# Jong Tai Chun



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**Current Position:** Technologist

## **Affiliation:**

Section BEOM, Stazione Zoologica Anton Dohrn, Napoli (Italy)

# **Education/Training/Experience**

<b>Institute and Location</b>	Degree / Function	Year	Field of Study
Department of Electronic	B.S.	1979-1987	Biological Sciences
Engineering, Yonsei University,			
Seoul, Korea			
Department of Neurobiology,	Ph.D.	1987-1995	Molecular Neurobiology
Anatomy and Cell Sciences,			
University of Pittsburgh, Pittsburgh,			
PA, USA			
Marine Biological Laboratory	Research	1992-1994	Molecular Neurobiology
(MBL), Woods Hole, MA, USA.	Assistant		
Andrus Gerontology Centre and the	Postdoc	1995-1999	Gene Expression in the
Department of Neurology,			Central Nervous System
University of Southern California,			
Los Angeles, CA, USA			
Stazione Zoologica Anton Dohrn	Researcher /	1999-2017	Signal Transduction and
(Laboratory of Biochemistry and	Fellow		Cell Biology
Molecular Biology, Laboratory of			
Neurobiology, Laboratory of Signal			
Transduction, Laboratory of Biology			
and Evolution of Marine Organisms,			
BEOM), Naples, Italy			
Stazione Zoologica Anton Dohrn	Technologist	2017-	Signal Transduction and
(Biology and Evolution of Marine		present	Cell Biology
Organisms, BEOM)			

### **Publications**

Author of 60 publications on ISI-journals and 5 book chapters

#### Selected publications

- Limatola N, Chun JT, Cherraben S, Schmitt JL, Lehn JM, Santella L (2021). Effects of Dithiothreitol on Fertilization and Early Development in Sea Urchin. Cells 10:3573.
- Vasilev F, Ezhova Y, Chun JT (2021) Signaling Enzymes and Ion Channels Being Modulated by the Actin Cytoskeleton at the Plasma Membrane. Int J Mol Sci. 22:10366.
- Limatola N, Vasilev F, Santella L, Chun JT (2019) Nicotine Induces Polyspermy in Sea Urchin Eggs through a Non-Cholinergic Pathway Modulating Actin Dynamics. Cells. 9:63.
- Musacchia F, Vasilev F, Borra M, Biffali E, Sanges R, Santella L, Chun JT. (2017) De novo assembly of a transcriptome from the eggs and early embryos of Astropecten aranciacus. PLoS One 12:e0184090.
- Santella L, Limatola N, Chun JT (2015) Calcium and actin in the saga of awakening oocytes. Biochem. Biophys. Res. Commun. 460:104-113.
- Limatola N, Chun JT, Kyozuka K, Santella L (2015) Novel Ca<sup>2+</sup> increases in the maturing oocytes of starfish during the germinal vesicle breakdown. Cell Calcium 58:500-510.
- Chun JT, Limatola N, Vasilev F, and Santella L (2014). Early events of fertilization in sea urchin eggs are sensitive to actin-binding organic molecules. Biochem. Biophys. Res. Commun. 450:1166-1174.
- Chun JT, Vasilev F, and Santella L (2013) Antibody against the actin-binding protein depactin attenuates Ca<sup>2+</sup> signaling in starfish eggs. Biochem. Biophys. Res. Commun. 441:301-307.
- Santella L and Chun JT (2011). Actin, more than just a housekeeping protein at the scene of fertilization. Sci. China Life Sci. 54:733-743.
- Chun JT, Puppo A, Gragnaniello G, Garante E, and Santella L (2010). The biphasic increase of PIP2 in the fertilized eggs of starfish: new roles for actin polymerization and Ca<sup>2+</sup> signaling. PLoS ONE 5:e14100.
- Chun JT and Santella L (2009). Roles of the actin-binding proteins in intracellular Ca<sup>2+</sup> signaling. Acta Physiologica 195:61-70.
- Chun JT and Santella L. (2009). The actin cytoskeleton in meiotic maturation and fertilization of starfish eggs. Biochem. Biophys. Res. Commun. 384:141-143.
- Puppo A, Chun JT, Gragnaniello G, Garante E, and Santella L (2008). Alteration of the cortical actin cytoskeleton deregulates Ca<sup>2+</sup> signaling, monospermic fertilization, and sperm entry. PLoS ONE 3:e3588.
- Kyozuka K, Chun JT, Puppo A, Gragnaniello G, Garante E, and Santella L (2008). Actin cytoskeleton modulates calcium signalling during the maturation of starfish oocytes. Dev. Biol. 320:426-435.
- Santella L, Puppo A, and Chun JT (2008). The role of the actin cytoskeleton in calcium signaling in starfish oocytes. Int. J. Dev. Biol. 52:571-584.

#### **Book chapters**

- Chun JT, Vasilev F, Limatola N, Santella L (2018) Fertilization in Starfish and Sea Urchin: Roles of Actin. In: Kloc M and Kubiak JZ (eds.) Marine Organisms as Model Systems, Series Title: Results and Problems in Cell Differentiation, Springer Nature.
- Santella L, Limatola N, and Chun JT (2014) Actin Cytoskeleton and Fertilization in Starfish Eggs. In: H. Sawada. (eds.) Sexual Reproduction in Animals and Plants, Springer Verlag, Japan, ISBN 978-4-43154588-0
- Chun JT and Santella L. (2013) Intracellular Calcium Waves. In: Lennarz, W.J. and Lane, M.D. (eds.) The Encyclopedia of Biological Chemistry, Vol. 2, pp. 640-647. Academic Press, Waltham, MA, USA.
- Santella L and Chun JT (2013) Calcium Signaling by Cyclic ADP-Ribose and NAADP. In: Lennarz, W.J. and Lane, M.D. (eds.) The Encyclopedia of Biological Chemistry, Vol. 1, pp. 331-336. Academic Press, Waltham, MA, USA.
- Chun JT and Santella L (2007). Calcium and fertilization. In: "Calcium, A Matter of Life or Death". (Ed. by J. Krebs and M. Michalak). pp.425-470, Elsevier B.V., Amsterdam, The Netherlands.