

Prof. Bertrand CARIOU, MD-PhD

LAST NAME / First Name CARIOU / Bertrand	CURRENT POSITION (title, Institution and location) Professor in Endocrinology, Nantes University, CHU Nantes
Date of Birth 27/12/1972	Director of <i>l'institut du thorax</i>
Nationality French	Head of CIC Endocrinology-Diabetology-Nutrition Head of Team 4 "Cardiometabolic Diseases", Inserm UMR 1087 / CNRS UMR 6291

EDUCATION (IN CHRONOLOGICAL ORDER BEGINNING WITH THE LATEST)

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Nantes University, France	HDR	2008	Endocrinology and Metabolism
University Paris XI, France	PhD	2003	Insulin receptor signaling
University of Nantes, France	MD	2003	Endocrinology
University of Nantes, France	DES	2003	Endocrinology
University Paris XI, France	DEA	2000	Endocrinology

KEYWORDS

Translational research, lipoproteins, genetics, drug targets, ASCVD, MASLD/MASH

SCIENTIFIC PRODUCTION

Patents

PCT/FR2023/050714. Variant LIPC in the treatment of atherosclerosis and coronary artery disease
PCT/EP2019/0345500. Methods and pharmaceutical compositions for modulating stem cells proliferation or differentiation

Peer-reviewed publications

ORCID-ID: 0000-0002-1580-8040

Total number of publications: 324 (PubMed);

H index: 61 (Clarivate, Web of Science); 74 (Google Scholar)

Citations: (Clarivate, Web of Science): 15 800; average citation per item: 34.17

Prizes

2017 - Auguste Loubatières Prize (SFD: Société Francophone du Diabète)

2009 - Apollinaire Bouchardat Prize (Research in Diabetology)

2009-2014 - contrat d'interface Inserm

GRANTS, PREVIOUS AND CURRENT RESEARCH SUPPORT

2024-2029 I-Démo France 2030 (BPI France): MEDITWIN project with Dassault Systèmes (1.99 M€). *Co-WP leader on the development of digital twins to predict ASCVD risk.*

2022-2024 ANR GENESIS: Gpr146 a novel target against lipid-related cardiovascular diseases (410 k€) – *Co-Coordinator with Dr Antoine Rimbart (Team 4: Cardiometabolic Diseases).*

2020-2023 Grant « Equipe » FRM: INSTINCTIVE (INtegration of LDL determinantS and Translation Into biological Targets for cardiovascular diseases) (380 k€). *Coordinator as Team 4 leader.*

2020-2022 PHRC National (Competitive National Grant for clinical study): CORONADO (Coronavirus SARS-Cov2 and Diabetes Outcomes). 378 k€. *Principal investigator: design and drafting of the study, obtaining regulatory approvals, coordination.*

2018 Award of AMGEN PCSK9 competitive grant. Deciphering the role of PCSK9 in food allergy and asthma (200 000 US \$). *Co-Coordinator with Dr Cédric Le May (Team 4: Cardiometabolic Diseases).*

2016-2021 Coordinator of RHU CHOPIN (CHOLEsterol Personalized INnovation): 8.3 M€. *Project design and drafting, consortium management and coordination, interaction with the funder.*

2015. Award of Pfizer ASPIRE Cardiovascular Competitive Research Grants Program. Respective roles of intestinal and hepatic PCSK9 on triglyceride rich lipoprotein metabolism (100 000 US \$). *Co-Coordinator with Dr Cédric Le May (Team 4: Cardiometabolic Diseases).*

2014 Fondation de France competitive grant. HYPOCHOL (77 k€)- *Principal investigator, design of the clinical trial, obtaining regulatory approvals.*

2013-2018 Core member in Transatlantic Network of Excellence of Leducq Foundation: The function and regulation of PCSK9: a novel modulator of LDLR activity (325 k€). *WP leader.*

ADMINISTRATIVE AND /OR MANAGEMENT ROLES AND RESPONSABILITIES

Since 2012 Head of CIC Endocrinology-Diabetology-Nutrition, CHU Nantes
Since 2013 Head of Team 4 “Dyslipidemia and Lipotoxicity” (-2022) and “Cardiometabolic Diseases” (2022-), Inserm UMR 1087 – CNRS UMR 6291, Nantes, France
Since 2015 Director of l’institut du thorax, Nantes, France
Since 2020 Vice Dean Research, Medical School, Nantes University
Since 2021 Vice Director Research, Pôle Santé, Nantes Université
2021 - 2023 Co-coordinator of the axis “Future Health” for I-SITE NEXt
Since 2022 Co-Head of FHU GO-NASH

OTHER INFORMATION OF INTEREST

Vice delegate for clinical research at the DRI of CHU Nantes: 2013-2020

Member of the Comité de Protection des Personnes (CPP) Ouest-IV (ethical committee): 2009-2012

Member of the scientific committee (2012-2015) and of the executive board (2020-2023) of the French Society of Diabetes (SFD)

Member of the executive board of the French Society of Atherosclerosis (NSFA) (2013-2023)

SELECTED PUBLICATIONS

Identification of a Gain-of-Function LIPC Variant as a Novel Cause of Familial Combined Hypocholesterolemia. Dijk W, Di Filippo M, Kooijman S, van Eenige R, Rimbert A, Caillaud A, Thedrez A, Arnaud L, Pronk A, Garçon D, Sotin T, Lindenbaum P, Ozcariz Garcia E, Pais de Barros JP, Duvillard L, Si-Tayeb K, Amigo N, Le Questel JY, Rensen PCN, Le May C, Moulin P, **Cariou B**. *Circulation*. 2022 Sep 6;146(10):724-739

Phenotypic Differences Between Polygenic and Monogenic Hypobetalipoproteinemia. Rimbert A, Vanhoye X, Coulibaly D, Marrec M, Pichelin M, Charrière S, Peretti N, Valéro R, Wargny M, Carrié A, Lindenbaum P, Deleuze JF, Genin E, Redon R, Rollat-Farnier PA, Goxe D, Degraef G, Marmontel O, Divry E, Bigot-Corbel E, Moulin P, **Cariou B**, Di Filippo M. *Arterioscler Thromb Vasc Biol*. 2021 Jan;41(1):e63-e71.PMID: 33207932.

Phenotypic characteristics and prognosis of inpatients with COVID-19 and diabetes: the CORONADO study. **Cariou B**, Hadjadj S, Wargny M, Pichelin M, Al-Salameh A, Allix I, Amadou C, Arnault G, Baudoux F, Bauduceau B, Borot S, Bourgeon-Ghittori M, Bourron O, Boutoille D, Cazenave-Roblot F, Chaumeil C, Cosson E, Coudol S, Darmon P, Disse E, Ducet-Boiffard A, Gaborit B, Joubert M, Kerlan V, Laviolle B, Marchand L, Meyer L, Potier L, Prevost G, Riveline JP, Robert R, Saulnier PJ, Sultan A, Thébaut JF, Thivolet C, Tramunt B, Vatier C, Roussel R, Gautier JF, Gourdy P; CORONADO investigators. *Diabetologia*. 2020 Aug;63(8):1500-1515. PMID: 32472191.

PCSK9 inhibition with evolocumab (AMG 145) in heterozygous familial hypercholesterolaemia (RUTHERFORD-2): a randomised, double-blind, placebo-controlled trial. Raal FJ, Stein EA, Dufour R, Turner T, Civeira F, Burgess L, Langslet G, Scott R, Olsson AG, Sullivan D, Hovingh GK, **Cariou B**, Gouni-Berthold I, Somaratne R, Bridges I, Scott R, Wasserman SM, Gaudet D, RUTHERFORD-2 Investigators. *Lancet*. 2015; **385**: 331-40. PMID: 25282519.

PCSK9 dominant negative mutant results in increased LDL catabolic rate and familial hypobetalipoproteinemia. **Cariou B**, Ouguerram K, Zaïr Y, Guerois R, Langhi C, Kourimate S, Benoit I, Le May C, Gayet C, Belabbas K, Dufernez F, Chétiveaux M, Tarugi P, Krempf M, Benlian P, Costet P. *Arterioscler Thromb Vasc Biol* 2009; 29: 2191-7. PMID: 19762784.

Bertrand Cariou, 29 SEP 2023

