Curriculum Vitae

- **Full name/position Title/Institution**

Name: Marco Barchi
Position Title: Assistant Professor (permanent staff), since 2006
Institution: University of Rome, Tor Vergata, Italy.

- **Education/Training:**

Institution: Memorial Sloan-Kettering Cancer Center, USA
Degree: post-doc
Year completed: 2006
Field of study: Developmental and Cancer Biology
Tutor: Maria Jasin
Co-tutor: Scott Keeney

Institution: Columbia University in the City of New York, USA
Degree: post-doc
Year completed: 2002
Field of study: Developmental and Cancer Biology
Tutor: Lili Yamasaki

Institution: University of Rome "Tor Vergata", Italy,
Degree: PhD
Year completed: 2001,
Field of study: Developmental Biology
Tutor: Raffaele Geremia

Institution: University of Rome "Tor Vergata", Italy,
Degree: research fellow
Year completed: 1996
Field of study: Physiology

Institution: University of Rome "La Sapienza", Italy,
Degree: Bachelor of Sciences,
Year completed: 1995
Field of study: Toxicology

- **Positions and honors**

Position:
From 2006 up to date: I am an Assistant Professor of Human Anatomy at the University of Rome Tor Vergata, Italy.

Honors:
-Jun 2009: recipient of the *"young investigators award"* from the Department of Public Health and Cell Biology, University of Rome, Tor Vergata.

-May 2006: *re-integration grant* award from Italian National Institute of Research (MIUR).

-August 2003/2005: *American-Italian Cancer Foundation* fellowship
Project: Interomologue recombination during meiosis
Institution: Memorial Sloan-Kettering Cancer Center, New York, NY, USA
Supervisor: Prof. Maria Jasin

-April 2003/2005*: The Lalor Foundation* fellowship.
Project: Interomologue recombination during meiosis
Institution: Memorial Sloan-Kettering Cancer Center, New York, NY, USA
Supervisor: Prof. Maria Jasin

-July-September 1999: *Summer Students Fellowship* from National Science Council (CNR) of Italy.
Project: Study of Ca++ release at fertilization in Xenopus eggs.
University of California, Davis, USA.
Supervisor: Prof. Richard Nuccitelli

- **Peer-Reviewed Publications**

1. Paronetto MP, Messina V, **Barchi M**, Geremia R, Richard S, Sette C. (2011) Sam68 mark transcriptionally active stages of spermatogenesis, and modulates alternative splicing in male germ cells. *Nucleic Acid Research*. Feb 25.

2. Nakanishi K, Cavallo F, Perrouault L, Giovannangeli C, Moynahan ME, **Barchi M,** Brunet E, and Jasin M. (2011) Homology–directed Fanconi anemia pathway crosslink repair is dependent on DNA replication. *Nature Struct. Mol. Biol.,* IApr;18(4):500-3.

3. Kauppi L, **Barchi M**, Baudat F, Romanienko PJ, Keeney S, Jasin M. (2011) Distinct Properties of the XY Pseudoautosomal Region Crucial for Male Meiosis. *Science* 18 February 2011: 916-920.

4. Muciaccia B, Sette C, Paronetto MP, **Barchi M**, Pensini S, et al. (2010) Expression of a truncated form of KIT tyrosine kinase in human spermatozoa correlates with sperm DNA integrity. *Hum Reprod* 25: 2188-2202.

5. Paronetto MP, Messina V, Bianchi E, **Barchi M**, Vogel G, et al. (2009) Sam68 regulates translation of target mRNAs in male germ cells, necessary for mouse spermatogenesis. *J Cell Biol* 185: 235-249.

6. **Barchi M**, Roig I, Di Giacomo M, de Rooij DG, Keeney S, et al. (2008) ATM promotes the obligate XY crossover and both crossover control and chromosome axis integrity on autosomes. *PLoS Genet 4: e1000076.*

7. Perera D, Tilston V, Hopwood JA, **Barchi M**, Boot-Handford RP, et al. (2007) Bub1 maintains centromeric cohesion by activation of the spindle checkpoint. *Dev Cell* 13: 566-579.

8. Liebe B, Petukhova G, **Barchi M**, Bellani M, Braselmann H, et al. (2006) Mutations that affect meiosis in male mice influence the dynamics of the mid-preleptotene and bouquet stages. *Exp Cell Res* 312: 3768-3781.

9. **Barchi M**, Mahadevaiah S, Di Giacomo M, Baudat F, de Rooij DG, et al. (2005) Surveillance of different recombination defects in mouse spermatocytes yields distinct responses despite elimination at an identical developmental stage. *Mol Cell Biol* 25: 7203-7215.

10. Di Giacomo M, **Barchi M**, Baudat F, Edelmann W, Keeney S, et al. (2005) Distinct DNA-damage-dependent and -independent responses drive the loss of oocytes in recombination-defective mouse mutants. *Proc Natl Acad Sci U S A* 102: 737-742.

11. Couedel C, Mills KD, **Barchi M**, Shen L, Olshen A, et al. (2004) Collaboration of homologous recombination and nonhomologous end-joining factors for the survival and integrity of mice and cells. *Genes Dev* 18: 1293-1304.

12. Oishi K, **Barchi M**, Au AC, Gelb BD, Diaz GA (2004) Male infertility due to germ cell apoptosis in mice lacking the thiamin carrier, Tht1. A new insight into the critical role of thiamin in spermatogenesis. *Dev Biol* 266: 299-309.
13. Guardavaccaro D, Kudo Y, Boulaire J, **Barchi M**, Busino L, et al. (2003) Control of meiotic and mitotic progression by the F box protein beta-Trcp1 in vivo. *Dev Cell* 4: 799-812.

14. Chieffi P, **Barchi M,** Di Agostino S, Rossi P, Tramontano D, et al. (2003) Prolin-rich tyrosine kinase 2 (PYK2) expression and localization in mouse testis. *Mol Reprod Dev* 65: 330-335.

15. Sette C, Paronetto MP, **Barchi M,** Bevilacqua A, Geremia R, et al. (2002) Tr-kit-induced resumption of the cell cycle in mouse eggs requires activation of a Src-like kinase. *EMBO J* 21: 5386-5395.

16. Chieffi P, Battista S, **Barchi M,** Di Agostino S, Pierantoni GM, et al. (2002) HMGA1 and HMGA2 protein expression in mouse spermatogenesis. *Oncogene* 21: 3644-3650.

17. Sette C, **Barchi M**, Bianchini A, Conti M, Rossi P, et al. (1999) Activation of the mitogen-activated protein kinase ERK1 during meiotic progression of mouse pachytene spermatocytes. *J Biol Chem* 274: 33571-33579.

- **<u>Research support</u>**

PI: Marco Barchi
Agency: Italian Ministry of Education and Research
Grant: start-up (re-integration grant)
Dates of funding period: 2006-2010
total ammount of founds: euro 20,000
Overall goal of the project: study of Spo11 splicing isoform functions during meiosis

PI: Marco Barchi
Agency: Italian Assosaciation for Cancer Research (AIRC)
Grant: "My first AIRC grant"
Dates of funding period: 2006-2009
total ammount of founds: euro 150,000
Overall goal of the project: study of ATM function in normal germ cells and testicular cancer