

Curriculum Vitae

Personal Information:

Name: **SALVATORE BRUGALETTA**

Nationality: Italian

Interventional Cardiologist staff at Hospital Clinic, Barcelona, Spain

Languages: English, Spanish, Catalan and Italian.

Medical Training

Medical school degree: Graduated with the highest marks (magna cum laude) at the Sacred Heart Catholic University, Rome, Italy (July, 2003) with the following thesis: "Modulation of CD4+CD28null T lymphocytes by tumor necrosis factor-alpha blockade in patients with unstable angina" discussed with the Prof. Filippo Crea and Dr. Giovanna Liuzzo and published in Circulation.

Postgraduate internship: at the cardiology division as training for the national medical licensing examination (July 2003- November 2003).

Postgraduate Education:

- Resident in Cardiology from November 2003 to November 2007
- Qualified as Cardiologist (with the highest marks, magna cum laude) at Catholic University of the Sacred Heart, Rome, Italy, November 28th, 2007, with the following thesis: "Characterization of T-lymphocytes in epicardial fat and peripheral blood in patients with ischemic heart disease, treated by CABG" discussed with Prof. F. Crea and Dr. Giovanna Liuzzo and Dr. Luigi Marzio Biasucci
- PhD in "Cellular and molecular Cardiology" at Catholic University of the Sacred Heart of Rome, Italy, 22nd April 2012
- PhD in "intracoronary imaging and bioresorbable vascular scaffold" at Erasmus University, Rotterdam, The Netherlands, under the supervision of prof. Patrick W. Serruys and Dr. Hector M. Garcia-Garcia, 22nd May 2012.

Experience in Cardiology and Clinical Studies:

November 2003 - October 2004: first year of residence cardiology training. He acquired experience in diagnostic evaluation and treatment of the adult cardiovascular disease (heart failure, arrhythmias, cardiomyopathies, valve diseases, ischemic heart disease), under the supervision of Prof. Bellocchi and of Dr. Biasucci

November 2004 - October 2005: second year of residence cardiology training. He acquired experience in the use and interpretation of non-invasive diagnostic techniques (trans-thoracic echocardiography, treadmill stress test, ambulatory ECG monitoring), performing and interpreting more than 1000 echocardiography exams, 600 treadmill tests and 500 Holter-ECG monitoring, under the supervision of Dr. Pennestrì and Dr. Lanza.

November 2005 - October 2006: third year of residence cardiology training.

He acquired experience in the management of patients with acute coronary syndromes and acute heart failure in the Intensive Coronary Care Unit under the supervision of prof. Crea and of prof. Rebuzzi. He gained experience also in definitive pacemaker implantation, under supervision of Dott.ssa Pelargonio.

November 2006 - November 2007: fourth year of residence cardiology training.

He acquired experience in left and right cardiac catheterization, performing as first operator more than 800 procedures and as second operator about 250 percutaneous coronary interventions (unprotected left main, coronary bifurcations, primary angioplasty, chronic total occlusions), under the supervision of Dr. Mongiardo and Dr. Burzotta. The vast majority of these procedures were performed using the radial artery approach. In addition, he acquired experience in the use of rotablator, flow and Doppler wire, Laser catheter, intra-aortic ballon pump and Impella.

From January 2008 to January 2010: fellow in interventional cardiology in University Hospital of San Paul (Barcelona, Spain) under supervision of Dr. Manel Sabatè. He was study-coordinator and co-investigator of many international trials, as CURRENT, SEPIA-ACS, TRA.CER, AVIO, EXAMINATION, AQUARIUS trials.

From February 2010 to December 2011: research fellow in interventional cardiology in the Thoraxcenter, Erasmus MC, Rotterdam, under supervision of prof. P.W. Serruys. He studied intracoronary imaging techniques (IVUS, IVUS-VH, OCT, NIRS, palpography) for detection and evaluation of atherosclerosis and intracoronary device. In particular he studied imaging of the bioresorbable vascular scaffolds.

From December 2010: interventional cardiologist staff at the "Hospital Clinic i Provincial de Barcelona", Spain.

He is an expert in treatment of atherosclerosis with bioresorbable vascular scaffolds and in evaluation of atherosclerosis with intracoronary imaging and techniques (IVUS, OCT, FFR, NIRS, palpography, etc). He has performed in his career more than 10000 coronary angiography and around 5000 percutaneous coronary interventions. He is also an expert of TAVI procedure, left appendage closure and PFO.

Research

His research interest started in the field of atherosclerosis and in particular of the inflammation related to coronary plaque in acute coronary syndromes. In particular, He realized studies on the role of a particular subset of lymphocytes – the CD4⁺CD28^{null} – expanded in some autoimmune diseases, demonstrating how they are expanded as well in patients with acute coronary syndromes as compared to patients with stable angina disease. His interest focused as well on endothelial function in coronary disease. In particular He studied endothelial function of the coronary vessel distal to chronic total occlusions, demonstrating how immediately after its recanalization the coronary artery recanalized exhibits a strong vascular dysfunction. He is now involved as principal investigator in the "TICA-GR-ELOR and ABSORB Bioresorbable Vascular scaffold implantation for recovery of vascular function after successful chronic total occlusion recanalization" (TIGER-BVS, NCT02211066), which is aimed to investigate the role of ticagrelor and ABSORB in minimizing this endothelial dysfunction. For this trial, He received a grant of 400.000,00 euros from Astrazeneca. His research interest is also focused on the new generation bioresorbable vascular scaffold. He investigated its mechanical and imaging properties in the ABSORB trials. He was in the steering committee of the TROFI-II trial, which compares ABSORB vs. Everolimus-eluting drug eluting stent in STEMI patients. He was one of the first

investigators describing role of PSP strategy (pre-dilatation, sizing, post-dilatation) influencing outcome of ABSORB. He is actually principal investigator of the MAGSTEMI trial, which compares MAGMARIS vs. Orsiro in STEMI patients. Eventually, He is involved in the research about the role of intracoronary imaging techniques in detecting atherosclerosis and endothelial dysfunction and in evaluating the healing process following drug-eluting stent in different clinical scenarios, such as STEMI or diabetes.

Prizes

- Winner of Research Grant in interventional cardiology by EAPCI, 2007
- Winner of Research Grant by Spanish Society of Cardiology, 2008
- Winner of Young Leadership Recognition program by CRT, 2012
- Finalist of “Young Investigator Award for Science population” ESC 2012
- Winner of “Young Author Achievement Award for JACC Cardiovascular Interventions”, 2014
- Winner of the best E-poster, entitled “pre-dilatation, sizing and post-dilatation scoring in patients undergoing everolimus-eluting bioresorbable scaffolds implantation for prediction of cardiac adverse events: the PSP score”, at CSC (Coronary and structural course) 2016
- Best reviewer of Eurointervention 2018 and 2019
- Finalist at TCT 2018 Linnemeir Young Investigator award

Membership of societies:

- Full member of European Association of Percutaneous Cardiovascular Interventions (EAPCI)
- Member of the EAPCI “new initiatives for young interventionalists committee” (2014-2018)
- Member of the “Scientific programme and congress committee” of the EAPCI (2016-2018)
- Fellow of Italian Society of Cardiology
- Fellow of Spanish Society of Cardiology
- Fellow of European Society of Cardiology (FESC)
- Chairman of the EAPCI “New Initiative for Young Interventionalists committee” 2018-2020
- Member of the EAPCI “Database & Registries committee” 2018-2020
- Member of the PCRonline Editorial board (2018- ongoing)
- Member of PCR board (2016 –ongoing)
- Member of the EAPCI “Databases and registries committee” 2020-2022
- Member of the EAPCI “Innovations and digital cardiology committee” 2020-2022
- Member of EAPCI “Scientific documents committee” 2022-2024

Board Certification:

- Italian board in Cardiology (2003-no limit)
- Spanish board in Cardiology (2004-no limit)
- Spanish board in Interventional Cardiology (2010-no limit)
- Italian certification as associate and full professor of Cardiology (2013-2025)

Reviewer of the following journals:

- Journal of American College of Cardiology
- Journal of American College of Cardiology Cardiovascular Interventions
- European Heart journal
- American Heart Journal
- PlosOne
- Eurointervention

- International Journal of Cardiology
- Catheterization and Cardiovascular Interventions
- BMJ
- New England Journal of Medicine
- The Lancet

Editorial board member:

- Social media Editor of Eurointervention (2017 – present)
- Editor in chief of PCRonline (2019 – present)
- Editorial consultant of Journal of The American College of Cardiology Cardiovascular Interventions (2016 – present)

Research grants

Title of the project: “Nuevos biomateriales metálicos biofuncionalizados para aplicaciones ortopédicas, dentales y cardiovasculares”

Grant source: Ministerio de Economía y Competitividad

Country: Spain

Duration: from 01/01/2013 to 31/12/2015

Principal Investigator: Francisco Javier Gil Mur

Co-Investigator: Salvatore Brugaletta

Grant amount: 95.000,00 euros

Title of the project: Study of re-endothelialization of second generation drugeluting stents

Grant source: European Association of Percutaneous Cardiovascular Interventions

Duration: from 01/01/2008 to 31/12/2009

Principal Investigator: Salvatore Brugaletta

Grant amount: 24.000,00 euros

Title of the project: “Oclusiones totals croniques d'arteries coronaries d'humans: des de la fisiopatologia a les implicacions cliniques de la recanalitzacio amb exit mitjançant intervencio coronaria percutania”

Grant source: Fundacio la Marato de TV3

Country: Spain

Duration: from 01/01/2008 to 31/12/2011

Principal Investigator: Manel Sabaté

Co-Investigator: Salvatore Brugaletta

Grant amount: 327.680,00 Euros.

Title of the project: “Predictores biológicos y morfológicos de la recuperación de la función endotelial después de la recanalización con éxito de oclusiones coronarias totales crónicas”

Grant source: Sociedad Española de Cardiología

Country: Spain

Duration: from 01/01/2009 to 31/12/2010

Principal Investigator: M. Sabaté

Co-Investigator: Salvatore Brugaletta

Grant amount: 15.000,00 euros

Title of the project: “TlcaGrEloR and ABSORB Bioresorbable Vascular Scaffold Implantation for Recovery of Vascular Function After Successful Chronic Total Occlusion Recanalization (TIGER-BVS. NCT02211066)”.

Grant source: Astrazeneca

Country: Spain

Duration: from 2014 to 2017
Principal Investigator: Salvatore Brugaletta
Grant amount: 297.245,00 euros

Title of the project: “Functional and morphological assessment of left anterior descending artery in patients with TAKOTSUBO syndrome)”.

Grant source: Menarini

Country: Spain

Duration: from 2016 to 2018

Principal Investigator: Salvatore Brugaletta

Grant amount: 6.000,00 euros

Title of the project: “Funció endotelial i microvascular de les arteries responsables d’un infart amb supradnivellacio del segment ST tractades amb stents bioabsorbibles versus stents metàl·lics a 3 anys de seguiment”

Grant source: Catalan Society of Cardiology

Country: Spain

Duration: from 2016 to 2017

Principal Investigator: Josep Gomez-Lara, Salvatore Brugaletta, Angel Cequier, Manel Sabate

Grant amount: 10.000,00 euros

Title of the project: “Potencial papel de pronostico y terapeutico de los miRNAs exosomales derivados de las celulas circulantes (progenitoras endoteliales, plaquetas y neutrofilos) en el sindrome coronario agudo”

Grant source: Ministerio de Economia y Competitividad

Country: Spain

Duration: from 2016 to 2019

Principal Investigator: Ana Paula Danta, Salvatore Brugaletta

Grant amount: 183.315,00 euros

Title of the project: “Impacto de nuevas TeRapias para reducir los lipidos y la inflamacion em el fenótipo y perfil funcional de las células progenitoras ENDoteliales em la enfermedad coronária: estudio TREND”

Grant source: Ministerio de Economia y Competitividad

Country: Spain

Duration: from 2019 to 2021

Principal Investigator: Ana Paula Danta, Salvatore Brugaletta

Grant amount: 183.920,00 euros

Title of the project: “Efecto a corto, mediano y largo plazo de la enfermedad por Coronavirus 2019 en el sistema cardiovascular”

Grant source: Ministerio de Economia y Competitividad

Country: Spain

Duration: from 2020 to 2021

Principal Investigator: Salvatore Brugaletta

Grant amount: 60.000,00 euros

Publications

Scientific publications in journals with impact factor: 400 (H-index 46)

Books and chapters: 14

Abstracts in national and international congresses: 200

Lectures at national and international congresses: 100