

# ΚΑΡΜΕΝ ΑΝΔΡΙΚΟΥ PhD, RN

## ΠΡΟΣΩΠΙΚΑ ΣΤΟΙΧΕΙΑ

Υπηκοότητα:	Ελληνική/Αγγλική
Ημερομηνία γέννησης:	27 /01/1982
Οικογενειακή κατάσταση:	παντρεμένη με ένα παιδί
Τίτλος:	Επίκουρη καθηγήτρια
Γλώσσες:	Ελληνικά, Αγγλικά, Γερμανικά, Ιταλικά
Παρούσα διεύθυνση:	Πάτρα, Ελλάδα
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## ΕΚΠΑΙΔΕΥΣΗ (education)

### Δεκ 2009-Ιαν 2013 Διδακτορικό (Doctor of Philosophy)

Πανεπιστήμιο: Open University of London, UK. Ινστιτούτο: Department of Cellular and Developmental Biology, Stazione Zoologica Anton Dohrn, Naples, Italy. Υπεύθυνος (supervisor): Dr. Maria Ina Arnone, Department of Cellular and Developmental Biology, Stazione Zoologica Anton Dohrn and Professor Dr. Ulrich Technau, Department of Neurosciences and Developmental Biology, University of Vienna, Austria. Τίτλος διδακτορικής διατριβής: “*Evolution of mesoderm specification and myogenesis in the sea urchin embryo*”.

### Ιαν 2005-Νοεμ 2009 Πτυχίο Βιολογίας (Bachelor degree)

Πανεπιστήμιο Πατρών, Τμήμα Βιολογίας. Υπεύθυνος (supervisor): Καθηγητής Κωνσταντίνος Φλυτζάνης, Τμήμα Βιολογίας, Πανεπιστήμιο Πατρών και Professor Dr. Pedro Martinez, Department of Genetics, University of Barcelona, Spain. Τίτλος διπλωματικής εργασίας: “*Study of the expression patterning and regeneration ability in S. roscoffensis (Μελέτη προτύπων γονιδιακής έκφρασης και αναγέννησης στο άκοιλο S. roscoffensis)*”.

### Σεπ 2001-Δεκ 2005 Πτυχίο Νοσηλευτικής (Bachelor degree)

Τεχνολογικό Εκπαιδευτικό Ίδρυμα Πατρών, Τμήμα Νοσηλευτικής. Υπεύθυνος (supervisor): Καθηγήτρια Μαρία Παπαδημητρίου, Τμήμα Νοσηλευτικής, Τεχνολογικό Εκπαιδευτικό Ίδρυμα Πατρών. Τίτλος διπλωματικής εργασίας: “*Σχιζοφρένεια και βία: μύθοι και πραγματικότητα*”.

## ΕΠΑΓΓΕΛΜΑΤΙΚΗ ΣΤΑΔΙΟΔΡΟΜΙΑ (work experience and research interest)

Φεβ 2026 – σήμερα **Επίκουρη Καθηγήτρια** Αναπτυξιακής Βιολογίας. Τμήμα Βιολογίας, Πανεπιστήμιο Πατρών, Ελλάδα.

Σεπ 2024 – Δεκ 2025 **Καθηγήτρια Βιολογίας** δευτεροβάθμιας εκπαίδευσης. Γενικό Λύκειο Χιλιμοδίου, Ελλάδα.

Ιουλ 2024 **Ερευνήτρια (Research internship)**

Professor Dr. Andreas Hejnl laboratory, Friedrich Schiller University Jena, Germany.

Φεβ - Σεπ 2024 **Εντεταλμένη Διδάσκουσα** στο μάθημα 'Αναπτυξιακή Βιολογία'. Τμήμα Βιολογίας, Πανεπιστήμιο Πατρών, Ελλάδα.

Οκτ 2020 **Ερευνήτρια (Research internship)**

Dr. Arnau Sebè-Pedrós laboratory, Center for Genomic regulation (CRG), Barcelona, Spain.

Σεπ 2019 **Ερευνήτρια (Research internship)**

Dr. Arnau Sebè-Pedrós laboratory, Center for Genomic regulation (CRG), Barcelona, Spain.

Απρ 2018 **Ερευνήτρια (Research internship)**

Professor Dr. Christopher Lowe laboratory, Hopkins (Stanford) marine station, California, USA.

Oct 2017 **Ερευνήτρια (Research internship)**

Genomics facility, EMBL, Heidelberg, Germany.

Απρ 2014-Δεκ 2018 **Μεταδιδακτορικό (postdoctoral researcher)**

Sars International Centre for Marine Molecular Biology, University of Bergen, Norway. Laboratory of Professor Dr. Andreas Hejnl, University of Bergen, Norway.

Ιαν 2013-Μαρ 2014 **Μεταδιδακτορικό (postdoctoral researcher)**

Stazione Zoologica 'Anton Dohrn', Naples, Italy. Laboratory of Dr. Maria Ina Arnone, Department of Cellular and Developmental Biology.

Απρ 2013-Ιουλ 2013 **Ερευνήτρια (Research internship)**

Professor Dr. Ulrich Technau laboratory, University of Vienna, Austria.

Απρ 2012 **Ερευνήτρια (Research internship)**

Professor Paola Oliveri laboratory, UCL, London.

Νοεμ 2009-Ιαν 2013 **Διδακτορική διατριβή (PhD)**

International Open University PhD program. Stazione Zoologica 'Anton Dohrn', Naples, Italy. Υπεύθυνος (supervisor): Dr. Maria Ina Arnone, Department of Cellular and Developmental Biology.

Ιαν 2009-Ιουν 2009 **Πρακτική (Erasmus exchange program)**

Υπεύθυνος (supervisor): Professor Dr. Pedro Martinez laboratory, University of Barcelona, Spain.  
Συνυπεύθυνος (co-supervisor): Καθηγητής Κωνσταντίνος Φλυτζάνης, Τμήμα Βιολογίας, Πανεπιστήμιο Πατρών

**Μάιος 2008-Δεκ 2008 Πρακτική (internship)**

Εργαστήριο του Καθηγητή Κωνσταντίνου Φλυτζάνη, Τμήμα Βιολογίας, Πανεπιστήμιο Πατρών.

**Μάιος 2004-Νοεμ 2004 Πρακτική (internship)**

Εργαζόμενη στο «Ιπποκράτειον» Πανεπιστημιακό νοσοκομείο Θεσσαλονίκης, κλινικές Εντατικής Θεραπείας, Μεταμοσχεύσεων και Καρδιολογίας. Εργαζόμενη στο «Ριον» Πανεπιστημιακό νοσοκομείο Πάτρας, κλινικές Επειγόντων περιστατικών και Παθολογίας.

**Μαθήματα (courses):**

- 2019 Elixir-Carpentries (R programming course) in University of Bergen, Norway
- 2017 ‘Comparative anatomy of invertebrates’ workshop in Department of Invertebrate Zoology, Moscow State University, Russia
- 2016 EMBO course in ‘Single Cell Gene Expression Analysis’ in EMBL, Heidelberg, Germany
- 2013 CeMEB Advanced Course in ‘Marine Genomics’ in University of Gothenburg, Tjärno marine station, Sweden
- 2012 MBL course in ‘Gene Regulatory Networks’ in MBL, Woodshole (MA), USA
- 2012 EMBO course in ‘Evolutionary Biology and Phylogenetics’ in Stazione Zoologica Anton Dohrn di Napoli, Italy
- 2010 EMBO course in ‘Molecular approaches to evolution and Development’ in Sven Lowen marine station, Kristineberg, Sweden
- 2010 EMBO course in ‘Browsing genomes with Ensembl’ in Stazione Zoologica Anton Dohrn di Napoli, Italy
- 2010 EMBO course in ‘Genomic Approaches to Evolution and Development’ in EMBL, Heidelberg, Germany

**ΥΠΗΡΕΣΙΑ ΣΤΗΝ ΕΠΙΣΤΗΜΟΝΙΚΗ ΚΟΙΝΟΤΗΤΑ**

- Συμμετοχή σε δρώμενα προώθησης της επιστημονικής επικοινωνίας στο ευρύ κοινό του Bergen της Νορβηγίας.
- Μέλος τόσο των διδακτορικών και μεταδιδακτορικών προσλήψεων όσο και των επιστημονικών επιτροπών αξιολόγησης στο Stazione Zoologica “Anton Dorhn” di Napoli της Ιταλίας αλλά και στο Πανεπιστημίου του Bergen της Νορβηγίας.
- Κριτικός σε διάφορα επιστημονικά περιοδικά (PLOS One, EvoDevo, Developmental Biology, Development, Frontiers Cell και Developmental Biology, JOVE, MBE κλπ.).
- Διοργανώτρια συμποσίων για τα διεθνή συνέδρια EuroEvoDevo 2022, 2026.
- Μέλος των επιστημονικών οργανώσεων EUROEVODEVO society και International Society for Invertebrate Morphology (ISIM) society.

## **ΔΙΔΑΣΚΑΛΙΑ (teaching)**

- 2024 Εντεταλμένη Διδάσκουσα στο μάθημα 'Αναπτυξιακή Βιολογία' του τμήματος Βιολογίας, Πανεπιστήμιο Πατρών, Ελλάδα.
- Ιουν 2019 Διδάσκουσα στο third summer course in 'Embryology of marine invertebrates' at the White Sea Biological station of Moscow State University, Russia
- Ιουν 2016 Διδάσκουσα στο second summer course in 'Embryology of marine invertebrates' at the White Sea Biological station of Moscow State University, Russia
- 2016-2017 Λέκτορας in "Zoology" class of the Department of Biology, University of Bergen, Norway
- Ιουλ 2013 Επικουρική διδασκαλία στο EMBO course in 'Marine animal models in evolution and development' at the Sven Lovén Centre for Marine Sciences, Kristineberg, Sweden
- Ιουλ 2011 Επικουρική διδασκαλία στο EMBO course in 'Marine animal models in evolution and development' at the Sven Lovén Centre for Marine Sciences, Kristineberg, Sweden

## **ΒΡΑΒΕΥΣΕΙΣ/ΧΡΗΜΑΤΟΔΟΤΗΣΕΙΣ (awards/funding):**

- 2022 Scientific meeting grant (EuroEvoDevo), Company of Biologists
- 2021-2022 University of Bergen core budget funding
- 2020 ASSEMBLE plus fellowship, Sven Lovén Centre for Marine Infrastructure Sweden
- 2019 ASSEMBLE plus fellowship, Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung Biologische Anstalt Helgoland (BAH), Germany
- 2018 ASSEMBLE plus fellowship, Sven Lovén Centre for Marine Infrastructure, Sweden
- 2016 ASSEMBLE plus fellowship, Sven Lovén Centre for Marine Infrastructure, Sweden
- 2015- 2020 Marie Curie fellowship within EVOMESODERM ERC Grant (Hejnol)
- 2014-2015 Sars International Centre for Marine Molecular Biology core budget funding
- 2014 ASSEMBLE fellowship, Laboratoire ARAGO, Banyuls sur Mer, France
- 2014 ASSEMBLE fellowship, Estación Costera de Investigaciones Marinas, Las Cruces, Chile
- 2013 MODO Italian national fellowship
- 2013 EMBO short-term fellowship
- 2012 MBL Scholarship for 'Gene Regulatory Networks' course tuition
- 2012 ESR Marie Curie fellowship within EVONET Initial Training Network (ITN) (Arnone)
- 2009 Erasmus Student fellowship

## **ΕΡΓΑΣΙΑ ΠΕΔΙΟΥ (fieldwork experience):**

- 2024 συλλογή αχινών (sea urchin collection), Δυτική Αχαΐα, Ελλάδα

- 2019 συλλογή φορονιδών (phoronid collection), Helgoland marine station, Germany
- 2019 συλλογή ακοιλωματικών και βραχιόποδων (nemertodermatid and brachiopod collection), Espeyrend marine station, Bergen, Norway
- 2018 συλλογή φορονιδών (phoronid collection), Hopkins (Stanford) marine station, Monterey, California, USA
- 2018 συλλογή πριαπουλιδών (priapulid collection), Sven Lowen marine station, Kristineberg, Sweden
- 2017 συλλογή ακοιλωματικών και βραχιόποδων (nemertodermatid and brachiopod collection), Espeyrend marine station, Bergen, Norway
- 2017 συλλογή πριαπουλιδών (priapulid collection), Sven Lowen marine station, Kristineberg, Sweden
- 2016 συλλογή βραχιόποδων (brachiopod collection), Friday Harbor marine station, USA
- 2016 συλλογή πριαπουλιδών (priapulid collection), Sven Lowen marine station, Kristineberg, Sweden
- 2015 συλλογή βραχιόποδων (brachiopod collection), Friday Harbor marine station, USA
- 2015 συλλογή πριαπουλιδών (priapulid collection), Sven Lowen marine station, Kristineberg, Sweden
- 2014 συλλογή νεμερτινών (nemertean collection), Laboratoire ARAGO, Banyuls sur Mer, France
- 2014 συλλογή αχινών (sea urchin collection), Estación Costera de Investigaciones Marinas, Las Cruces, Chile

## ΔΗΜΟΣΙΕΥΣΕΙΣ (publications)

### Publications in ISI journals:

Andrikou C., Pang K., Børve A., Lu T.M. and A. Hejnol. *Molecular evidence from xenacoelomorph gonopore formation supports homology with the bilaterian anus.* **Nature Ecology and Evolution** 2025, doi: 10.1038/s41559-025-02866-6

Schwaiger M.\*, Andrikou C.\*, Dnyansagar R., Ferrer Murguia P., Paganos P., Voronov D., Zimmermann B., Lebedeva T., Schmidt H., Genikhovich G., Benvenuto G., Arnone I.M. and U. Technau. *An ancestral Wnt-Brachyury feedback loop in axial patterning and recruitment of mesoderm-determining target genes.* **Nature Ecology and Evolution** 2022. doi.org/10.1038/s41559-022-01905-w

\*Equal first authorship

Gąsiorowski L., Andrikou C., Janssen, R., Gonzalez, P., Budd, G., Lowe C., and A. Hejnol. *Molecular evidence for a single origin of ultrafiltration-based excretory organs.* **Current Biology** 2021. doi.org/10.1016/j.cub.2021.05.057

Andrikou C. and A. Hejnol. *FGF signaling acts on different levels of mesoderm development within Spiralia.* **Development** 2021. doi.org/10.1242/dev.196089

Andrikou C., Lowe C., Passamaneck Y., Martindale M. and A. Hejnal. *Molecular patterning during the development of Phoronopsis harmeri reveals similarities to rhynchonelliform brachiopods* **EvoDevo** 2019. doi.org/10.1186/s13227-019-0146-1

Annunziata R. \*, Andrikou C. \*, Perillo M., Cuomo C. and M.I. Arnone. *Development and evolution of gut structures: from molecules to function*. **Cell and Tissue Research** 2019. doi.org/10.1007/s00441-019-03093-9

\*Equal first authorship

Andrikou C., Thiel D., Ruiz-Santesteban J.A. and A. Hejnal. *Active mode of excretion across digestive tissues predates the origin of excretory organs*. **PLoS Biology** 2019. doi.org/10.1371/journal.pbio.3000408

Arnone M.I., Andrikou C. and R. Annunziata. *Echinoderm systems for gene regulatory studies in evolution and development*. **Current Opinion in Genetics and Development (COGEDE)** 2016. doi.org/10.1016/j.gde.2016.05.027

Andrikou C., Pai C.Y., Su Y.H. and M.I. Arnone. *Logics and properties of a genetic regulatory program that drives embryonic muscle development in an echinoderm*. **Elife** 2015. doi.org/10.7554/eLife.07343

Andrikou C. and M.I. Arnone. *Too many ways to make a muscle; evolution of GRNs driving myogenesis*. **Zoologischer Anzeiger** 2015. doi.org/10.1016/j.jcz.2015.03.005

Annunziata R., Perillo M., Andrikou C., Cole G.A., Martinez P. and M.I. Arnone. *Pattern and Process During Sea Urchin Gut Morphogenesis: The Regulatory Landscape*. **Genesis** 2013. doi.org/10.1002/dvg.22738

Andrikou C., Iovene E., Rizzo F., Oliveri P. and M.I. Arnone. *Myogenesis in the sea urchin embryo: the molecular fingerprint of the myoblast precursors*. **EvoDevo** 2013. doi.org/10.1186/2041-9139-4-33

## ISI publications in preparation:

Andrikou C., Voronov D., Paganos P., and M.I. Arnone. *Multi-omics approach provides information on the evolution of muscle GRNs*.

Andrikou C., Orús Alcade A., Sebé Pedrós A., and A. Hejnal. *Single cell transcriptomics on ecdysozoan hemolymph cells and implications on blood cell type homology*.

Marlétaz F., Vellutini B.C., Andrikou C., Wijesena N., Aase-Remedios M.E., Sarre L., Yamakawa S., Parey E., Piovani L., Gavriouchkina D., Matar O., Schiffer P.H., Copley R.R., Ferrier D., Budd G.E., Janssen R., de Mendoza A., Martin-Duran J.M., Rokhsar D.S., Hejnol A., and M. J. Telford. *Priapulid genomes unveil recurrent events of simplification and duplication in ecdysozoans*.

### Other publications:

Andrikou C., Ruiz-Santesteban J.A. and A. Hejnol. *Tracing the origin of nephridia by characterising excretion related gene complement in Xenacoelomorpha*. **Integrative and Comparative Biology** 2016. <https://doi.org/10.1093/icb/icw002>

Andrikou C. PhD thesis. *Evolution of mesoderm specification and myogenesis in the sea urchin*. **The Open University of London**. February, 2013. [doi.org/10.21954/ou.ro.0000fa96](https://doi.org/10.21954/ou.ro.0000fa96)

### Book chapters:

Andrikou C., Gasiorowski L. and A. Hejnol ” Cell types, morphology and evolution of animal excretory organs: *Origin and Evolution of Metazoan Cell Types (Evolutionary Cell Biology)*”. **CRC press** 2021. ISBN 9781138032699, [doi.org/10.1201/b21831](https://doi.org/10.1201/b21831)

### Book chapters in preparation:

Andrikou C., and Annunziata R. ”Evolution of gut development: *Evolution of digestive systems: cell types and cross-talks, development and regeneration*”. **CRC press**.

## ΠΑΡΟΥΣΙΑΣΕΙΣ ΣΕ ΣΥΝΕΔΡΙΑ (presentations in scientific meetings)

### Oral presentations:

Friedrich Schiller University Jena, Germany “*Evolution of blood cell types*” (invited speaker). July, 2024.

EMBO Symposium: The Identity and Evolution of Cell Types “*Molecular and functional characterization of blood cells in the priapulid Priapulus caudatus (ectdysozoa)*”. Carmen Andrikou, Andrea Orús, Arnau Sebé Pedrós, Felipe Aguilera and Andreas Hejnol. EMBL, Heidelberg, Germany. May, 2019.

Joint Meeting of the German and Israeli Societies of Developmental Biology (GFE): “*The role of Brachyury in mesoderm determination in metazoans*”. Michaela

Schwaiger, Rohit Dnyansagar, Bob Zimmermann, Grigory Genikhovich, Patricio Ferrer, Carmen Andrikou, Anton Weingart, Elijah K. Lowe, Maria Ina Arnone and Ulrich Technau. Vienna, Austria. February, 2019.

Ocean University of China, Qingdao “*Evolution of blood cell types*” (invited speaker). October, 2018.

4th International Congress on Invertebrate Morphology “*Molecular characterization of protonephridia development in priapulids and evolutionary implications*”. Carmen Andrikou, Felipe Aguilera and Andreas Hejnl. Moscow, Russia. August, 2017.

EuroEvoDevo “*Xenacoelomorpha and the origin of excretory organs*”. Carmen Andrikou, Daniel Thiel, Juan-Antonio Ruiz-Santesteban and Andreas Hejnl. Uppsala, Sweden. July, 2016.

EuroEvoDevo “*Evolutionary comparison of gene regulatory networks for organogenesis*”. Maria Ina Arnone, Carmen Andrikou, Rossella Annunziata, Claudia Cuomo, Elijah Lowe, Margherita Perillo. Uppsala, Sweden. July, 2016.

SICB “*Tracing the origin of nephridia by characterizing excretion related gene complement in Xenacoelomorpha*”. Carmen Andrikou, Juan-Antonio Ruiz-Santesteban and Andreas Hejnl. Portland, USA. January, 2016.

Developmental Biology of the Sea urchin XXIII “*Rewiring gene regulatory networks for organogenesis over evolutionary time*”. Maria Ina Arnone, Carmen Andrikou and Rossella Annunziata. MBL Woodshole, (MA, USA). October 2015.

Stazione Zoologica Anton Dohrn di Napoli “*Evolution of Brachyury role in metazoan development*” (invited speaker). November, 2014.

3rd International Congress on Invertebrate Morphology “*A Gene Regulatory Network driving muscle development: insights from sea urchins*”. Berlin, Germany. Symposium “Development and Morphology of Mesodermal Derivatives” (invited speaker). August, 2014.

Developmental Biology of the Sea urchin XXII “*A Gene Regulatory Network driving sea urchin embryonic muscle development: a Fox family tale*”. MBL Woodshole (MA, USA). Plenary Session V. “Specification” (invited speaker). April, 2014.

Sars International Centre for Marine Molecular Biology “*Similar structure...different architecture: lessons from sea urchins*”. Bergen, Norway (invited speaker). November, 2013.

MODO MidTerm Review meeting “*Gene Regulatory networks in development*”. Carmen Andrikou, Rossella Annunziata and Maria Ina Arnone. Naples, Italy. June, 2013.

Developmental Biology of the Sea urchin XXI “*Evolution of a gene regulatory network that orchestrates myogenesis in sea urchin*”. Carmen Andrikou and Maria Ina Arnone. Woodshole (MA), USA. October, 2012.

Evonet symposium 'Evolution of GRN in animal development' “*Evolution of Gene Networks orchestrating myogenesis: the case of sea urchin*”. Carmen Andrikou and Maria Ina Arnone. Vienna, Austria. September, 2012.

32<sup>nd</sup> Hellenic Conference of Nursery “*Schizophrenia and violence*”. Carmen Andrikou, Maria Antoniadou and Maria Papadimitriou. Thessaloniki, Greece. May, 2004.

### **Poster presentations:**

EuroEvoDevo “*Homology of the xenacoelomorph male gonopore and the bilaterian anus*”. Carmen Andrikou, Pang Kevin, Børve Aina, Lu Tsai-Ming and Andreas Hejnl. Naples, Italy. May 2022.

EuroEvoDevo “*The role of FGF signaling in early mesoderm specification predates deuterostomes*”. Carmen Andrikou and Andreas Hejnl. Galway, Ireland. July 2018.

EuroEvoDevo “*Comparative tissue-specific transcriptomics of priapulids allows the characterization of blood and nephridia cell types and provides insights into their evolution*”. Felipe Aguilera, Carmen Andrikou and Andreas Hejnl. Uppsala, Sweden. July, 2016.

EuroEvoDevo “*Evolution of Brachyury role in animal development*”. Carmen Andrikou, Michaela Schwaiger, Anna Gilles, Josefine Stångberg, Maria Ina Arnone and Ulrich Technau. Vienna, Austria. July, 2014.

7<sup>th</sup> tunicate meeting “*A gene regulatory network driving myogenesis in the sea urchin embryo: an evolutionary perspective*”. Carmen Andrikou and Maria Ina Arnone. Naples, Italy. July, 2013

Evonet symposium 'Evolution of GRN in animal development'. “*Evolution of Brachyury: towards a ChIP-seq approach in sea urchin*”. Stangberg Josefine, Andrikou Carmen and Maria Ina Arnone. Vienna, Austria. September, 2012.

Developmental Biology of the Sea urchin XX “*Conservation and divergence of key mesodermal regulators in the S. purpuratus embryo*”. Carmen Andrikou and Maria Ina Arnone. Woodshole (MA), USA. April, 2011.