
BIOGRAPHICAL SKETCH

NAME:	Giovanni Cenci
e-mail	giovanni.cenci@uniroma1.it
POSITION TITLE:	Full Professor of Genetics, Sapienza University of Rome

Academic Appointments:

1998: Post-Doctoral Researcher, Sapienza University of Rome (Italy)
1999: Post-Doctoral Researcher, University of Rome "Roma Tre" (Italy)
2000-2007: Researcher In Genetics, University of Salento Disteba, Lecce, (Italy)
2007-2012: Researcher In Genetics, University of L'Aquila (L'Aquila)- (Italy)
2011- 2014: Adjunct Associate Professor, Temple University, Philadelphia (PA)
2013-2022 Associate Professor of Genetics, Sapienza University of Rome (Italy)
2022- to date: Full Professor of Genetics, Sapienza University of Rome (Italy)
2025-to date Coordinator PhD Program in Life Sciences Sapienza University of Rome (Italy)
2022-to-date, Senior Fellow, School of Advanced Studies, Sapienza University of Rome (Italy)
2013 to date, Associate Scientist, Fondazione Cenci-Bolognetti-Pasteur Institute (Italy)
2022-2025, Deputy Dean, Faculty of Science, SAPIENZA University of Rome (Italy)
2020-2024 Member of the National Thematic Group on Radiation, Italy Space Agency (ASI)

Honors and Awards:

AGI Award for the best PhD Thesis
2004 Rotary Club Award for Distinguished Contribution to Research

Scientific interests

Genetic control of mitosis and meiosis. Structure and Function of *Drosophila* telomeres. Crosstalk between cellular metabolism and chromosome integrity. DNA repair and mechanisms of radioresistance

Contribution to Science (major findings)

Early Contributions

- G. Cenci began his career by providing the first detailed characterization of all stages of *Drosophila* spermatogenesis. This work, published in 1994, remains a foundational reference for scientists studying male meiotic divisions.
- In 1997, Cenci and his team identified the first gene in any organism required to prevent telomere fusions. This discovery led to the isolation of several mutants characterized by telomeric fusions.
- His subsequent research identified a multi-protein complex known as **terminin**. Terminin specifically associates with the ends of *Drosophila* chromosomes. Cenci proposed that terminin is the functional analogue of **shelterin**, which protects human telomeres.

Human Health and Telomere Maintenance

- His research showed that most non-terminin proteins in flies have human counterparts involved in telomere maintenance. These findings established *Drosophila* as a powerful model system for studying human telomeres.
- Between 2003 and 2017, Cenci co-authored numerous high-impact papers exploring these mechanisms. His work bridged the gap between basic fly genetics and complex human cellular processes.

Metabolism, Epigenetics, and Radiation Response

- In 2009, Cenci's team discovered that impaired citrate efflux from mitochondria leads to chromosome breakage. This study linked intermediary metabolism and epigenetic control to genome stability for the first time.
- More recently, Cenci has investigated the effects of low-dose/low-dose-rate radiation (LDR) on flies. He discovered that LDR induces a radioadaptive response (RAR) that protects against extensive DNA damage.
- These studies revealed that RAR in flies shares features with radioresistance in tumor cells and Cancer Stem Cells (CSCs).
- Cenci's current research provides vital insights into CSC radioresistance and its links to DNA damage response.

Selected publications

1. **Cenci G**, Rawson RB, Belloni G, Castrillon DH, Tudor M, Petrucci R, et al. UbcD1, a Drosophila ubiquitin-conjugating enzyme required for proper telomere behavior. *Genes Dev* 1997;11:863-75
2. **Cenci G**, Siriaco G, Raffa GD, Kellum R, Gatti M. The Drosophila HOAP protein is required for telomere capping. *Nat Cell Biol* 2003;5:82-4
3. Musarò M, Ciapponi L, Fasulo B, Gatti M, **Cenci G**. Unprotected Drosophila melanogaster telomeres activate the spindle assembly checkpoint. *Nat Genet* 2008;40:362-6
4. Cipressa F, Morciano P, Bosso G, Mannini L, Galati A, Raffa GD, Cacchione S, Musio A, **Cenci G**. A role for Separase in telomere protection. *Nat Commun* 2016;7:10405
5. Porrazzo, A., Cipressa, F., De Gregorio, A., De Pitta, C., Sales, G., Ciapponi, L., Morciano, P., Esposito, G., Tabocchini, M.A., and **Cenci G**. Low dose rate gamma-irradiation protects fruit fly chromosomes from double strand breaks and telomere fusions by reducing the esi-RNA biogenesis factor Loquacious. *Commun Biol* 2022;5:905

On-going Grants

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>
Non-canonical roles of cohesin and separase, beyond that of cohesion	MUR (Italian Ministry of University and Research)	98k€	2023-2026	PI (5 % of time)
Unravelling a conserved role for HP1a in mitochondrial homeostasis	Fondazione Cenci-Bolognetti-Pasteur Institute (Italy)	40 k€	2024-2026	PI (15 % of time)

Complete list of published work in

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<https://scholar.google.co.uk/citations?user=7B7vx3kAAAAJ&hl=en&oi=ao>

Scopus Author ID: 36979223600

KEYWORDS

Drosophila

Genetics

Chromosome

Genome Stability

Telomeres