

## CURRICULUM VITAE

**DATE OF REVISION:** 02/01/2026

**NAME:** Carlos Fernández Hernando Ph.D.

**POSITION:** Antony N. Brady Professor of Medicine in the Departments of Comparative Medicine and Pathology (*with tenure*). Director Vascular Biology and Therapeutics Program (VBT).

**SCHOOL:** Yale School of Medicine and the Graduate School.

### **EDUCATION:**

1993-98: Universidad Autónoma de Madrid, Spain, Graduate Degree: B.S (Chemistry)

1998-03: Universidad Autónoma de Madrid, Spain, Graduate Degree: Ph.D (Biochemistry/Molecular Biology)

2003-04: Postdoctoral Fellow (Biochemistry), Hospital Ramón y Cajal, Spain.

2005-07: Postdoctoral Fellow (Pharmacology), Yale University School of Medicine, USA.

### **CAREER/ACADEMIC APPOINTMENTS:**

2008-2009: Associate Research Scientist. Department of Pharmacology. Yale University School of Medicine, USA.

2009-2013. Assistant Professor. Department of Medicine and Cell Biology (Tenure Track). New York University School of Medicine. New York, USA.

2013-2016. Associate Professor, Department of Comparative Medicine. Interdepartmental Program in Vascular Biology and Therapeutics (VBT). Yale University School of Medicine, New Haven, Connecticut, US.

2014-2016. Associate Professor, Department of Pathology (secondary appointment). Interdepartmental Program in Vascular Biology and Therapeutics (VBT) and Yale Center for Molecular and System Metabolism (YMSM). Yale University School of Medicine, New Haven, Connecticut, US.

2016-2019. Associate Professor, Department of Comparative Medicine and Department of Pathology (*with tenure*). Interdepartmental Program in Vascular Biology and Therapeutics (VBT) and Yale Center for Molecular and System Metabolism (YMSM). Yale University School of Medicine, New Haven, Connecticut, US.

2019-present. Professor, Department of Comparative Medicine and Department of Pathology (*with tenure*). Interdepartmental Program in Vascular Biology and Therapeutics (VBT) and Yale Center for Molecular and System Metabolism (YMSM). Yale University School of Medicine, New Haven, Connecticut, US.

2022-present. Director Vascular Biology and Therapeutics Program. Yale University School of Medicine. New Haven, Connecticut, US. Antony N. Brady Professor, Department of Comparative Medicine and Department of Pathology (*with tenure*). Interdepartmental Program in Vascular Biology and Therapeutics (VBT) and Yale Center for Molecular and System Metabolism (YMSM). Yale University School of Medicine, New Haven, Connecticut, US.

### **ADMINISTRATIVE POSITIONS:**

2012. President New York Lipid and Vascular Biology Club. Rockefeller University.

### **BOARD OF CERTIFICATION:**

N/A

### **PROFESSIONAL HONORS & RECOGNITION:**

2023. **Elected member of The Connecticut Academy of Science and Engineering.** USA

2021. **Anthony N. Brady Endowed Chair.** Yale University School of Medicine. USA

2021. **Judah Folkman Award in Vascular Biology**. North American Vascular Biology Organization (NAVBO).

2020. **Transformational Project Award**. American Heart Association. USA.

2019. **Jeffrey M. Hoeg Arteriosclerosis, Thrombosis & Vascular Biology Award for Basic Science and Clinical Research**. American Heart Association. USA.

2019. **Chair Gordon Conference Atherosclerosis**

2017. **NHBLI EIA R35 Award**. National Institute of Health. USA.

2015. **Established Investigator Award**. American Heart Association. USA.

2013. **Kingsley Award in Medical Research**. Yale University School of Medicine.

2011. **Springer Junior Faculty Investigator Award**. North American Vascular Biology Organization (NAVBO).

2010. **David L. Williams Memorial Award**. The Kern Aspen Lipid Conference. Colorado. USA.

2010. **Irvine H. Page Young Investigator Award**. American Heart Association. USA

2008. **Ramón y Cajal Award** from Ministerio de Educación y Ciencia. Spain. (*decline*)

2008. **Scientist Development Award** from American Heart Association. USA.

2008. **Keystone Symposia Scholarship**.

2007. **Postdoctoral Fellowship Award** from Philip Morris External Research Program. USA.

2006. **Young Investigator Award**. 4<sup>th</sup> International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide, Monterrey, CA.

2005. **Postdoctoral Fellowship Award** from Ministerio de Educación y Ciencia. Spain.

2004. **Postdoctoral Fellowship Award** from Comunidad de Madrid, Spain.

2004. **Esteve Laboratories Award**, to the best original research contribution published in *Clínica e Investigación en Arteriosclerosis*. Spanish Atherosclerosis Society

#### **GRANT/CLINICAL TRIALS HISTORY:**

##### **Active**

**1. Agency:** National Institutes of Health (NIH/ NHLBI).

**I.D.#** 1R01HL171480 - 01A1

**Title of project:** Contribution of novel lysoplasmalogenases enzymes in regulating macrophage immunometabolic responses in cardiovascular disease.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 20%

**Direct cost per year:** \$479,260

**Total cost for project period:** \$3,800,247

**Date of Award:** Jun 1, 2024-May 31, 2028.

**1. Agency:** National Institutes of Health (NIH/ NHLBI).

**I.D.#** 1R01HL171480 - 01A1

**Title of project:** Sterol regulation of immunometabolic responses in cardiometabolic diseases.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 20%

**Direct cost per year:** \$446,509

**Total cost for project period:** \$2,991,612

**Date of Award:** Jan 1, 2025-Nov 30, 2028.

##### **Past Grants**

**1. Agency:** National Institutes of Health (NIH/NIA).

**I.D.#** 2R01HL131952-06A1

**Title of project:** Endothelial cell-specific suppression of Wnt signaling ameliorates vascular inflammation.

**Co.I.:** Carlos Fernández-Hernando

**Percent of effort:** 10%

**Direct cost per year:** \$345,076

**Total cost for project period:** \$2,367,511

**Date of Award:** Jan 1, 2022-Dec 31, 2025.

**2. Agency:** National Institutes of Health (NIH/NHBLI).

**I.D.#** R01HL151222

**Title of project:** Role of LMO7 in Atherosclerosis.

**Co.I.:** Carlos Fernández-Hernando

**Percent of effort:** 5%

**Direct cost per year:** \$323,912

**Total cost for project period:** \$2,672,871

**Date of Award:** Sept 1, 2020-Jan 31, 2025.

**3. Agency:** National Institutes of Health (NIH/NIDDK).

**I.D.#** R01DK125492

**Title of project:** Role of lipid droplets in insulin resistance

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 10%

**Direct cost per year:** \$269,183

**Total cost for project period:** \$1,803,528

**Date of Award:** Jul 1, 2020-Jun 30, 2024.

**4. Agency:** National Institutes of Health (NIH/NHLBI).

**I.D.#** R35HL135820

**Title of project:** Novel insights into the molecular and cellular mechanism regulating lipid metabolism and atherosclerosis.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 50%

**Direct cost per year:** \$507,000

**Total cost for project period:** \$5,992,000

**Date of Award:** Feb 1, 2017-Jan 31, 2024.

**5. Agency:** American Heart Association (AHA). Transformational Award.

**I.D.#** 20TPA35490416

**Title of project:** Regulation of macrophage immunometabolic response by sterols during atherosclerosis

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 10%

**Direct cost per year:** \$90,000

**Total cost for project period:** \$300,000

**Date of Award:** Jan 1, 2021-Dec 31, 2023.

**6. Agency:** National Institutes of Health (NIH/NIA).

**I.D.#** R21AG062202

**Title of project:** Aging and clonality in atherosclerosis.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 10%

**Direct cost per year:** \$150,000

**Total cost for project period:** \$275,000

**Date of Award:** Jan 15, 2019-Nov 30, 2020.

**7. Agency:** National Institutes of Health (NIH/NHLBI).

**I.D.#** R01HL131952-01

**Title of project:** Endothelial glucocorticoid receptor suppresses vascular inflammation.

**Co.I.:** Carlos Fernández-Hernando

**Percent of effort:** 10%

**Direct cost per year:** \$308,300

**Total cost for project period:** \$2,594,871

**Date of Award:** March 1, 2016-Feb 28, 2021.

**8. Agency:** National Institutes of Health (NIH/NIA).  
**I.D.#** R01AG053500  
**Title of project:** Role of miR-33 in Alzheimer disease.  
**Co.I.:** Carlos Fernández-Hernando (sub-contract)  
**Percent of effort:** 5%  
**Direct cost per year:** \$307,000  
**Total cost for project period:** \$1,984,053  
**Date of Award:** Nov 1, 2016-April 30, 2021.

**9. Agency:** American Heart Association (AHA). Established Investigator Award.  
**I.D.#** 16EIA27550004  
**Title of project:** Molecular Regulation of Cholesterol Metabolism.  
**P.I.:** Carlos Fernández-Hernando  
**Percent of effort:** 10%  
**Direct cost per year:** \$72,000  
**Total cost for project period:** \$400,000

**10. Agency:** Foundation Leducq (Transatlantic Networks of Excellence). MIRVAD  
**I.D.#** MIRVAD  
**Title of project:** MIRVAD (Role of secreted microRNAs in cardiovascular disease)  
**P.I.:** Carlos Fernández-Hernando  
**Percent of effort:** 10%  
**Direct cost per year:** \$144,000  
**Total cost for project period:** \$800,000  
**Date of Award:** Jan 1, 2014-Dec 31, 2018.

**11. Agency:** National Institutes of Health (NIH/NHLBI).  
**I.D.#** R01HL106063  
**Title of project:** Caveolin-1 in lipoprotein metabolism and atherosclerosis.  
**P.I.:** Carlos Fernández-Hernando  
**Percent of effort:** 25%  
**Direct cost per year:** \$250,000  
**Total cost for project period:** \$2,073,476  
**Date of Award:** Feb 1, 2011-Nov 30, 2016. RELINQUISH FOR R35 EIA AWARD.

**12. Agency:** National Institutes of Health (NIH/NHLBI).  
**I.D.#** R01HL107953-06A1  
**Title of project:** Role of microRNAs in lipid metabolism and cardiovascular disease.  
**P.I.:** Carlos Fernández-Hernando  
**Percent of effort:** 32.5%  
**Direct cost per year:** \$257,000  
**Total cost for project period:** \$1,657,226  
**Date of Award:** March 1, 2016-Feb 29, 2020. RELINQUISH FOR R35 EIA AWARD.

**13. Agency:** National Institutes of Health (NIH).  
**I.D.#** P30 DK045735  
**Title of project:** Role of Hypothalamic LIN28/Let-7 Axis in Regulating Insulin Signaling and Glucose Metabolism.  
**P.I.:** Sabrina Diano/Carlos Fernández-Hernando (Co-I)  
**Percent of effort:** 1%  
**Direct cost per year:** \$30,000  
**Total cost for project period:** \$60,000

**Date of Award:** Feb 1, 2014-Jan 31, 2016.

**14. Agency:** American Heart Association (AHA). Scientist Developmental Grant  
**I.D.#** 0835585D

**Title of project:** Role of protein kinase Akt1 in atherogenesis.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 52%

**Direct cost per year:** \$66,000

**Total cost for project period:** \$198,000

**Date of Award:** July 1, 2008-Jun 30, 2011.

**15. Agency:** Philip Morris External Research Program

**I.D.#** Postdoctoral Fellowship

**Title of project:** Role of protein kinase Akt1 in atherogenesis.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 100%

**Total cost for project period:** \$84,000

**Date of Award:** March 1, 2007-Jun 30, 2008 (*Declined after this date*).

**16. Agency:** Ministerio de Ciencia y Tecnología (Spain)

**I.D.#** Postdoctoral Fellowship

**Title of project:** Role of Nogo-B in Vascular Remodelling.

**P.I.:** Carlos Fernández-Hernando

**Percent of effort:** 100%

**Total cost for project period:** \$74,000

**Date of Award:** February 1, 2005-Jan 31, 2007.

## **INVITED SPEAKING ENGAGEMENTS, PRESENTATIONS, SYMPOSIA & WORKSHOPS NOT AFFILIATED WITH YALE:**

### **2026**

- **Therapeutics Frontiers in Medicine: Mechanism and Modalities (April 2026)**, Frankfurt (Germany): "Macrophage immunometabolic responses in health and disease".
- **UCLA Cardiovascular Research Theme Seminar Series (April 2026)**, Los Angeles (USA): "Novel insights into the regulation of phospholipid metabolism in cardiometabolic diseases".
- **Vascular Discovery ATVB (AHA) (May 2026)**, Seattle (USA): "VSMC metabolism during vascular remodeling in atherosclerosis".
- **Fusion Conference in "Immunometabolism and atherosclerosis" (May 2024)**, Cancun (Mexico): "Macrophage phospholipid metabolism in vascular inflammation and atherosclerosis".

### **2025**

- **Gordon Research Conference: Atherosclerosis (June 2025)**, Castelldefels (Spain): "Macrophage phospholipid metabolism in vascular inflammation and atherosclerosis".
- **International Academy of Cardiovascular Sciences, (September 2025)**, Las Vegas (USA): "Macrophage immunometabolic regulation in atherosclerosis".
- **Spanish National Center for Cardiovascular Research (CNIC), (October 2025)**, Madrid (Spain): "Macrophage immunometabolic regulation in atherosclerosis".
- **4<sup>th</sup> International Lipidomics Society Conference (October 2025)**, Madrid (Spain): "The crosstalk between lipid metabolism and inflammation in cardiometabolic disease". Closure lecture.
- **Center for Cardiovascular Diseases & Science Seminar Series. LSU Shreveport (December 2025)**, Shreveport (USA): "Macrophage phospholipid metabolism in cardiovascular disease".

## 2024

- **Fusion Conference in “Immunometabolism and atherosclerosis” (May 2024)**, Cancun (Mexico): “Macrophage phospholipid metabolism in vascular inflammation and atherosclerosis”.
- **Institute of Biomedicine in Seville (IBIS) (October 2024)**, Seville (Spain): “Novel insights into the regulation of phospholipid metabolism in macrophages””. Speaker and Organizer.

## 2023

- **John Hopkins Institute of CardioScience seminar series (April 2023)**, Baltimore, MD (USA): “Macrophages immunometabolic responses in cardiometabolic disease: role of cholesterol metabolism”.
- **Gordon Research Conference: Atherosclerosis (June 2023)**, Castelldefels (Spain): “Metabolism, Metabolites and Mitochondria”. Discussion Leader.
- **Kern Lipid Conference (Aug 2023)**, Vail, CO (USA): “Obesity-driven NAFLD-NASH in liver regeneration and aging”.
- **British Atherosclerosis Society (Sept 2023)**, Cambridge (England): “Novel targeted lipid lowering therapies”.
- **63<sup>rd</sup> International Conference on the Bioscience of Lipids (Oct 2023)**, Palma de Mallorca (Spain): “Lipids in immunology and inflammation”.

## 2022

- **Spanish Society of Atherosclerosis Meeting (June, 2022)**, Madrid (Spain): “Macrophage Immunometabolic responses in atherosclerosis”.
- **Institute of Biomedicine in Seville (IBIS) (April, 2022)**, Seville (Spain): Macrophage Immunometabolic responses in atherosclerosis”.
- **Yale-Cambridge-AZ Meeting (Sept, 2022)**, Cambridge (England): “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.
- **3<sup>rd</sup> Metabolic Diseases; Breakthrough Discoveries in Diabetes and Obesity (Oct, 2022)**, Marisville (Australia): “Relevance of fatty acid bunding proteins (FABP) during obesity driven hepatocellular carcinoma”.
- **Retreat Metabolism, Diabetes and Obesity Program, Monash University (Oct, 2022)**, Melbourne (Australia): “Macrophages immunometabolic responses in atherosclerosis”.
- **Cardiovascular Institute (CVI) Seminar Series, University of Pennsylvania, (Oct, 2022)**, Philadelphia (USA): “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.
- **American Association Studies of Liver Diseases (AASLD), The Liver Meeting (Oct, 2022)**, Washington DC (USA): “Hepatic microRNA regulation of metabolic homeostasis in NASH”.

## 2021

- **Seminars in Vascular Biology. Boston Children’s Hospital. Harvard Medical School (March, 2021)**, Boston (USA): “ANGPTL4 Regulation of Endothelial Cell Function and Host Metabolism During Viral Infection”.
- **2021 NHBLI Long Non-coding (lnc) RNAs Symposium: from Basic Mechanism to Human Disease. NHBLI (March, 2021)**, Virtual (USA): “miR-33 in Cardiometabolic Diseases”.
- **Center for Cardiovascular Research. Washington University School of Medicine in St. Louis (March 2021), St. Louis (USA)**: “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.
- **Spanish Society of Atherosclerosis Meeting (June 2021)**, Madrid (Spain): “Dyslipidemia, NAFLD and NASH in HCC and atherosclerosis”.
- **26<sup>th</sup> Annual Intramural Research Program Scientific Retreat (July, 2021), Keynote Speaker**, Virtual (USA): “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.

## 2020

- **Temple University, Metabolic Disease Center (Feb 2020)**, Philadelphia (USA): “Lipid metabolism and atherosclerosis. Novel insights into plaque formation”.

- **Fusion Conference in “Immunometabolism and atherosclerosis” (March 2020)**, Nassau (Bahamas): “Immunomodulatory actions of cholesterol biosynthetic intermediates on macrophage activation during atherosclerosis”.
- **Center for Cardiovascular Research. Washington University School of Medicine in St. Louis (March 2020), St. Louis (USA)**: “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”. *Postponed*.
- **National Institute of Aging (June 2020), Baltimore (USA)**: “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”. *Postponed*.
- **Clemson University (September 2020), Clemson (USA)**. Keynote/Distinguished Speaker: “Lipid metabolism and atherosclerosis. Novel insights into plaque formation”. *Postponed*.
- **ETH (October 2020), Zoom meeting (Zurich)**. Keynote/Distinguished Speaker: “Desmosterol regulation of macrophage immunometabolic response in vascular disease”.

## 2019

- **Albany Medical College, Department of Molecular and Cellular Physiology (March 2019)**, New York (USA): “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.
- **Indiana University School of Medicine, (February 2019)**, Indianapolis (USA): “Novel insights into the molecular and cellular mechanism regulating of cholesterol metabolism and atherosclerosis”.
- **The State University of New York (SUNY) (April 2019)**. New York (USA): “Lipid metabolism and atherosclerosis. Novel insights into plaque formation”.
- **Texas A&M University. Nutrition and Food Science Distinguished Lecture Series. (April 2019)**. College Station, TX (USA): “Lipid metabolism and atherosclerosis. Novel insights into plaque formation”.
- **Jeffrey M. Hoeg Arteriosclerosis, Thrombosis & Vascular Biology Lecture. Vascular Discovery: From Genes to Medicine Scientific Sessions. American Heart Association, (May 2019)**. Boston (USA): “Immunomodulatory actions of cholesterol biosynthetic intermediates on macrophage activation during atherosclerosis”.
- **Gordon Research Conference: Atherosclerosis (June 2019)**, Newry, ME (USA): “Regulation of lipoprotein metabolism by non-coding RNAs”.

## 2018

- **Spanish National Center for Cardiovascular Research (CNIC), (January 2018)**, Madrid (Spain): “Lipid Metabolism and atherosclerosis. Novel insights into plaque formation”.
- **Fraternal Order of Eagles Diabetes Research Center, University of Iowa. Keynote lecture Frontiers in Obesity, Diabetes and Metabolism Seminar Series, (March, 2018)**, Iowa (USA): “Macrophage sterol metabolism in atherosclerosis”.
- **The American Society of Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting, (April 2018)**, San Diego (USA): “Post-transcriptional Regulator of Cholesterol Homeostasis as a Mediator of Atherosclerosis”.
- **CICbioGUNE, Seminar Series (April 2018)**, Bilbao (Spain): “Non-coding RNAs in cardiometabolic disease”.
- **Instituto Murciano de Investigaciones Biosanitarias-Virgen de Arrixaca, Special Seminar (April 2018)**, Murcia (Spain): “Non-coding RNA in cardiometabolic disease”.
- **University of Basque Country, Special Seminar (April 2018)**, Bilbao (Spain): “Role of SREBP/miR-33ab in cardiometabolic diseases”.
- **Spanish Society of Atherosclerosis Meeting (May 2018)**, Girona (Spain): “Non-coding RNA in cardiovascular disease”. (**Plenary Lecture Speaker**).
- **Institute for Research in Biomedicine (May 2018)**, Barcelona (Spain): “Non-coding RNAs in cardiovascular disease”.
- **American Diabetes Association (ADA) Scientific Sessions, (June 2018)**, Orlando (USA): “ANGPTL4 Deficiency in Hematopoietic Cells”.
- **National Defense Medical Center (NDMC) (Aug 2018)**. Taipei (Taiwan): “Lipid metabolism and atherosclerosis. Novel insights into plaque formation”.
- **National Health Research Institutes (NHRI) (Aug 2018)**. Taipei (Taiwan): “Non-coding RNA in

cardiovascular disease”.

- **North America Vascular Biology Organization (NAVBO). Vascular Biology Meeting, (Oct, 2018)**, Newport (USA): “Dissecting the role of miR-33a/b in cardiometabolic diseases”.
- **Spanish Society of Biochemistry and Molecular Biology Conference (Sept 2018)**, Santander (Spain): “MicroRNAs in cardiovascular disease”. (Plenary Lecture Speaker).

## 2017

- **UConn Department of Nutritional Sciences Seminar Series. University of Connecticut (January, 2017)**, Storrs (USA): “Lipid metabolism and atherosclerosis. Novel insights into the plaque formation”.
- **Cardiovascular Research Seminar. Beth Israel Deaconess Medical Center. Harvard Medical School (March, 2017)**, Boston (USA): “Non-coding RNAs in lipid metabolism and atherosclerosis”.
- **University of Kentucky (April 2017)**, Kentucky (USA): “Lipid metabolism and atherosclerosis. Novel insights into the plaque formation”.
- **Special Seminar, Hospital Ramón y Cajal (May 2017)**, Madrid (Spain): Lipid metabolism and atherosclerosis: Novel insights into plaque formation.
- **European Society of Cardiology Working Group Meeting (May 2017)**, Varenna (Italy): “miRNAs in lipid metabolism and atherosclerosis”.
- **Gordon Research Conference: Atherosclerosis (June 2017)**, Newry, ME (USA): “Regulation of lipoprotein metabolism by non-coding RNAs”.
- **Keystone Symposium: Molecular Mechanisms of Heart Development/RNA-Based Approaches in Cardiovascular Disease (March 2017)**, Keystone, Colorado, USA: “miRNAs in lipoprotein metabolism and atherosclerosis”.
- **Cambridge/Yale/Medimmune Symposium (September 2017)**, New Haven, CT, USA: “SREBP/miR-33a/b in cardiometabolic diseases”.
- **Canadian Cardiovascular Congress (CCC) (October 2017)**, Vancouver, Canada: “Vascular Injury, Inflammation and Repair”. Plenary conference.
- **Workshops “Current Trends in Biomedicine” UNIA (November 2017)**, Baeza (Spain): “Non-coding RNAs in lipid metabolism”.

## 2016

- **Diabetic Cardiovascular Disease Center. Washington University School of Medicine in St. Louis (March 2016)**, St. Louis (USA): “Regulation of cholesterol metabolism by microRNAs”.
- **Tufts University, HNRCA Seminar Series (March, 2016)**, Boston (USA): “microRNAs and Cardiovascular Disease”.
- **Frontiers in Science Seminar at the Samuel and Jean Frankel Cardiovascular Center, University of Michigan (November, 2016)**, Boston (USA): “Non-coding RNAs in Cardiometabolic Disease”.
- **NPOD UNL Seminar Series. University of Nebraska (November, 2016)**, Lincoln (USA): “Non-coding RNAs in Cardiometabolic Disease”.
- **Vascular Biology Center Seminar Series. Medical College of Georgia (November, 2016)**, Augusta (USA): “Lipid metabolism and atherosclerosis. Novel insights into the plaque formation”.
- **Ludwig-Maximilians-Universität (LMU) München (November, 2016)**, München (USA): “miRNAs in atherosclerosis”.
- **Spanish Society of Clinical Laboratory Medicine Meeting (October, 2016)**, Zaragoza (Spain): “non-coding RNAs in metabolic diseases”. (*Plenary Lecture Speaker*).
- **Scientific Sessions American Heart Association. New Orleans (Louisiana), USA: “MicroRNA and HDL”.**
- **Seminar Series in Novel Developments in Atherogenesis. Brigham and Women’s Hospital. Harvard Medical School (December, 2016)**, Boston (USA): “Non-coding RNAs in lipid metabolism and atherosclerosis”.

## 2015

- **Spanish Society of Hepatology Meeting (February 2015)**, Madrid (Spain): “Role of non-coding RNAs in hepatic lipid metabolism”.

- **CBMSO Seminar. Madrid University (February 2015)**, Madrid (Spain). “microRNA regulation of cardiometabolic disease”.
- **Integrative Medical Sciences, Dr. Hans G. Folkesson Memorial Seminar Series. Northeast Ohio Medical University. (May 2015)**, Rootstown (USA). “microRNA regulation of lipid metabolism and cardiometabolic disease”.
- **Gordon Research Conference: Atherosclerosis (June 2015)**, Newry, ME (USA): “Regulation of HDL metabolism by non-coding RNAs”.
- **Department of Pharmaceutical Sciences Seminar Series. Wayne State University (October 2015)**, Detroit (USA): “Molecular regulation of cholesterol metabolism”.
- **National Defense Medical Center (NDMC) (September 2015)**. Taipei (Taiwan): “New Insights into the molecular mechanism of atherosclerosis”.
- **National Health Research Institutes (NHRI) (September 2015)**. Taipei (Taiwan): “Regulation of lipid metabolism by non-coding RNAs”.
- **Danish Diabetes Academy Symposium on microRNAs in Metabolism (November 2015)**. Copenhagen (Denmark). “miRNAs in lipoprotein metabolism and atherosclerosis”.
- **Keynote Lecture Speaker. XIX Lipid Meeting Leipzig (December 2015)**, Leipzig (Germany). “miRNA regulation of lipoprotein metabolism”.

#### 2014

- **Northwestern University Pathology Research Conference. (January 2014)**. Chicago (USA): “Regulation of cholesterol homeostasis by microRNAs”.
- **7<sup>th</sup> International Atherosclerosis Society Workshop (March 2014)**. Rome (Italy): “Regulation of HDL metabolism by non-coding RNAs”.
- **Gordon Research Conference: Lipoprotein Metabolism. (June 2014)**. Waterville Valley, NH: “Posttranscriptional control of lipoprotein metabolism”.
- **82<sup>th</sup> Congress European Atherosclerosis Society (June 2014)**, Madrid (Spain): “Regulation of vascular cells by microRNAs”. **Plenary Lecture**.
- **5<sup>th</sup> Cardiac Regeneration and Vascular Biology Conference (June 2014)**, San Servolo (Italy): miRNAs in cardiometabolic disease.
- **Special Seminar, Hospital Ramón y Cajal (June 2014)**, Madrid (Spain): Control of lipid metabolism by non-coding RNAs.
- **Frontiers in Cardiovascular Biology. European Society of Cardiology (July 2014)**, Barcelona (Spain): “Regulation of lipoprotein metabolism by microRNA”.
- **Biomedicum Helsinki Seminar, Institute of biotechnology (September 2014)**, Helsinki (Finland): “Regulation of cholesterol metabolism by non-coding RNAs”.
- **Symposium Gender & Vascular Science of the Collaborative Research Center. Mechanisms and Networks of Novel Therapeutic Targets (December 2014)**, Munich (Germany): “Role of miRNAs during the progression of atherosclerosis”

#### 2013

- **Phenotypic Flexibility International Symposium (February 2013)**. El Escorial (Madrid), Spain. “Control of lipid metabolism by miRNAs”.
- **Spanish Society of Atherosclerosis Meeting (May 2013)**, Zaragoza (Spain): “Regulation of LDL receptor activity by novel genes and non-coding RNAs”. (Plenary Lecture).
- **American Diabetes Association Annual Meeting (June 2013)**, Chicago (USA): “miRNAs and lipid homeostasis”.
- **4<sup>th</sup> Cardiac Regeneration and Vascular Biology Conference (June 2013)**, San Servolo (Italy): “miRNAs and control of cholesterol metabolism”.
- **Center for Cardiovascular Research at Saint Louis University. Seminar series. (January 2013)**. Saint Louis (USA): “MicroRNA functions in vascular and metabolic disease”.
- **Sanford Burnham Medical Research Institute. Seminar Series. (January 2013)**, Orlando (USA): “Control of Lipid Metabolism by microRNA”.

- **Smith-Lemli-Opitz Family and Medical Conference. (June 2013)**, Pittsburgh (USA): “Regulation of cholesterol homeostasis by microRNAs”.
- **Cardiovascular Regulation by miRNAs International Symposium. European Society of Microcirculation (EMS) and the European Vascular Biology Organization (EVBO).** (July 2013). “miRNAs in metabolic diseases”.
- **Kern Lipid Conference. (July 2013)**, Vail, Colorado (USA): “Regulation of LDLr activity by miRNAs”.
- **University of Cincinnati. Pathology and Laboratory Medicine Department. Seminar Series (November)**, Cincinnati (USA): “Regulation of lipid metabolism by microRNAs”.
- **Tufts University, HNRCA Seminar Series (October 2013)**, Boston (USA): “microRNA regulation of lipid metabolism”.

## 2012

- **Keystone Symposium: Molecular Basis of Vascular Inflammation and Atherosclerosis**, Big Sky Resort, Big Sky, Montana, USA: “microRNAs as regulators of lipid metabolism”.
- **European Atherosclerosis Society Satellite Meeting: microRNA and Cardiovascular Disease**, Milan, Italy: “microRNAs and lipid metabolism”.
- **Spanish Society of Atherosclerosis Meeting**, Reus (Spain): “MicroRNAs and control of lipid metabolism”. (**Plenary Lecture Speaker**).
- **Biocenter Oulu Day 2012: non-coding RNA meeting. Plenary speaker. Oulu, Finland.** “microRNA regulation of cholesterol metabolism”.
- **AAB Cardiovascular Research Institute. University of Rochester. Rochester. New York.** “Control of Lipid Metabolism by miRNA-33”.
- **Department of Cardiology. University of Massachusetts (UMass). Worcester. Massachusetts.** “Regulation of lipid metabolism by miRNAs”.
- **Cardiology Grand Rounds. Dartmouth-Hitchcock Medical School. Dartmouth. New Hampshire.** “Control of lipid metabolism by miRNAs: Implication in Cardiovascular diseases”.
- **IDIBAPS Seminar. Barcelona University. Barcelona, Spain.** “microRNA in vascular and metabolic disease”.
- **CBMSO Seminar. Madrid University. Madrid, Spain.** “MicroRNA functions in vascular and metabolic disease”.
- **CNIC Seminar. Madrid, Spain.** “MicroRNA modulation of lipid metabolism, metabolic syndrome, and cardiovascular disease”.
- **Vascular Biology and Therapeutics Program and Section of Cardiovascular Medicine special seminar. Yale University. New Haven, USA .** “Molecular Regulation of Lipid Metabolism by miRNA: Role in Cardiometabolic Disease”.

## 2011

- **Gordon Research Conference: Molecular and Cellular Biology of Lipids**, Waterville Valley, NH: “miRNAs as regulators of lipid metabolism”.
- **Gordon-Kenan Research Seminar: Endothelial Heterogeneity in Disease**, Salve Regina University, Newport, RI: “Role of endothelial caveolin-1 in the progression of atherosclerosis”.
- **British Atherosclerosis Society: MicroRNAs and other Non-Coding RNAs Frontiers in Cardiovascular Research meeting**, Queens’ College Cambridge, UK: “MicroRNA-mediated control of cholesterol metabolism”.
- **Ernst Klenk Symposium: Novel tools in molecular pathology of metabolic diseases**, Center for Molecular Medicine of the University of Cologne (CMMC), Germany: “MicroRNAs in cholesterol metabolism”.
- **Scientific Sessions American Heart Association.** Orlando conference center (Florida), USA: “MicroRNA modulation of cholesterol homeostasis”.
- **Mount Sinai Molecular Interactions Discussion Group (SMIDG) seminar series.** “miRNAs modulation of cholesterol homeostasis”.
- **Department of Biochemistry. Invited Lecture. Hospital Ramón y Cajal, Madrid.** “miR-33 as a therapeutic target of metabolic syndrome”.

- **Consolider invited lecture. San Feliu de Guixols, Barcelona.** “Micro-managing cholesterol metabolism”.
- **Department of Cellular and Structural Biology. The University of Texas Health Science Center. San Antonio.** “microRNA modulation of cholesterol homeostasis”.
- **Robert M. Berne Cardiovascular Research Center. University of Virginia. Charlottesville.** “Molecular regulation of lipid metabolism by miRNA”.
- **RNA Oligonucleotides: Emerging Clinical applications. National Institutes of Health, Rockville, Maryland.** “Potential Therapeutic Approaches in Different Clinical Context: Cardiovascular disease”.
- **Center for Vascular Biology Seminar Series. Weill Cornell Medical College, New York.** “MicroRNA regulation of Cholesterol Metabolism, Metabolic Syndrome, and Cardiovascular Disease”.
- **NIA-sponsored Symposium on “Noncoding RNA in Aging and Age-related disease”. Johns Hopkins Bayview Campus, Baltimore, Maryland.** “microRNA regulation of cholesterol metabolism, metabolic syndrome, and cardiovascular disease”

## 2010

- **Atherosclerosis, Thrombosis and Vascular Biology 2010 Scientific Sessions, San Francisco, CA:** “miR-33 coordinate genes regulating cholesterol homeostasis”.
- **Gordon Research Conference: Lipoprotein Metabolism, Waterville Valley, NH:** “Control of lipoprotein metabolism by microRNA”.
- **Kern Aspen Lipid Conference: Lipids, inflammation and Stress Reactions in Atherosclerosis: Mechanisms, Imaging and Therapy, Aspen, CO:** “miR-33 coordinates genes regulating lipid homeostasis”.
- **Translational Research in Progress (TRIP) Seminar.** “Role of miRNAs in regulating cholesterol homeostasis”.
- **Cardiovascular Research Seminars. New York University School of Medicine.** “miRNAs in Cardiovascular disease”.
- **Suny Downstate Lipid and Vascular Biology Club. New York.** “miRNAs in cardiovascular disease”.
- **Department of Physiology & Biophysics Lecture Series. Boston University School of Medicine .** “miR-33 as a therapeutic target for metabolic syndrome”
- **GICD/CVRI Seminar Series, Gladstone Institute of Cardiovascular Research.** “miR-33 as a therapeutic target for metabolic syndrome”.

## 2009

- **Ramón Areces International Symposium: Cholesterol: metabolism, actions and diseases, Madrid, Spain:** “New models for atherosclerosis studies”.

## 2008

- **Invited Lecture in the XXI Conference of the Spanish Society of Atherosclerosis. Madrid. Spain.** “New insights into the progression of atherosclerosis”.

## PEER-REVIEWED PRESENTATIONS & SYMPOSIA GIVEN AT MEETINGS NOT AFFILIATED WITH YALE:

- **Keystone Symposium: Metabolism and Cardiovascular Risk (September, 2008), Breckenridge, CO:** “Endothelial Caveolin-1 regulates the progression of atherosclerosis by controlling LDL infiltration, expression of vascular adhesion molecules and production of nitric oxide”.
- **Vascular Matrix Biology and Bioengineering Workshop, NAVBO, (October, 2011), Hyannis, MA:** “miR-33a/b contributes to the regulation of fatty acid metabolism and insulin signaling”.
- **4<sup>th</sup> International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide (July, 2006), Monterrey, CA.** “Identification of Golgi localized DHHC-acyl-transferase enzymes that catalyze the palmitoylation and function of endothelial nitric oxide synthase”.

## PROFESIONAL SERVICE

### Peer Review Groups/Grant Study Sections:

- 2009-present. Basic Cell Committee Member. **American Heart Association (AHA)**
2011. Ad hoc reviewer Vascular and Cell and Molecular Biology Study Section (VCMB). **National Institutes of Health (NIH)**.
- 2011-present. Evaluation Committee member of joint translational call for “Integrated Research on Genomics and Pathophysiology of the Metabolic Syndrome and the Disease arising from it”. **Agence Nationale Recherche** (France).
2011. Scientific Evaluation member of a ProDoc (Doctoral Programme). **The Swiss National Science Foundation (SNSF)** and **the Rector’s Conference of Swiss Universities (CRUS)**.
2011. Scientific Evaluation member of the **NOW Division for Chemical Sciences (CW)**. Netherlands
- 2012-present. Ad hoc reviewer Clinical and Integrative Cardiovascular Sciences Study Section (CICS). **National Institutes of Health (NIH)**.
- 2012-present. Editorial Advisory Board Member. miRNAs Diagnostics and Therapeutics.
2012. Scientific Evaluation member of **the Austrian Science Fund (FWF)**.
2012. Ad hoc reviewer NIH SRO, National Institute of Child & Human Development. **National Institutes of Health (NIH)**.
2012. Ad hoc reviewer Integrative Nutrition Metabolic Processes Study Section (INMP). **National Institutes of Health (NIH)**.
2013. Ad hoc reviewer Integrative Nutrition Metabolic Processes Study Section (INMP). **National Institutes of Health (NIH)**.
2013. Ad hoc reviewer Integrative Nutrition Metabolic Processes Study Section (INMP). **National Institutes of Health (NIH)**.
2014. Ad hoc reviewer RFA (Basic Research on the Pathogenesis of HIV-Related Heart, Lung, and Blood (HBL) Disease in Adults and Children (R01). **National Institutes of Health (NIH)**.
- 2014-2020. Permanent member Integrative Nutrition Metabolic Processes Study Section (INMP). **National Institutes of Health (NIH)**.
- 2015-2017. Co-Chair Basic Cell Committee Member. **American Heart Association (AHA)**.
2015. Ad hoc reviewer “Ramon y Cajal” Program. Ministerio de Economía y Competitividad. Spain.
- 2015-present. Ad hoc reviewer **European Research Council. European Union (EU)**.
- 2018- Ad hoc reviewer **NIH Director’s Pioneer Award (NIH)**.
- 2018- Ad hoc reviewer **Worldwide Cancer Research**.
- 2022- Ad hoc reviewer Special Emphasis Panel (conflict members IVPP, AVI and BBHV study sections). **National Institutes of Health (NIH)**.
- 2024- Member NHBLI Program Project Review Committee (HLBP). **National Institutes of Health (NIH)**.

#### **JOURNAL SERVICE**

**Journal Reviewer:** Nature, Nature Cell Biol, Cell Metabolism, Molecular Cell, Nature Communications, EMBO Molecular Medicine, Journal of Clinical Investigation, EMBO journal, EMBO Reports, PNAS, Circulation, Circulation Research, Metabolism, Atherosclerosis Thrombosis and Vascular Biology, Atherosclerosis, Inflammation, PLoS One, American Heart Journal, Physiological Genomics, FEBS Letters, Hepatology, Journal of Molecular Cellular Cardiology, Molecular and Cellular Biology, Trends in Cardiovascular Medicine, Journal of Immunology, European Heart Journal, American Journal of Pathology, FASEB journal, Trends in Endocrinology and Metabolism and RNA biology, GENE, Nature Reviews Cardiology, Experimental Cell Research, Clinical and Translational Oncology.

#### **Journal Editor:**

- Guest Editor, Special Issue on “microRNAs and lipid/energy metabolism and related diseases”. BBA Molecular and Cell Biology of Lipids. 2015.
- Associate Editor *Atherosclerosis* 2016-present.
- Associate Editor *Frontiers in Cardiovascular Metabolism*. 2016-present.

#### **PROFESSIONAL SERVICE FOR PROFESSIONAL ORGANIZATIONS**

- 2024. IBIS international symposium “New Frontiers in Lipid Metabolism”. Seville (Spain).
- 2022-present. Member, Irvine Page Award Committee. American Heart Association (AHA), Atherosclerosis Thrombosis and Vascular Biology Scientific Council.
- 2022-present. Awards Committee Member. North American Vascular Biology Association (NAVBO).

- 2019. Chair, Atherosclerosis Gordon Research Conference.
- 2017. Organizer International Workshops “Current Trends in Biomedicine”. UNIA, Baeza (Spain).
- 2017. Vice-Chair, Atherosclerosis Gordon Research Conference.
- 2012. President New York Lipid and Vascular Biology Club. Rockefeller University, New York (USA).
- 2010. Member, North American Vascular Biology Association (NAVBO).
- 2007. Member, American Heart Association (AHA), Atherosclerosis Thrombosis and Vascular Biology Scientific Council.

## YALE UNIVERSITY SERVICE

### Departmental Committees:

- Yale University School of Medicine. Appointments and Promotion Committee. Department Comparative Medicine. 2014-present.
- Yale University School of Medicine. Co-organization Vascular Biology and Therapeutics Seminar Series. 2015-present.

### Medical School Committees:

- 2014. Thesis Advisory Committee. Britta Kunkemoeller (Themis Kyriakides Lab), Pathology.
- 2015. Thesis Advisor Committee (Outsite reader). Laura Moore (Themis Kyriakides Lab), Genetics.
- 2015. Thesis Advisory Committee. Joseph Wayne Fowler (Bill Sessa Lab), Pharmacology.
- 2016. Thesis Advisory Committee (Outsite reader). Amelia Luciano (Bill Sessa Lab), Pharmacology.
- 2018. Thesis Advisory Committee. Zenan Wang (Rodeheffer Lab), Molecular Cellular and Developmental Biology.
- 2019. Thesis Advisor Committee. Kathryn Citrin (Yajaira Suárez Lab), Physiology.
- 2019. Thesis Advisor Committee. Christopher Minter (Morgan Levine Lab), Pathology.
- 2019. Thesis Advisor Committee. Yaqing Huang (Themis Kyriakides Lab), Pathology.
- 2019. Thesis Advisor Committee. Shavanie Prasad. Pathology.
- 2024. Thesis Advisor Committee. Daniel Jovin (Greif Lab). Genetics.
- 2017. Scholar Awards Committee.
- 2018. Faculty Engagement Committee.

### Public Service:

N/A

## BIBLIOGRAPHY

**NOTE: Due to a high volume of authors with the same initials, I wanted to distinguish myself by additionally adding by mother's maiden name to publications post-2004. Therefore, peer-reviewed publications are listed both under Fernández, Carlos and Fernández-Hernando, Carlos.**

### Peer-Reviewed Original Research:

1. Dose-dependent effects of lovastatin on cell cycle progression. Distinct requirement of cholesterol and non-sterol mevalonate derivatives. Martínez-Botas J, Ferruelo AJ, Suárez Y, **Fernández C**, Gómez-Coronado D, Lasunción MA. *BBA Mol Cell Lipid*. 2001; 1532: 185-194.
2. Differential effects of ergosterol and cholesterol on Cdk1 and SRE-driven transcription: Sterol specificity for cell cycle progression in human cells. Suárez Y, **Fernández C**, Ledo B, Ferruelo AJ, Martín M, Vega MA, Gómez-Coronado D, Lasunción MA. *Eur J Biochem*. 2002; 269: 1671-1771.
3. Inhibition of cholesterol biosynthesis by  $\Delta^{22}$ -unsaturated phytosterols via competitive inhibition of sterol  $\Delta^{24}$ -reductase in mammalian cells. **Fernández C**, Suárez Y, Ferruelo AJ, Gómez-Coronado D, Lasunción MA. *Biochem J*. 2002; 366:109-119.
4. Efecto de los fitosteroles sobre la biosíntesis de colesterol y la proliferación en células humanas. **Fernández C**, M. Martín, Gómez-Coronado D, Lasunción MA. *Clin Invest Arterios*. 2003; 5: 175-183.
5. Characterization of an anandamide degradation system in prostate epithelial PC-3 cells. Ruiz-Llorente L, Ortega-Gutiérrez S, Viso A, Sánchez MG, Sánchez AM, **Fernández C**, Ramos JA, Hillard C, Lasunción MA,

- López-Rodríguez ML, Díaz-Laviada I. Synthesis of new transporter inhibitors as tools for this study. **Br J Pharmacol**. 2004; 141: 457-467.
6. Synergistic upregulation of low-density-lipoprotein receptor activity by tamoxifen and lovastatin. **Fernández C\***, Suárez Y\*, Gómez-Coronado D, Ferruelo AJ, Dávalos A, Martínez-Botas J, Lasunción MA. (\*equal contribution). **Cardiovasc Res**. 2004; 64: 346-355.
7. Cholesterol is essential for mitosis progression and its absence induces polyploid cell formation. **Fernández C**, Lovo MT, Gómez-Coronado D, Lasunción MA. **Exp Cell Res**. 2004; 300: 109-120.
8. Effects of distal cholesterol biosynthesis inhibitors on cell proliferation and cell cycle progression. **Fernández C**, Martín M, Gómez-Coronado D, Lasunción MA. **J Lipid Res**. 2005; 46(5): 920-9.
9. Sterol stringency of proliferation and cell cycle progression in human cells. Suárez Y, **Fernández C**, Ledo B, Martín M, Gómez-Coronado D, Lasunción MA. **BBA Mol Cell Lipid**. 2005; 1734: 203-213.
10. Lovastatin-induced PC-12 differentiation is associated with RhoA/RhoA kinase pathway inactivation. **Fernández-Hernando C\***, Suárez Y\*, Lasunción MA. (\*equal contribution). **Mol Cell Neurosci**. 2005; 29: 591-602. PMID:15951198.
11. Red grape juice polyphenols alter cholesterol homeostasis and increase LDL-receptor activity in human cells in vitro. Dávalos A, **Fernández-Hernando C**, Cerrato F, Martínez-Botas J, Gómez-Coronado D, Gómez-Ciordovés C, Lasunción MA. **J Nutr**. 2006; 136: 1766-1773. PMID:16772435.
12. Identification of Golgi localized DHHC-acyl-transferase enzymes that catalyze the palmitoylation and function of endothelial nitric oxide synthase. **Fernández-Hernando C**, Fukata M, Bernatchez PN, Fukata Y, Lin MI, Bredt DS, Sessa WC. **J Cell Biol**. 2006; 174(3): 369-377. PMCID:PMC2064233.
13. Dicer regulation of gene expression and functions in human endothelial cells. Suárez Y, **Fernández-Hernando C**, Pober JS and Sessa WC. **Circ Res**. 2007; 100(8): 1164-1173. PMID:17379831.
14. Cholesterol starvation induces differentiation of human leukaemia HL60 cells. Sánchez-Martín Carolina C, Dávalos A, Martín-Sánchez C, de la Peña G, **Fernández-Hernando C** and Lasunción MA. **Cancer Research**. 2007; 67(7): 3379-3386. PMID:17409448.
15. Myoferlin regulates vascular endothelial growth factor (VEGF) receptor-2 stability and functions. Bernatchez PN, Acevedo L, **Fernández-Hernando C**, Murata T, Chalouni C, Erdlument-Bromage H, Shah V, Gratton JP, McNally EM, Tempst P and Sessa WC. **J Biol Chem**. 2007. 282(42); 30745-53. PMID:17702744.
16. Loss of Akt1 leads to severe atherosclerosis and occlusive coronary artery disease. **Fernández-Hernando C**, Ackah E, Yu J, Suárez Y, Murata T, Iwakiri Y, Prendergast J, Miao RQ, Birnbaum MJ and Sessa WC. **Cell Metab**. 2007; 6: 446-457. PMCID:PMC3621848.
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18. Phospholipase C b3 deficiency leads to macrophage hypersensitivity to apoptotic induction and reduction of atherosclerosis in mice. Wang Z, Liu B, Wang P, Dong X, **Fernández-Hernando C**, Li Z, Hla T, Li Z, Claffey K, Smith JD and Wu D. **J Clin Invest**. 2008; 195-204. PMCID:PMC2129238.
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20. Dose-dependent dual effects of cholesterol and desmosterol on J774 macrophage proliferation. Rodríguez-Acebes S, de la Cueva P, Ferruelo AJ, **Fernández-Hernando C**, Lasunción MA, Rawson RB, Martínez-Botas J and Gómez-Coronado D. **Biochem Biophys Res Commun**. 2008; 377: 484-488. PMID:18851952.

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22. Desmosterol can replace cholesterol in sustaining cell proliferation and regulating the SREBP pathway in a sterol  $\Delta^{24}$ -reductase deficient cell line. Rodriguez-Acebes S, de la Cueva P, **Fernández-Hernando C**, Ferruelo AJ, Lasunción MA, Rawson RB, Martínez-Botas J and Gómez-Coronado D. *Biochem J*. 2009 May; 420 (2): 305-15. PMID:PMC2931812.
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24. Genetic evidence supporting a critical role of endothelial caveolin-1 during the progression of atherosclerosis. **Fernández-Hernando C**#, Yu J, Suárez Y, Rahner C, Dávalos A, Lasunción MA and Sessa WC#. (# corresponding author). *Cell Metab*. 2009 Jul; 10: 48-54. PMID:PMC2735117.
25. Nogo-B receptor stabilizes Niemann-Pick Type C2 protein and regulates intracellular cholesterol trafficking. Harrison KD, Miao RQ, **Fernández-Hernando C**, Suárez Y, Dávalos A and Sessa WC. *Cell Metab*. Sep 2009; 10(3): 208-18. PMID:PMC2739452.
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27. Absence of Akt1 reduces vascular smooth muscle cell migration and survival and induces features of plaque vulnerability and cardiac dysfunction during atherosclerosis. **Fernández-Hernando C**, József L, Jenkins D, Di Lorenzo A and Sessa WC. *Arterioscler. Thromb. Vasc. Biol*. 2009. Dec 29 (12): 2033-40. PMID:PMC2796372.
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31. Endothelial-specific overexpression of Caveolin-1 accelerates atherosclerosis in apolipoprotein E-deficient mice. **Fernández-Hernando C**, Yu J, Dávalos A, Prendergast J and Sessa WC. *Am J Pathol*. 2010. Aug; 177(2): 998-1003. PMID:PMC2913373.
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- With Editorial:** Brown MS, Ye J and Goldstein JL. HDL miR-ed down by SREBP introns. *Science*. 2010. Jun 18;328 (5985): 1495-6. **F1000 article factor: 10**
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34. The PLIN4 variant rs8887 modulates obesity related phenotypes in human through creation of a novel miR-522 seed site. Richardson K, Louie-Gao Q, Arnett D.K, Parnell L.D, Chao-Qiang L, Dávalos A, Demissie S, Cupples A.L, **Fernández-Hernando C**, and Ordovás J.M. *PLoS One*. 2011 Apr 20;6(4):e17944. PMID:PMC3080366.

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- With Editorial:** Fieldler J and Thum T. MicroRNAs looping around angiogenesis. 2011 Nov;31(11):2567-68.
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- With Editorials:** Inukai S and Slack FJ. miR-33 connects cholesterol to the cell cycle. *Cell Cycle*. 2012. Mar 15;11(6):1060-1 and Iwakiri Y. A role of miR-33 for cell cycle progression and cell proliferation. *Cell Cycle*. 2012. Mar 15;11(6):1057-8.
43. miR-106b impairs cholesterol efflux and increases A $\beta$  levels by repressing ABCA1 expression. Kim J, Yoon H, Ramirez CM, **Fernández-Hernando C**, Jungsu K. *Exp Neurol*. 2012 Jun; 235(2):476-83. PMID:PMC3328628.
44. Cardiovascular dysregulation of miR-17-92 causes a lethal hypertrophic cardiomyopathy and arrhythmogenesis. Danielson LS, Park DS, Rotllan N, Chamorro-Jorganes A, Guijarro MV, **Fernandez-Hernando C**, Fishman GI, Phoon C, Hernando E. *FASEB J*. 2013 Apr;27(4):1460-7. PMID:PMC3606524.
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Wanschel A, Nelson PT, Castrillo A, Kim J, Suárez Y and **Fernández-Hernando C**. *Circ Res*. 2013. Jun 7;112(12):1592-601. PMID:PMC3929583.

**With Editorial and Cover:** Vickers KC and Rader DJ. Nuclear receptors and miR-144 coordinately regulate cholesterol efflux. *Circ Res*. 2013. Jun 7;112(12):1529-531.

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