Personal Data and Curriculum Vitae

Dr. Raffaele Coppini, MD, PhD

Personal data

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Financial interests disclosure
Nothing to declare

Curriculum Vitae

Education and training

-1996–2001 Prato (Italy). Scientific High School, Liceo Scientifico Niccolò Copernico. Final grade of 100/100

-2001-2007 Florence, Italy. **Medical School**, Faculty of Medicine of the University of Florence. Medical Doctor degree obtained July 2007 with final grade 110/110 cum lauda, with exceptional merit recognition. Research experiences during Medical School:
2006: 5 months Fellowship (01/05/2006-31/01/2006) at the Dept. of Physiology, Maastricht University (The Netherlands), under the supervision of Dr. Uli Schotten. Project: Electrophysiological mapping in living goat model of short term and long term atrial fibrillation.

Learned techniques: electrical recordings with multi-electrode arrays from the intact heart of living animals; analysis of electrical activation maps. 2008-2011 Florence, Italy. Department of Preclinical and Clinical Pharmacology and Center for Molecular Medicine (CIMMBA).

-**2008-2011**,University of Florence. **PhD in Pharmacology and Toxicology.** Supervisor Prof. A. Mugelli.

Learned techniques: Electrophysiological measurements from single myocardial cells and fluorescence imaging of intracellular calcium. Isolation of single viable cardiac myocytes from a variety of animal models (mouse, rat, guinea pig) and human specimens (atrial and ventricular tissue). Handling and genetic assessments of transgenic mouse models.

Main project: Evaluation of cellular remodeling in human cardiomyocytes from surgical samples of patients with hypertrophic cardiomyopathies; evaluation of the effects of the late sodium current blocker ranolazine.
This activity was part of the EU STREP Project BIG-Heart (2009-2012). The Big-Heart project network included the CIMMBA laboratories (Alessandro Mugelli, Corrado Poggesi, Elisabetta Cerbai) and many international collaborators (Jolanda Van der Velden's lab in Amsterdam, Lucie Carrier's lab in Hamburg, Steve Marston's Lab in London and Hugh Watkins' lab in Oxford).
PhD Thesis: He presented a thesis titled "Molecular Basis of electrophysiological and mechanical remodelling in human hypertrophic cardiomyopathy: new therapeutic targets for reduction of arrhythmias and diastolic dysfunction", successfully defended on March 25th, 2011.

Involvement in other research projects and activities during PhD:

-EU FP6 project Normacor (Elisabetta Cerbai): Molecular and cellular mechanisms of normal and abnormal cardiac excitation and new therapeutic options for arrhythmias.
-Telethon GGP06007 (Corrado Poggesi): Characterization of a knock-in mouse model of genetically determined sudden cardiac death: insights for the management of patients with catecholaminergic polymorphic ventricular tachycardia (CPVT).
-Experimental collaboration with the group directed by Prof. Francesco Pavone at LENS, University of Florence: optical measurements of electrical activity from the t-tubular network of single myocytes and trabeculae.
-Clinical Training in Cardiology, Regional Referral Center for Cardiomyopathies, Careggi University Hospital (Dr. I. Olivotto).

Research Experiences Abroad during PhD:

2009-2010: 4 months experimental collaboration with the laboratory of Prof. Henk ter Keurs (University of Calgary, Canada). Project: effects of loss of t-tubules on the mechanics of cardiac muscle. Learned techniques: dissection of viable cardiac trabeculae, recording of force and sarcomere length from intact cardiac muscle.
2011: 1 month visit to Dr. Jil Tardiff's lab (Albert Einstein College of Medicine, The Bronx, NY, USA). Project: analysis of the features of myocardial remodeling in transgenic mouse models of hypertrophic cardiomyopathy. Learned techniques: handling of transgenic mouse colonies, cardiac performance evaluation with a Langendorff system.

Scientific dissemination during PhD:

- ESC (European society of cardiology) congress 2009 29 Aug-3 Sept., 2009, Barcelona, Spain. Oral presentation: "Cathecolaminergic Polymorphic Ventricular Tachycardia (CPVT): impact of an arrythmogenic disorder on the mechanical properties of myocardium."
- Biophysical Society Meeting 2010. 22-26 Feb, San Francisco, USA. Poster: "Mechanical dysfunction in chronic atrial fibrillation"
- Frontiers in Cardiovascular Biology (FCVB) 2010. 15-17 July, Berlin, Germany. Poster: "Cellular mechanisms of mechanical dysfunction in chronic atrial fibrillation"
- SIF (Italian Pharmacological Society) focused congress on atrial fibrillation. Naples, 25 Oct, 2010. Oral communication: "Cellular mechanisms of early mechanical dysfunction in paroxymal atrial fibrillation"
- Biophysical Society Meeting 2011, 21-24 Feb. 2011, Baltimore, USA. Poster. "Impact of R4496C RyR2 Mutation on Myocardial Contractility".

-2011-2016: medical specialization in clinical pharmacology

(Dep. NeuroFarBa of the University of Florence, Italy)

Specialization Thesis: title "Late sodium current inhibitors for the treatment of hypertrophic cardiomyopathy: a traslational approach"; discussed successfully on June 26, 2016

Clinical and research activities during specialization:

- Basic research in cardiac pharmacology and pharmacology in the laboratories directed by Prof. Elisabetta Cerbai in the Department NeuroFarBa, University of Florence. He employed and perfected single cell electrophysiology techniques, as well as techniques to study myocardial mechanics and excitation contraction coupling through fluorescence studies using calcium and sodium-selective dyes.
- Basic research in cardiac biophysics in collaboration with the laboratory directed by Dr.Leonardo Sacconi and Prof. Francesco Pavone at LENS, University of Florence: he contributed to develop and test a setup to optically map electrical conduction in isolated rodent heart, as well as a system to study local calcium fluxes within the cardiomyocytes.

-Training in clinical pharmacology, including ethical evaluation of clinical and preclinical studies, epidemiology studies on drug use and pharmacovigilance (drug safety).

-Training in clinical cardiology in the Regional Referral Center for Myocardial Diseases (Careggi University Hospital, Florence).

-Coordination of the 2014 revision of the Tuscany Health System Regional Guidelines for the management of arterial hypertension.

-Experience in clinical research and trials according to ICH-GCP and regulations. He participated to the -RESTYLE-HCM study (sponsored by Menarini International), aimed to assess the efficacy of ranolazine in HCM patients, and to the LIBERTY-HCM trial (sponsored by Gilead Sciences), aimed at assessing the efficacy of the novel late Na-current blocker Eleclazine on HCM patients.

Research project involvements:

-Dr. Coppini coordinated the project entitled “Evaluation of ranolazine in transgenic mouse models of hypertrophic cardiomyopathy", funded by Gilead Sciences Inc. in the framework of a wider collaboration coordinated by Prof. Mugelli. The project aimed at evaluating the effects of ranolazine on cells from mice carrying mutations in the TnT gene.

- Telethon project GGP13162 (PI: Prof. Corrado Poggesi) “Hypertrophic cardiomyopathy caused by mutations in the thin filament regulatory proteins of the sarcomere”: Dr. Coppini coordinated a clinical observational study on FHC patients with thin filament mutations (Coppini et al. JACC 2014); moreover, he coordinated a long-term treatment trial with ranolazine in transgenic mice carrying a troponin T mutation associated with HCM (Coppini et al. Circ HF, 2017)

-“Abnormal changes of QTc interval during exercise in patients with hypertrophic cardiomyopathy: cellular basis and effects on diastolic function”, project funded by Gilead Sciences Inc. and coordinated by Dr. Olivotto. Dr. Coppini is studying HCM patients undergoing stress tests and performing electrophysiological measurements on cells from human cardiac samples.

Teaching: Dr. Coppini tutored a PhD student (Dr. Luca Mazzoni)

Scientific dissemination:

-9th Meeting of the Myocardial and Pericardial diseases Working Group of the European Society of Cardiology, Florence, 26-28 Sept, 2012. Invited oral presentation: -“Late sodium current inhibition reverses electro-mechanical dysfunction in human hypertrophic cardiomyopathy”

- Myocardial and Pericardial Diseases ESC WG, 2013, Prague, Czech Republic. Invited Oral Presentation:”Clinical Phenotype and Outcome of HCM associated with thin filament gene mutations”

-Royal Academy Colloquium 2014, Amsterdam, The Netherlands. Invited Oral Presentation: “Cellular basis of arrhythmogeneicity in hypertrophic cardiomyopathy.”

-FCVB 2014, Barcelona,Spain. Oral Pres.(young investigator award):“Myocardial dysfunction in HCM"

-EWGCCE meeting 2014, Maastricht, The Netherlands. Poster Presentation (Travel Award and Best Poster Award): ""Late sodium current blocker ranolazine reduces myocardial remodeling ...”

-EHRA Europace Cardiostim 2015, Milan Italy. Invited Oral Presentation: “Suppression of Arrhythmias by Late Sodium Current Inhibition”

-ESC Congress 2015 London. Invited Oral Presentation.“How to Isolate Human ventricular CMs”

- 3rd Florence International Symposium on advances in cardiomyopathies 2015. Invited Oral Presentation:“Pharmacological Therapy of Hypertrophic Cardiomyopathy: a bright future awaits”

Positions and activities

-2016-2018: **senior post-doc** (*assegno di ricerca)*
(Dep. NeuroFarBa of the University of Florence, Italy)

Main project related to his post-doc position: "ToRSADE: Tuscany Registry of Sudden Cardiac Death. Monitoring and preventing Sudden Cardiac Death in Tuscany" project funded by Regione Toscana and coordinated by Prof. Cerbai. Dr. Coppini is performing single cell studies on ventricular cardiomyocytes from surgical patients or animal models, to understand the basis of arrhythmogeneicity in inherited cardiomyopathies, as well as testing novel pharmacological approaches to prevent arrhytmias in these diseases.

Current involvement in other research projects:

-Italian Ministry of Health Project GR-2011-02350583 (to Cecilia Ferrantini). Dr. Coppini is coordinating the pharmacology unit of the project and is performing single cell studies on human atrial cardiomyocytes from surgical samples of patients with FHC or other diseases.

-"Abnormal changes of QTc interval during exercise in patients with hypertrophic cardiomyopathy: cellular basis and effects on diastolic function", project funded by Gilead Sciences Inc. and coordinated by Dr. Olivotto. Dr. Coppini is studying HCM patients undergoing stress tests and performing electrophysiological measurements on cells from human cardiac samples.

-Telethon Project GGP16191 (PI: Dr. Cecilia Ferrantini) "A novel in vitro Duchenne Muscular Dystrophy cardiomyopathy model: human iPSC-derived cardiomyocytes for mechanistic studies and drug testing"; Dr. Coppini performs electrophysiological studies and pharmacological tests on cardiomyocytes differentiated from induced-pluripotent stem-cells (iPSC), -obtained from patients with DMD and healthy controls.

-Italian Ministry of Health project RF-2013-02356787 "Left ventricular hypertrophy in aortic valve disease and hypertrophic cardiomyopathy: genetic bases, biophysical correlates and viral therapy models" (PI: Dr. Iacopo Olivotto); Dr. Coppini directs the basic research unit that performs EP and drug studies on cardiomyocytes from surgical patient samples and transgenic mice.

Teaching:

Dr. Coppini is tutoring two PhD students (Lorenzo Santini and Chiara Palandri). In the Unoversity of Florence, he teaches pharmacology to medical students, students of the school of specialization in pediatrics and in 4 master courses for MDs. Moreover, he gives lectures of cardiac physiology and pathophysiology to biotechnology students and students of the school of specialization in cardiology.

Other activities:

-member of the Pediatric Ethical Committee of Regione Toscana from 2016 to 2018

-member of the Unit for Phase I pharmacological studies of the Meyer Pediatric Hospital in Florence; as an expert clinical pharmacologist, Dr. Coppini evaluates and follows phase I studies on pedtiatric patients in the hospital.

-collaboration with the Cardiomyopathy Unit of Careggi Hospital in Florence, directed by Dr. Iacopo Olivotto: Dr, Coppini performs observational studies including patients with cardiomyopathies; he is also an investigator for the international trial PIONEER-HCM (Study of Mavacamten in Symptomatic, Obstructive Hypertrophic Cardiomyopathy; NCT02842242), carried out in the Unit.

Scientific dissemination:

-FCVB 2016, Florence, Italy. Invited Oral Presentation**.** "Arrhythmogenic remodeling in hypertrophic cardiomyopathy.".

-Cardiomyopathies: a look at the future. 6 Dec 2017, Firenze. Invited Oral Presentation. "The future of translational and pharmacological research: lessons from cellular electrophysiology."

- Meeting CVON-DOSIS. 15 Dec, 2016, Amsterdam, The Netherlands. Invited Oral Presentation. "Electrophysiological changes in human HCM cardiomyocytes"

-SIF (Italian Pharmacological Society) meeting, 26 Oct, 2017; Invited Oral Presentations: . "Late sodium current inhibitors to prevent disease progression in hypertrophic cardiomyopathy" and "What the research tells us: mechanistic hypotheses of empaglifozin protection"

-July 2018-present: **staff researcher** ("*RTD tipo A")*
(Dep. NeuroFarBa of the University of Florence, Italy)

Research activity: Dr. Coppini directs a cardiac electrophysiology and cardiovascualr pharmacology unit associated with the lab directed by Prof. Carbai Prof.ssa Elisabetta Cerbai, within the NeuroFarBa department. Dr. Coppini currently works with two PhD students of the Regional PhD in molecular medicine (Lorenzo Santini e Chiara Palandri), of whom Dr. Coppini is tutor. His main research interest is the study of the mechanisms of inherited cardiomyopathies and novel pharmacological options to treat these diseases. He and his group continue to use both human and animal isolated cardiomyocytes to perform electrophisiological studies and intracelular ion dynamics assessments. Moreover, he recently started using cardiomyocytes differentiated from patient-specific induced pluripotent stem cells as a model to study cardiomyopathies in vitro.
-**Teaching**: Dr. Coppini teaches in several courses of the University of Florence: (i) pharmacology course in the medical school, (ii) physiology course in the nursing school, (iii) cardiac pathophysiology in the biotechnology school, (iv) paediatric pharmacology in the school of medical specialization in paediatrics. Moreover, he is the tutor and supervisor of two PhD students.
-Scientific dissemination:
-Advances in Paediatric Heart Failure, Florence 16 March 2018. Invited lecture: " Novel pharmacological approaches"
-ISHR-ES meeting, Amsterdam, 19 July 2018. Invited talk: "Central role for disturbed Na+ homeostasis in the pathogenesis of HCM"
-Italian Sociaty of Cardiology (SIC) meeting, Rome, 14 Dec 2018. Invited talk: "The equivalence between similar drug molecules: any role for cardiology therapy?"
-Sudden Cardiac Death: from Basic Science to Prevention, Florence, 13 Feb 2019. Invited talk: "Lessons from cardiac cellular electrophysiology"

I declare that this information is updated as of July 20th, 2019

Dr. Raffaele Coppini, MD, PhD

Peer-reviewed Publications

Ferrantini C, Pioner JM, Martella D, Coppini R, Piroddi N, Paoli P, Calamai M, Pavone FS, Wiersma DS, Tesi C, Cerbai E, Poggesi C, Sacconi L, Parmeggiani C.Development of Light-Responsive Liquid Crystalline Elastomers to Assist Cardiac Contraction.Circ Res. 2019 Apr 12;124(8):e44-e54. doi: 10.1161/CIRCRESAHA.118.313889.

Woulfe KC, Ferrara C, Pioner JM, Mahaffey JH, **Coppini R**, Scellini B, Ferrantini C, Piroddi N, Tesi C, Poggesi C, Jeong M.A Novel Method of Isolating Myofibrils From Primary Cardiomyocyte Culture Suitable for Myofibril Mechanical Study.Front Cardiovasc Med. 2019 Feb 19;6:12. doi: 10.3389/fcvm.2019.00012. eCollection 2019.

Ferrantini C, **Coppini R**, Sacconi L.Cardiomyocyte-specific Gq signaling and arrhythmias: novel insights from DREADD technology.Cardiovasc Res. 2019 Feb 22. pii: cvz052. doi: 10.1093/cvr/cvz052. [Epub ahead of print]

Ferrantini C, Pioner JM, Martella D, **Coppini R**, Piroddi N, Paoli P, Calamai M, Pavone F, Wiersma DS, Tesi C, Cerbai E, Poggesi C, Sacconi L, Parmeggiani C.Development of Light-Responsive Liquid Crystalline Elastomers to Assist Cardiac Contraction.Circ Res. 2019 Feb 8. doi: 10.1161/CIRCRESAHA.118.313889. [Epub ahead of print]

Dini L, Del Lungo M, Resta F, Melchiorre M, Spinelli V, Di Cesare Mannelli L, Ghelardini C, Laurino A, Sartiani L, **Coppini R,** Mannaioni G, Cerbai E, Romanelli MN. Selective Blockade of HCN1/HCN2 Channels as a Potential Pharmacological Strategy Against Pain. Front Pharmacol. 2018 Nov 8;9:1252. doi: 10.3389/fphar.2018.01252. eCollection 2018.

Coppini R, Ferrantini C, Mugelli A, Poggesi C, Cerbai E.Altered Ca2+ and Na+ Homeostasis in Human Hypertrophic Cardiomyopathy: Implications for Arrhythmogenesis. Front Physiol. 2018 Oct 16;9:1391. doi: 10.3389/fphys.2018.01391. eCollection 2018.

Coppini R, Ferrantini C. NaV1.8: a novel contributor to cardiac arrhythmogenesis in heart failure. Cardiovasc Res. 2018 Nov 1;114(13):1691-1693. doi: 10.1093/cvr/cvy210. No abstract available.

Scardigli M, Müllenbroich C, Margoni E, Cannazzaro S, Crocini C, Ferrantini C, **Coppini R,** Yan P, Loew LM, Campione M, Bocchi L, Giulietti D, Cerbai E, Poggesi C, Bub G, Pavone FS, Sacconi L.Real-time optical manipulation of cardiac conduction in intact hearts. J Physiol. 2018 Sep;596(17):3841-3858. doi: 10.1113/JP276283. Epub 2018 Aug 7.

Olivotto I, **Coppini R**. Channelopathies, cardiac hypertrophy, and the theory of light. Eur Heart J. 2018 Aug 14;39(31):2908-2910. doi: 10.1093/eurheartj/ehy297. No abstract available.

Mazzarotto F, Girolami F, Boschi B, Barlocco F, Tomberli A, Baldini K, **Coppini R**, Tanini I, Bardi S, Contini E, Cecchi F, Pelo E, Cook SA, Cerbai E, Poggesi C, Torricelli F, Walsh R, Olivotto I.Defining the diagnostic effectiveness of genes for inclusion in panels: the experience of two decades of genetic testing for hypertrophic cardiomyopathy at a single center. Genet Med. 2018 Jun 6. doi: 10.1038/s41436-018-0046-0. [Epub ahead of print]

Miceli C, Santin Y, Manzella N, **Coppini R,** Berti A, Stefani M, Parini A, Mialet-Perez J, Nediani C.Oleuropein Aglycone Protects against MAO-A-Induced Autophagy Impairment and Cardiomyocyte Death through Activation of TFEB. Oxid Med Cell Longev. 2018 Mar 26;2018:8067592. doi: 10.1155/2018/8067592. eCollection 2018.

Late sodium current inhibitors to treat exercise-induced obstruction in hypertrophic cardiomyopathy: an in vitro study in human myocardium. Ferrantini C, Pioner JM, Mazzoni L, Gentile F, Tosi B, Rossi A, Belardinelli L, Tesi C, Palandri C, Matucci R, Cerbai E, Olivotto I, Poggesi C, Mugelli A, **Coppini R**. Br J Pharmacol. 2018 Mar 26. doi: 10.1111/bph.14223. [Epub ahead of print]

Clinical and Molecular Aspects of Cardiomyopathies: Emerging Therapies and Clinical Trials. Maurizi N, Ammirati E, **Coppini R**, Morrone A, Olivotto I. Heart Fail Clin. 2018 Apr;14(2):161-178. doi: 10.1016/j.hfc.2018.01.001. Review.

Efficacy of Ranolazine in Patients With Symptomatic Hypertrophic Cardiomyopathy: The RESTYLE-HCM Randomized, Double-Blind, Placebo-Controlled Study. Olivotto I, Camici PG, Merlini PA, Rapezzi C, Patten M, Climent V, Sinagra G, Tomberli B, Marin F, Ehlermann P, Maier LS, Fornaro A, Jacobshagen C, Ganau A, Moretti L, Hernandez Madrid A, **Coppini R**, Reggiardo G, Poggesi C, Fattirolli F, Belardinelli L, Gensini G, Mugelli A. Circ Heart Fail. 2018 Jan;11(1):e004124. doi: 10.1161/CIRCHEARTFAILURE.117.004124.

Ranolazine Prevents Phenotype Development in a Mouse Model of Hypertrophic Cardiomyopathy. **Coppini R**, Mazzoni L, Ferrantini C, Gentile F, Pioner JM, Laurino A, Santini L, Bargelli V, Rotellini M, Bartolucci G, Crocini C, Sacconi L, Tesi C, Belardinelli L, Tardiff J, Mugelli A, Olivotto I, Cerbai E, Poggesi C. Circ Heart Fail. 2017 Mar;10(3). pii: e003565. doi: 10.1161/CIRCHEARTFAILURE.116.003565.

Comparison of long-term outcome in anthracycline-related versus idiopathic dilated cardiomyopathy: a single centre experience. Fornaro A, Olivotto I, Rigacci L, Ciaccheri M, Tomberli B, Ferrantini C, Coppini R, Girolami F, Mazzarotto F, Chiostri M, Milli M, Marchionni N, Castelli G. Eur J Heart Fail. 2017 Nov 16. doi: 10.1002/ejhf.1049. [Epub ahead of print]

Content of mitochondrial calcium uniporter (MCU) in cardiomyocytes is regulated by microRNA-1 in physiologic and pathologic hypertrophy. Zaglia T, Ceriotti P, Campo A, Borile G, Armani A, Carullo P, Prando V, Coppini R, Vida V, Stølen TO, Ulrik W, Cerbai E, Stellin G, Faggian G, De Stefani D, Sandri M, Rizzuto R, Di Lisa F, Pozzan T, Catalucci D, Mongillo M. Proc Natl Acad Sci U S A. 2017 Oct 24;114(43):E9006-E9015. doi: 10.1073/pnas.1708772114. Epub 2017 Oct 9.

Liquid Crystalline Networks toward Regenerative Medicine and Tissue Repair. Martella D, Paoli P, Pioner JM, Sacconi L, **Coppini R**, Santini L, Lulli M, Cerbai E, Wiersma DS, Poggesi C, Ferrantini C, Parmeggiani C. Small. 2017 Dec;13(46). doi: 10.1002/smll.201702677. Epub 2017 Oct 17.

Pathogenesis of Hypertrophic Cardiomyopathy is Mutation Rather Than Disease Specific: A Comparison of the Cardiac Troponin T E163R and R92Q Mouse Models. Ferrantini C, **Coppini R**, Pioner JM, Gentile F, Tosi B, Mazzoni L, Scellini B, Piroddi N, Laurino A, Santini L, Spinelli V, Sacconi L, De Tombe P, Moore R, Tardiff J, Mugelli A, Olivotto I, Cerbai E, Tesi C, Poggesi C. J Am Heart Assoc. 2017 Jul 22;6(7). pii: e005407. doi: 10.1161/JAHA.116.005407.

Quantitative assessment of passive electrical properties of the cardiac T-tubular system by FRAP microscopy. Scardigli M, Crocini C, Ferrantini C, Gabbrielli T, Silvestri L, **Coppini R**, Tesi C, Rog-Zielinska EA, Kohl P, Cerbai E, Poggesi C, Pavone FS, Sacconi L. Proc Natl Acad Sci U S A. 2017 May 30;114(22):5737-5742. doi: 10.1073/pnas.1702188114. Epub 2017 May 15.

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Role of quantitative myocardial positron emission tomography for risk stratification in patients with hypertrophic cardiomyopathy: a 2016 reappraisal. Castagnoli H, Ferrantini C, **Coppini R**, Passeri A, Baldini K, Berti V, Cecchi F, Olivotto I, Sciagrà R. Eur J Nucl Med Mol Imaging. 2016 Dec;43(13):2413-2422.

Optogenetics design of mechanistically-based stimulation patterns for cardiac defibrillation. Crocini C, Ferrantini C, **Coppini R**, Scardigli M, Yan P, Loew LM, Smith G, Cerbai E, Poggesi C, Pavone FS, Sacconi L. Sci Rep. 2016 Oct 17;6:35628. doi: 10.1038/srep35628.

T-Tubular Electrical Defects Contribute to Blunted β-Adrenergic Response in Heart Failure. Crocini C, **Coppini** R, Ferrantini C, Yan P, Loew LM, Poggesi C, Cerbai E, Pavone FS, Sacconi L. Int J Mol Sci. 2016 Sep 3;17(9). pii: E1471. doi: 10.3390/ijms17091471.

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Novel Approach Targeting the Complex Pathophysiology of Hypertrophic Cardiomyopathy: The Impact of Late Sodium Current Inhibition on Exercise Capacity in Subjects with Symptomatic Hypertrophic Cardiomyopathy (LIBERTY-HCM) Trial. * Olivotto I, Hellawell JL, Farzaneh-Far R, Blair C, **Coppini R**, Myers J, Belardinelli L, Maron MS. Circ Heart Fail. 2016 Mar;9(3):e002764. doi: 10.1161 CIRCHEARTFAILURE. 115.002764.

Impact of Genotype on the Occurrence of Atrial Fibrillation in Patients With Hypertrophic Cardiomyopathy. Bongini C, Ferrantini C, Girolami F, **Coppini R**, Arretini A, Targetti M, Bardi S, Castelli G, Torricelli F, Cecchi F, Ackerman MJ, Padeletti L, Poggesi C, Olivotto I. Am J Cardiol. 2016 Apr 1;117(7):1151-9. doi: 10.1016/j.amjcard.2015.12.058. Epub 2016 Jan 14.

Novel insights on the relationship between T-tubular defects and contractile dysfunction in a mouse model of hypertrophic cardiomyopathy. * Crocini C, Ferrantini C, Scardigli M, **Coppini R**, Mazzoni L, Lazzeri E, Pioner JM, Scellini B, Guo A, Song LS, Yan P, Loew LM, Tardiff J, Tesi C, Vanzi F, Cerbai E, Pavone FS, Sacconi L, Poggesi C. J Mol Cell Cardiol. 2015 Dec 20. pii: S0022-2828(15)30151-6. doi: 10.1016/j.yjmcc.2015.12.013.

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Targets for therapy in sarcomeric cardiomyopathies. Tardiff JC, Carrier L, Bers DM, Poggesi C, Ferrantini C, **Coppini R,** Maier LS, Ashrafian H, Huke S, van der Velden J. Cardiovasc Res. 2015 Apr 1;105(4):457-70. doi: 10.1093/cvr/cvv023. Epub 2015 Jan 29.

Clinical Phenotype and Outcome of Hypertrophic Cardiomyopathy Associated With Thin-Filament Gene Mutations. **Coppini R**, Ho CY, Ashley E, Day S, Ferrantini C, Girolami F, Tomberli B, Bardi S, Torricelli F, Cecchi F, Mugelli A, Poggesi C, Tardiff J, Olivotto I. J Am Coll Cardiol. 2014; 64(24):2589-2600. doi:10.1016/ j.jacc.2014.09.059.

Defects in T-tubular electrical activity underlie local alterations of calcium release in heart failure. Crocini C, **Coppini R**, Ferrantini C, Yan P, Loew LM, Tesi C, Cerbai E, Poggesi C, Pavone FS, Sacconi L. Proc Natl Acad Sci U S A. 2014 Oct 21;111(42):15196-201. doi: 10.1073/pnas.1411557111. Epub 2014 Oct 6.

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Isolation and functional characterization of human ventricular cardiomyocytes from fresh surgical samples.**Coppini R**, Ferrantini C, Aiazzi A, Mazzoni L, Sartiani L, Mugelli A, Poggesi C, Cerbai E. J Vis Exp. 2014 Apr 21;(86). doi: 10.3791/51116.

The transverse-axial tubular system of cardiomyocytes. Ferrantini C, Crocini C, **Coppini R**, Vanzi F, Tesi C, Cerbai E, Poggesi C, Pavone FS, Sacconi L. Cell Mol Life Sci. 2013 Dec;70(24):4695-710. doi: 10.1007/s00018-013-1410-5. Epub 2013 Jul 12. Review.

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