

## Elisabetta Tosti



**Born in Naples (Italy) on 08/01/1954**

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**Current Position:** ricercatore II° livello, Senior Scientist

**Current Affiliation:**

Department of Biology and Evolution of Marine Organisms, Stazione Zoologica Anton Dohrn, Napoli (Italy)

**Education/Training**

<b>Institute and Location</b>	<b>Degree (if applicable)</b>	<b>Year</b>	<b>Field of Study</b>
University of Naples Federico II	<b>Laurea cum laude</b>	1977	Biological Sciences
Stazione Zoologica, Naples-Italy	Training	1977-1979 1981-1982	Marine Biology
University of Padova- Italy	Fellow	1980	Marine Biology
Stazione Zoologica Anton Dohrn, Naples- Italy	Fellow	1983-1988	Marine Biology
Stazione Zoologica Anton Dohrn, Naples - Italy	Ricercatore	1989-2000	Marine Biology
Stazione Zoologica Anton Dohrn, Naples- Italy	1° Ricercatore	2000-present	Biology of Reproduction
MBL, Woods Hole (MA)- USA	Visiting scientist	1990	Biology of Reproduction
University of Nashville-USA	Visiting scientist	1998	Biology of Reproduction

University of Naples Federico II	Adjunct Professor	1996-1997 and 2006-2010	Biology of Reproduction
University of Naples, Federico II and Stazione Zoologica	Coordinator Master course	2006-2007	Biology of Reproduction

### **Appointments and Awards**

- 1994-2000- National Coordinator of the International Society of Reproductive Medicine “Alpha”.
- 1995- Scientific consulting in Biology of Reproduction at the “Department of Physiopathology of Reproduction” Faculty of Medicine” University of Naples Federico II.
- 1998- Founder member of the “Italian Society of Embryology, Reproduction and Research” SIERR.
- 1998 and 1999- Member of the Scientific Advisory Board of the “Danube University “Krems, Austria.
- 2009 - Member of the Editorial Board of the International Journal “ Marine Drugs”.
- 2010 - Member of the Editorial Board of the International Journal “Journal of Marine Science: Research & Development”.
- 2011 - Member of the Editorial Board of the International Journal “Journal of fertilization: in vitro”.

### **Other**

- 2007- Expert evaluator of grant assignment for the “National Science Foundation”. USA
- 2014 - Expert evaluator of grant assignment for the Israel Science Foundation (ISF)
- 2014 Expert evaluator of grant assignment, conferred by the Italian Ministry of Research
- Scientific Reviewer for 30 international referenced (ISI) journals.
- Invited speaker to many international congresses and symposia.
- Guest Editor of a Special Issue on international referenced (ISI) journal.
- Editor of an E-book.

## **Students' Supervision**

Tutor of 9 degree thesis, 4 PhD thesis and 4 post-doc contracts.  
Internal supervisor of 4 PhD thesis.

## **Publications**

Author of 73 publications on ISI-journals (h- index: 20), 14 invited reviews, 11 book chapters, 1 book

### **List of publications of the last 10 years (2005-present):**

#### **Peer –reviewed publications**

Gallo A, Tosti E. Ion currents involved in gamete physiology- in Special issue of Ionic Messengers in Development & Cancer. Intern J Dev Biol. 2015 In press

Gallo A, Tosti E. Reprotoxicity of the Antifoulant Chlorothalonil in Ascidians: An Ecological Risk Assessment. Plos One. 2015; 10(4): e0123074

Bezzaouia A, Gallo A, Silvestre F, Tosti E. Distribution pattern and activity of mitochondria during oocyte growth and maturation in the ascidian *Styela plicata*. Zygote. 2014; 22:462-469.

Gallo A, Russo GL, Tosti E. T-type Ca<sup>2+</sup> current activity during oocyte growth and maturation in the ascidian *Styela plicata*. Plos One. 2013; 8(1):54e604.

Gallo A, Tosti E. Adverse effect of antifouling compounds on the reproductive mechanisms of the ascidian *Ciona intestinalis*. Marine Drugs 2013; 11: 3554-3568.

Tosti E, Boni R, Gallo A, Silvestre F. Ion currents modulating oocyte maturation in animals. Syst Biol Reprod Med. 2013; 59 (2): 61-68.

Silvestre F, Fissore RA, Tosti E, Boni R. Ca<sup>2+</sup> rise at *in vitro* maturation in bovine cumulus-oocyte complexes. Mol Repr Dev . 2012; 79: 369-379.

Junca A, Gonzalez Marti B, Tosti E, Cohen M, De la Fontaine D, Benkhalifa M, Ménézo Y. Sperm nucleus decondensation, hyaluronic acid (HA) binding and oocyte activation capacity: different markers of sperm immaturity? Case reports. J Assist Reprod Genet. 2012; 29:353–355.

Silvestre F, Gallo A, Cuomo A, Covino T, Tosti E. Role of cyclic AMP in the maturation of *Ciona intestinalis* oocytes. Zygote. 2011; 19(4): 365-71.

Gallo A, Silvestre F, Cuomo A, Papoff F, Tosti E. Impact of metals on the reproductive mechanism of *Ciona intestinalis*. Mar Ecol. 2011; 32: 222-231.

Tosti E, Gallo A, Silvestre F. Ion currents involved in oocyte maturation, fertilization and early developmental stages of the ascidian *Ciona intestinalis*. Mol Repr Dev. 2011; 78: 854-60.

Silvestre F, Boni R, Fissore RA, Tosti E. Ca<sup>2+</sup> signalling during maturation of cumulus–oocyte complex in mammals. Mol Repr Dev . 2011; 78:744–756.

Dale B, Wilding M, Coppola G, Tosti E. How do spermatozoa activate oocytes? Reprod Biomed Online. 2010; 21: 1-3.

Silvestre F, Tosti E. Impact of marine drugs on cytoskeleton-mediated reproductive events. Special Issue “Marine Bioactive Compounds Acting on Animal Reproduction” Marine Drugs. 2010; 8(4): 881-915.

Tosti E. Dynamics functions of ion currents in early development. Mol Repr Dev. 2010; 77: 856-867.

Fortunato A, Tosti E. The impact of in vitro fertilization on health of the children: an update. Eur J Obst Gyn Reprod Biol. 2010; 154: 125-129.

Russo GL, Bilotto S, Ciarcia G, Tosti E. Phylogenetic conservation of cytostatic factor related genes in the ascidian *Ciona intestinalis*. Gene. 2009; 429:104-111.

Silvestre F, Tosti E. Impact of marine drugs on animal reproductive processes. Marine Drugs. 2009; 7: 539-564.

Silvestre F, Cuomo A, Tosti E. Ion current activity and molecules modulating maturation and growth stages of ascidian (*Ciona intestinalis*) oocytes. Mol Repr Dev. 2009; 76: 1084-1093.

Russo GL, Ciarcia G, Presidente E, Siciliano AR, Tosti E. Cytotoxic and apoptogenic activity of a methanolic extract from the marine invertebrate *Ciona intestinalis* on malignant cell lines. Med Chem. 2008; 4(2): 106-109.

Shmukler Y, Silvestre F, Tosti E. 5-HT receptive structures are localized in the interblastomere cleft of *Paracentrotus lividus* early embryo. Zygote.2008; 16: 79-86.

Menezo Y, Russo GL, Tosti E, El Moutassim S, Benkalifa M. Expression profile of genes coding for DNA repair in human oocytes using Pangenomic Microarrays, with a special focus on ROS linked decays. J Ass Reprod Gen. 2008; 24.: 513-520.

Boni R, Cocchia N, Silvestre F, Tortora G, Lorizio R, Tosti E. Juvenile and adult immature and in vitro matured ovine oocytes evaluated in relation to membrane electrical properties, calcium stores, IP3 sensitivity and apoptosis occurrence in cumulus cells. *Mol Repr Dev.* 2008; 75:1752-1760.

Comes S, Locascio A, Silvestre F, d'Ischia M, Russo GL, Tosti E, Branno M, Palumbo A. Regulatory roles of nitric oxide during larval development and metamorphosis in *Ciona intestinalis*. *Dev Biol.* 2007; 306: 772-784.

Anniciello A, Tosti E. The impact of inflammatory bowel disease (IBD) and its treatment on the reproductive process. *Curr Women Health Rev.* 2007; 3: 107-112.

Boni R, Gualtieri R, Talevi R, Tosti E. Calcium and other ion dynamics during gamete maturation and fertilization. *Theriogenology.* 2007; 68S: 156-164.

El Moutassin S, Bilotto S, Russo GL, Tosti E, Menezo Y. APEX/Ref-1 (apurinic/apyrimidic endonuclease DNA-repair gene) expression in human and ascidian (*Ciona intestinalis*) gametes and embryos. *Mol Hum Repr.* 2007; 14: 1-8.

Tosti E. Calcium ion currents mediating oocyte maturation events. *Repr Biol Endocr.* 2006; 4: 26.

Tosti E, Fortunato A, Settini A. The impact of in vitro fertilization on the health of the mother and the offspring. *Curr Women Health Rev.* 2006; 2(4):, 233-247.

Cuomo A, Silvestre F, De Santis R, Tosti E.  $Ca^{2+}$  and  $Na^{+}$  current patterns during oocyte maturation, fertilization and early developmental stages of *Ciona intestinalis*. *Mol Repr Dev.* 2006; 73: 501-511.

Gualtieri R, Boni R, Tosti E, Zagami M, Talevi R. Intracellular calcium and protein tyrosine phosphorylation during the release of bovine sperm adhering to the fallopian tube epithelium in vitro. *Reproduction.* 2005; 129: 61-73.

Cuomo A, Di Cristo C, Di Cosmo A, Paolucci M, Tosti E. Calcium currents correlate with oocyte maturation during the reproductive cycle in *Octopus vulgaris*. *J. Exp. Zool. A.* 2005; 303: 193-202.

### **BOOKS CHAPTERS (peer reviewed)**

Gallo A, Tosti E. (2014) Cytoskeletal elements and the reproductive success in animals. In: H. Schatten editor: *The cytoskeleton in health and disease*; Springer Science+Business Media. In press.

Tosti E. Ménézo Y. (2010) "Sperm induced oocyte activation" in : *Human Spermatozoa: Maturation, Capacitation and Abnormalities* Thomas Lejeune and Pascal

Delvaux Editors; Nova Biomedical Books; Science Publishers Inc New York; pp 379-397.

### **E. BOOKS**

E. Tosti, R. Boni (editors) (2011) "Oocyte maturation and fertilization: a long history for a short event" Bentham Science Publishers. 2011- OPEN ACCESS  
URL : <http://www.benthamscience.com/ebooks/9781608051823/index.htm>.