

Isabella Saggio

Curriculum Vitae

Education

1993	PhD Genetics and Molecular Biology Sapienza University
1988	Laurea full marks <i>cum laude</i> Genetics Sapienza University

Academic appointments

2017	National scientific qualification Full Professor of Genetics 05/11-Bio/18 (passed 3/3)
2017 – to date	Visiting Professor College of Science Nanyang Technological University of Singapore
2005 – to date	Associate Professor of Genetics Bio/18 Sapienza University
1996 – 2004	Assistant Professor of Genetics Bio/18 Sapienza University

Research appointments

2020 – to date	Associate scientist CNR Institute of molecular biology and pathology
2015 – 2017	Visiting scientist Nanyang Technological University of Singapore
2010 Jan	Visiting scientist as CNR fellow Pasteur Institute Paris France
2008 Sept	Visiting scientist as CNR fellow Salk Institute La Jolla CA USA
2004 Jan Feb	Visiting scientist as CNR fellow Lyon Laennec University France
2003 – 2018	Associate scientist CNR Institute of molecular biology and pathology
2003 – 2010	Associate scientist and group leader San Raffaele Science Park Rome
1995 – 1996	EU postdoctoral fellow Gustave Roussy Institute Paris France
1991 – 1994	PhD fellow IRBM MSD Research Institute Rome Italy
1989 – 1990	Researcher (in 1990 with permanent position group B) National Institute of Health Rome Italy

Other appointments

2021 – to date	Selected member Sc MMFFNN Faculty outreaching committee Sapienza University
2021 – to date	Selected member Center for preclinical research and animal welfare Sapienza University
2019 – to date	Director International Winter School Genetics and Molecular Medicine 3CFU Sapienza University
2019 – to date	Selected member Strategic board Dept. Biology and Biotechnology Sapienza University
2019 – to date	Third mission delegate Dept. Biology and Biotechnology Sapienza University
2019 – to date	Vice president, delegate for internationalization Master degree of Genetics and Molecular Biology Sapienza University
2017– to date	Founder and co-director Stem cell and genome editing <i>in memoriam</i> of Paolo Bianco Master degree 60CFU (in English) Sapienza University
2016 – to date	Selected member Superior School of Advanced Studies Sapienza University
2016 – to date	Promoter and coordinator Sapienza University/Nanyang Technological University of Singapore agreements (for teacher mobility, student mobility and framework agreement)
2015 – 2016	Selected member Sapienza committee for evaluation of scientific projects
2011 – to date	Promoter and coordinator Double Degree Sapienza University with Master en Génétique Université de Paris
2008 – to date	Board member PhD school in Genetics and Molecular Biology Sapienza University
2005 – to date	Director Master degree of Science Journalism 60CFU Sapienza University
2005 – to date	Erasmus project coordinator Sapienza University/Université de Paris, >100 outgoing and incoming students

Grants as PI -principal Investigator or I-investigator

2022-2026	PNRR Centro Nazionale Biodiversità, spoke co-coordinator; -- pending approval	
2022-2023	Pasteur Cenci Bolognetti 2020 <i>Nuclear Envelope and Cancer</i> , -- positive evaluation PI; pending funds	
2021 – 2026	AIRC IG <i>Nuclear Envelope and telomere stability in lymphomagenesis</i> PI	432000€
2017 – 2020	Progeria Research Foundation USA <i>Progerias</i> PI	150000\$
2016	Telethon EG project <i>AKTIP and progerias</i> PI	45404€
2015 – 2018	AIRC IG <i>Telomeric genes</i> I	446000€

2013 – 2016	EU FP7 Marie Curie Industry-Academia IAPP <i>Brainvectors - Gene therapy</i> PI	38776€
2007 – 2012	EU FP7 <i>BrainCAV -Gene therapy</i> PI and work-package leader	227376€
2006 – 2018	Sponsoring MSD, Pfizer, Abbott, Novartis, Roche to <i>Science communication initiatives</i> PI	avg5000€/year
2006 – 2007	MIUR PRIN <i>Modeling and correcting organogenetic and pathogenetic skeletal processes using stem cells</i> I	25000€
2004 – 2009	Telethon IG <i>Stem cell disease fibrous dysplasia</i> I	320000€
2004	MIUR 6-2000 <i>Science communication</i> PI	20000€
2004 – 2021	MIUR Sapienza internal annual funding PI	avg 4000€/year
2002	MIUR 6-2000 <i>Openlab</i> PI	20milioni lire
2001 – 2002	Inter-University Biotechnology Consortium <i>Phage vectors for gene transfer</i> PI	200milioni lire
2000 – 2001	Pasteur Cenci Bolognetti <i>Phage technology for the study of Adenovirus-receptor interaction</i> PI	20milioni lire
2000 – 2001	SIGMA TAU <i>Adenoviral vectors for gene therapy</i> PI	400milioni lire
2000	CNR <i>Structure-function analysis of Adenovirus penton base</i> PI	30milioni lire

Grants to I. Saggio lab members (selection)

2021	Be for ERC <i>When Borders Lose integrity: study of the impact of Nuclear Envelope and telomere fragility in lymphomagenesis (BLiNET)</i>	50000€
2019	Buzzati Traverso Foundation 2019 <i>Nuclear envelope organization and genome instability in cancer diffusion</i>	20000€
2019	Veronesi Foundation 2019 <i>Nuclear envelope organization and genome instability in cancer diffusion</i>	15000€
2019	FIRC <i>Nuclear envelope organization and genome instability in cancer diffusion</i>	25000€
2012	Pasteur Cenci Bolognetti <i>Telomeric genes</i>	18600€
2012	Inter-University Biotechnology Consortium <i>Comparative investigation of the toxicogenomic signature of adenovirus vectors</i>	10000€
2010	Sapienza AST <i>Gene therapy of neurodegenerative disorders</i>	19000€

Revision of projects (selection)

2020	USA-Israel Binational Science Foundation
2019	Dutch Research council
2019	Medical Research Council UK
2019 – to date	Transnational research projects to accelerate diagnosis and/or explore disease progression and mechanisms of rare diseases
2017	Leonardo da Vinci EU programme
2015 – 2016	Italian Ministry of University and Research MIUR
2014	INSERM-CNRS ATIP Avenir, France
2008 – to date	Association Nationale Recherche (ANR) France
2008	Université de Montpellier
2007 – 2009	Unity Through Knowledge Fund

Society memberships

2019 – to date	Elected counselor in the board of the Italian Association of Genetics (AGI)
2000 – 2014	Member European Association of Gene and Cell Therapy (ESGCT), American Society of Gene Therapy (ASGT), American Society of Bone and Mineral Research (ASBMR)
2000 – to date	Member Italian Association of Genetics (AGI), Italian Federation of Life Sciences (FISV)

National teaching experience

2021 – 2022	Communication processes in science and medicine Sapienza University (9CFU)
2018 – to date	Genetic medicine Superior School of Advanced studies Sapienza University (3CFU)
2017 – 2018	Models in biology Superior School of Advanced studies Sapienza University (3CFU)
2017 – 2021	The biology of stem cells and their applications Sapienza University (3CFU)
2013 – to date	Gene therapy and Neuroscience Sapienza University (6CFU)

2001 – to date Gene Therapy Sapienza University (in English) (6CFU)
 2001 – 2013 Genetics Sapienza University
 2001 – 2005 Genetics University of Urbino
 2001 – to date Thesis tutoring > 20 graduate students, >15 PhD students and >100 Master students
 2001 – to date Young researcher mentoring (selection - name and current position) Y Martina Vice president Grünenthal Group London UK, G Cherubini Permanent position Achilles Therapeutics London UK, R Burla CNR permanent position Rome Italy, E Di Matteo permanent position Nuscom Rome Italy, S Del Giudice fellow CNR Naples Italy, L Astrologo Research associate University of Bern Switzerland, P Caruso Research associate University of Cambridge UK

International teaching experience

2021 Lecture 3D structured illumination microscopy for studies on nuclear integrity and cancer invasion CIVIS - Project for a European Civic University
 2017 – to date Visiting professor Nanyang Technological University of Singapore College of Science (6-8 weeks per year)
 2011 – to date Gene Therapy Université de Paris France (1CFU per year)
 2011 – to date Stage and thesis tutoring of >20 foreign students
 2011 – to date Member of thesis committees at Master Génétique Université de Paris France

Science communication, outreach and public engagement

2022 Founder and Director STAR, Sapienza magazine for scientific culture ISSN 2785-5058
 2021 Director Public speaking Advanced training course, 1CFU Sapienza University
 2021 Director Science and Democracy 3CFU Advanced training course Sapienza University
 2021 La scienza nella pratica giornalistica. 2015-2019 case study for Sapienza University (see annex)
 2021 Registered Journalist at the Italian Bar Association of Journalists
 2021 Director Creating a journal, Advanced training course 3CFU Sapienza University of Rome
 2018 – to date Organizer Public speaking course PhD School Genetics and Molecular Biology Sapienza University
 2016 – to date Organizer of >30 meetings for >800 journalists, recognized as educational CFPs by the National association of journalism (ODG)
 2015 – to date Founder and Director online journal Stoccolmaaroma (40,000 visitors/year)
 2012 – to date Media (selection) Saggio I. Genetics in the history of science RAI TV (2021); Saggio I. Intimations of immortality (2016) Longitude Italian Monthly on World Affairs. #63; Saggio I. Ebola: What is to be done? (2014) Longitude Italian Monthly on World Affairs. #43; Saggio I. Keeping resistance at bay. (2013) Longitude Italian Monthly on World Affairs. #27; Saggio I. Deadly friends. (2012) Longitude Italian Monthly on World Affairs. #06; Saggio I. Ce l'ho nel Dna (2012) La Stampa
 2006 – to date Promoter and coordinator of student training agreements between Sapienza Job soul and (selection) CNR, RAI, IFO, INFN, Telethon, APRE, IGMM CNRS (Montpellier), Institut Pasteur (Paris), IFOM Cogentech (Milan), IEO (Milan), NIH (Bethesda, US)
 2005 – to date Founder (and Director) Master degree of Science Journalism Sapienza University

Transfer of technology, patents

Saggio I, Di Giovine M, Salone B, Martina Y. Chimeric vectors and their use for gene transfer. Granted Italian and international patent (2002; WO 02/24934)

Laufer R, Saggio I, Gloaguen I, Di Marco A, Demartis A. Variants of human ciliary neurotrophic factor (hCNTF) with improved receptor-selectivity, and methodology for their selection. Granted Italian and international patent. (1998; WO 98/41625)

Ciliberto G, Saggio I, Savino R, Perricaudet M. Adenoviral vectors for mutants of human interleukin 6 (hIL-6) with hIL-6 antagonist activity over hIL-6. Pharmaceutical compositions there with and their uses. Granted Italian and international patent. (1998; WO 98/13383)

Laufer R, Saggio I. Variants of human ciliary neurotrophic factor (hCNTF) with improved receptor binding affinity. Granted Italian patent. (1994; n. 012878094)

Laufer R, Saggio I. Method for production of Filamentous phages displaying on the surface of the capsids peptides capable of binding biotin, and Filamentous phages and peptides thus obtained. Granted Italian patent. (1993; n. 1261693)

Research activity and publications

Telomeres and genome integrity in aging and cancer. I. Saggio identified the first human telomere-associated factor linked with the nuclear envelope. Telomere dysfunction causes genome instability and is a driver of cancer and premature aging (Burla et al Plos Genetics 2015; Cenci et al Plos Genetics 2015; Burla et al Open Biology 2016; La Torre et al Aging Cell 2018, Chen et al. Cell Reports 2019). More recently, building on the link between telomeres and the nuclear envelope, I. Saggio developed new research focusing on the implication of nuclear integrity in aging and cancer. The model systems used by I. Saggio are primarily mammalian cells and mice. In addition, comparative studies were performed in *D. melanogaster*. Research by I. Saggio and the work of her group have been recognized internationally and she has been funded, as PI, based on open competition and peer reviewing, by national and international agencies, including, in the last 5 years, Telethon, the Progeria Research Foundation USA and AIRC.

Mitra A, Burla R, Zeng Y, Hoon NM, Lim CT, Saggio I and Zhao W. (2022) Acute Chromatin Decompaction leads to Stiffening of Nuclear-Lamina as revealed by Nanoscale Nuclear Deformation. Bio-archives, <https://doi.org/10.1101/2022.01.30.478168>

Merigliano C, Burla R, La Torre M, Del Giudice S, Teo Hsiang L, Chong Wai L, Chojnowski A, Goh WI, Olmos Y, Maccaroni K, Giubettini M, Chiolo I, Carlton J, Raimondo D, Verni F, Stewart CL, Rhodes D, Wright G, Burke B and Saggio I (2021) Human AKTIP interacts with ESCRT proteins and functions at the midbody in cytokinesis. Plos Genetics. 17(8):e1009757. IF: 5.917

Burla R, La Torre M, Maccaroni K, Verni F, Giunta S and Saggio I (2020). Interplay of the nuclear envelope with chromatin in physiology and pathology. Nucleus. Dec11(1):205-218. IF: 2.792

Chen L, Roakel CM, Galati A, Bavasso F, Saggio I, Schoeftner S, Cacchione S, Gatti M, Artandi SE, Raffa GD (2020) Loss of human TGS1 hypermethylase promotes increased telomerase RNA and telomere elongation. Cell Reports. 30(5):1358-1372.e5. IF: 8.109

Sechi S, Frappaolo A, Karimpour-Ghahnavieh A, Gottardo M, Burla R, Di Francesco L, Szafer-Glusman E, Schininà E, Fuller M T, Saggio I, Riparbelli M G, Callaini G, and Giansanti MG (2019) Drosophila Doublefault protein coordinates multiple events during male meiosis by controlling mRNA translation. Development. 146(22) dev182053. IF: 5.611

Mascolo E, Barile A, Stufiera Mecarelli L, Amoroso N, Merigliano C, Massimi A, Saggio I Hansen T, Tramonti A, Di Salvo ML, Barbetti F, Contestabile R and Verni F (2019) The expression of four pyridoxal kinase (PDXK) human variants in Drosophila impacts on genome integrity. Scientific Reports. 9(1):14188. IF: 3.998

Mascolo E, Amoroso N, Saggio I, Merigliano C, Verni F (2019) Pyridoxine/pyridoxamine 5'-phosphate oxidase (Sgll/PNPO) is important for DNA integrity and glucose homeostasis maintenance in Drosophila. J. Cell. Physiology. 235(1):504-512. IF: 5.546

Merigliano C, Mascolo E, Cesta A, Saggio I, Verni F (2019) A new role for Drosophila Aurora-A in maintaining chromosome integrity. *Chromosoma*, 128(1):41-52. IF: 3.442

Burla R, La Torre M, Zanetti G, Bastianelli A, Merigliano C, Del Giudice S, Vercelli A, Di Cunto F, Boido M, Verni F and Saggio I (2018) p53-sensitive epileptic behavior and inflammation in Ft1 hypomorphic mice. *Frontiers in Genetics* 9:581. IF: 3.517

Merigliano C, Mascolo E, Burla R, Saggio I and Verni F (2018) The relationship between Vitamin B6, diabetes and cancer. *Frontiers in Genetics* 9(SEP):388. IF: 3.517

Merigliano C, Mascolo E, La Torre M, Saggio I and Verni F (2018) Protective role of vitamin B6 (PLP) against DNA damage in Drosophila models of type 2 diabetes. *Scientific Reports* 8(1):11432. IF: 4.011

Burla R, La Torre M, Merigliano C, Verni F and Saggio I (2018) Genomic instability and DNA replication defects in progeroid syndromes. *Nucleus* 9(1):368-379. IF: 2.157

La Torre M, Burla R, Merigliano C et al. (2018) Mice with reduced expression of the telomere-associated protein Ft1 develop p53-sensitive progeroid traits. *Aging cell* 17(4):e12730. IF: 7.346

Burla R, La Torre M, Saggio I (2016) Mammalian telomeres and their partnership with lamins. *Nucleus* 7(2):187-202. IF: 2.387

Burla R, Carcuro MT, La Torre M, Fratini F, Crescenzi M, D'Apice MR, Spitalieri P, Raffa GD, Astrologo L, Lattanzi G, Cundari E, Raimondo D, Biroccio AM, Gatti M, Saggio I (2016) The telomeric protein AKTIP interacts with A- and B-type lamins and is involved in regulation of cellular senescence. *Open Biology* 6(8):160103. IF: 3.481

Cenci G, Ciapponi L, Marzullo M, Raffa GD, Morciano P, Raimondo D, Burla R, Saggio I and Gatti M (2015) The analysis of pendolino (peo) mutants reveals differences in the fusigenic potential among Drosophila telomeres. *Plos Genetics* 11(6):e1005260. IF: 6.661

Burla R, Carcuro M, Raffa GD, Galati A, Raimondo D, Rizzo A, la Torre M, Micheli M, Ciapponi L, Cenci G, Cundari E, Musio A, Biroccio A, Cacchione S, Gatti M and Saggio I (2015) AKTIP/Ft1, a new shelterin-interacting factor required for telomere maintenance. *Plos Genetics* 11(6):e1005167. IF: 6.661

Cossetti C, Lugini L, Astrologo L, Saggio I, Fais S and Spadafora C (2014) Soma-to-germline transmission of RNA in mice xenografted with human tumour cells: possible transport by exosomes. *Plos One* 9(7):e101629. IF: 3.234

Gene and stem cell therapy During the association with the laboratories of San Raffaele Science Park, I. Saggio has been involved in the study of stem cells and contributed to unravel the characterization of stem cell progenitors as organizers of the hematopoietic microenvironment (Sacchetti et al *Cell* 2007; Sacchetti et al *Stem cell reports* 2016). In addition, I. Saggio laboratory has experience in vectors for gene and cell therapies, including lentiviral, adenoviral and humanized phages (patented WO 02/24934). I. Saggio developed growth factor antagonists and expressed them with adenoviral vectors as proof of principle studies of disease customized gene therapy (Saggio et al *Gene therapy* 1997; Di Marco et al *PNAS* 1996; and patent on viral vectors WO 98/13383).

Raimondo D, Remoli C, Astrologo L, Burla R, La Torre M, Verni F, Tagliafico E, Corsi A, Del Giudice S, Persichetti A, Giannicola G, Robey PG, Riminucci R and Saggio I (2020) Changes in gene expression in human skeletal stem cells transduced with constitutively active Gsa correlates with hallmark histopathological changes seen in fibrous dysplastic bone. *Plos One*. 15(1):e0227279. IF: 2.740

del Rio D, Beucher B, Lavigne M, Wehbi A, Saggio I & Kremer EJ (2019) CAV-2 Vector Development and Gene Transfer in the Central and Peripheral Nervous Systems. *Frontiers in molecular neuroscience*, 12:71. IF: 4.057

Saggio I (2019) Perils and Promises of Therapeutic Approaches for the Stem Cell Disease Fibrous Dysplasia. *Stem cells translational medicine* 8(2):110-111. IF: 6.429

Mestre-Francés N, Serratrice N, Gennetier A, Devau G, Cobo S, Trouche S, Fontes P, Zussy C, De Deurwaerdere P, Salinas S, Mennechet FKJD, Dusonchet J, Schneider B, Saggio I, Kalatzis V, Luquin-Piudo MRJ, Verdier M, and Kremer EJ (2018) Exogenous LRRK2G2019S induces parkinsonian-like pathology in a nonhuman primate. *JCI Insight* 3(14):98202. IF: 6.014

Sacchetti B, Funari A, Remoli C, Giannicola G, Robey PG, Kogler G, Liedtke S, Cossu G, Serafini M, Sampaolesi M, Tagliafico E, Tenedini E, Saggio I, Riminucci M, Bianco P (2016) No identical "mesenchymal stem cells" at different times and sites: Human committed progenitors of distinct origin and differentiation potential are incorporated as adventitial cells in microvessels. *Stem cell reports* 6(6):897-913. IF: 7.338

Simão D, Pinto C, Fernandes P, Peddie CJ, Piersanti S, Collinson LM, Salinas S, Saggio I, Schiavo G, Kremer EJ, Brito C, Alves PM (2016) Evaluation of helper-dependent canine adenovirus vectors in a 3D human CNS model. *Gene therapy* 23(1):86–94. IF: 3.11

Piersanti S, Burla R, Licursi V, Brito C, la Torre, M, Alves P, Simao D, Mottini C, Salinas S, Negri R, Tagliafico E, Kremer EJ and Saggio I (2015) Transcriptional response of human neurospheres to helper-dependent CAV-2 vectors: activation of DNA damage response, modulation of microtubule motors and centromeric proteins. *Plos One* 10(7):e0133607. IF: 3.057

Remoli C, Michienzi S, Sacchetti B, Di Consiglio A, Cersosimo S, Spica S, Robey PG, Holmbeck K, Cumano A, Boyde A, Davis G, Saggio I, Riminucci M, and Bianco P (2015) Osteoblast-specific expression of the fibrous dysplasia (FD)-causing mutation *Gsa*(R201C) produces a high bone mass phenotype but does not reproduce FD in the mouse. *Journal of Bone and Mineral Research* 30(6):1030-1043. IF: 5.622

Simão D, Pinto C, Piersanti S, Weston A, Peddie CJ, Bastos AEP, Licursi V, Schwarz SC, Collinson LM, Salinas S, Serra M, Teixeira AP, Saggio I, Lima PA, Kremer EJ, Schiavo G, Brito C, Alves PM (2015) Modeling human neural functionality in vitro: 3D culture for dopaminergic differentiation. *Tissue Engineering-Part A* 21(3-4):654-668. IF: 3.892

Saggio I, Remoli C, Spica E, Cersosimo S, Sacchetti B, Robey PJ, Holmbeck K, Cumano A, Boyde A, Bianco P, Riminucci M (2014) Constitutive Expression of *Gsa*R201C in Mice Produces a Heritable, Direct Replica of Human Fibrous Dysplasia Bone Pathology and Demonstrates Its Natural History. *Journal of Bone and Mineral Research* 29(11S1):2357-2368. IF: 6.832

Piersanti S, Tagliafico E, Saggio I (2014) DNA microarray to analyze Adenovirus-host interactions. *Methods in Molecular Biology Humana Press* 1089:89-104. IF: n/a

Piersanti S, Astrologo L, Licursi V, Costa R, Roncaglia E, Gennetier A, Ibanes S, Chillon M, Negri R, Tagliafico, Kremer EJ, Saggio I (2013) Differentiated neuroprogenitor cells incubated with human or canine adenovirus, or lentiviral vectors have distinct transcriptome profiles. *Plos One* 8(7):e69808. IF: 3.534

Soldati C, Cacci E, Biagioni S, Carucci N, Lupo G, Perrone-Capano C, Saggio I, Augusti-Tocco G (2012) Restriction of neural precursor ability to respond to *Nurr1* by early regional specification. *Plos One* 7(12):e51798. IF: 3.73

Khalaj-Kondori M, Sadeghizadeh M, Behmanesh M, Saggio I, Monaci P (2011) Chemical coupling as a potent strategy for preparation of targeted bacteriophage-derived gene nanocarriers into eukaryotic cells. *Journal of Gene Medicine* 13(11):622-631. IF: 2.483

Cherubini G, Naim V, Caruso P, Burla R, Bogliolo M, et al. (2011) The FANC pathway is activated by adenovirus infection and promotes viral replication-dependent recombination. *Nucleic Acids Research* 39(13):5459-5473. IF:8.026

Riminucci M, Robey PG, Saggio I, Bianco P (2010) Skeletal progenitors and the *GNAS* gene: fibrous dysplasia of bone read through stem cells. *Journal of Molecular Endocrinology* 45(6):355-364. IF: 3.628

Piersanti S, Remoli C, Saggio I, Funari A, Michienzi S, et al. (2010) Transfer, Analysis, and Reversion of the Fibrous Dysplasia Cellular Phenotype in Human Skeletal Progenitors. *Journal of Bone and Mineral Research* 25(5):1103-1116 IF: 7.059

Bianco P, Robey PG, Saggio I, Riminucci M (2010) "Mesenchymal" Stem Cells in Human Bone Marrow (Skeletal Stem Cells): A Critical Discussion of Their Nature, Identity, and Significance in Incurable Skeletal Disease. *Human Gene Therapy* 21(9):1057-1066. IF: 4.829

Caruso P, Burla R, Piersanti S, Cherubini G, Remoli C, et al. (2009) Prion expression is activated by Adenovirus 5 infection and affects the adenoviral cycle in human cells. *Virology* 385(2):343-350 IF: 3.042

Sacchetti B, Funari A, Michienzi S, Di Cesare S, Piersanti S, et al. (2007) Self-renewing osteoprogenitors in bone marrow sinusoids can organize a hematopoietic microenvironment. *Cell* 131(2):324-336. IF: 29.887

Martina Y, Avitabile D, Piersanti S, Cherubini G, Saggio I (2007) Different modulation of cellular transcription by adenovirus 5, Delta E1/E3 adenovirus and helper-dependent vectors. *Virus Research* 130(1-2):71-84. IF: 2.81

Benihoud K, Esselin S, Descamps D, Jullienne B, Salone B, et al. (2007) Respective roles of TNF-alpha and IL-6 in the immune response-elicited by adenovirus-mediated gene transfer in mice. *Gene Therapy* 14(16):533-544. IF: 4.812

Riminucci M, Saggio I, Robey PG, Bianco P (2006) Fibrous dysplasia as a stem cell disease. *Journal of Bone and Mineral Research* 22(SUPPL.2): 125-131. IF: 6.635

Piersanti S, Sacchetti B, Funari A, Di Cesare S, Bonci D, et al. (2006) Lentiviral transduction of human postnatal skeletal (stromal, mesenchymal) stem cells: In vivo transplantation and gene silencing. *Calcified Tissue International* 78(6):372-384. IF: 2.483

Cherubini G, Petouchoff T, Grossi M, Piersanti S, Cundari E, et al. (2006) E1B55K-deleted adenovirus (ONYX-015) overrides G(1)/S and G(2)/M checkpoints and causes mitotic catastrophe and endoreduplication in p53-proficient normal cells. *Cell Cycle* 5(19):2244-2252. IF: 3.214

Campo S, Serlupi-Crescenzi O, Arseni B, Rossi S, Saggio I, et al. (2005) Comparative activity of Sant7 and anti-IL-6, IL-6R monoclonal antibodies in a murine model of B-cell lymphoma. *Cytokine* 31(5):368-374. IF: 2.012

Piersanti S, Martina Y, Cherubini G, Avitabile D, Saggio I (2004) Use of DNA microarrays to monitor host response to virus and virus-derived gene therapy vectors. *Am J Pharmacogenomics* 4(6):345-356. IF: n/a

Piersanti S, Cherubini G, Martina Y, Salone B, Avitabile D, et al. (2004) Mammalian cell transduction and internalization properties of lambda phages displaying the full-length adenoviral penton base or its central domain. *Journal of Molecular Medicine* 82(7):467-476. IF: 4.256

Salone B, Martina Y, Piersanti S, Cundari E, Cherubini G, et al. (2003) Integrin alpha 3 beta 1 is an alternative cellular receptor for adenovirus serotype 5. *Journal of Virology* 77(24):13448-13454. IF: 5.225

Di Giovine M, Salone B, Martina Y, Amati V, Zambruno G, et al. (2001) Binding properties, cell delivery, and gene transfer of adenoviral penton base displaying bacteriophage. *Virology* 282(1):102-112. IF: 3.27

Benihoud K, Salone B, Esselin S, Opolon P, Poli V, et al. (2000) The role of IL-6 in the inflammatory and humoral response to adenoviral vectors. *Journal of Gene Medicine* 2(3):194-203. IF: 3.103

Benihoud K, Saggio I, Opolon P, Salone B, Amiot F, et al. (1998) Efficient, repeated adenovirus-mediated gene transfer in mice lacking both tumor necrosis factor alpha and lymphotoxin alpha. *Journal of Virology* 72(12):9514-9525. IF: 5.828

Saggio I, Ciapponi L, Savino R, Ciliberto G, Perricaudet M (1997) Adenovirus-mediated gene transfer of a human IL-6 antagonist. *Gene Therapy* 4(8):839-845. IF: 5.996

Di Marco A, Gloaguen I, Demartis A, Saggio I, Graziani R, et al. (1997) Agonistic and antagonistic variants of ciliary neurotrophic factor (CNTF) reveal functional differences between membrane-bound and soluble CNTF alpha-receptor. *Journal of Biological Chemistry* 272(37):23069-23075. IF: 6.963

Di Marco A, Gloaguen I, Graziani R, Paonessa G, Saggio I, et al. (1996) Identification of ciliary neurotrophic factor (CNTF) residues essential for leukemia inhibitory factor receptor binding and generation of CNTF receptor antagonists. *Proc Natl Acad Sci U S A* 97(17):9247-9252. IF: 10.244

Saggio I, Gloaguen I, Poiana G, Laufer R (1995) CNTF variants with increased biological potency and receptor selectivity define a functional site of receptor interaction. *Embo Journal* 14(13):3045-3054. IF: 13.505

Saggio I, Gloaguen I, Laufer R (1995) Functional phage display of ciliary neurotrophic factor. *Gene* 152(1):35-39. IF: 2.16

Saggio I, Paonessa G, Gloaguen I, Graziani R, Deserio A, et al. (1994) Nonradioactive receptor binding assay for ciliary neurotrophic factor. *Analytical Biochemistry* 221(2):387-391. IF: 2.313

Saggio I, Laufer R (1993) Biotin binders selected from a random peptide library expressed on phage. *Biochemical Journal* 293(3):613-616. IF: 3.579

Saggio I, Laufer R (1993) Detection of biotinylated molecules in solid-phase assays using a recombinant biotin-binding bacteriophage. *Analytical Biochemistry* 214(1):352-355. IF: 2.313

Books and book chapters

Saggio I. *L'eta' se esiste* (2022). Editor Il Mulino ISBN 978 88 15 29563 7

Saggio I. In *Genetica, Terapia genica* (2014) Casa Editrice Ambrosiana Rozzano (Mi) 550-559

Saggio I. *Terapia genica. I virus usati per curare* (2008) *Enciclopedia medica* 52-58.

Saggio I. *Targeting bacteriophage vectors*. (2002) In *Vector targeting for therapeutic gene delivery*. Edited by Curiel DT and Douglas JT Published by Wiley, New York. 20: 429-456.

Board of editors/ reviewer in scientific journals

2020 – to date	Cells, editor
2018 – to date	PLOS One, editor
2018 – to date	Nucleus, reviewer
2018	Stem cell translational medicine, reviewer
2017	Molecular therapy, reviewer
2016 – to date	BMC Medical Genomics, reviewer
2014 – to date	Stem Cell Research, reviewer
2009	Experimental Cell Research, reviewer

Speaker at conferences and invited seminars (selection)

2019	Talk Science communication TIGEM Naples It
2019	Talk Laminopathy meeting London UK
2019	Seminar Mechanobiology Institute NUS Singapore

2019	Seminar Nanyang Technological University College of Science Singapore
2018	Talk Progeria research Foundation Boston USA
2018	Talk Italian laminopathy meeting Bologna It
2018	Talk Telomere Embo meeting Singapore
2018	Seminar Nanyang Technological University College of Science Singapore
2017	Talk Telomere CSH Cold Spring Harbor NY USA
2017	Talk FISV Rome It
2017	Talk Italian laminopathy meeting Bologna It
2017	Talk p53 international meeting Singapore
2016	Talk Nuclear organization and function CSH Cold Spring Harbor NY USA
2016	Talk Telethon Skelethon convention Rome It

Last 5year publications (IF publication year)

1. Merigliano C, Burla R, La Torre M, Del Giudice S, Teo Hsiang L, Chong Wai L, Chojnowski A, Goh WI, Olmos Y, Maccaroni K, Giubettini M, Chiolo I, Carlton J, Raimondo D, Verni F, Stewart CL, Rhodes D, Wright G, Burke B and Saggio I (2021) Human AKTIP interacts with ESCRT proteins and functions at the midbody in cytokinesis. *Plos Genetics*. 17(8):e1009757. IF: 5.917
2. Burla R, La Torre M, Maccaroni K, Verni F, Giunta S and Saggio I (2020). Interplay of the nuclear envelope with chromatin in physiology and pathology. *Nucleus*. Dec11(1):205-218. IF:2.792
3. Chen L, Roakel CM, Galati A, Bavasso F, Saggio I, Schoeftner S, Cacchione S, Gatti M, Artandi SE, Raffa GD (2020) Loss of human TGS1 hypermethylase promotes increased telomerase RNA and telomere elongation. *Cell Reports*. 30(5):1358-1372. IF: 8.109
4. Raimondo D, Remoli C, Astrologo L, Burla R, La Torre M, Verni F, Tagliafico E, Corsi A, Del Giudice S, Persichetti A, Giannicola G, Robey PG, Riminucci R and Saggio I (2020) Changes in gene expression in human skeletal stem cells transduced with constitutively active Gsa correlates with hallmark histopathological changes seen in fibrous dysplastic bone. *Plos One*. 15(1):e0227279. IF:2.74
5. Sechi S, Frappaolo A, Karimpour-Ghahnavieh A, Gottardo M, Burla R, Di Francesco L, Szafer-Glusman E, Schininà E, Fuller M T, Saggio I, Riparbelli M G, Callaini G, and Giansanti M G (2019) Drosophila Doublefault protein coordinates multiple events during male meiosis by controlling mRNA translation. *Development*. 146(22). IF: 5.611
6. Mascolo E, Barile A, Stufiera Mecarelli L, Amoroso N, Merigliano C, Massimi A, Saggio I Hansen T, Tramonti A, Di Salvo ML, Barbetti F, Contestabile R and Verni F (2019) The expression of four pyridoxal kinase (PDXK) human variants in Drosophila impacts on genome integrity. *Scientific Reports*. 9(1):14188. IF: 3.998
7. Mascolo E, Amoroso N, Saggio I, Merigliano C, Verni F (2019) Pyridoxine/pyridoxamine 5'-phosphate oxidase (Sgll/PNPO) is important for DNA integrity and glucose homeostasis maintenance in Drosophila. *J. Cell. Physiology*. 235(1):504-512. IF: 5.546
8. Merigliano C, Mascolo E, Cesta A, Saggio I, Verni F (2019) A new role for Drosophila Aurora-A in maintaining chromosome integrity. *Chromosoma*, 128(1):41-52. IF: 3.442
9. del Rio D, Beucher B, Lavigne M, Wehbi A, Saggio I & Kremer EJ (2019) CAV-2 Vector Development and Gene Transfer in the Central and Peripheral Nervous Systems. *Frontiers in molecular neuroscience*, 12:71. IF: 4.057
10. Saggio I (2019) Perils and Promises of Therapeutic Approaches for the Stem Cell Disease Fibrous Dysplasia. *Stem cells translational medicine* 8(2):110-111. IF: 6.429
11. Burla R, La Torre M, Zanetti G, Bastianelli A, Merigliano C, Del Giudice S, Vercelli A, Di Cunto F, Boido M, Verni F and Saggio I (2018) p53-sensitive epileptic behavior and inflammation in Ft1 hypomorphic mice. *Frontiers in Genetics* 9:581. IF: 3.517
12. Merigliano C, Mascolo E, Burla R, Saggio I and Verni F (2018) The relationship between Vitamin B6, diabetes and cancer. *Frontiers in Genetics* 9(SEP):388. IF: 3.517
13. Merigliano C, Mascolo E, La Torre M, Saggio I and Verni F (2018) Protective role of vitamin B6 (PLP) against DNA damage in Drosophila models of type 2 diabetes. *Scientific Reports* 8(1):11432. IF: 4.011

14. Burla R, La Torre M, Merigliano C, Verni F and Saggio I (2018). Genomic instability and DNA replication defects in progeroid syndromes. *Nucleus* 9(1):368-379. IF: 2.157
15. La Torre M, Burla R, Merigliano C et al. (2018). Mice with reduced expression of the telomere-associated protein Ft1 develop p53-sensitive progeroid traits. *Aging cell* 17(4):e12730. IF: 7.346
16. Mestre-Francés N, Serratrice N, Gennetier A, Devau G, Cobo S, Trouche S, Fontes P, Zussy C, De Deurwaerdere P, Salinas S, Mennechet FKJD, Dusonchet J, Schneider B, Saggio I, Kalatzis V, Luquin-Piudo MRJ, Verdier M, and Kremer EJ (2018) Exogenous LRRK2G2019S induces parkinsonian-like pathology in a nonhuman primate. *JCI Insight* 3(14):98202. IF: 6.014
17. Burla R, La Torre M, Saggio I (2016) Mammalian telomeres and their partnership with lamins. *Nucleus* 7(2):187-202. IF: 2.387
18. Burla R, Carcuro MT, La Torre M, Fratini F, Crescenzi M, D'Apice MR, Spitalieri P, Raffa GD, Astrologo L, Lattanzi G, Cundari E, Raimondo D, Biroccio AM, Gatti M, Saggio I (2016) The telomeric protein AKTIP interacts with A- and B-type lamins and is involved in regulation of cellular senescence. *Open Biology* 6(8):160103. IF: 3.481
19. Sacchetti B, Funari A, Remoli C, Giannicola G, Robey PG, Kogler G, Liedtke S, Cossu G, Serafini M, Sampaolesi M, Tagliafico E, Tenedini E, Saggio I, Riminucci M, Bianco P. (2016) No identical "mesenchymal stem cells" at different times and sites: Human committed progenitors of distinct origin and differentiation potential are incorporated as adventitial cells in microvessels. *Stem cell reports* 6(6):897-913. IF: 7.338
20. Simão D, Pinto C, Fernandes P, Peddie CJ, Piersanti S, Collinson LM, Salinas S, Saggio I, Schiavo G, Kremer EJ, Brito C, Alves PM. (2016) Evaluation of helper-dependent canine adenovirus vectors in a 3D human CNS model. *Gene therapy* 23(1):86–94. IF: 3.11

Bibliometrics (Scopus)

Total scientific articles	62
Total citations	3230
Total H index	23
Articles 2012-2022	30 (threshold ASN <i>commissario</i> SSD Bio/18 =24)
Citations 2007-2022	2714 (threshold ASN <i>commissario</i> SSD Bio/18 = 866)
H index 2007-2022	17 (threshold ASN <i>commissario</i> SSD Bio/18 =15)