



## **Personal information**

Name Manuela Monti  
E-mail

Nationality

Date of birth

Driving License(s)

## **Work experience**

- Dates March 2020- present
- Name and address of employer University of Pavia, corso Strada nuova 27100 Pavia, Italy
- Type of business or sector Department of Public Health, Experimental Medicine and Forensic, histology and embryology unit, viale Forlanini, 2, 27100 Pavia, Italy
- Occupation or position held Assistant Professor (RTD-B)
- Main activities and responsibilities Teaching cytology, histology and embryology (BIO-17) at the Harvey medical course, University of Pavia.  
Conduction of research mainly focused on female gametogenesis and the differentiation of stem cells isolated from human cord bloods.
  
- Dates March 2011- February 2020
- Name and address of employer Fondazione IRCCS Policlinico San Matteo, viale Camillo Golgi 19, 27100 Pavia, Italy
- Type of business or sector Biotechnology laboratories, Research Center for Regenerative Medicine
- Occupation or position held Research Scientist
- Main activities and responsibilities Identification, characterization and isolation of female germ line stem cells in mouse and human post-natal ovaries  
Identification and characterization of pluripotent stem cells from human cord blood  
Characterization and analysis of very small embryonic like stem cells to promote kidney regeneration and differentiation  
Analysis of the in vitro activity of mesenchymal stem cells for the growth of the jaw bone in dentistry
  
- Dates September 2015- October 2015
- Name and address of Fondazione IRCCS, Hospital San Matteo, viale Camillo Golgi 19,

- employer 27100 Pavia, Italy
  - Type of business or sector Keio University School of Medicine, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan
  - Occupation or position held Visiting Scientist c/o Systems Medicine, Minoru Ko lab
  - Main activities and responsibilities Zscan4 analysis on mouse GV oocytes, adult and post-implanted embryo gonads
  
- Dates June 2012- September 2012
  - Name and address of employer Fondazione IRCCS, Hospital San Matteo, viale Camillo Golgi 19, 27100 Pavia, Italy
  - Type of business or sector Institute for stem cells biology and regenerative medicine, Stanford School of Medicine, Stanford, CA, USA
  - Occupation or position held Visiting scientist c/o Renee Reijo Pera lab
  - Main activities and responsibilities Analysis of human immature oocytes donated to research to investigate the causes leading to female infertility
  
- Dates March 2010- March 2011
  - Name and address of employer Gurdon Institute, University of Cambridge, Tennis Court Road, Cambridge, CB2 1QN, United Kingdom
  - Type of business or sector Laboratory of Genetics
  - Occupation or position held Visiting scientist c/o prof. D. Glover and M. Zernicka-Goetz labs
  - Main activities and responsibilities Analysis of proteins involved in spindle formation of mouse preimplantation embryos
  
- Dates May 2007 - March 2010
  - Name and address of employer National Institute on Aging, National Institutes of Health, 251 Bayview Blvd 21224 Baltimore, MD, USA
  - Type of business or sector Laboratory of genetics. Supervisor: Dr. Minoru Ko
  - Occupation or position held Post doc
  - Main activities and responsibilities Analysis of gene expression with microarrays technology and quantitative real time PCR on mouse preimplantation embryos to identify the factor(s) involved in the regulation of zygotic genome activation  
Analysis of germ cells specific genes in adult mouse ovary, testis and in fetal gonads  
Analysis of gene expression in antral SN and NSN oocytes with microarray technology, immunohistochemistry, and FT-IR (Fourier Transform Infrared Spectroscopy) techniques
  
- Dates October 2005- April 2007
  - Name and address of employer University of Pavia, Strada Nuova 65, 27100 Pavia, Italy
  - Type of business or sector Laboratory of Developmental Biology, Department of Animal Biology, piazza Botta n.9, 27100 Pavia, Italy
  - Occupation or position held Postdoc (fellowship from Department of Animal Biology, Laboratory of Developmental Biology, University of Pavia)
  - Main activities and responsibilities Analysis of gene expression on reprogrammed fibroblasts,

- responsibilities
- reprogrammed stem cells and embryoid bodies
- Dates: October 2002- September 2005
- Name and address of employer: University of Pavia, Strada Nuova 65, 27100 Pavia, Italy
- Type of business or sector: Laboratory of Developmental Biology, Department of Animal Biology, piazza Botta n.9, 27100 Pavia, Italy
- Occupation or position held: PhD student
- Main activities and responsibilities: Analysis of gene expression and protein localization during mouse folliculogenesis
- Dates: December 2001- September 2002
- Name and address of employer: University of Pavia, Strada Nuova 65, 27100 Pavia, Italy
- Type of business or sector: Laboratory of Developmental Biology, Department of Animal Biology, piazza Botta n.9, 27100 Pavia, Italy
- Occupation or position held: Postbac (fellowship from Department of Animal Biology, Laboratory of Developmental Biology, University of Pavia)
- Main activities and responsibilities: Analysis of the dioxin effects on preimplantation mouse embryo development with molecular and biochemical methods

## Education and training

- Dates: October 2002 – October 2005
- Name and type of organization providing education and training: University of Pavia, Department of Engineering, PhD study in Bioengineering and Bioinformatics. Final score “Excellent”
- Principal subjects/occupational skills covered: PhD thesis on: Quantitative analysis of gene expression during oogenesis in fetal and adult mice: gonadotropins affect the level of gene transcription in oocytes  
Tutor: prof. CarloAlberto Redi, University of Pavia
- Title of qualification awarded: Doctor of Philosophy in Bioengineering and Bioinformatics
- Dates: November 2001
- Name and type of organization providing education and training: University of Pavia, Bachelor course in Biological Sciences, Faculty of Mathematical, Physical and Natural Sciences, Department of Animal Biology, Laboratory of Developmental Biology
- Principal subjects/occupational skills covered: Thesis in Molecular Biology: Gli effetti della 2,3,7,8, tetraclorodibenzo-para-diossina sullo sviluppo embrionale di topo.  
Tutor: Prof. Silvia Garagna, University of Pavia
- Title of qualification awarded: Bachelor’s degree in Biology
- Dates: 1995
- Name and type of organization providing education and training: Liceo Scientifico “Nicolo’ Copernico” – Pavia, Italy
- Title of qualification awarded: High School Degree

## Personal skills and competences

Mother tongue	Italian
Other languages	
	English
• Reading skills	Excellent (C2 level)
• Writing skills	Excellent (C1 level)
• Verbal skills	Excellent (C2 level)
	Japanese
• Reading skills	Beginner (A1 level)
• Writing skills	Beginner (A1 level)
• Verbal skills	Beginner (A1 level)
Scientific career	
	2021- present: Professor of “Evolution and biodiversity”, IUSS (University Institute of Advanced Studies), University of Pavia, Italy
	2018-2021: Lecturer in Histology-Embryology-Cytology (settore concorsuale BIO-17) Harvey medical course, University of Pavia, Italy
	From July 2020: member of the collegio docenti di Istologia e embriologia, SIAI
	From 24-07-2017: National abilitation to Professore di II fascia (associate professor) for the teaching of comparative anatomy and cytology (settore concorsuale 05/B2)
	2016-2020. Professor of “Stem cells and regenerative medicine”, IUSS (University Institute of Advanced Studies), University of Pavia, Italy
	2016-present. Scientific seminars c/o “Mecrì, laboratory of philosophy and culture”, Milan, Italy.
	2016-present. Academic tutoring activities in Zoology (BIO/05, LT Scienze Biologiche), University of Pavia, Italy
	2016-present. Academic tutoring activities in Developmental Biology (BIO/06, LM Molecular Biology and Genetics), University of Pavia, Italy
	2007. Academic tutoring activities in Stem cells and regenerative medicine, IUSS (University Institute of Advanced Studies), University of Pavia, Italy
	2006. Academic tutoring activities in Stem cells and regenerative medicine, IUSS (University Institute of Advanced Studies), University of Pavia, Italy
	2016-present. Member of the committee panel for student examinations in Zoology and Developmental Biology (BIO/05, LT Scienze Biologiche and BIO/06, LM Molecular Biology and Genetics) Department of Biology and Biotechnology, University of Pavia, Italy
	2016-present. Member of the committee panel for student examinations in Stem Cell Biology, Environmental Biotechnology, Reproduction Biotechnology. Bachelor course in Bioengineering,

Engineering department, University of Pavia, Italy  
 2006. Academic tutoring activities in Reproduction Biotechnology, University of Pavia, Italy  
 2005. Academic tutoring activities in Developmental Biology, University of Pavia, Italy  
 2005. Member of the committee panel for student examinations in Zoology and Developmental Biology. Course of Biological Science, Faculty of Mathematical, Physical and Natural Sciences, University of Pavia, Italy  
 2005. Member of the committee panel for student examinations in Stem Cell Biology, Environmental Biotechnology, Reproduction Biotechnology. Course of Bioengineering, Faculty of Engineering, University of Pavia, Italy  
 2004. Academic tutoring activities in Histology and Embryology. Faculty of Medicine, University of Parma, Italy

Organizational skills and competences

Excellent skills in teaching and tutoring young students (both undergraduate and graduate), lab experiments programming, grant writing and thesis preparation.

Technical skills and competences

Histology and Immunohistochemistry: basic techniques of cytology, histology and immunohistochemistry.  
 DNA/RNA: nucleic acid extraction.  
 Embryo culture: In Vitro Maturation (IVM), In Vitro Fertilization (IVF), preimplantation embryo culture, isolation of single blastomere from mouse embryos.  
 Micromanipulation: isolation of single blastomere from mouse embryos.  
 Microinjections: injection of mRNA, dsRNA, siRNA in zygotes, 2-cell and 4-cell stage mouse embryos.  
 Molecular techniques: PCR, Single cell Retro Transcriptase PCR, Real Time PCR, IVT (In vitro Transcription), ISH (In situ Hybridization), Western Blotting, DNA cloning, analysis of DNA Methylation, Microarray technology and bioinformatics analysis  
 Biophysics techniques: FT-IR (Fourier Transform Infrared Spectroscopy) on mouse oocytes and embryos.  
 Cell culture: embryonic and pluripotent stem cells, mesenchymal stem cells, very small embryonic-like stem cells culture and differentiation, embryoid bodies formation and differentiation in ectoderm, mesoderm and endoderm cell types.  
 Good knowledge of Microsoft Windows and Microsoft Word.  
 Excellent ability with bioinformatics tools.

Grants

2019. "Oomedicine: biomarkers and molecular imaging for good quality oocytes isolation". Funding institution: Fondazione Umberto Veronesi (20000€). Role: Principal investigator  
 2015-present. "Neo-oogenesis: caratterizzazione e isolamento di cellule germinali staminali da ovari umani e murini". Funding institution: Fondazione IRCCS Hospital San Matteo, Pavia, Italy (75000€). Role: Principal investigator  
 2012-2015. "Renal-Committed Embryonic Stem Cells to Promote Kidney Regeneration". Funding institution: Italian ministry of

health Ricerca Finalizzata giovani ricercatori GR-2009-1553664. (80000€). Role: Principal Investigator of Unit 3

## Scientific publications

- 1- Pandolfi L, Frangipane V, Bocca C, Marengo A, Tarro Genta E, Bozzini S, Morosini M, D'Amato M, Vitulo S, **Monti M**, Comolli G, Scupoli MT, Fattal E, Arpicco S, Meloni F. Hyaluronic Acid-Decorated Liposomes as Innovative Targeted Delivery System for Lung Fibrotic Cells. *Molecules*, 24:3291 (2019)
- 2- Cova E, Pandolfi L, Colombo M, Frangipane V, Inghilleri S, Morosini M, Mrakic-Sposta S, Moretti S, **Monti M**, Pignochino Y, Benvenuti S, Prosperi D, Stella G, Morbini P, Meloni F. Pemetrexed-loaded nanoparticles targeted to malignant pleural mesothelioma cells: an in vitro study. *International Journal of Nanomedicine*, 14:773-785 (2019)
- 3- Longo M, Boiani M, Redi CA, **Monti M\***. Cytoplasmic lattices are not linked to mouse 2-cell embryos developmental arrest. *European J Histochemistry*, 62:2972 (2018)
- 4- Bianchi N, Longo M, Redi CA, **Monti M\***. Mammalian blastocyst mimicry. *Molecular Reproduction and Development* 85:6 (2018)
- 5- **Monti M\***, Imberti B, Bianchi N, Pezzotta A, Morigi M, Del Fante C, Redi CA, Perotti C. A novel method for the isolation of pluripotent stem cells from human umbilical cord blood. *Stem cells and development*, 26: 1258-1270 (2017)
- 6- **Monti M\***, Calligaro A, Behr B, Reijo-Pera A, Redi CA, Woosidlo M. Functional topography of the human fully grown oocyte. *European J Histochemistry* 61:2769 (2017)
- 7- Ishiguro K, **Monti M**, Akiyama T, Kimura H, N Chikazawa-Nohtomi, Sakota M, Sato S, Redi CA, Ko S, Ko MSH. Zscan4 is expressed specifically during late meiotic prophase in both spermatogenesis and oogenesis. *In vitro cellular & developmental biology-animal*, 53(2):167-168 (2017)
- 8- **Monti M\***, Graziano A, Rizzo S, Perotti C, Del Fante C, d'Aquino A, Redi CA, Rodriguez y Baena R. In vitro and in vivo differentiation of progenitor stem cells obtained after mechanical digestion of human dental pulp. *Journal of Cellular Physiology* 232:548-555 (2017)
- 9- **Monti M\***, Redi CA. Isolation and characterization of mouse antral oocytes based on nucleolar chromatin organization. *JOVE*, (107), e53616, doi:10.3791/53616 (2016)
- 10- Ciccocioppo R, Cangemi GC, Kruzliak P, Gallia A, Betti E, Badulli C, Martinetti M, Cervio M, Pecci A, Bozzi V, Dionigi P, Visai L, Gurrado A, Alvisi C, Picone C, **Monti M**, Bernardo ME, Gobbi P, Corazza GR. Ex vivo immunosuppressive effects of mesenchymal stem cells on Crohn's disease mucosal T cells are largely dependent on indoleamine 2,3-dioxygenase activity and cell-cell contact. *Stem Cell Research & Therapy*, 6(1): 137 (2015)
- 11- **Monti M\***, Del Fante C, Perotti C, Redi CA. Stem cells and the side population theory: a critical review, *Current Tissue Engineering*, 4:4-10 (2015)
- 12- Del Fante C, **Monti M**, Redi CA, Cervio M, Scudeller L, Perotti C. Stem cells and translational medicine: from research to clinical procedures. *Current Tissue Engineering*, 4:11-19 (2015)

- 13- Trovato L, **Monti M**, Del Fante C, Rodriguez y baena R, Lampinen M, Ambrosio L, Redi CA, Perotti C, Kankuri E, Ambrosio G, Graziano A. A new medical device, called Rigeneracons, allows to obtain viable micro-grafts from mechanical disaggregation of human tissues. *Journal of Cellular Physiology*, 230(10):2299-2303 (2015)
- 14- Casiraghi B, **Monti M**, Imberti B. Pluripotent stem cells and tolerance induction in organ transplantation. *Current Opinion In Organ Transplantation*, 20(1):86-93 (2015)
- 15- **Monti M\***. Comet, stickman or heterochromatic DNA. *Molecular Reproduction and Development*, 81(8):677 (2014)
- 16- Cervio M, Scudeller L, Viarengo G, **Monti M**, DelFante C, Arici V, Perotti C. Conditioned medium from  $\gamma$ -irradiated umbilical cord mononuclear cells: different pro-angiogenic effects on mature and progenitor endothelial cells. *Microvascular Research*, 94:9-16 (2014)
- 17- **Monti M\***, Redi CA. The egg, The inside story of a cell. *Molecular Reproduction and Development*, 80:691-697 (2013)
- 18- **Monti M\***, Redi CA. Quid hic? Intueri Naturam. Quo munere? Curiosum esse. *Molecular Reproduction and Development*, 79:503 (2013)
- 19- Amano T, Hirata T, Falco G, **Monti M**, Sharova L, Amano M, Sheer S, Hoang H, Piao Y, Stagg C, Yamamizu K, Akiyama T, Ko MSH. Zscan4 restores the developmental potency of embryonic stem cells. *Nature Communications*, 4:1966 (2013)
- 20- **Monti M\***, Zanoni M, Calligaro A, Ko M, Mauri PL and Redi CA. Developmental arrest and mouse antral not-surrounded nucleolus oocytes. *Biology of Reproduction* 88:1-7 (2013)
- 21- **Monti M\***, Perotti C, DelFante C, Cervio M and Redi CA. Stem cells: sources and therapies. *Biological Research* 45:7-14 (2012)
- 22- **Monti M\*** and Redi CA. The biopolitics of frozen embryos. *International Journal of Developmental Biology* 55:243-247 (2011)
- 23- Ami D, Mereghetti P, Natalello A, Doglia SM, Zanoni M, Redi CA and **Monti M**. FT-IR spectral signatures of mouse antral oocytes: molecular markers of oocyte maturation and developmental competence. *BBA Molecular Cell* 1813:1220-1229 (2011)
- 24- Ami D, Natalello A, Mereghetti P, Neri T, Zanoni M, **Monti M**, Doglia SM and Redi CA. FT-IR spectroscopy supported by PCA LDA analysis for the study of embryonic stem cell differentiation. *Spectroscopy* 24(1-2):89-97 (2010)
- 25- Stanghellini I, Falco G, Lee SL, **Monti M**, Ko M. Trim43a, Trim43b and Trim43c: novel mouse genes expressed specifically in mouse preimplantation embryos. *Gene Expression Pattern* 9(8):595-602 (2009)
- 26- Nishiyama A, Xin L, Sharov A, Thomas M, Mowrer G, Meyers E, Piao Y, Mehta S, Yee S, Nakatake Y, Stagg C, Sharova L, Correa-Cerro L, Bassey U, Hoang H, Kim E, Tapnio R, Qian Y, Dudekula D, Zalzman M, Li M, Falco G, Yang H, Lee S, **Monti M**, Stanghellini I, Islam N, Nagaraja R, Goldberg I, Wang W, Longo D, Schlessinger D, and Ko M. Uncovering early response of gene regulatory networks in ES cells by systematic

- induction of transcription factors. *Cell stem cell* 5:420-33 (2009)
- 27- **Monti M\***, Redi CA. Oogenesis specific genes (Nobox, Oct-4, Gdf9, Bmp15, Oogenesis1 and Oogenesis2) are differentially expressed during natural and gonadotropin-induced mouse follicular development. *Molecular Reproduction and Development* 76:994-1003 (2009)
- 28- Redi CA, **Monti M**, Merico V, Neri T, Zanoni M, Zuccotti M, Garagna S. Stem cells. *Endocrine Development* 11:145-51 (2007)
- 29- Neri T, **Monti M**, Rebuzzini P, Merico V, Garagna S, Redi CA, Zuccotti M. Mouse fibroblasts are reprogrammed to Oct4 gene expression and alkaline phosphatase activity by embryonic stem cell extract. *Cloning and Stem cells*. 9(3):394-406 (2007)
- 30- **Monti M**, Garagna S, Redi CA, Zuccotti M. Gonadotropins affect Oct4 gene expression during mouse oocyte growth. *Molecular Reproduction and Development* 73(6):685-691 (2006)
- 31- Zuccotti M, Garagna S, Merico V, **Monti M**, Redi CA. Chromatin organization and nuclear architecture in growing mouse oocytes. *Molecular and Cellular Endocrinology*. 234:11-17 (2005)
- 32- Garagna S, Merico V, Sebastiano V, **Monti M**, Orlandini G, Gatti R, Scandroglio R, Redi CA, Zuccotti M. Three-dimensional localization of centromeres in mouse oocytes during folliculogenesis. *Journal of Molecular Histology* 35(6):631-638 (2004)
- 33- Gentile L, **Monti M**, Sebastiano V, Merico V, Garagna S, Redi CA, Zuccotti M. Single-cell quantitative RT-PCR analysis of Cpt-1b and Cpt-2 gene expression in mouse antral oocytes and in preimplantation embryos. *Cytogenetic and Genome Research*. 105:215-21 (2004)
- 34- Merico V, **Monti M**, Sebastiano V, Gentile L, Zuccotti M, Garagna S, Redi CA. Centromere localization changes in oocytes nuclei during folliculogenesis. *Rend Fis Acc Lincei* 14:109-115 (2003)
- 35- Sebastiano V, Gentile L, Merico V, **Monti M**, Zuccotti M, Garagna S, Redi CA. A single cell sensitive RT-PCR for the study of gene expression in mouse preimplantation development. *Rend Fis Acc Lincei*, 14:117-126 (2003)
- 36- Gentile L, Sebastiano V, Merico V, **Monti M**, Zuccotti M, Garagna S, Redi CA. Expression of Carnitine Palmitoyl-Transferase 1 and 2 during mouse preimplantation development. *Rend Fis Acc Lincei*, 14:217-229 (2003)

\*corresponding author

#### Editorial activities

- Monti M\***. Perinatal stem cells. *EJ Histochem* 65 (2021)
- Monti M\***. Essential current concepts in stem cell biology. *EJ Histochem* 64 (2020)
- Monti M\***. Cell biology and translational medicine. *EJ Histochem* 64 (2020)
- Monti M\***. Clathrin mediated endocytosis. *Methods and protocols EJ Histochem* 63 (2019)



**Monti M\***. Cell migration. *EJ Histochem* 63 (2019)

**Monti M\***. Mouse oocyte development. *EJ Histochem* 62 (2018)

**Monti M**, Redi CA. Bisogno (necessità) del dialogo tra Biologi e Filosofi, in “Vita e conoscenza (Percorsi Mechri)”, Jaca Book, Milano (2017)

**Monti M\***. Oocytes. Maternal information and functions. *EJ Histochem* 63 (2017)

**Monti M\***. Gamete and embryo fetal origins of adult diseases. *EJ Histochem* 60 (2016)

Redi CA, **Monti M**. Gameti Artificiali. *Le Scienze*, vol. 562 (2015)

**Monti M\***. Bioprinting in regenerative medicine. *EJ Histochem* 60 (2015)

**Monti M\***. Mistletoe. From mythology to evidence-based medicine. *EJ Histochem* 59(4) (2015)

**Monti M\***. Aging and Health - A system biology perspective. *EJ Histochem* 59(1) (2015)

**Monti M\***. Mouse development- from oocytes to stem cells. *EJ Histochem* 58(1) (2014)

**Monti M**, Redi CA. Il futuro prossimo della vita sintetica. *Le Scienze*, vol. 537 (2013)

**Monti M\***. Oogenesis. *EJ Histochem* 57(1) (2013)

**Monti M\***. Visualization techniques. From Immunohistochemistry to magnetic resonance imaging. *EJ Histochem* 57 (2013)

**Monti M**, Redi CA. “Dalla descrizione alla sintesi del vivente (clonazione, embrioni, cellule staminali, biologia sintetica: biopolitica e cittadinanza scientifica)” In: *Paradosso, rivista di filosofia* 2: 21-43 (2012)

**Monti M**, Redi CA. Uovo, storia di una cellula. *Le Scienze*, vol. 524 (2012)

Redi CA, **Monti M**. “Biologia sintetica, dalla descrizione del vivente alla sintesi del vivente” In: *Area Pediatrica*, 13: 79-82 (2012)

**Monti M\***. In vivo cellular imaging using fluorescent proteins – methods and protocols. *EJ Histochem* 56(4) (2012)

**Monti M\***. Gene expression profiling. *Methods and Protocols. EJ Histochem.* 56(3) (2012)

**Monti M\***. Epigenetics Protocol. *EJ Histochem.* 56(2) (2012)

**Monti M\***. Argonaute Proteins. *EJ Histochem.* 56(1) (2012)

**Monti M\***. Microtubule dynamics. *EJ Histochem.* 56(1) (2012)

**Monti M\***. Basic confocal microscopy. *EJ Histochem.* 56(1) (2012)

**Monti M\***. microRNAs in development. *EJ Histochem* 55(4) (2011)

**Monti M\***. RT-PCR protocols: methods in molecular biology. *EJ Histochem* 55(1) (2011)

**Monti M**, Redi CA. “Stem cells” In *Biotechnology in Surgery*. Alfonso Barbarisi Ed. Springer (2010)

Redi CA, **Monti M**. “Clonazione e cellule staminali” in *Polis genetica e salute del futuro, Salute e Società*, Franco Angeli Ed (2010)

\*corresponding author

Tot H index (2003-2021): 15

Tot H index (2011-2021): 9  
Tot n. of citations (2003-2021): 683  
Tot n. of citations (2011-2021): 333

Academic Editor of Peer J

Ad hoc reviewer for Development, JARG, Cytotherapy, PlosOne, BMC genomics, Molecular Reproduction and Development, European Journal of Histochemistry, Human Molecular Reproduction, Journal of Immunological Method.

Member of the Italian Scientific committee for the National University Publishing Award.

- 1- Other publications
- Supporting editing of the book: "Visual Zoology", by C.A. Redi, M. Zuccotti, S. Garagna; Ibis ed., Como-Pavia (2002)  
Supporting editing of the book: "Imago Animalium", by C.A. Redi, M. Zuccotti, S. Garagna; Ibis ed., Como-Pavia (2000)
- Books
- 1- Che cosa sono le cellule staminali. M. Monti, C.A. Redi. Carocci ed. (2021)
  - 2- La vita dopo il/la COVID-19, edited by M. Monti, C.A. Redi. Collegio Ghislieri, Ibis ed. (2020)
  - 3- DNA. La vita in tre miliardi di lettere. M. Monti, C.A. Redi. Carocci ed. (2019).
  - 4- Con-dividuo. Cellule e genomi XVII corso, edited by M. Monti, C.A. Redi, Collegio Ghislieri, Ibis ed. (2019)
  - 5- Migrazioni. Cellule e genomi XVI corso, edited by M. Monti, C.A. Redi, Collegio Ghislieri, Ibis ed. (2018)
  - 6- Genomica sociale. Come la vita quotidiana può modificare il nostro DNA. M Monti, CA Redi. Carocci ed. (2018)
  - 7- A stroll through a scientific city. Pavia scientific bookguide. M Monti, R Cockerham, CA Redi. Ibis ed. (2017)
  - 8- No razza. Si cittadinanza. Cellule e genomi XV corso, Collegio Ghislieri, Ibis ed. (2017)
  - 9- Uguaglianza-disuguaglianza. Equità = salute. Cellule e genomi XIV corso, edited by M. Monti, C.A. Redi, Collegio Ghislieri, Ibis ed. (2016)
  - 10- Storia di una cellula fantastica. Scienza, natura, cultura dell'uovo. CA Redi, M. Monti. Sironi ed. (2016)
  - 11- Staminali. Dai cloni alla medicina rigenerativa, by M. Monti, E Battifoglia, CA Redi. Carocci ed. (2015)
  - 12- Pavia. A spasso nella città della Scienza. C.A. Redi, M. Monti. Pavia Scientific guide. Ibis ed. (2013)
- Meetings
2016. "Cellule staminali: le terapie cellulari nella medicina rigenerativa" (platform presentation). Stem cells meeting, Pavia, April 9  
2015. "Rigenerazione ossea con cellule staminali autologhe" (platform presentation). Corso annuale di aggiornamento in Odontoiatria. Pavia, June 13  
2015. "Cytofluorimetric characterization of progenitor cells from human gingival tissue: new perspectives for bone regeneration in

dentistry” (platform presentation). AO Accademy of Osseointegration, San Francisco, CA, USA, March 12-14

2014. “Rigenerazione ossea con cellule staminali autologhe: quale futuro” (platform presentation). 3rd meeting SIRO-ARCOI Roma, November 22

2014. “Cellule staminali: il futuro della rigenerazione ossea” (platform presentation). AO first italian charter chapter Milan, September 20

2014. “Mouse antral NSN oocytes developmental arrest is due to lack of MATER and cytoplasmic lattices” 73th annual meeting of the Society for Developmental Biology, Seattle, WA, USA, July 17-21 (poster presentation)

2014. “Cellule staminali embrionali: differenziamento e riprogrammazione cellulare” Nuove frontiere in trapiantologia oncologica e in medicina rigenerativa, Pavia, 21 June (platform presentation)

2012. “Mouse antral NSN oocyte developmental arrest is associated with deficiency of MATER and cytoplasmic lattices” Ovarian Club II, Prague, CZ, November 8-10 (poster presentation)

2012. “Two-cell embryo developmental block is due to lack of cytoplasmic lattices in mouse antral NSN oocytes” 45<sup>th</sup> annual meeting of the Society for the Study of Reproduction, State College, PA, USA, August 12-15 (platform presentation)

2012. Santa Cruz Developmental Biology Meeting. Santa Cruz, Ca, 8-11 August (poster presentation)

2011. “SN versus NSN oocytes: the endless battle for the achievement of the developmental competence” 44<sup>th</sup> annual meeting of the Society for the Study of Reproduction, Portland, OR, USA, July 31-August 4 (poster presentation)

2009. ESHRE meeting, Amsterdam, June 28-July 1 (poster presentation)

2009. “Analysis of gene expression in mouse antral SN and NSN oocytes” International Society of the Developmental Biologists meeting, Edinburgh, UK, September 6-10 (poster presentation)

2006. Tecnobios Procreazione Symposium and 2nd International conference on the cryopreservation of the human oocyte, Bologna, October 5-7 (platform presentation)

2006. New Insight and Perspective in Stem Cell Research. Pavia, May 16-17 (platform presentation)

2005. FEBS Practical Course “Real Time Quantitative RT-PCR Analysis of Gene Expression”, Prague, September 18-23 (poster and platform presentation)

2005. 19th International Workshop on the cell nucleus “The Wilhelm Bernhard Workshop”, Munsterschwarzach Abbey, Germany, 1-5 September (poster presentation)

#### Seminars

2021. “CRISPR-Cas9 e l'evoluzione dell'editing genomico”. Collegio Ghislieri, Pavia, April 21

2018. “Riprogrammazione epigenetica delle cellule germinali”. Collegio Ghislieri, Pavia, May 23

2017. “Christian de Duve e Yoshinori Ōsumi: autofagia - fagocitosi – autofagia”, Collegio Ghislieri, Pavia, April 26

2017. "UGM. Umanità geneticamente modificata". Seminamenti VI edizione, Pistoia, March 25

2017. "Le nuove sfide scientifiche e bioetiche provenienti dalle biotecnologie di nuova generazione". Le Giornate della Laicità, Reggio Emilia, February 13

2016. "Le cellule in cattedra: imitare per innovare, la plasticità differenziativa". Campus Il futuro presente 2016. Pistoia, September 8

2016. "Infiammazione, microRNA e sviluppo embrionale" e "Infiammazione, infertilità e longevità", Collegio Ghislieri, Pavia, May 18

2016. "Il magico mondo delle cellule staminali", corso Specialista in ricerca biomedica, February, 26

2016. "Cellule staminali. Il nuovo quadro dopo la scoperta delle cellule staminali riprogrammate". Le Giornate della Laicità, Reggio Emilia, February 15

2016. "Ab ovo usque ad mala", Department of experimental biology, Jaen University, Spain, January 28

2015. "As mouse NSN oocytes fail development". Keio University, Department of Systems Medicine, Tokyo, Japan, October 1

2015. "Uovo, la staminale totipotente è un miniaturizzato laboratorio di biologia molecolare". Le Giornate della Laicità, Reggio Emilia, February 16

2015. "La funzione di staminalità" e "Le very small embryonic-like stem cells, cellule rare con grandi potenzialità in medicina rigenerativa", Collegio Ghislieri, Pavia, May 11

2014. "Ab ovo: dalla staminale totipotente alla medicina rigenerativa". Fondazione IRCCS Policlinico San Matteo, December 18

2014. "Ab ovo usque ad mala". IUSS, Institute for Advanced Studies, University of Pavia, Italy, December 16

2014. "Early developmental arrest in the mouse embryo results from the lack of cytoplasmic lattices in mouse oocytes". Brown University, RI, USA, July 31

2014. "Cellule staminali tessuto-specifiche: unità funzionali più che anatomiche". Convegno: "I nuovi bersagli della terapia cellulare". Collegio Ghislieri, Pavia, May 12

2014. Origine, definizione ed eterogeneità biologica delle cellule staminali mesenchimali. Convegno: "I nuovi bersagli della terapia cellulare". Collegio Ghislieri, Pavia, May 14

2013. "Ab ovo usque ad mala". IUSS, Institute for Advanced Studies, University of Pavia, Italy, December 16

2013. "Cellule staminali embrionali: differenziamento e riprogrammazione cellulare". Convegno: Impiego clinico di cellule staminali, stato dell'arte, prospettive e implicazioni etiche". Collegio Ghislieri, Pavia, June 15

2013. "Embriogenesi e individuazione delle cellule staminali organo-specifiche" e "Le nicchie delle cellule staminali degli organi solidi". Speaker a "Progressi in biologia e medicina" 12° corso di formazione avanzata Le nicchie delle cellule staminali somatiche normali e tumorali". Collegio Ghislieri, Pavia, April 15-19

2012. "Ab ovo usque ad mala". IUSS, Institute for Advanced Studies, University of Pavia, Italy, November 23

2012. "Mouse antral NSN oocytes developmental arrest is associated with deficiency of MATER and cytoplasmic lattices"  
 Speaker at the 45 annual meeting of the Society for the Study of Reproduction. Penn State, Pennsylvania, USA

2012. "Two-cell embryo developmental block is due to lack of cytoplasmic lattices in mouse antral NSN oocytes". Institute for stem cell biology and regenerative medicine, Stanford School of Medicine, Renee Reijo Pera lab, Stanford, California, USA

2009. "Zscan4 expression in embryonic stem cells and mouse preimplantation embryos". Gurdon Institute, Magdalena Zernicka-Goetz lab, Cambridge, UK

2009. "Zscan4 and heterogeneity in embryonic stem cells". Speaker at the "Stem cells in Pavia" meeting. Fondazione IRCCS Policlinico San Matteo, Pavia

2006. "Quantitative analysis of gene expression during oogenesis in fetal and adult mice: gonadotropins affect the level of gene transcription in oocytes". Laboratory of Genetics, NIA/NIH, Baltimore, MD, USA

2003. "Effetti della diossina sullo sviluppo embrionale preimpianto di topo". Speaker at the "La medicina della riproduzione: aspetti clinici e terapeutici" meeting. Padova, Italy

#### Science communication

Excellent skills in communicating science to a layperson audience  
 Authors of several scientific articles published on the main Italian magazines and newspapers (Le Scienze, La Lettura, Corriere della Sera)

Invited speaker to TEDxReggio Emilia, October 18<sup>th</sup>, 2020

Invited speaker to several festivals and science festival like "Spoleto, festival dei due mondi", "Sarzana, festival della mente", "Montebelluna festival of the arts", "Giorante della Laicità, Reggio Emilia", "Milano Focus Live", "Milano bookcity" and "Bergamo Scienza"

Invited speaker to "MEMEX, la scienza spiegata dai protagonisti", RAI scuola (2016), to "Geo&Geo", RAI (2017), "Quante storie" (2018), broadcast on public Italian TV

Invited speaker to the annual conference "Science for peace cinema" organized by the Fondazione Umberto Veronesi (from 2015 to present)

Curator and protagonist of the play "The egg. A wonderful cell" performed at the "Elfo Puccini Theater", Milan (March 2016), "Gaetano Donizetti Theater", Bergamo (October 2016) and "Arcimboldi Theater", Milan (February 2017)

#### Awards

2018. Premio Cesare Angelini giovani for the book "Staminali, dai cloni alla medicina rigenerativa", Pavia November, 21

2017. International HM Goldman "Spazio Ricerca 2017" prize "Treatment of intrabony defects with dental pulp stem cells\collagen sponge versus collagen sponge alone: a randomized clinical trial" XVIII International SIdP 2017 – SIdP 18th International Congress 2017 meeting

2012. Best European abstract award. Society for the Study of Reproduction meeting, Penn State, PA, USA

**Additional information****REFERENCES:**

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Email: carloalberto.redi@unipv.it

-Prof. Minoru Ko, Department of Systems Medicine The Sakaguchi Laboratory, Graduate School of Medicine, Keio University. Laboratory of Genetics, National Institute of Aging, National Institutes of Health, 251 Bayview Blvd, 21224 Baltimore MD, USA.

Tel: +15105588359

Email: kom@z7.keio.jp

**ANNEXES****PATENT:**

Patent application title: Methods for modulating embryonic stem cell differentiation (Minoru Ko, Manuela Monti, Geppino Falco, Sum Lee Lim, Stanghellini Ilaria).

Patent number: US 8617813 B2

Pursuant to Article 13, Act 679/16 (Privacy Law), I hereby agree to the handling of my personal data.  
Manuela Monti

PAVIA, 21/12/2021

Cv firmato da Manuela  
Monti – documento  
firmato in originale  
conservato agli atti