolysis of phosphatidylcholine by phospholipase C. Role of Ras and GAP" Eugenia Cornet. Ph.D. degree 1989-1992.

"Expression of different PKC isotypes in head and neck cancer" Carlos Martinez. Ph.D. degree 1990-1993.

"Role of ζ PKC in mitogenic signaling and NF- κ B activation" Isabel Dominguez. Ph.D. degree 1990-1994.

"Transcriptional activation of the gene for stromelysin-1" Laura Sanz. Ph.D. degree 1991-1996.

"Mitogenic signaling through the Ras oncogene and the PC-PLC pathway" Edurne Berra Ramirez. Ph.D. degree 1992-1996.

"Identification of hnRNPA1 as a novel substrate for ζ PKC" José Lozano. Ph.D. degree 1992-1997.

"Identification and characterization of novel regulators of the atypical PKCs" María del Mar Municio. Ph.D. degree 1992-1997.

"Identification of p62 as a novel α PKC-binding protein" Pilar Sanchez. Ph.D. degree 1995-1999

"Mechanisms of regulation of Par-4 during the induction of apoptosis" Sonia Frutos. Ph.D. degree 1996-2000

"Characterization of signalling pathways in PKC ζ knock out mice" Angeles Durán. Ph.D. degree 2000-2006

"Role of p62 in non-alcoholic steatopatitis and hepatocellular carcinoma" Sindhushree Raghunandan, Graduate Student Bioengineering Program, UCSD, 2013-

Postdoctoral Trainees:

Inés Diaz-Laviada, Ph.D. (Biochemistry and Molecular Biology) 1990-1991: Ras signaling and phospholipid degradation.

Edurne Berra, Ph.D. (Biochemistry and Molecular Biology) 1996-1997: Cross-talk of different survival signaling pathways.

Maria-Jose Lallena, Ph.D. (Biochemistry and Molecular Biology) 1997-1998: Activation and phosphorylation of IKK β by the atypical PKCs.

Guillermo de Cárcer, Ph.D. (Biochemistry and Molecular Biology) 1997-1998: Intracellular localization of the atypical PKCs by protein anchors.

Laura Sanz, Ph.D. (Biochemistry and Molecular Biology) 1996-2001: Upstream regulators of ζ PKC in the TNF pathway.

Christine Bezombes, Ph.D. (Biochemistry and Molecular Biology) 2000: Novel pathways in the atypical PKC signaling cascade through p62.

María José Lafuente, Ph.D. (Biochemistry and Molecular Biology) 2000-2003: PKC ζ /Par-4 in apoptosis and B cell proliferation.

Antonia Avila, Ph.D. (Biochemistry) 2001-2002: Atypical PKC signalling in the immune response in *Drosophila*.

María José Carrascosa, Ph.D. (Molecular Biology) 2002-2004: Par-4, a novel tumor suppressor gene.

Pilar Martin, Ph.D. (Molecular Biology) 2001-2006: The immunity of the atypical PKCs

Angelina Rodriguez, Ph.D. (Molecular Biology) 2003-2006: p62 a novel adapter in obesity and energy expenditure.

Ruth Alvarez, Ph.D. (Molecular Biology) 2005-2006: Regulation of p53 by the PKC ζ -NF- κ B pathway.

Juan Francisco Linares, Ph.D. (Molecular Biology) 2006-present: p62 in IL-4 signaling.

Georgios Karamanlidis, Ph.D. (Molecular Biology) 2006: p62 and obesity

Angeles Duran, Ph.D. (Molecular and Cellular Biology) 2006-present: p62/aPKC and tumorigenesis

Anita Galvez, Ph.D. (Immunobiology) 2007-2010: Par-4 control of T cell proliferation through PKC ζ

Yunqui Yang, Ph.D. (Immunobiology) 2007-present: PKC $\lambda/1$ in Th2 polarization and allergy

Jasharee Yossi, Ph.D. (Molecular Cell Biology): 2007-2009: Par-4/PKC ζ in prostate cancer

Ramars Amanchy, Ph.D. (Biochemistry and Molecular Biology): 2007-present: Novel partners of the aPKCs and their regulators

Mei Dei, Ph.D. (Molecular and Cellular Biology): 2009-present: Role of SMG1 in Ras-induced carcinogenesis

Li Ma, Ph.D. (Molecular and Cellular Biology): 2009-present: Role of the tumor suppressor PKC ζ in cancer metabolism

Sang-Jun Lee (Metabolism and Cancer): 2007-present: Role of p62 and NBR1 in obesity and cancer

Victoria LLado (Nutrient Stress and Cancer): 2011-present: Mechanisms of action of the atypical PKCs in cancer metabolism and survival

I Chu (Autophagy and metabolism): 2011-2012: Novel regulators of the p62-mediated nutrient sensing pathways

Philip Shelton (miRNA in intestinal cancer stem cells): 2013-

Visiting Scientists:

Robert S. Chapkin, Assistant Professor, Texas A & M University, 1992: Role of ζ PKC in mitogenic signaling.

Victor Diaz-Golpe, Staff researcher Hospital de Leon, Spain, 1992: NF- κ B regulation through the PKC pathway.

Geir Bjorkoy, Ph.D. (Biochemistry), Post-Doctoral Fellow, University of Tromsø, 1998: Potential role of tyrosine phosphorylation on ζ PKC activity.

Marie W. Wooten, Ph.D. (Cellular and Molecular Biology), Professor, Auburn University, Alabama, 1999: The atypical PKCs during NGF signaling.

Nancy Laurin, Ph.D. (Biochemistry), Post-Doctoral Fellow, Laval University of Quebec, 2003: p62 and the Paget Disease of Bone.

Sandra Rodriguez-Mascareñas, Graduate Student, University of Rio de Janeiro, 2004: PKC ζ in Th2 polarization and asthma.

Member of Editorial Boards

EMBO Journal
EMBO Reports
Molecular Metabolism
Molecular and Cellular Biology

Reviewer

Main Journals:

Cell, Molecular Cell, EMBO Journal, EMBO Reports, Journal of Biological Chemistry, Molecular and Cellular Biology, Journal of Clinical Investigation, Biochemical Biophysical Research Communications, European Journal of Biochemistry, FEBS Letters, Biochemical Pharmacology, Journal of Neurochemistry, Oncogene, The FASEB Journal, Cancer Research, Journal of Immunology, Journal of Clinical Investigation, Nature Cell Biology, Nature Reviews Molecular Cell Biology, Science, Journal of Cell Biology, Cell Metabolism, Genes & Development.

Main Institutions and Granting Agencies:

Dutch Cancer Society (Holland), The Israel Science Foundation (Israel), Kobe University (Japan), Auburn University (USA), Vanderbilt University (USA), Austrian Science Fund (Austria), Cornell University (USA), University of Illinois at Urbana-Champaign (USA), Mayo Foundation (USA), Wellcome Trust (UK), Arthritis Research UK, University of Chicago (USA), European Molecular Biology Organization Fellowship Program, Spanish "Agencia Nacional de Evaluación y Prospectiva", European Commission Framework Programs, Brown University (USA), American Cancer Society Ohio Study Section (USA), National Institutes of Health (NIH), etc

List of Publications

Fifteen Most Representative (in chronological order)

1. Berra, E., Diaz-Meco, M.T., Dominguez, I., Municio, M.M., Sanz, L., Lozano, J., Chapkin, R.S., Moscat, J. (1993). Protein kinase C ζ Isoform is Critical for Mitogenic Signal Transduction. **Cell** 74, 555-563
2. Diaz-Meco, M.T., Municio, M.M., Frutos, S., Sanchez, P., Lozano, J., Sanz, L., Moscat, J. (1996). The Product of *par-4*, a Gene Induced During Apoptosis, Interacts Selectively with the Atypical Isoforms of Protein Kinase C. **Cell** 86, 777-786
3. Sanz, L., Diaz-Meco, M.T., Nakano, H., Moscat, J. (2000) The atypical PKC- interacting protein p62 channels NF- κ B activation by the IL-1/TRAF6 pathway. **EMBO J.** 19, 1576-1586
4. Leitges, M., Sanz, L., Martin, P., Duran, A., Braum, U., Garcia, J.F., Camacho, F., Diaz-Meco, M.T., Rennert, P.D., Moscat, J. (2001) Targeted disruption of the ζ PKC gene results in the impairment of the NF- κ B pathway. **Mol. Cell** 8, 771-780
5. Duran, A., Serrano, M., Leitges, M., Flores, J.M., Picard, S., Brown, J.P., Moscat, J.*, Diaz-Meco, M.T. (2004) The atypical PKC-interacting protein p62 is an important mediator of RANK-activated osteoclastogenesis. **Dev. Cell** 6, 303-309 (*) Corresponding author
6. Moscat, J., Diaz-Meco, M.T., Albert, A., Campuzano, S. (2006) Cell signalling and function organized by PB1 domain interactions. (Review) **Mol. Cell** 23, 631-640
7. Rodriguez, A., Durán, A., Selloum, M., Champy, M.F., Diez-Guerra, F.J., Flores, J.M., Serrano, M., Auwerx, J., Diaz-Meco, M.T., and Moscat, J. (2006) Mature-onset obesity and insulin resistance in mice deficient in the signaling adapter p62. **Cell Metab.** 3, 211-222
8. Duran, A., Linares, J.F., Galvez, A.S., Wikenheiser, K., Flores, J.M., Diaz-Meco, M.T., and Moscat, J. (2008). The signaling adaptor p62 is an important NF-kappaB mediator in tumorigenesis. **Cancer Cell** 13, 343-354
9. Moscat, J., and Diaz-Meco, M.T. (2009) p62 at the crossroads of autophagy, apoptosis, and cancer (Minireview). **Cell** 137, 1001-1004 [Chosen as "Featured Article"]
10. Lee, S.J., Kim, J.Y., Nogueiras, R., Linares, J.F., Perez-Tilve, D., Jung, D.Y., Ko, H.J., Drew, A., Leitges, M., Kim, J.K., Tschöp, M.H., Diaz-Meco, M.T., Moscat, J. (2010) PKC ζ -driven inflammation in the non-hematopoietic compartment is critical for obesity-induced glucose intolerance. **Cell Metab.** 12, 65-77
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