

## Personal Information

Romina Burla

February 19, 1983, Terni, Italy

Italian citizen

Position: IBPM (Institute of Molecular Biology and Pathology) CNR Researcher c/o Department of Biology and Biotechnology "C Darwin", Sapienza University of Rome

Scopus Author ID: 25935872500

ORCID author ID: 0000-0002-5640-4464

Phone number: 0649912472

e-mail: romina.burla@uniroma1.it

## EDUCATION

- February 2012:** PhD in Genetics and Molecular Biology, Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome. PhD thesis title "Characterization of AKTIP, a new protein involved in human DNA replication and telomere metabolism". Group Leader: Prof. Isabella Saggio
- April 2008:** Master Degree in Genetics and Molecular Biology Score 110/110 cum laude Dept of Genetics and Molecular Biology, University "La Sapienza", Rome Master Degree Thesis title: "Analysis by RNA interference of human gene AKTIP" Group Leader: Prof. Isabella Saggio
- December 2006:** University Degree in Biological Sciences Score: 110/110 cum laude Dept of Genetics and Molecular Biology, University "La Sapienza", Rome Degree Thesis title: "Use of lentivectors to mediate RNA interference of endogenous genes in mammalian cells" Group Leader: Prof. Isabella Saggio

## PROFESSIONAL EXPERIENCE

- July 2020-Present:** IBPM-CNR Researcher, III professional level, permanent position
- March 2018-June 2020:** Postdoctoral research activity in the field of telomere metabolism and replication and aging related processes in mammalian cells Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome Group leader: Prof. Isabella Saggio
- January 2016- February 2018:** Postdoctoral research activity in the field of telomere metabolism and replication in mammalian cells. IBPM CNR/ Dept of Biology and Biotechnology "C Darwin", Sapienza.
- May 2014 – December 2015:** Postdoctoral research activity in the field of telomere metabolism and replication and aging related processes in mammalian cells Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome Group leader: Prof. Isabella Saggio
- May 2013-April 2014:** Postdoctoral research activity in the field of telomeres metabolism Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome Group leader: Prof. Isabella Saggio I
- May 2012-April 2013:** Research scholarship of Pasteur Institute-Fondazione Cenci Bolognetti (Teresa Ariaudo) in the field of telomere in mammalian cells Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome Group leader: Prof. Isabella Saggio
- November 2011-May 2012:** Postdoctoral research activity in the field of telomere metabolism and replication and aging related processes in mammalian cells Dept of Biology and Biotechnology "C Darwin", Sapienza, University of Rome Group leader: Prof. Isabella Saggio
- 2008-2012:** Post-lauream training activity in the field of telomere metabolism, DNA damage and aging in mammalian cells Dept of Biology and

2005-2008: Biotechnology “C Darwin”, Sapienza, University of Rome Group leader: Prof. Isabella Saggio  
Student training in the laboratory of Gene Therapy at the University of Rome "La Sapienza", Dept of Biology and Biotechnology “C Darwin”, Group leader Saggio I. Research work: analysis of proteins involved in DNA damage checkpoint, telomere metabolism and DNA damage repair

### **TEACHING AND TUTORING ACTIVITY**

2021-2022: Gene therapy and Neuroscience, Sapienza University (co-teaching 3CFU)

#### **Teaching Support Activity (Sapienza, University of Rome)**

2012-2018: Teaching activity for gene therapy mock project preparation support for Gene Therapy course.

2011-2012: Bacterial transformation and cellular transfection. Teaching and technical support for practical exercises for students of Genetic course.

#### **Tutoring activity (Sapienza, University of Rome)**

2011-to present: Laboratory tutoring activity for students in biology training

2011-2018: Tutoring activity for students of Erasmus exchange in Biology and of double degree program between Sapienza-University Paris 07

#### **Seminars for University Courses (Sapienza, University of Rome)**

2017: “Nuclear architecture, genome integrity and disease”. Lecture for SSAS-Molecular Medicine Course 2018-2019- 29-11-2018

2015: “Ageing, molecular, cellular and organismal basis”. Seminar for Erasmus week 2015, 16-12-2015

2013: “Ageing, molecular, cellular and organismal basis”. Seminar for Erasmus week 2013, 17-12-2103

2012: “Telomeres: the beginnings and ends of linear chromosomes”. Seminar for Gene Therapy course. 26-11-2012

2012: “Transposable Elements”. Seminar for Genetic course. 28-01-2012

2009: “Gene therapy”. Lecture for Human Genetic course. 27-11-2009

### **THIRD MISSION AND OUTREACHING**

2021: Contributing in organization of International Winter School in “Stem Cells and Molecular Medicine”, in collaboration with Stem cell and gene editing Master degree. Sapienza, University of Rome. December 13-17, 2021

2021: Contributing in organization of European Researcher’s Night – ERN 2021, in collaboration with “La Scienza nella pratica giornalistica” Master. Sapienza, University of Rome. September 24-25, 2021

2021: Contributing in organization of Advanced Training Courses “Scienza e democrazia”, in collaboration with “La Scienza nella pratica giornalistica” Master. Sapienza, University of Rome. May 25-28, 2021

2020: Contributing in organization of International Winter School in “Stem Cells and Molecular Medicine” in collaboration with Stem cell and gene editing Master degree. Sapienza, University of Rome. December 14-18, 2020

2019: Contributing in organization of International Winter School in “Molecular Medicine” Sapienza, in collaboration with Stem cell and gene editing Master degree. University of Rome. December 16-20, 2019

**2015-2018:** Contributing in organization of Annual Erasmus Seminars week

**Laboratory skills:** Protein extraction, Western Blotting, lentivectors production lentivectors – mediated transduction, primary and immortalized cell cultures, cell transfection, bacterial transformation, microbiology techniques, RT-PCR, Real Time PCR, RNA extraction from cells and tissues and retrotranscription, cloning techniques, plasmid DNA purification, genomic DNA isolation from cells and tissues, cytological preparation and analysis, CRISPR-Cas9 techniques, FISH

**Computer skills:** Microsoft Word, Microsoft Excel, Microsoft Power Point, Adobe Photoshop, GeneAmp 7300, Primer Express, Scion Image, FIJI-Image J, Graphpad PRISM, Endnote

**Foreign Languages:** English

## GRANTS

**2018:** MIUR Ateneo Avvio alla ricerca. Project title “Analysis of the biochemical and functional role of the telomeric protein AKTIP/Ft1 in telomere replication”. PI

**2015:** MIUR Ateneo Avvio alla ricerca. Project title “Study of the genetic interaction between the telomeric protein AKTIP/Ft1 and the genome surveyor p53”. PI

## PROJECT PARTICIPATION

**2016-2019:** Participation in Progeria Research Foundation founded project: “The lamin-interacting telomeric protein AKTIP in HGPS”.

**2015-2016:** Participation in Telethon founded Exploratory project: “Investigating the role of the telomeric gene AKTIP in progeroid syndromes”.

**2010-2016:** Participation in AIRC founded project: “Identification and characterization of Drosophila telomere capping proteins”.

**2009-2012:** Participation in European research project: “Braincav”.

## SCIENTIFIC ORGANIZATION MEMBERSHIP

AGI

## BIBLIOMETRICS:

Scopus: Documents: 15; Citations: 181; h-index: 8

Google Scholar: <https://scholar.google.com/citations?user=FkDDGDIAAAAJ&hl=it>

## PUBLICATIONS

Maccaroni K, La Torre M, **Burla R** and Saggio I (2022). Phase Separation in the Nucleus and at the Nuclear Periphery during Post-Mitotic Nuclear Envelope Reformation. *Cells*, 11, 1749.

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.

**Burla R**, La Torre M, Maccaroni K, Verni F, Giunta S, Saggio I. Interplay of the nuclear envelope with chromatin in physiology and pathology. *Nucleus* 2020

Merigliano C, **Burla R**, La Torre M, Del Giudice S, Teo Hsiang L, Chong Wai L, Goh WI, Chojnowski A, Chiolo I, Carlton J, Raimondo D, Verni F, Rhodes D, Wright G, Burke B and Saggio I. Human AKTIP interacts with ESCRT proteins and functions at the midbody in cytokinesis. *BioRxiv* 2020

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. Changes in gene expression in human skeletal stem cells transduced with constitutively active G $\alpha$  correlates with hallmark histopathological changes seen in fibrous dysplastic bone. *Plos One* 2020

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. Drosophila Doublefault protein coordinates multiple events during male meiosis by controlling mRNA translation. *Development* 2019

**Burla R**, La Torre M, Zanetti G, Bastianelli A D, Merigliano C, Del Giudice S, Vercelli A, Di Cunto F, Boido M, Verni F and Saggio I. p53-sensitive epileptic behavior and inflammation in Ft1 hypomorphic mice. *Frontiers in genetics* 2018.

Merigliano C, Mascolo E, **Burla R**, Saggio I and Verni F The Relationship Between Vitamin B6, Diabetes and Cancer. *Frontiers in genetics* 2018.

**Burla R**, la Torre M, Merigliano C, Verni F and Saggio I Genomic instability and DNA replication defects in progeroid syndromes. *Nucleus* 2018.

La Torre M, Merigliano C, **Burla R**, Mottini C, Zanetti G, Del Giudice S, Carcuro M, Virdia I, Bucciarelli E, Manni I, Rampioni Vinciguerra G, Piaggio G, Riminucci M, Cumano A, Bartolazzi A, Verni F, Soddu S, Gatti M, Saggio I Mice with reduced expression of the telomere-associated protein Ft1 develop p53-sensitive progeroid traits *Aging cell*, 2018

**Burla R**, Carcuro M, La Torre M, Fratini F, Crescenzi M, D'Apice MR, Spitalieri P, Raffa GD, Astrologo L, Lattanzi G, Cundari E, Raimondo D, Biroccio A, Gatti M and Saggio I The telomeric protein AKTIP interacts with A- and B-type lamins and is involved in regulation of cellular senescence *Open Biol*, 2016

**Burla R**, La Torre M, Saggio I Mammalian telomeres and their partnership with lamins *Nucleus* 2016

**Burla R**, Carcuro M, Raffa G, Galati A, Raimondo D, Rizzo A, La Torre M, Micheli E, Ciapponi L, Cenci G, Cundari E, Musio A, Biroccio A, Cacchione S, Gatti M, Saggio I AKTIP/Ft1, a new shelterin-interacting factor required for telomere maintenance *Plos Genetics* 2015

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

Piersanti S, **Burla R**, Licursi V, Brito C, La Torre M, Alves P, Simao D, Mottini C, Salinas S, Ibanes S, Negri R, Tagliafico E, Kremer EJ, Saggio I Transcriptome analysis of the response of human neurospheres to canine adenoviral vectors reveals activation of DNA damage response and modulation of microtubule motors and centromeric proteins *Plos One*, 2015

Cherubini G, Naim V, Caruso P, **Burla R**, Bogliolo M, Cundari E, Benihoud K, Saggio I, Rosselli F The FANCD3 pathway is activated by adenovirus infection and promotes viral replication-dependent recombination *Nucleic Acid Research* 2011

Caruso P, **Burla R**, Piersanti S, Cherubini G, Remoli C, Martina Y, Saggio I Prion expression is activated by Adenovirus 5 infection and affects the adenoviral cycle in human cells Virology 2009

Roma, 29-03-2021

*Romina Burla*