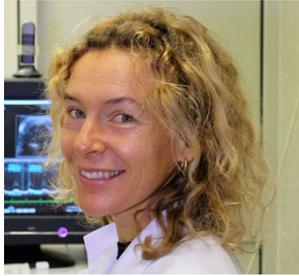


PERSONAL INFORMATION Serena Zacchigna



via Carsia 41/2, 34151, Trieste, Italia



+39 040 3757354  +39 3493448269



zacchign@icgeb.org



<http://www.icgeb.org/group-leader-serena-zacchigna.html>

Sex Female | Date of birth 22/06/1975 | Nationality Italian

Fiscal code ZCCSRN75H62L424U

Marital status Married, two children, born on 19/10/2009 and 20/12/2011

WORK EXPERIENCE

2021-	Co-Group Leader, Experimental CardioOncology and CardioVascular Ageing Unit, Centro Cardiologico Monzino
2016-	University of Trieste, Italy Associate Professor
2015-	International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste Group Leader, Cardiovascular Biology Programme Managing Office, Scientific Coordinator
2022-	Member of the Scientific Council of Collegio Fonda, Trieste
2022-	Advisor of FIT (Fondazione Internazionale Trieste per il progresso e la liberta' delle scienze)
2019-2023	Member of the Ethical Committee for the Regione FVG (CEUR)
2018-2020	Member of the board of directors of the Burlo Garofolo Foundation, Trieste, Italy
2015-2019	Regione FVG, Commission for Culture Scientific Expert
2008-2014	International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste Post-doc/Staff Scientist, Molecular Medicine
2006-2007	Flanders Interuniversity Institute for Biotechnology (VIB), <i>University KU Leuven, Belgium</i> Post-doc, Center for Transgene Technology & Gene Therapy

EDUCATION AND TRAINING

2023	National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Full Professor
------	--

	acquired for the following sectors: 05/E2 (Molecular Biology), 06/A2 (General and Clinical Pathology)
2017	National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Associate Professor acquired for the following sectors: 05/E2 (Molecular Biology), 05/F1 (Applied Biology), 06/A2 (General and Clinical Pathology)
2001-2005	PhD International School for Advanced Studies (ISAS, SISSA), PhD in Molecular Genetics <i>cum laude</i> Thesis topic: Gene therapy for the induction of therapeutic angiogenesis and tissue regeneration
2001	Medical Professional License University of Bologna, 110/110, admitted to the Board of physicians, surgeons and orthodontists of Trieste (n.3633)
1994-2000	Degree in Medicine University of Trieste, 110/110 with honours Thesis topic: Gene therapy for the prevention of arterial restenosis after angioplasty
1993-1996	Participation in the 1st Edition of the Masters in Science Communication International School for Advanced Studies (ISAS, SISSA), Trieste
1989-1994	Scientific high school degree High School Galileo Galilei, Trieste, 60/60

TEACHING ACTIVITY

2009-	Departments of Medicine and Life Sciences, University of Trieste Professor of Gene and Cell Therapy (BIO/11)
2024-	Faculty board member (Collegio Docenti) in the PhD program in Precision Medicine and Innovative Therapies, University of Trieste
2016-2023	Faculty board member (Collegio Docenti) in the PhD program in Biomolecular Sciences, University of Trento
2009-2011	Faculty of Medicine and Surgery, University of Trieste Professor of Molecular Biology and Molecular Biology of Organs and Tissues (BIO/11)
2000-2004	"Scuola Normale Superiore" SNS, Pisa Teacher in the Course of Molecular Biology (series of seminars on the biology of stem cells and their clinical applications)

PERSONAL SKILLS

Mother tongue

Italian

Other languages

English

French

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
C1	C1	C1	C1	C1

Communication skills

In my daily life, I constantly interact with multiple professionals, of various background, education and nationality. As a MD with ample experience in wet research, I have often coordinated the translational aspects of scientific research. I have presented the results of my research activities, as either oral presenter or invited speaker, at numerous national and international congresses. At the same time, I have been actively involved and organized in educational and outreach activities (Trieste NEXT, Genoa Science Festival, European Researchers' Night, "Trieste Science and the City" public conferences, etc.).

I have always cultivated a passion for sport and am still part of a track team, mostly engaged in trail running. In 1992 I obtained the license from the Italian National Olympic Committee (CONI) to become track coach and have worked as a trainer for several years.

Organisational/managerial skills

At present I lead a team of 25 researchers (10 post-docs, 5 PhD students, 4 undergraduate students, 5 visiting scientists and 1 research assistant). From 2015 to 2019 I acted as the Head of the Bioexperimentation Facility at ICGEB. Currently I serve as the Scientific Coordinator of ICGEB Programmes (Fellowships, Collaborative Research Programme and Meetings and Courses). I coordinate national and international projects with Hospitals and Universities. Since 2000, I have supervised numerous students defending their thesis at the University of Trieste, at the SNS, Pisa, at the University of Rijeka (Slovenia) and at the Catholic University of Leuven (Belgium).

I have organized many national and international congresses, including the "JRC-ICGEB Joint Expert Meeting on Genome" in Trieste, in 2019 and 2016, the "US imaging in cardiac and vascular medicine: from pre-clinical to clinical studies" workshop in Trieste in 2019 and 2017 and the Workshop "High Content Imaging and Data Science for Virtual

Screening and Drug Discovery” in Bled, Slovenia (2019); the Workshop "Genome editing to generate cellular and animal models of human diseases" in Cape Town (South Africa) and the Course “Genetics and model organisms in human disease research: workshop on Assisted Reproductive Technologies (ART) in the Laboratory Mouse” in Rome, Italy (2022), the “1st IMPACT COST Innovation Grant meeting” in Trieste Italy and the course “Latest Advances in Genome Editing and ART Technologies in Laboratory Mice” in Montevideo, Uruguay (2023).

I have acted as the coordinator of several INTERREG Italy-Slovenia (TRAIN, COHERENCE) and Italy-Austria (InCARDIO, PROMOS), as well as the ERA4Health CARDINNOV RESCUE project, involving academic and industrial partners, as well as patient associations, focused on fostering innovation in the health sector.

Job-related skills

My major research interests veer toward the development of innovative therapies for cardiovascular disorders, with a particular focus on the induction of new blood vessel formation and cardiac regeneration. During my medical and post-doctoral training, I acquired advanced skills in animal surgery, particularly for the implementation of models of cardiovascular disorders (arterial restenosis, peripheral ischemia, myocardial infarction, heart failure, apical resection, heterotopic heart transplantation). During my post-doc in Belgium, I acquired complementary competences in the use of simpler animal models, including Zebrafish, Xenopus and Drosophila, as well as in the generation and handling genetically modified animals. More recently, I have become interested in understanding the mechanisms by which laser light interacts with biological tissues. I am familiar with sophisticated techniques and instrumentation in the fields of molecular biology and molecular medicine (including cell culture, real-time PCR, fluorescence and confocal microscopy, flow cytometry and cell sorting, laser microdissection, next generation and single cell sequencing, genome editing and high throughput screening).

I have co-authored over 135 scientific publications in international peer-reviewed journals and written 12 invited reviews and book chapters.

Since 2014, I have represented the ICGEB at the UN Agency Committee for Bioethics, which serves as a key inter-agency mechanism for sharing information among intergovernmental organizations on issues related to bioethics, with the purpose of fostering better cooperation and coordination. In this field I am particularly interested in the regulatory and ethical aspects governing the use of genetic engineering, gene therapy and genome editing in different countries.

Digital competence Skilled in the use of major PC and Mac software, as well software for bioinformatics, statistics, graphics and image processing

Driving license Type B licence

ADDITIONAL INFORMATION

Past and current financial support for scientific activity

2025 – GO!2025 36.500€ Al confine tra pelle e cuore: le emozioni della scienza nella lotta contro il cancro (PI)

2024 - 3DCARDIO I-NEST PNRR, 75.000€ (co-PI); ITA-SLO 2021-2027 COHERENCE 1.071.322€, 363,968€ to my group (coordinator), ITA-AUS 2021-2027 PROMOS, 1.144.883€, 412,532€ to my group (coordinator); FISA CANCEL 1.572.386,04€ (PI).

2023 - TiILT (Preclinical development of a 3rd-generation interleukin-2 targeted to inflammatory sites) Horizon RIA, project number 101080897 (co-PI) 400,000€; PRIN – McHeart (Mechanotransduction in the HEART), 106,000€ (coordinator); Italian Foundation for Cystic Fibrosis, GenDelCF, Gene Delivery for Cystic Fibrosis, 314,000€ (co-PI); PRIN-PNRR – Dissecting the role of Nova2 in tumor angiogenesis, 125,000€ (co-PI); WWCR – From cardiac contraction to cancer therapy, 158,000€ (PI); ERA4Health RESCUE 1.441.800€ total, 280800€ to my group (coordinator)

2022 - Beneficientia Stiftung (CAGE, Cardiac mechanical stimulation to halt cancer progression, PI), 45,000€

2021 - Beneficientia Stiftung (AMATER, PI), 45,000€; MOIRe program from Mochida Therapeutics, 50,000\$

2020 – Associazione Italiana per la Ricerca sul Cancro IG2020 Id24529 (PI) 489,000€; Interreg ITA-AUS InCARDIO 2020-2022, 1.132.876€ (coordinator); Beneficientia Stiftung (EMERITA, PI), 25,000€; Bayer Grants4Targets, 20,000€

2019 – FVG Region, Ricerca Clinica (CURIoSA, PI), 84,000€; FVG Region, Ricerca Clinica (HEARTzheimer, co-PI), 30,300€; Roche Prize (PI) awarded to Simone Vodret in my group 50,000€

2018 – Fondazione CRTrieste (co-PI), 100,000€; PREFER POR-FESR 2018-2021 (co-PI), 719,000€

2017 – Interreg ITA-SLO TRAIN (high Throughput screening and big data Analysis for INnovation) 2017-2020, 1.057.146,89€ (coordinator); LaSerNET 2017-2019 - Support to laser therapy as a treatment of oral mucositis/stomatitis/dermatitis in oncological patients in Serbia, 92.000€; ADHERE (A biocompatible Device for wound Healing and Revascularization), MadeinTS, 24,000€

2016 – Associazione Italiana per la Ricerca sul Cancro IG2016 Id19032 (PI) 228,000€; Fondazione CRTrieste (co-PI) 100,000€

2015 – K-Laser R&D agreement, 60,000€ (co-PI), Academy of Sciences of Moldova (co-PI) 20,000€

2009 - Associazione Italiana per la Ricerca sul Cancro MFAG 2009 (PI), 150,000€

2008 - Bando Giovani Ricercatori (co-PI), 600,000€

2006 – Marie Curie Intra-European Post-Doctoral Fellowship (1 year), Scholarship for the Keystone Meeting "Mechanisms of cardiac disease and regeneration", Santa Fe, New Mexico (USA)

2001 - PhD fellowship SISSA (4 years)

1995-2000 Fellowship 'Aldo Duca'

Honours and prizes 2025 – Elected Member of Council of the European Vascular Biology Organization (EVBO)

2024 - Guido Tarone Award by the Heart Failure Association, European Society of Cardiology

2018 – Elected Nucleus Member of the Working Group of Myocardial Function of the European Society of Cardiology (ESC)

2017 – IT Women in the fields of invention and innovation ITWIIN Best Inventor Prize

2016 – "Premio di Vetro" (Glass Prize), Trieste Municipality to women for excellence in the fields of art, work and sport

2015 – Best e-poster, Annual Congress of the ESC, London, UK

2012 – Selection for Italia x 10, an event organized by Telecom Italia to highlight young national talents

2010 - Young Investigator Award, European Society for Gene and Cell Therapy (ESGCT) XVIII Congress, Milan, Italy

2006 - Young Investigator Award, Heart Failure 2006 Congress (Helsinki, Finland)

2004 – Prize "Rosa di Cristallo" (Crystal Rose Prize), Trieste Municipality to promising young citizens

1993 - National prize for the best manuscript in French, "Alliance Française"

Invited Seminars and Talks Invited seminars/webinars (2025) Imperial College London, UK; University of Birmingham, UK.

(2024) MRC and UCT Cape Town, South Africa, University of Edinburgh, European Vascular Biology Organization Webinar series; (2023) ICABB Noida, Uttar Pradesh, India; (2021) Cardiology Institute Monzino, Italy; (2020) European Vascular Biology Organization Webinar series; Stem Cell Research Italy; (2019) at the Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria; (2018) at the University of Innsbruck, Austria and Josef Stefan Institute, Lubiana, Slovenia; (2016) at the Molecular Biotechnology Center (MBC), Turin, Italy, International Clinical Research Center (FNUSA-ICRC), Brno, Czech Republic; University of Udine Italy; University of Zagreb, Croatia; (2015) at the University of Vipava, Slovenia; (2013) at the University of Milan, Italy, Max Planck Institute for Molecular Biomedicine, Muenster, Germany; (2011) at the University of Forlì, Italy, (2009) at the Vesalius Research Center, Leuven, Belgium, (2004) at the New York Medical School, NY, USA.

Invited speaker/chair at numerous Italian and international meetings (2025) Gordon Research Conference on Angiogenesis, Newport, RI, HFA Winter Meeting Wien, Austria; Joint Meeting of the

ESC Working Groups on Myocardial Function and Cellular Biology of the Heart, Naples, Italy (2024)
International Society for Heart Research annual meeting, Toulouse, France, European Society of Cardiology annual meeting London, UK, Frontiers in CardioVascular Biomedicine, Amsterdam, The Netherlands; HFA Winter Meeting, Sophia Antipolis Nice, France; (2023) Frontiers in Cardiac and Vascular Biology, Tel Aviv, Israel; Joint Meeting of the ESC Working Groups on Myocardial Function and Cellular Biology of the Heart, Naples, Italy; International Society for Heart Research annual meeting, Porto, Portugal; Imperial Vulnerable Patient and Plaque Meeting, Malta; (2022) 13th International Conference on Bone Morphogenetic Proteins, Dubrovnik, Croatia; 19th Dutch-German Joint Meeting of the Molecular Cardiology Working Groups, Maastricht, The Netherlands; ESC congress, Barcelona, Spain; Frontiers in CardioVascular Biomedicine 2022, Budapest, Hungary; "Advances in heart failure, cardiomyopathies and pericardial disease", Trieste, Italy; "THE 46TH ANNUAL CONFERENCE OF THE MALAYSIAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY", Selangor, Malaysia; XXV Congresso Nazionale Società Italiana Genetica Umana, Trieste, Italy; CNIC Cardiac Regeneration Conference, Madrid, Spain. (2021) CARDIO RNA COST action meeting, EMBO Workshop: Cardiomyocyte Biology, Ascona, Switzerland, Heart Failure 2021, Eurobiotech, Krakow, Poland, Termis workshop Cell-Matrix interaction and mechanobiology in regenerative medicine; (2021 and 2020) Heart Failure Association (HFA) Winter Meeting, Les Diablerets, Switzerland; (2020) Frontiers in Cardiovascular Biomedicine, Budapest, Hungary; (2019) the European Society of Cardiology (ESC) meeting, Paris, the Meeting of the Working Groups on Myocardial Function and Cellular Biology of the Heart of the ESC, Naples, Italy, CardioNet Meeting, Barcelona, Spain, High Content Imaging and Data Science for Virtual Screening and Drug Discovery, Bled, Slovenia, Future maternal-fetal medicine between research and sanitary care, Trieste, Italy, Regeneration without scarring, Udine, Italy, (2018) the Heart Failure Association (HFA) Winter Meeting, Les Diablerets, Switzerland, the Gordon Research Conference on Cardiac Regulatory Mechanisms, New London NH, (2017) the Gordon Research Seminar on Angiogenesis, Newport, RI, the "Mouse genetics, models for human diseases" Course, Trieste, Italy, (2016) the Forum "Driving change for US and Italian Innovation systems: finding better ways to learn from each other", Trieste, (2015), the XX Congress of Italian Society of Cardiovascular Research (SIRC), Imola, , the ESGCT and FSGT Collaborative Congress, Helsinki, Finland, the International Conference for Bioeconomy, Tianjin, China, the Meeting of the International Society for Heart Research, European Section (ISHR-ES), Bordeaux, France, the Workshop SIICA "Angiogenesis: basi molecolari e implicazioni terapeutiche", Certosa di Pontignano, Siena, the "Epigenetic mechanisms to design repair solutions" in Vipava, Slovenia, (2013) the "Cellule staminali e cuore: cantieri dal future", organized by the "Scuola Superiore Sant'Anna", Pisa, Italy ; the Annual Meetings of the Working Group on Myocardial Function and the Working Group on Cellular Biology of the Heart, Varenna (also 2015); (in 2011) the 72° National Congress "Società Italiana di Cardiologia" SIC , Rome, (2010) the Presidential Young Investigator Symposium at the XVIII ESGCT Annual Congress, Milan.

Memberships European Society of Cardiology (ESC), Heart Failure Association (HFA), Working Groups on

	Myocardial Function and Cellular Biology of the Heart of the ESC, European Vascular Biology Organization (EVBO) "Società Italiana Ricerche Cardiovascolari" (SIRC), European Society for Gene and Cell Therapy (ESGCT), International Society for Heart Research (ISHR)
Patents	<p>Patent n. 102023000010590, Priority date: 25/05/2023, Apparatus for the prevention of cancer recurrence</p> <p>Patent n. EP22190802, Priority date: 17/08/2022, Soft end-effector for cell volumetric stimulation (SORCE)</p> <p>Patent n. RM2011A000685, microRNAs for cardiac regeneration through induction of cardiac myocyte proliferation</p> <p>Patent n. MBP16915-EP, EMID2 protein as anti-cancer treatment</p> <p>File n. 102019000017234, anti-microRNAs for the treatment of leiomyoma</p>
Reviewer/ Panels	2021 – 2023 – 2025 Member of the European Research Council (ERC) Starting Grant Panel, LS7
activity/ Editorial activity	<p>2024 – Member of the Evaluation panel for La Caixa, Spain</p> <p>2022 – 2024 Member of the International Review Panel of the BHF/DZHK/DHF International Cardiovascular Research Partnership Awards</p> <p>2023 Member of the "High Council for the Evaluation of Research and Higher Education" (Hcéres), France</p> <p>2019 – Member of MED6 Panel for FWO (Fonds Wetenschappelijk Onderzoek – Vlaanderen) and numerous National Foundations (Cariverona, Caripadova)</p> <p>2019 – Member of the Advisory Board of EBioMedicine journal</p> <p>Since 2007 - Reviewer for numerous international peer-reviewed journals, including Nature Biotechnology, Circulation, Journal of Clinical Investigation, PNAS, The FASEB Journal, Journal of the National Cancer Institute, AJP-Heart and Circulatory Physiology, European Journal of Cancer, Wound Repair and Regeneration, Stem Cell Reports, Nature Scientific Reports, Blood</p>
Publications	<p>More than 140 original manuscripts in international, peer-reviewed journals (h-index 52, according to SCOPUS).</p> <p>Full publication list:</p> <ol style="list-style-type: none"> 1. Amare YE, Vuerich R, Zacchigna S. VEGFR1 as a Target for Cardiovascular Gene Therapy. <i>J Cardiovasc Transl Res.</i> 2025 Aug 21. doi: 10.1007/s12265-025-10672-5. 2. Perotto M, Paldino A, Mazzarotto F, Barbati G, Stroeks SLVM, Verdonschot JAJ, Akhtar M, Elliott P, Ochoa JP, Garcia-Pavia P, de Frutos F, Sepp R, Hategan L, Prasad S, Yazdani M, Morris-Rosendahl D, Palinkas ED, Girolami F, Olivetto I, Parikh VN, Fatkin D, Lakdawala N, McKenna WJ, Stolfo D, Gigli M, Brun F, Collesi C, Giacca M, Zacchigna S, Severini GM, Lenarduzzi S, Spedicati B, Santin A, Girotto G, Gasparini P, Taylor MRG, Mestroni L, Merlo M, Sinagra G, Dal Ferro M. Genetic and Phenotypic Characterization of Nexilin (NEXN)-Related Cardiomyopathy: Results From a Multicentric Study. <i>JACC Heart Fail.</i> 2025 Jul 17;13(9):102529. 3. Paillard M, Abdellatif M, Andreadou I, Bär C, Bertrand L, Brundel BJJM, Chiva-Blanch G, Davidson SM, Dawson D, Di Lisa F, Evans P, Giricz Z, Hausenloy DJ, Kleinbongard P, Lezoualc'h F, Liehn E, Maack C, Maguy A, Murphy E, Perrino C, Pesce M, Rainer PP, Streckfuss-Bömeke K, Thielmann M, Tian R, Tocchetti CG, Van Der Velden J, Van Linthout S, Zacchigna S, Krieg T. Mitochondrial targets in ischaemic heart disease and heart failure, and their potential for a more efficient clinical translation. A scientific statement of the ESC Working Group on Cellular Biology of the Heart and the ESC Working Group on Myocardial Function. <i>Eur J Heart Fail.</i> 2025 May 4. 4. Spazzapan M, Pegoraro S, Vuerich R, Zito G, Balduit A, Longo E, Pascolo L, Toffoli M, Meshini G, Mangogna A, Ros G, Buonomo F, Romano F, Lombardelli L, Papa G, Piccinni MP, Zacchigna S, Agostinis C, Bulla R, Ricci G. Endothelial cell supplementation promotes xenograft revascularization during short-term ovarian tissue transplantation. <i>Bioact Mater.</i> 2025 Apr 16;50:305-321. 5. Secco I, Backovic A, Tomczyk M, Mura A, Li G, Bortolotti F, Vodret S, Dal Ferro M, Chiavacci E, Zentilin L, Sinagra G, Zacchigna S, Mano M, Giacca M. Genetic tracing and topography of spontaneous and stimulated cardiac regeneration in mice. <i>Nat Cardiovasc Res.</i> 2025 Mar 7. doi:

- 10.1038/s44161-025-00623-3.
6. Saxena S, Volpe MC, Agostinis C, Vodret S, Ring NAR, Colliva A, Vuerich R, Braga L, Cook-Calvete A, Romano F, Zito G, Lorenzo GD, Ura B, Ricci G, Pinamonti M, Bulla R, Zacchigna S. Anti-miRNA therapeutics for uterine fibroids. *Biomed Pharmacother.* 2025 Feb 28;185:117946.
 7. Rodor J, Klimi E, Brown SD, Krilis G, Braga L, Ring NAR, Ballantyne MD, Kesidou D, Dinh Cat AN, Miscianinov V, Vacante F, Miteva K, Bennett M, Beqqali A, Giacca M, Zacchigna S, Baker AH. Functional screening identifies miRNAs with a novel function inhibiting Vascular Smooth Muscle Cell proliferation. *Mol Ther.* 2024 Dec 30:S1525-0016(24)00837-2.
 8. Devaux Y, Zacchigna S, Schulz R. EDITORIAL for BJP themed issue "noncoding RNA therapeutics" *Br J Pharmacol.* 2024 Nov 21. doi: 10.1111/bph.17365.
 9. Volf N, Vuerich R, Colliva A, Volpe MC, Marengon M, Zentilin L, Giacca M, Ruth Ring NA, Vodret S, Braga L, Zacchigna S. Endothelial to mesenchymal transition enhances permissiveness to AAV vectors in cardiac endothelial cells. *Mol Ther.* 2024 Aug 21:S1525-0016(24)00537-9.
 10. Iengo M, Topa E, Cuomo A, Luise MC, Fiore F, Rizza M, Miccio M, Di Sarro E, Ciaccio G, Di Lorenzo C, Mercurio V, Ong SB, Zacchigna S, Tocchetti CG. Editorial: Myocardium regeneration and cardioprotection *Front Mol Med.* 2023 Oct 9;3:1293183.
 11. Rabino M, Cauteruccio M, Rovina D, Sommariva E, Pompilio G, Zacchigna S. Impaired endothelial function in duchenne muscular dystrophy-associated cardiomyopathy: Insights from hiPSC-derived endothelial cells. *Vascul Pharmacol.* 2024 Jun;155:107340.
 12. Falcão-Pires I, Ferreira AF, Trindade F, Bertrand L, Ciccarelli M, Visco V, Dawson D, Hamdani N, Van Laake LW, Lezoualc'h F, Linke WA, Lunde IG, Rainer PP, Abdellatif M, Van der Velden J, Cosentino N, Paldino A, Pompilio G, Zacchigna S, Heymans S, Thum T, Tocchetti CG. Mechanisms of myocardial reverse remodelling and its clinical significance: A scientific statement of the ESC Working Group on Myocardial Function. *Eur J Heart Fail.* 2024 Jul;26(7):1454-1479.
 13. Ciucci G, Braga L, Zacchigna S. Discovery platforms for RNA therapeutics. *Br J Pharmacol.* 2024 May 17. doi: 10.1111/bph.16424
 14. Cappelletto A, Alfì E, Volf N, Vu TVA, Bortolotti F, Ciucci G, Vodret S, Fantuz M, Perin M, Colliva A, Rozzi G, Rossi M, Ruozzi G, Zentilin L, Vuerich R, Borin D, Lapasin R, Piazza S, Chiesa M, Lorizio D, Triboli L, Kumar S, Morello G, Tripodo C, Pinamonti M, Piperno GM, Benvenuti F, Rustighi A, Jo H, Piccolo S, Del Sal G, Carrer A, Giacca M, Zacchigna S. EMID2 is a novel biotherapeutic for aggressive cancers identified by in vivo screening. *J Exp Clin Cancer Res.* 2024 Jan 10;43(1):15. doi: 10.1186/s13046-023-02942-4.
 15. Ciccarelli M, Pires IF, Bauersachs J, Bertrand L, Beauloye C, Dawson D, Hamdani N, Hilfiker-Kleiner D, van Laake LW, Lezoualc'h F, Linke WA, Lunde IG, Rainer PP, Rispoli A, Visco V, Carrizzo A, Ferro MD, Stolfo D, van der Velden J, Zacchigna S, Heymans S, Thum T, Tocchetti CG. Acute heart failure: mechanisms and pre-clinical models-a Scientific Statement of the ESC Working Group on Myocardial Function. *Cardiovasc Res.* 2023 Nov 15;119(14):2390-2404. doi: 10.1093/cvr/cvad088.
 16. Volpe MC, Ciucci G, Zandomenego G, Vuerich R, Ring NAR, Vodret S, Salton F, Marchesan P, Braga L, Marcuzzo T, Bussani R, Colliva A, Piazza S, Confalonieri M, Zacchigna S. Flt1 produced by lung endothelial cells impairs ATII cell transdifferentiation and repair in pulmonary fibrosis. *Cell Death Dis.* 2023 Jul 15;14(7):437. doi: 10.1038/s41419-023-05962-2.
 17. Gioia U, Tavella S, Martínez-Orellana P, Cicio G, Colliva A, Cecon M, Cabrini M, Henriques AC, Fumagalli V, Paldino A, Presot E, Rajasekharan S, Iacomino N, Pisati F, Matti V, Sepe S, Conte MI, Barozzi S, Lavagnino Z, Carletti T, Volpe MC, Cavalcante P, Iannacone M, Rampazzo C, Bussani R, Tripodo C, Zacchigna S, Marcelllo A, d'Adda di Fagnagna F. SARS-CoV-2 infection induces DNA damage, through CHK1 degradation and impaired 53BP1 recruitment, and cellular senescence. *Nat Cell Biol.* 2023 Mar 9. doi: 10.1038/s41556-023-01096-x.
 18. De Bortoli M, Meraviglia V, Mackova K, Frommelt LS, König E, Rainer J, Volani C, Benzoni P, Schlittler M, Cattelan G, Motta BM, Volpato C, Rauhe W, Barbuti A, Zacchigna S, Pramstaller PP, Rossini A. Modeling incomplete penetrance in arrhythmogenic cardiomyopathy by human induced pluripotent stem cell derived cardiomyocytes. *Comput Struct Biotechnol J.* 2023 Feb 17;21:1759-1773.
 19. Rabino M, Sommariva E, Zacchigna S, Pompilio G. From bedside to the bench: patient-specific hiPSC-EC models uncover endothelial dysfunction in genetic cardiomyopathies. *Front Physiol.* 2023 Jul 19;14:1237101.
 20. Cattelan G, Sophie Frommelt L, Volani C, Colliva A, Ciucci G, Paldino A, Dal Ferro M, Di Segni M, Silipigni R, Pramstaller PP, De Bortoli M, Zacchigna S, Rossini A. Generation of human induced pluripotent stem cell line EURACi015-A from a patient affected by dilated cardiomyopathy carrying the Lamin A/C p.Glu161Lys mutation. *Stem Cell Res.* 2023 Sep;71:103172.
 21. Vuerich R, Groppa E, Vodret S, Ring NAR, Stocco C, Bossi F, Agostinis C, Cauteruccio M, Colliva A, Ramadan M, Simoncello F, Benvenuti F, Agnelli A, Dore F, Mazzarol F, Moretti M, Paulitti A, Palmisano S, De Manzini N, Chiesa M, Casaburo M, Raucci A, Lorizio D, Pompilio G, Bulla R, Papa G, Zacchigna S. Ischemic wound revascularization by the stromal vascular fraction relies on host-donor hybrid vessels. *NPJ Regen Med.* 2023 Feb 11;8(1):8.
 22. Cappelletto A, Allan HE, Crescente M, Schneider E, Bussani R, Ali H, Secco I, Vodret S, Simeone R, Mascaretti L, Zacchigna S, Warner TD, Giacca M. SARS-CoV-2 Spike protein activates TMEM16F-mediated platelet procoagulant activity *Front Cardiovasc Med.* 2023 Jan 4;9:1013262.
 23. Bussani R, Zentilin L, Correa R, Colliva A, Silvestri F, Zacchigna S, Collesi C, Giacca M. Persistent SARS-CoV-2 infection in patients seemingly recovered from COVID-19 *J Pathol.* 2023

- Mar;259(3):254-263.
24. Vu TVA, Lorizio D, Vuerich R, Lippi M, Nascimento DS, Zacchigna S. Extracellular Matrix-Based Approaches in Cardiac Regeneration: Challenges and Opportunities. *Int J Mol Sci.* 2022 Dec 13;23(24):15783.
 25. Paldino A, Dal Ferro M, Stolfo D, Gandin I, Medo K, Graw S, Gigli M, Gagno G, Zaffalon D, Castrichini M, Masè M, Cannatà A, Brun F, Storm G, Severini GM, Lenarduzzi S, Giroto G, Gasparini P, Bortolotti F, Giacca M, Zacchigna S, Merlo M, Taylor MRG, Mestroni L, Sinagra G. Prognostic Prediction of Genotype vs Phenotype in Genetic Cardiomyopathies. *J Am Coll Cardiol.* 2022 Nov 22;80(21):1981-1994.
 26. Ritchie RH, Xu S, Zacchigna S. Advancing cardiovascular translational research. *Trends Pharmacol Sci.* 2022 Sep 29:S0165-6147(22)00197-3. doi: 10.1016/j.tips.2022.09.001.
 27. Ruozi G, Bortolotti F, Mura A, Tomczyk M, Falcione A, Martinelli V, Vodret S, Braga L, Dal Ferro M, Cannatà A, Zentilin L, Sinagra G, Zacchigna S, Giacca M. Cardioprotective factors against myocardial infarction selected in vivo from an AAV secretome library. *Sci Transl Med.* 2022 Aug 31;14(660):eabo0699.
 28. Ciucci G, Colliva A, Vuerich R, Pompilio G, Zacchigna S. Biologics and cardiac disease: challenges and opportunities. *Trends Pharmacol Sci.* 2022 Jun 29:S0165-6147(22)00128-6.
 29. Rurali E, Pompilio G, Zacchigna S. Novel targets for old and diseased hearts. *Int J Mol Sci.* 2022 Jun 14;23(12):6627.
 30. Vuerich R, Martinelli V, Vodret S, Bertani I, Carletti T, Zentilin L, Venturi V, Marcello A, Zacchigna S. A new laser device for ultra-rapid and sustainable aerosol sterilization. *Environ Int.* 2022 Jun;164:107272.
 31. Vukicevic S, Colliva A, Kufner V, Martinelli V, Moimas S, Vodret S, Rumenovic V, Milosevic M, Brkljacic B, Delic-Brkljacic D, Correa R, Giacca M, Maglione M, Bordukalo-Niksic T, Dumic-Cule I, Zacchigna S. Bone morphogenetic protein 1.3 inhibition decreases scar formation and supports cardiomyocyte survival after myocardial infarction. *Nat Commun.* 2022 Jan 10;13(1):81.
 32. van der Velden J, Asselbergs FW, Bakkers J, Batkai S, Bertrand L, Bezzina CR, Bot I, Brundel B, Carrier L, Chamuleau S, Ciccarelli M, Dawson D, Davidson SM, Dendorfer A, Duncker DJ, Eschenhagen T, Fabritz L, Falcão-Pires I, Ferdinandy P, Giacca M, Giraó H, Gollmann-Tepeköylü C, Gyongyosi M, Guzik TJ, Hamdani N, Heymans S, Hilfiker A, Hilfiker-Kleiner D, Hoekstra AG, Hulot JS, Kuster DWD, van Laake LW, Lecour S, Leiner T, Linke WA, Lumens J, Lutgens E, Madonna R, Maegdefessel L, Mayr M, van der Meer P, Passier R, Perbellini F, Perrino C, Pesce M, Priori S, Remme CA, Rosenhahn B, Schotten U, Schulz R, Sipido K, Sluijter JPG, van Steenbeek F, Steffens S, Terracciano CM, Tocchetti CG, Vlasman P, Yeung KK, Zacchigna S, Zwaagman D, Thum T. Animal models and animal-free innovations for cardiovascular research: current status and routes to be explored. Consensus document of the ESC working group on myocardial function and the ESC Working Group on Cellular Biology of the Heart. *Cardiovasc Res.* 2022 Jan 6:cvab370.
 33. Ring NAR, Volpe MC, Stepišnik T, Mamolo MG, Panov P, Kocev D, Vodret S, Fortuna S, Calabretti A, Rehman M, Colliva A, Marchesan P, Camparini L, Marcuzzo F, Bussani R, Scarabellotto S, Confalonieri M, Pham TX, Ligresti G, Caporarello N, Loffredo FS, Zampieri D, Džeroski S, Zacchigna S. Wet-dry-wet drug screen leads to the synthesis of TS1, a novel compound reversing lung fibrosis through inhibition of myofibroblast differentiation. *Cell Death Dis.* 2021 Dec 17;13(1):2.
 34. Agostinis C, Spazzapan M, Vuerich R, Balduit A, Stocco C, Mangogna A, Ricci G, Papa G, Zacchigna S, Bulla R. Differential Capability of Clinically Employed Dermal Regeneration Scaffolds to Support Vascularization for Tissue Bioengineering. *Biomedicines.* 2021 Oct 13;9(10):1458.
 35. Zacchigna S, Marcello A, Banks L. Spotlight on COVID-19: eighteen months on. *FEBS J.* 2021 Sep;288(17):4992-4995.
 36. Baba MM, Bitew M, Fokam J, Lelo EA, Ahidjo A, Asmamaw K, Beloumou GA, Bulimo WD, Buratti E, Chenwi C, Dadi H, D'Agaro P, De Conti L, Fainguem N, Gadzama G, Maiuri P, Majanja J, Meshack W, Ndjolo A, Nk, Zacchigna S, Marcello A. Diagnostic performance of a colorimetric RT -LAMP for the identification of SARS-CoV-2: A multicenter prospective clinical evaluation in sub-Saharan Africa. *EClinicalMedicine.* 2021 Aug 28;40:101101.enfou C, Oderinde BS, Opanda SM, Segat L, Stuaní C, Symekher SL, Takou D, Tesfaye K, Triolo G, Tuki K
 37. Albini A, Festa MMG, Ring N, Baci D, Rehman M, Finzi G, Sessa F, Zacchigna S, Bruno A, Noonan DM. A Polyphenol-Rich Extract of Olive Mill Wastewater Enhances Cancer Chemotherapy Effects, While Mitigating Cardiac Toxicity. *Front Pharmacol.* 2021 Aug 3;12:694762.
 38. Pradella D, Deflorian G, Pezzotta A, Di Matteo A, Belloni E, Campolungo D, Paradisi A, Bugatti M, Vermi W, Campioni M, Chiapparino A, Scietti L, Forneris F, Giampietro C, Volf N, Rehman M, Zacchigna S, Paronetto MP, Pistocchi A, Eichmann A, Mehlen P, Ghigna C. A ligand-insensitive UNC5B splicing isoform regulates angiogenesis by promoting apoptosis. *Nat Commun.* 2021 Aug 11;12(1):4872.
 39. Raso A, Dirx E, Sampaio-Pinto V, El Azzouzi H, Cubero RJ, Sorensen DW, Ottaviani L, Olieslagers S, Huibers MM, de Weger R, Siddiqi S, Moimas S, Torrini C, Zentilin L, Braga L, Nascimento DS, da Costa Martins PA, van Berlo JH, Zacchigna S, Giacca M, De Windt LJ. A microRNA program regulates the balance between cardiomyocyte hyperplasia and hypertrophy and stimulates cardiac regeneration. *Nat Commun.* 2021 Aug 10;12(1):4808.
 40. Dal Ferro M, Bussani R, Paldino A, Nuzzi V, Collesi C, Zentilin L, Schneider E, Correa R, Silvestri F, Zacchigna S, Giacca M, Metra M, Merlo M, Sinagra G. SARS-CoV-2, myocardial injury and

- inflammation: insights from a large clinical and autopsy study. *Clin Res Cardiol*. 2021 Jul 19;19:1-10.
41. Caronni N, Piperno G, Simoncello F, Romano O, Vodret S, Yanagihashi Y, Dress R, Dutertre CA, Bugatti M, Bourdely P, Del Prete A, Schioppa T, Mazza E, Collavin L, Zacchigna S, Ostuni R, Guermonez P, Vermi W, Ginhoux F, Biciato S, Nagata S, Benvenuti F. TIM4 on type 1 DCs mediates uptake of tumor-associated antigens and activation of anti tumor responses in lung tumors. *Nat Commun*. 2021 Apr 14;12(1):2237.
 42. Ciccirelli M, Dawson D, Falcao-Pires I, Giacca M, Hamdani N, Heymans S, Hooghiemstra A, Leeuwis A, Hermkens D, Tocchetti CG, van der Velden J, Zacchigna S, Thum T. Reciprocal organ interactions during heart failure—a position paper from the ESC working group on myocardial function. *Cardiovasc Res*. 2021 Nov 1;117(12):2416-2433.
 43. Zacchigna S, Marcello A, Banks L. Spotlight on COVID-19: from biology to therapy and prevention. *FEBS J*. 2020 Sep;287(17):3606-3608.
 44. Bussani R*, Schneider E, Zentilin L, Collesi C, Ali H, Braga L, Volpe MC, Colliva A, Zanconati F, Berlot G, Silvestri F, Zacchigna S* and Giacca M*. Persistence of viral RNA, pneumocyte syncytia and thrombosis are hallmarks of advanced COVID-19 pathology. *Equal contribution as senior authors. *EBioMedicine* 2020 Nov;61:103104.
 45. Di Matteo A, Belloni E, Pradella D, Cappelletto A, Volf N, Zacchigna S*, Ghigna C*. Alternative splicing in endothelial cells: novel therapeutic opportunities in cancer angiogenesis.*Equal contribution as senior authors. *J Exp Clin Cancer Res* 2020 Dec 7;39(1):275.
 46. Rupel K, Zupin L, Brich S, Mardirossian M, Ottaviani G Gobbo M, Di Lenarda R, Pridl S, Crovella S, Zacchigna S, Biasotto M. Antimicrobial activity of amphiphilic nanomicelles loaded with curcumin against *Pseudomonas aeruginosa* alone and activated by blue laser light. *Journal of Biophotonics* 2020 Nov 5:e202000350. doi: 10.1002/jbio.202000350. Online ahead of print.PMID: 33151640.
 47. Zacchigna S, Paldino A, Falcao-Pires I, Daskalopoulos EP, Dal Ferro M, Vodret S, Lesizza P, Cannata A, Miranda-Silva D, Lourenco AP, Pinamonti B, Sinagra G, Weinberger F, Eschenhagen T, Carrier L, Kehat I, Tocchetti CG, Russo M, Ghigo A, Cimino J, Hirsch E, Dawson D, Ciccirelli M, Olivetti M, Linke WA, Cuijpers I, Heymans S, Hamdani N, de Boer M, Duncker D, Kuster D, van der Velden J, Beauloye C, Bertrand L, Mayr M, Giacca M, Leuschner F, Backs J, Thum T on behalf of the Working Group on Myocardial Function of the European Society of Cardiology. Toward standardization of echocardiography for the evaluation of left ventricular function in adult rodents: a position paper of the ESC Working Group on Myocardial Function. *Cardiovasc Res* 2021 Jan 1;117(1):43-59. doi: 10.1093/cvr/cvaa110.
 48. Groppa E, Colliva A, Vuerich R, Kocijan T, Zacchigna S. Immune Cell Therapies to Improve Regeneration and Revascularization of Non-Healing Wounds. *Int J Mol Sci*. 2020 Jul 23;21(15):5235.
 49. Bär C, Chatterjee S, Falcão Pires I, Rodrigues P, Sluijter JPG, Boon RA, Nevado RM, Andrés V, Sansonetti M, de Windt L, Ciccirelli M, Hamdani N, Heymans S, Figuinha Videira R, Tocchetti CG, Giacca M, Zacchigna S, Engelhardt S, Dimmeler S, Madonna R, Thum T. Non-coding RNAs: update on mechanisms and therapeutic targets from the ESC Working Groups of Myocardial Function and Cellular Biology of the Heart. *Cardiovasc Res*. 2020 Sep 1;116(11):1805-1819.
 50. Tocchetti CG, Ameri P, de Boer RA, D'Alessandra Y, Russo M, Sorriento D, Ciccirelli M, Kiss B, Bertrand L, Dawson D, Falcao-Pires I, Giacca M, Hamdani N, Linke WA, Mayr M, van der Velden J, Zacchigna S, Ghigo A, Hirsch E, Lyon AR, Görbe A, Ferdinandy P, Madonna R, Heymans S, Thum T. Cardiac dysfunction in cancer patients: beyond direct cardiomyocyte damage of anticancer drugs: novel cardio-oncology insights from the joint 2019 meeting of the ESC Working Groups of Myocardial Function and Cellular Biology of the Heart. *Cardiovasc Res*. 2020 Sep 1;116(11):1820-1834.
 51. Zanotta N, Ottaviani G, Campisciano G, Propat A, Bovenzi M, Rupel K, Gobbo M, Comar M, Di Lenarda R, Biasotto M, Zacchigna S. Photobiomodulation modulates inflammation and oral microbiome: a pilot study. *Biomarkers*. 2020 Oct 1:1-8. doi: 10.1080/1354750X.2020.1825812.
 52. Kocijan, T, Rehman M, Colliva A, Leban M, Vodret S, Volf N, Zucca G, Cappelletto A, Zhou B, Adams R, Zentilin L, Giacca M and Zacchigna S. Genetic lineage tracing reveals poor angiogenic potential of cardiac endothelial cells, *Cardiovasc Res* 2020 Jan 30; 117(1):256-270.
 53. Moimas S, Salton F, Kosmider B, Ring N, Volpe M, Bahmed K, Braga L, Rehman M, Vodret S, Graziani M, Wolfson MR, Marchetti N, Rogers TJ, Giacca M, Criner GJ, Zacchigna S,* Confalonieri M*. miR-200 family members reduce senescence and restore idiopathic pulmonary fibrosis type II alveolar epithelial cell trans-differentiation. *ERJ Open Research*, 2019 Dec 16;5(4). *Equal contribution as senior authors.
 54. Rupel K, Zupin L, Ottaviani G, Bertani I, Martinelli V, Porrelli D, Vodret S, Vuerich R, Passos da Silva D, Bussani R, Crovella S, Parsek M, Venturi V, Di Lenarda R, Biasotto M, and Zacchigna S. Blue laser light inhibits biofilm formation in vitro and in vivo by inducing oxidative stress. *npj Biofilms and Microbiomes*, 2019 Oct 9;5:29.
 55. Zacchigna S, Sartiani L, Penna C, Varricchi G, Tocchetti CG. Modulation of Redox Signaling in Chronic Diseases and Regenerative Medicine. *Oxid Med Cell Longev*. 2019 Apr 23;2019:6091587.
 56. Torrini C, Cubero RJ, Dirx E, Braga L, Ali H, Prosdocimo G, Gutierrez MI, Collesi C, Licastro D, Zentilin L, Mano M, Zacchigna S, Vendruscolo M, Marsili M, Samal A, Giacca M. Common Regulatory Pathways Mediate Activity of MicroRNAs Inducing Cardiomyocyte Proliferation. *Cell Rep*. 2019 May 28;27(9):2759-2771

57. Gabisonia K, Prosdocimo G, Aquaro GD, Carlucci L, Zentilin L, Secco I, Ali H, Braga L, Gorgodze N, Bernini F, Burchielli S, Collesi C, Zandonà L, Sinagra G, Piacenti M, Zacchigna S, Bussani R, Recchia FA, Giacca M. MicroRNA therapy stimulates uncontrolled cardiac repair after myocardial infarction in pigs. *Nature*. 2019 May;569(7756):418-422.
58. Cappelletto A, Zacchigna S. Cardiac revascularization: state of the art and perspectives. *Vascular Biology*. 2019; 1 (1)R1-R5.
59. Zupin L, Ottaviani G, Rupel K, Biasotto M, Zacchigna S, Crovella S, Celsi F. Analgesic effect of Photobiomodulation Therapy: an in vitro and in vivo study. *J Biophotonics*. 2019 Jun 20. doi: 10.1002/jbio.201900043.
60. Rehman M, Vodret S, Braga L, Guarnaccia C, Celsi F, Rossetti G, Martinelli V, Battini T, Long C, Vukusic K, Kocijan T, Collesi C, Ring N, Skoko N, Giacca M, Del Sal G, Confalonieri M, Raspa M, Marcello A, Myers MP, Crovella S, Carloni P, Zacchigna S. High-throughput screening discovers antifibrotic properties of haloperidol hindering myofibroblast activation. *JCI Insight*, Apr 18;4(8).
61. Confalonieri M, Vitacca M, Scala R, Polverino M, Sabato E, Crescimanno G, Ceriana P, Antonaglia C, Siciliano G, Ring N, Zacchigna S, Salton F, Vianello A; AIPO Pneumoloped Group. Is early detection of late-onset Pompe disease a pneumologist's affair? A lesson from an Italian screening study. *Orphanet J Rare Dis*. 2019 Mar 4;14(1):62
62. Rupel K, Ottaviani G, Gobbo M, Poropat A, Zoi V, Zacchigna S, Di Lenarda R, Biasotto M. Campaign to Increase Awareness of Oral Cancer Risk Factors Among Preadolescents. *J Cancer Educ*. 2019 Mar 5. doi: 10.1007/s13187-019-01504-7.
63. Colliva A., Braga L., Giacca M., Zacchigna S. Endothelial-cardiomyocyte cross-talk in heart development and disease. *J Physiol*. 2019 Feb 28. doi: 10.1113/JP276758.
64. Raso A, Dirx E, Philippen LE, Fernandez-Celis A, De Majo F, Sampaio-Pinto V, Sansonetti M, Juni R, El Azzouzi H, Calore M, Bitsch N, Olieslagers S, Oerlemans MIFJ, Huibers MM, de Weger RA, Reckman YJ, Pinto YM, Zentilin L, Zacchigna S, Giacca M, da Costa Martins PA, López-Andrés N, De Windt LJ. Therapeutic Delivery of miR-148a Suppresses Ventricular Dilation in Heart Failure. *Mol Ther*. 2019 Mar 6;27(3):584-599
65. Rupel K., Zupin L., Colliva A., Kamada A., Poropat A., Ottaviani G., Gobbo M., Fanfoni L., Gratton R., Santoro M, Di Lenarda R., Biasotto M, Zacchigna S. Photobiomodulation at multiple wavelengths differentially modulates oxidative stress in vitro and in vivo. *Oxid Med Cell Longev*. 2018 Nov 11;2018:6510159
66. Tirelli G, Boscolo Nata F, Gatto A, Bussani R, Spinato G, Zacchigna S, Piovesana M. Intraoperative Margin Control in Transoral Approach for Oral and Oropharyngeal Cancer. *Laryngoscope*, in press
67. Zacchigna S, Giacca M. The global role of biotechnology for non communicable disorders. *J Biotechnol*. 2018 Oct 10;283:115-119.
68. Dagrada G, Rupel K, Zacchigna S, Tamborini E, Pilotti S, Cavalleri A, Fechner LE, Laurini E, Smith DK, Brich S, Pricl S. Self-Assembled Nanomicelles as Curcumin Drug Delivery Vehicles - Impact on Solitary Fibrous Tumor Cell Protein Expression and Viability. *Mol Pharm*. 2018 Oct 1; 15(10):4689-4701.
69. Zacchigna S, Martinelli V, Moimas S, Colliva A, Anzini M, Nordio A, Costa A, Pierro C, Colussi G, Rehman M, Vodret S, Zentilin L, Gutierrez M, Dirx E, Long C, Sinagra G, Klatzmann D, and Giacca M. Paracrine effect of regulatory T cells promotes cardiomyocyte proliferation during pregnancy and after myocardial infarction. *Nature Communications* 2018, Jun 26;9(1):2432.
70. Montagna C, Petris G, Casini A, Maule G, Franceschini G, Zanella I, Conti L, Arnoldi F, Burrone O, Zentilin L, Zacchigna S, Giacca M and Cereseto A. VSV-G Enveloped vesicles for traceless delivery of CRISPR-Cas9. *Molecular Therapy - Nucleic Acids* 2018 Sep 7;12:453-462.
71. Tamagnone L, Zacchigna S, Rehman M. Taming the Notch transcriptional regulator for cancer therapy. *Molecules* 2018 Feb 15;23(2).
72. Bortolotti F, Ruozi G, Falcione A, Doimo S, Dal Ferro M, Lesizza P, Zentilin L, Banks L, Zacchigna S, Giacca M. In Vivo Functional Selection Identifies Cardiotrophin-1 as a Cardiac Engraftment Factor for Mesenchymal Stromal Cells. *Circulation*. 2017 Oct 17;136(16):1509-1524.
73. Lesizza P, Prosdocimo G, Martinelli V, Sinagra G, Zacchigna S, Giacca M. Single-Dose Intracardiac Injection of Pro-Regenerative MicroRNAs Improves Cardiac Function After Myocardial Infarction. *Circ Res*. 2017 Apr 14;120(8):1298-1304.
74. Tirelli G, Zacchigna S, Boscolo Nata F, Quatela E, Di Lenarda R, Piovesana M. Will the minimally invasive approach challenge the old paradigms in oral cancer surgery? *Eur Arch Otorhinolaryngol*. 2017 Mar;274(3):1279-1289.
75. Ottaviani G, Gobbo M, Rupel K, D'Ambros M, Perinetti G, Di Lenarda R, Martinelli V, Bussani R, Tirelli G, Lodi G, Zacchigna S, Biasotto M. The diagnostic performance parameters of Narrow Band Imaging: A preclinical and clinical study. *Oral Oncol*. 2016 Sep;60:130-6.
76. Ottaviani G, Martinelli V, Rupel K, Caronni N, Naseem A, Zandonà L, Perinetti G, Gobbo M, Di Lenarda R, Bussani R, Benvenuti F, Giacca M, Biasotto M, Zacchigna S. Laser Therapy Inhibits Tumor Growth in Mice by Promoting Immune Surveillance and Vessel Normalization. *EBioMedicine*. 2016 Sep;11:165-172.
77. Kazemi, M, Carrer, A., Moimas S, Zandonà L, Bussani R., Casagrande B., Palmisano S., Prelazzi P., Giacca M., Zentilin L., De Manzini, N., Giacca M., Zacchigna S. VEGF121 and VEGF165 differentially promote vessel maturation and tumor growth in mice and humans. *Cancer Gene Therapy* 2016 May;23(5):125-32.

78. Zanotti L, Angioni R, Cali B, Soldani C, Ploia C, Moalli F, Gargasha M, D'Amico G, Elliman S, Tedeschi G, Maffioli E, Negri A, Zacchigna S, Sarukhan A, Stein JV, Viola A. Mouse mesenchymal stem cells inhibit high endothelial cell activation and lymphocyte homing to lymph nodes by releasing TIMP-1. *Leukemia*. 2016 May;30(5):1143-54.
79. Gobbo M, Ottaviani G, Rupel K, Ciriello F, Beorchia A, Di Lenarda R, Zacchigna S, Biasotto M. Same strategy for pitfalls of radiotherapy in different anatomical districts. *Lasers Med Sci*. 2016 Apr;31(3):471-9.
80. Tirelli G, Zacchigna S, Biasotto M, Piovesana M. Open questions and novel concepts in oral cancer surgery. *Eur Arch Otorhinolaryngol*. 2016 Aug;273(8):1975-85.
81. Giacca M, Zacchigna S. Harnessing the microRNA pathway for cardiac regeneration. *J Mol Cell Cardiol*. 2015 Dec;89(Pt A):68-74
82. Mano M, Ippodrino R, Zentilin L, Zacchigna S, Giacca M. Genome-wide RNAi screening identifies host restriction factors critical for in vivo AAV transduction. *Proc Natl Acad Sci U S A*. 2015 Sep 8;112(36):11276-81
83. Ruozi G, Bortolotti F, Falcione A, Dal Ferro M, Ukovich L, Macedo A, Zentilin L, Filigheddu N, Gortan Cappellari G, Baldini G, Zweyer M, Barazzoni, R, Graziani A, Zacchigna S, Giacca M. AAV-mediated in vivo functional selection identifies ghrelin as an inducer of myoprotective autophagy. *Nat Commun*. 2015 Jun 11;6:7388.
84. Bortolotti, F., Ukovich, L., Razban, V., Martinelli, V., Ruozi, G., Pelos, B., Dore F., Giacca, M., Zacchigna, S. In vivo therapeutic potential of mesenchymal stromal cells depends on source and isolation procedure. *Stem Cell Reports*, 2015 Mar 10;4(3):332-9
85. Aguirre A, Montserrat N, Zacchigna S, Nivet E, Hishida T, Krause MN, Kurian L, Ocampo A, Vazquez-Ferrer E, Rodriguez-Esteban C, Kumar S, Moresco JJ, Yates JR 3rd, Campistol JM, Sancho-Martinez I, Giacca M, Izpisua Belmonte JC. In vivo activation of a conserved microRNA program induces mammalian heart regeneration. *Cell Stem Cell*. 2014 Nov 6;15(5):589-604
86. Moser DA, Braga L, Raso A, Zacchigna S, Giacca M, Simon P. Transgene detection by digital droplet PCR. *PLoS One*. 2014 Nov 6;9(11):e111781
87. Felician G, Collesi C, Lucic M, Martinelli V, Ferro MD, Zentilin L, Zacchigna S, Giacca M. Epigenetic modification at notch responsive promoters blunts efficacy of inducing notch pathway reactivation after myocardial infarction. *Circ Res*. 2014 Sep 12;115(7):636-49.
88. Zacchigna S, Zentilin L, Giacca M. Adeno-associated virus vectors as therapeutic and investigational tools in the cardiovascular system. *Circ Res*. 2014 May 23;114(11):1827-46
89. Puente BN, Kimura W, Muralidhar SA, Moon J, Amatruda JF, Phelps KL, Grinsfelder D, Rothermel BA, Chen R, Garcia JA, Santos CX, Thet S, Mori E, Kinter MT, Rindler PM, Zacchigna S, Mukherjee S, Chen DJ, Mahmoud AI, Giacca M, Rabinovitch PS, Aroumougame A, Shah AM, Szweda LI, Sadek HA. The oxygen-rich postnatal environment induces cardiomyocyte cell-cycle arrest through DNA damage response. *Cell*. 2014 Apr 24;157(3):565-79.
90. Zacchigna S, Giacca M. Extra- and intracellular factors regulating cardiomyocyte proliferation in postnatal life. *Cardiovasc Res*. 2014 May 1;102(2):312-20.
91. Gobbo M, Ottaviani G, Perinetti G, Ciriello F, Beorchia A, Giacca M, Di Lenarda R, Rupel K, Tirelli G, Zacchigna S, Biasotto M. Evaluation of nutritional status in head and neck radio-treated patients affected by oral mucositis: efficacy of class IV laser therapy. *Support Care Cancer*. 2014 Jul;22(7):1851-6
92. Chermetz M, Gobbo M, Ronfani L, Ottaviani G, Zanazzo GA, Verzegnassi F, Treister NS, Di Lenarda R, Biasotto M, Zacchigna S. Class IV laser therapy as treatment for chemotherapy-induced oral mucositis in onco-haematological paediatric patients: a prospective study. *Int J Paediatr Dent*. 2013 Dec 25. doi: 10.1111/ipd.12090. [Epub ahead of print]
93. Kleiner G, Celsi F, Tricarico PM, Zacchigna S, Crovella S, Marcuzzi A. Systemic and neuronal inflammatory markers in a mouse model of mevalonate kinase deficiency: a strain-comparative study. *In Vivo*. 2013 Nov-Dec;27(6):715-22.
94. Ottaviani G, Gobbo M, Sturnega M, Martinelli V, Mano M, Zanconati F, Bussani R, Perinetti G, Long CS, Di Lenarda R, Giacca M, Biasotto M, Zacchigna S. Effect of class IV laser therapy on chemotherapy-induced oral mucositis: a clinical and experimental study. *Am J Pathol*. 2013 Dec;183(6):1747-57
95. Zanin V, Marcuzzi A, Kleiner G, Piscianz E, Monasta L, Zacchigna S, Crovella S, Zauli G. Lovastatin Dose-Dependently Potentiates the Pro-inflammatory Activity of Lipopolysaccharide Both In Vitro and In Vivo. *J Cardiovasc Transl Res*. 2013 Dec;6(6):981-8.
96. Heymans S, Corsten MF, Verhesen W, Carai P, van Leeuwen RE, Custers K, Peters T, Hazebroek M, Stöger L, Wijnands E, Janssen BJ, Creemers EE, Pinto YM, Grimm D, Schürmann N, Vigorito E, Thum T, Stassen F, Yin X, Mayr M, De Windt LJ, Lutgens E, Wouters K, de Winther MP, Zacchigna S, Giacca M, van Bilsen M, Papageorgiou AP, Schroen B. Macrophage MicroRNA-155 Promotes Cardiac Hypertrophy and Failure. *Circulation*. 2013 Sep 24;128(13):1420-32
97. Moimas S, Novati F, Ronchi G, Zacchigna S, Fregnan F, Zentilin L, Papa G, Giacca M, Geuna S, Perroteau I, Arnež ZM, Raimondo S. Effect of vascular endothelial growth factor gene therapy on post-traumatic peripheral nerve regeneration and denervation-related muscle atrophy. *Gene Ther*. 2013 Oct;20(10):1014-21
98. Bono F, De Smet F, Herbert C, De Bock K, Georgiadou M, Fons P, Tjwa M, Alcouffe C, Ny A, Bianciotto M, Jonckx B, Murakami M, Lanahan AA, Michielsen C, Sibrac D, Dol-Gleizes F, Mazzone M,

- Zacchigna S, Herault JP, Fischer C, Rigon P, Ruiz de Almodovar C, Claes F, Blanc I, Poesen K, Zhang J, Segura I, Gueguen G, Bordes MF, Lambrechts D, Broussy R, van de Wouwer M, Michaux C, Shimada T, Jean I, Blacher S, Noel A, Motte P, Rom E, Rakic JM, Katsuma S, Schaeffer P, Yayon A, Van Schepdael A, Schwalbe H, Gervasio FL, Carmeliet G, Rozensky J, Dewerchin M, Simons M, Christopoulos A, Herbert JM, Carmeliet P. Inhibition of tumor angiogenesis and growth by a small-molecule multi-FGF receptor blocker with allosteric properties. *Cancer Cell*. 2013 Apr 15;23(4):477-88
99. Eulalio A, Mano M, Ferro MD, Zentilin L, Sinagra G, Zacchigna S, Giacca M. Functional screening identifies miRNAs inducing cardiac regeneration. *Nature*. 2012 Dec 20;492(7429):376-81.
100. Carrer A, Moimas S, Zacchigna S, Pattarini L, Zentilin L, Ruozi G, Mano M, Sinigaglia M, Maione F, Serini G, Giraudo E, Bussolino F, Giacca M. Neuropilin-1 Identifies a Subset of Bone Marrow Gr1- Monocytes That Can Induce Tumor Vessel Normalization and Inhibit Tumor Growth. *Cancer Res*. 2012 Dec 7.
101. Moimas S, Zacchigna S, Merlo M, Buiatti A, Anzini M, Dreas L, Salvi A, Di Lenarda A, Giacca M, Sinagra G. Idiopathic dilated cardiomyopathy and persistent viral infection: Lack of association in a controlled study using a quantitative assay. *Heart Lung Circ*. 2012 Aug 14.
102. Lovric J, Mano M, Zentilin L, Eulalio A, Zacchigna S, Giacca M. Terminal Differentiation of Cardiac and Skeletal Myocytes Induces Permissivity to AAV Transduction by Relieving Inhibition Imposed by DNA Damage Response Proteins. *Mol Ther*. 2012 Jul 31
103. Giacca M, Zacchigna S. Virus-mediated gene delivery for human gene therapy. *J Control Release*. 2012 Jul 20;161(2):377-88. Epub 2012 Apr 10
104. Giacca M, Zacchigna S. VEGF gene therapy: therapeutic angiogenesis in the clinic and beyond. *Gene Ther*. 2012 Mar 1. doi: 10.1038/gt.2012.17.
105. Macedo A, Moriggi M, Vasso M, De Palma S, Sturnega M, Friso G, Gelfi C, Giacca M, Zacchigna S. Enhanced athletic performance on multisite AAV-IGF1 gene transfer coincides with massive modification of the muscle proteome. *Hum Gene Ther*. 2012 Feb;23(2):146-57.
106. Zhong X, Huang H, Shen J, Zacchigna S, Zentilin L, Giacca M, Viores SA, Vascular endothelial growth factor-B gene transfer exacerbates retinal and choroidal neovascularization and vasopermeability without promoting inflammation. *Molecular Vision* 2011; 17:492-507.
107. Toffoli B, Bernardi S, Candido R, Zacchigna S, Fabris B, Secchiero P. TRAIL shows potential cardioprotective activity. *Invest New Drugs*. 2011 Jan 4.
108. Ruiz de Almodovar C, Coulon C, Salin PA, Knevels E, Chounlamountri N, Poesen K, Hermans K, Lambrechts D, Van Geyte K, Dhondt J, Dresselaers T, Renaud J, Aragones J, Zacchigna S, Geudens I, Gall D, Stroobants S, Mutin M, Dassonville K, Storkebaum E, Jordan BF, Eriksson U, Moons L, D'Hooge R, Haigh JJ, Belin MF, Schiffmann S, Van Hecke P, Gallez B, Vinckier S, Chédotal A, Honorat J, Thomasset N, Carmeliet P, Meissirel C. Matrix-binding vascular endothelial growth factor (VEGF) isoforms guide granule cell migration in the cerebellum via VEGF receptor Flk1. *J Neurosci*. 2010 Nov 10;30(45):15052-66
109. Storkebaum E, Ruiz de Almodovar C, Meens M, Zacchigna S, Mazzone M, Vanhoutte G, Vinckier S, Miskiewicz K, Poesen K, Lambrechts D, Janssen GM, Fazzi GE, Verstreken P, Haigh J, Schiffers PM, Rohrer H, Van der Linden A, De Mey JG, Carmeliet P. Impaired autonomic regulation of resistance arteries in mice with low vascular endothelial growth factor or upon vascular endothelial growth factor trap delivery. *Circulation*. 2010 Jul 20;122(3):273-81.
110. Pepe M, Mamdani M, Zentilin L, Csiszar A, Qanud K, Zacchigna S, Ungvari Z, Puligadda U, Moimas S, Xu X, Edwards JG, Hintze TH, Giacca M, Recchia FA. Intramyocardial VEGF-B167 Gene Delivery Delays the Progression Towards Congestive Failure in Dogs With Pacing-Induced Dilated Cardiomyopathy. *Circ Res*. 2010 Jun 25;106(12):1893-903
111. Van de Veire S, Stalmans I, Heindryckx F, Oura H, Tijeras-Raballand A, Schmidt T, Loges S, Albrecht I, Jonckx B, Vinckier S, Van Steenkiste C, Tugues S, Rolny C, De Mol M, Dettori D, Hainaud P, Coenegrachts L, Contreres JO, Van Bergen T, Cuervo H, Xiao WH, Le Henaff C, Buysschaert I, Kharabi Masouleh B, Geerts A, Schomber T, Bonnin P, Lambert V, Hausteraete J, Zacchigna S, Rakic JM, Jimenez W, Novik A, Giacca M, Colle I, Foidart JM, Tobelem G, Morales-Ruiz M, Vilar J, Maxwell P, Viores SA, Carmeliet G, Dewerchin M, Claesson-Welsh L, Dupuy E, Van Vlierberghe H, Christofori G, Mazzone M, Detmar M, Collen D, Carmeliet P. Further pharmacological and genetic evidence for the efficacy of PlGF inhibition in cancer and eye disease. *Cell*. 2010 Apr 2;141(1):178-90.
112. Biasotto M, Chiandussi S, Zacchigna S, Moimas S, Dore F, Pozzato G, Cavalli F, Zanconati F, Contardo L, Giacca M, Di Lenarda R. A novel animal model to study non-spontaneous bisphosphonates osteonecrosis of jaw. *J Oral Pathol Med*. 2010 May;39(5):390-6.
113. Zentilin L, Puligadda U, Lionetti V, Zacchigna S, Collesi C, Pattarini L, Ruozi G, Camporesi S, Sinagra G, Pepe M, Recchia FA, Giacca M. Cardiomyocyte VEGFR-1 activation by VEGF-B induces compensatory hypertrophy and preserves cardiac function after myocardial infarction. *FASEB J*. 2010 May;24(5):1467-78.
114. Tafuro S, Ayuso E, Zacchigna S, Zentilin L, Moimas S, Dore F, Giacca M. Inducible AAV vectors induce functional angiogenesis in adult organisms via regulated VEGF expression. *Cardiovasc Res* 2009 Sep 1;83(4):663-71
115. Zacchigna S, Oh H, Wilsch-Brauninger M, Missol-Kolka E, Jv°szai J, Jansen S, Tanimoto N, Tonagel F, Seeliger M, Huttner WB, Corbeil D, Dewerchin M, Vinckier S, Moons L,

- Carmeliet P. Loss of the Cholesterol-Binding Protein Prominin-1/CD133 Causes Disk Dymorphogenesis and Photoreceptor Degeneration. *J Neurosci* 2009 Feb18; 29(7):2297-2308
116. Fiotti N., Altamura N., Moretti M., Wassermann S., Zacchigna S., Farra R., Dapas B., Consoloni L., Giacca M., Grassi G., Giansante C. Short Term Effects of Doxycycline on Matrix Metalloproteinases 2 and 9. *Cardiovasc Drugs Ther* 2008, Dec 4
 117. Zacchigna S., Pattarini L., Zentilin L., Moimas S., Carrer A., Sinigaglia M., Arsic N., Tafuro S., Sinagra G., Giacca M. Bone marrow cells recruited through the neuropilin-1 receptor promote arterial formation at the sites of adult neovascularization in mice. *J Clin Invest*. 2008, 118(6):2062-75.
 118. Zacchigna S., Lambrechts D., Carmeliet P. Neurovascular signaling defects in neurodegeneration. *Nature Review Neuroscience* 2008, 9(3):169-81.
 119. Aragones J., Schneider M., van Geyte K., Freisl P., Dresselaers T., Mazzone M., Dirx R., Zacchigna S., Lemieux H., Jeoung N.H., Lambrechts D., Bishop T., Lafuste P., Diez-Juan A., Harten S.K., Van Noten P., De Bock K., William C., Tjwa, Grosfeld A., M, Navet R., Moons L., Vandendriessche T., Deroose C., Wijeyekoon B., Nuyts J., Jordan B., Silasi-Mansat R., Lupu F., Dewerchin M., Pugh C., Salmon P., Mortelmans L., Gallez B., Gorus F., Buyse J., Harris R.A., Gnaiger E., Hespel P., Van Hecke P., Schuit F., Van Veldhoven P., Ratcliffe P., Baes M., Maxwell P., Carmeliet P. Loss of the oxygen sensor PHD1, but not PHD2 or PHD3, protects ischemic skeletal muscle against oxidative damage. *Nature Genetics* 2008, 40(2):170-80
 120. Wei C., Moller C., Altintas M., Li J., Schwartz K., Zacchigna S., Xie L., Henger A., Schmid H., Rastaldi M.P., Cowan P., Kretzler M., Parrilla R., Bendayan, Gupta V., M., Nikolic B., Kalluri R., Carmeliet P., Mundel P., Reiser J. Modification of kidney barrier function by the urokinase receptor. *Nature Medicine* 2008, 14:55-63
 121. Zacchigna S., Østli EK., Arsic N., Pattarini L., Giacca M., Djurovic S. A novel myogenic cell line with phenotypic properties of muscle progenitors. *Journal of Molecular Medicine* 2008, 86(1):105-15.
 122. Carrer A., Zacchigna S., Balani A., Pistan V., Adami A., Porcelli F., Scaramucci M., Roteano M., Turoldo A., Prati MC., Dell'omodarme M., DeManzini N., Giacca M. Expression profiling of angiogenic genes for the characterisation of colorectal carcinoma. *Eur J Cancer* 2008; 44(12):1761-9
 123. Zago P., Baralle M., Ayala Y.M., Skoko N., Zacchigna S., Buratti E., Tisminetzky S. Improving human beta interferon production in mammalian cell lines by insertion of an intronic sequence within its naturally uninterrupted gene. *Biotechnol Appl Biochem*. 2009; 52:191-198
 124. Fischer C., Jonckx B., Mazzone M., Zacchigna S., Loges S., Pattarini L., Chorianopoulos E., Liesenborghs L., Koch M., Demol M., Wyns S., Autiero M., Plaisance S., Moons L., van Rooijen N., Giacca M., Stassen J., Dewerchin M., Collen D.; Carmeliet P. A monoclonal anti-PIGF antibody inhibits tumor growth and lymphatic metastasis without affecting healthy vessels. *Cell* 2007; 131(3):463-75.
 125. Zacchigna S, Tasciotti E, Kusmic C, Arsic N, Sorace O, Marini C, Marzullo P, Pardini S, Petroni D, Pattarini L, Moimas S, Giacca M, Sambuceti G. In Vivo Imaging Shows Abnormal Function of Vascular Endothelial Growth Factor-Induced Vasculature. *Human Gene Therapy* 2007;18(6):515-24.
 126. Antonini A., Zacchigna S., Papa G., Novati F., Pascone M., Giacca M. Improved survival of rat ischemic cutaneous and musculocutaneous flaps after VEGF gene transfer. *Microsurgery*. 2007;27(5):439-45.
 127. Zentilin L, Tafuro S, Zacchigna S, Arsic N, Pattarini L, Sinigaglia M, Giacca M. Bone marrow mononuclear cells are recruited to the sites of VEGF-induced neovascularization but are not incorporated into the newly formed vessels. *Blood* 2006;107(9):3546-54.
 128. Secchiero P, Candido R, Corallini F, Zacchigna S, Toffoli B, Rimondi E, Fabris B, Giacca M, Zauli G. Systemic tumor necrosis factor-related apoptosis-inducing ligand delivery shows antiatherosclerotic activity in apolipoprotein E-null diabetic mice. *Circulation* 2006;114(14):1522-30.
 129. Ferrarini M, Arsic N, Recchia FA, Zentilin L, Zacchigna S, Xu X, Linke A, Giacca M, Hintze TH. Adeno-associated virus-mediated transduction of VEGF165 improves cardiac tissue viability and functional recovery after permanent coronary occlusion in conscious dogs. *Circ Res* 2006;98(7):954-61.
 130. Zacchigna S, Papa G, Antonini A, Novati F, Moimas S, Carrer A, Arsic N, Zentilin L, Visintini V, Pascone M, Giacca M. Improved survival of ischemic cutaneous and musculocutaneous flaps after vascular endothelial growth factor gene transfer using adeno-associated virus vectors. *Am J Pathol* 2005;167(4):981-91.
 131. Camozzi M, Zacchigna S, Rusnati M, Coltrini D, Ramirez-Correa G, Bottazzi B, Mantovani A, Giacca M, Presta M. Pentraxin 3 inhibits fibroblast growth factor 2-dependent activation of smooth muscle cells in vitro and neointima formation in vivo. *Arterioscler Thromb Vasc Biol* 2005;25(9):1837-42.
 132. Zacchigna S, Zentilin L, Morini M, Dell'Eva R, Noonan DM, Albini A, Giacca M. AAV-mediated gene transfer of tissue inhibitor of metalloproteinases-1 inhibits vascular tumor growth and angiogenesis in vivo. *Cancer Gene Ther* 2004;11(1):73-80.
 133. Secchiero P, Gonelli A, Carnevale E, Corallini F, Rizzardi C, Zacchigna S, Melato M, Zauli G. Evidence for a proangiogenic activity of TNF-related apoptosis-inducing ligand. *Neoplasia* 2004;6(4):364-73.

134. Ramirez Correa GA, Zacchigna S, Arsic N, Zentilin L, Salvi A, Sinagra G, Giacca M. Potent inhibition of arterial intimal hyperplasia by TIMP1 gene transfer using AAV vectors. *Mol Ther* 2004;9(6):876-84.
135. Arsic N, Zacchigna S, Zentilin L, Ramirez-Correa G, Pattarini L, Salvi A, Sinagra G, Giacca M. Vascular endothelial growth factor stimulates skeletal muscle regeneration in vivo. *Mol Ther* 2004;10(5):844-54.
136. Arsic N, Zentilin L, Zacchigna S, Santoro D, Stanta G, Salvi A, Sinagra G, Giacca M. Induction of functional neovascularization by combined VEGF and angiopoietin-1 gene transfer using AAV vectors. *Mol Ther* 2003;7(4):450-9.

Invited reviews and book chapters

1. Zacchigna S, Giacca M. 2017 Neuropilin-1-Expressing Monocytes: Implications for Therapeutic Angiogenesis and Cancer Therapy, Chapter 12 in the book "The Neuropilins: Role and Function in Health and Disease" edited by Springer
 2. Zacchigna S, Giacca M. 2010 Genetic Manipulation on human beings, chapter in the book *Polis genetica e società del futuro, "Salute e Società"*, a. IX, n. 3 (English version).
 3. Zacchigna S, Giacca M., Chapter 20: Gene therapy perspectives for nerve repair. *Int Rev Neurobiol.* 2009;87:381-92.
 4. Zacchigna, S., Ruiz de Almodovar, C., Carmeliet P. Similarities between angiogenesis and neural development: what small animal models can tell us. Review in *Current Topics of Developmental Biology*, 2008; 80:1-55
 5. Zacchigna, S., Ruiz de Almodovar, C., Carmeliet P. Developmental Angiogenesis and the Nervous System, chapter in the book "Angiogenesis: an integrative approach from Science to Medicine", edited by Figg & Folkman for publication by Springer
 6. Zacchigna, S., Ruiz de Almodovar, C., Lafuste, P., Carmeliet P. Vascular and neuronal development: intersecting parallelisms and crossroad, chapter for the book "Therapeutic Neovascularization: Quo Vadis", for publication by Springer
 7. Ruiz de Almodovar, C. Zacchigna, S., Autiero, M., Carmeliet P., Guidance of Vascular and Neuronal Network Formation, chapter in the book 'Tumor Angiogenesis' edited by Marmé and Fusenig for publication by Springer-Verlag
- List of Italian publications
 - Zacchigna, S., Giacca, M. 2010. Genetic manipulations on human beings, in: *Polis genetica: genetica e società del futuro, Salute e Società*, Franco Angeli Editore, a. IX, n. 3.
 - Zacchigna, S., Giacca, M. 2003. In Vivo Gene Transfer with AAV Vectors as a Tool to Understand Gene Function in Blood Vessel Formation, in: *In vitro and in vivo models of angiogenesis*, Servizio Editoriale Universitario, pp: 51-81
 - Zacchigna, S. Giacca, M. 2004. Nuove Terapie Geniche e Cellulari per le Malattie Cardiovascolari, capitolo 5 in: *Geni e malattie cardiovascolari*, Mediserve SRL, pp: 191-222
 - Zacchigna, S., Zentilin, L. Giacca, M. 2001, Terapia Genica Cardiovascolare, *L'Agora'*, Cardiologia e Metabolismo 3: 7-350

Stesura delle voci "Cellule Staminali" e "Medicina di Precisione" per Enciclopedia Treccani, 2024

Trieste, July 16, 2025

