# **Enrico D'Aniello**



Born in Napoli (Italy) on 14/01/1978

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Current Position: Ricercatore III° livello, Tenure-track Position

# **Current Affiliation:**

Dept. of Biology and Evolution of Marine Organisms, Stazione Zoologica "Anton Dohrn", Napoli (Italy)

# **Education/Training/Experience**

Institute and Location	Degree	Year	Field of Study
	Function		
Dept. of Biology, University of	Laurea (M.Sc)	2004	Biological Science
Napoli, Italy			
Dept. of Biology of Human	Master I° Level	2006	Physiopathology
Reproduction, II° University of			of Reproduction
Napoli			
Dept. of Developmental	Ph.D.	2006-2009	Developmental Biology in
Biology, Stazione Zoologica A.			Ascidians:
Dohrn, Napoli (Italy) and Open			Eye development
University, London, UK			
Dept. of Developmental	Postdoc	2009-2010	Developmental Biology in
Biology, Stazione Zoologica A.			Ascidians:
Dohrn, Napoli (Italy)			Eye development
Cincinnati Children's Hospital	Postdoc	2010-2013	Developmental Biology in
Medical Center			Zebrafish:
Cincinnati (OHIO), USA			Heart Development
Institute of Biomolecular	Postdoc	2015-2017	Role of Phytocannabinoids
Chemistry, Consiglio Nazionale			marine natural compounds
delle Ricerche, Pozzuoli, Napoli			on Lipid metabolism: Cell
(Italy)			Culture and Zebrafish
Stazione Zoologica Anton	Researcher	2017-	Epigenetics of marine
Dohrn, Napoli, Italy		present	organisms

# Appointments and awards

2013: Travel Award Weinstein Cardiovascular Development Conference. Oral Presentation. Tucson (Arizona-USA)

2013: Poster prize: Cincinnati Children's Developmental Biology Research Retreat. Oxford (Ohio-USA)

### Scientific Society Member

- 2013-14 Member of the Italian Society of Biochemistry and Molecular Biology (SIB).
- 2011-12 Member of the editorial Board of Journal of Organ Biology OMICS Group
- 2011-12 Member of the editorial Board of Journal of Cell and Developmental Biology OMICS Group
- 2011-12 Member of the American Heart Association

#### **Research Grants**

Co-Founded Project:

In silico protein target fishing di derivati acidi e idrossilati di fitocannabinoidi e relativa convalida sperimentale mediante saggi in vitro, (2015-2016), 25.000 GBP-Study Code: GWCRI1583; GW Pharmaceuticals

Virtual screening, protein target fishing e studio di relazioni struttura-attività di derivati acidi e neutri di fitocannabinoidi e relativa convalida sperimentale mediante saggi in vitro (2016-2017), 30.000 GBP-Study Code: GWCRI1638, GW Pharmaceuticals

Construction of an affordable zebrafish facility at the Institute of Biomolecular Chemistry (2015-2016) 10.000 GBP – Study code: GWCRI15107. GW Pharmaceuticals

High Throughput Screening of Phytocannabinoid Drugs in Rare Orphan Disease: The case of Duchenne Muscolar Dystrophy (2016-17) 20.000 GBP – Study code: GWCRI15107. GW Pharmaceuticals

#### Workshops and Courses

IBRO-Kemali School "Cannabinoid function in synapses, circuits and brain: from molecules to disease mechanisms" Pozzuoli, Italy September 28 - October 3, 2015

NoE MGE joint EMBL/Sigma qPCR practical course EMBL (2008) Heidelberg (Germany)

Evo-Devo meets Marine Genomics: Comparative functional analysis of gene regulatory networks in marine species. (2007) Naples, (Italy).

Zeiss Course: Application of advanced microscopy and image analysis. (2006) Naples (Italy)

# Invited Talk:

2014: Lecture: Retinoic Acid (a derivate of Vitamin A) Restricts and Promotes Cardiomyocyte Specification in Zebrafish. Stazione Zoologica "Anton Dohrn", Napoli (Italy)

2014: Retinoic Acid (a derivate of Vitamin A) Restricts and Promotes Cardiomyocyte Specification in Zebrafish. Istituto di Bioscienze e Biorisorse, CNR, Napoli (Italy)

2013: Depletion of retinoic acid initiates a novel positive feedback mechanism that promotes teratogenic increases in retinoic acid. Weinstein Cardiovascular Development Conference. Tucson (Arizona-USA)

2007: The Ascidian homolog of the Vertebrate Rx gene is essential for ocellus development and function. Marine Genomics "An international conference". Sorrento (Italy).

2006: The Ascidian homolog of the Vertebrate Rx gene is essential for ocellus development and function. MGE Cross Node Workshop: Evolving Gene Networks. Roscoff (France).

# **Teaching Experiences:**

2009: Lecture to the Master in Biotechnology of reproduction and repopulation of marine species: Ciona Intestinalis: a model system for the technique of genetic manipulation. University of Napoli, (Italy).

2016: Lecture to high school students of Liceo Scientifico L. Da Vinci di Vairano di Patenora (Caserta): Zebrafish, a model system for human disease study.

2017: Lecture to high school students of Liceo Scientifico Maristi di Giugliano (Napoli): Zebrafish, a model system for human disease study.

# **Student's Supervision**

Good mentoring experience guiding, 4 Bachelor students, 2 Master students, 1 Internship student and 1 PhD student.

#### **Construction of a Zebrafish Facility.**

2016: Construction of an affordable zebrafish facility at the Institute of Biomolecular Chemistry in Pozzuoli with all the permissions approved from the Italian Ministry of Health.

# Publications

Google Scholar - All citations: 355; h-index: 10; i10-index: 11

#: corresponding author

*List of publications of the last 10 years* (2007-present):

**Peer-reviewed** 

Guida F, Luongo L, Boccella S, Giordano ME, Romano R, Bellini G, Manzo I, Furiano A, Rizzo A., Imperatore R, Iannotti F.A., D' Aniello E., Piscitelli F, Rossi F.sca, Cristino L, Di Marzo V, de Novellis V, and Maione S (2017) Palmitoylethanolamide induces microglia changes associated with increased migration and phagocytic activity: involvement of the CB2 receptor. Sci Rep 7: 375.

D'Aniello E, Ravisankar P and Waxman JS (2015) Rdh10a Provides a Conserved Critical Step in the Synthesis of Retinoic Acid during Zebrafish Embryogenesis. PLoS One 10: e0138588.

Rydeen A, Voisin N, D'Aniello E, Ravisankar P, Devignes CS, and Waxman JS (2015) Excessive feedback of Cyp26a1 promotes cell non-autonomous loss of retinoic acid signaling. Dev Biol 405: 47-55.

D'Aniello E and Waxman JS (2015) Input overload: Contributions of retinoic acid signaling feedback mechanisms to heart development and teratogenesis. Dev Dyn 244: 513-523.

D'Aniello E, Rydeen AB, Anderson JL, Mandal A and Waxman JS (2013) Depletion of retinoic acid receptors initiates a novel positive feedback mechanism that promotes teratogenic increases in retinoic acid. PLoS Genet 9: e1003689.

Sorrell MR, Dohn TE, D'Aniello E and Waxman JS (2013) Tcf7l1 proteins cell autonomously restrict cardiomyocyte and promote endothelial specification in zebrafish. Dev Biol 380: 199-210.

Natale A, Sims C, Chiusano ML, Amoroso A, D'Aniello E, Fucci L, Krumlauf R, Branno M and Locascio A (2011) Evolution of anterior Hox regulatory elements among chordates. BMC Evol Biol 11: 330.

D'Aniello E, Pezzotti MR, Locascio A and Branno M (2011) Onecut is a direct neural-specific transcriptional activator of Rx in Ciona intestinalis. Dev Biol 355: 358-371.

Topo E, Soricelli A, Di Maio A, D'Aniello E, Di Fiore MM, and D'Aniello A. (2010) Evidence for the involvement of D-aspartic acid in learning and memory of rat. Amino Acids 38: 1561-1569.

Macchia G, Topo E, Mangano N, D'Aniello E and Boni R (2010) DL-Aspartic acid administration improves semen quality in rabbit bucks. Anim Reprod Sci 118: 337-343.

Donizetti A, Grossi M, Pariante P, D'Aniello E, Izzo G, Minucci S and Aniello F (2008) Two neuron clusters in the stem of postembryonic zebrafish brain specifically express relaxin-3 gene: first evidence of nucleus incertus in fish. Dev Dyn 237: 3864-3869.

Sordino P, Andreakis N, Brown ER, Leccia NI, Squarzoni P, Tarallo R, Alfano C, Caputi L, D'Ambrosio P, Daniele P, D'Aniello E, D'Aniello S, Maiella S, Miraglia V, Russo MT, Sorrenti G, Branno M, Cariello L, Cirino P, Locascio A, Spagnuolo A, Zanetti L and Ristoratore F (2008) Natural variation of model mutant phenotypes in Ciona intestinalis. PLoS One 3: e2344.

D'Aniello G, Grieco N, Di Filippo MA, Cappiello F, Topo E, D'Aniello E and Ronsini S. (2007) Reproductive implication of D-aspartic acid in human pre-ovulatory follicular fluid. Hum Reprod 22: 3178-3183.

D'Aniello S, D'Aniello E, Locascio A, Memoli A, Corrado M, Russo MT, Aniello F, Fucci L, Brown ER and Branno M (2006) The ascidian homolog of the vertebrate homeobox gene Rx is essential for ocellus development and function. Differentiation 74: 222-234.

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