

SHORT CURRICULUM VITAE

PERSONAL DATA

Name: Sevastiani Antonouli, Ph.D

Year of birth: 1990, **Residence address:** Erythrou Staurou 10, Larissa, 41221, Greece, **Phone:** IT: + 39 338 1830121, **E-mail:** arella_935@hotmail.com, **Skype:** live:arella_935, **ORCID:** orcid.org/0000-0002-3525-2633

EDUCATION & WORK EXPERIENCE

03. 2022 – Present Postdoctoral Researcher, Dept. of Clinical Chemistry, Faculty of Medicine, University of Ioannina, 45110, Ioannina, Greece.
11. 2016 – 04.2020 Ph.D.'s degree in *Molecular and Ultrastructural Imaging*. Thesis title: “*Ultrastructural analysis of human immature oocytes retrieved after two different protocols of controlled ovarian hyperstimulation*”. Dept. of Life, Health and Environmental Sciences, Section of Human Anatomy, Laboratory Biology of Reproduction-Functional Morphology, Faculty of Medicine and Surgery, University of L'Aquila, L'Aquila, Italy. (Tutor: Prof. Macchiarelli Guido, M.D., Ph.D.).
09. 2009 – 09. 2015 Bachelor's degree/**Integrated Master**, Thesis in Biology of Human Reproduction, title: “*Analysis of DNA sperm fragmentation and the impact in human assisted reproduction*”. Dept. of Biological Applications & Technology, University of Ioannina, Ioannina, Greece. (Tutors: Prof. Trangas Theoni, MSc, Ph.D, Associate professor in Biochemistry, Dept. Biological Applications and Technology, University of Ioannina, Ioannina, Greece, Prof. Prappas Ioannis, M.D., Ph.D., Associate professor of Gynaecology & Obstetrics, School of Medicine, Aristotle University of Thessaloniki, Obstetrician Gynaecologist Surgeon, owner of “Iakentro” fertility center, Thessaloniki, Greece, Scientific director: Dr. Papatheodorou Achilleas, embryologist at “Iakentro” fertility center).

FELLOWSHIPS/ STAGES

09. 2017 – 12. 2017 3 months international fellowship in Dept. of Human Morphology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, University of Okayama, Japan. Traineeship in immunohistochemistry, GMO mice and attendance of human dissection courses. Research project collaboration. (Tutors: Prof. Aiji Ohtsuka, M.D., Ph.D., Prof. Macchiarelli Guido)
02. 2016 – 06. 2016 5 months Erasmus+ fellowship in Dept. of Anatomy, Histology, Forensic Medicine and Orthopaedics, Section of Human Anatomy Electron Microscopy Unit, Laboratory "Pietro M. Motta", University of Rome La Sapienza, Italy. Traineeship in electron microscopy techniques. (Tutor: Prof. Stefania Annarita Nottola, M.D., Ph.D)
09. 2013 – 09. 2014 12 months stage in “Iakentro” fertility center, Thessaloniki, Greece. Traineeship in sperm analysis, methods of sperm DNA fragmentation. (Tutors: Prof. Prappas Ioannis, Dr. Papatheodorou Achilleas)
05. 2012 – 07. 2012 2 months IKY-ΕΣΠΑ (funding organization) fellowship in Gynaecology & Obstetrics clinic, Assisted Reproduction Unit, University Hospital of Larissa, Greece. Traineeship in clinical *in vitro* fertilization (IVF) techniques. (Tutor: Prof. Ioannis.E.Messinis)

SKILLS

- Mother tongue** **Greek**
- Other language(s)** **English** Certificate(s): Michigan Lower, Edexel 3, Trinity III, Michigan Proficiency, **German** Certificate: Zertifikat Goethe Institut, **Italian**
- IT skills** **Advanced user:** Microsoft Operating System (Windows OS), Microsoft Office (Word, PowerPoint, Excel), e-mail clients, internet browsers, public-domain software NIH Image J V.1.52a, SigmaPlot v. 11.0 (Systat Software Inc.), GraphPad Prism v. 8.0.1 (244).
Basic user: Adobe Photoshop CC 2018, Ensembl Genome Browser 100.
- Technical skills** **Cellular biology:** Imaging: fluorescence and light microscopy, TEM, SEM, VP-SEM. Animals: mice dissection, GMO mice manipulation, organ collection, Cell culture (cell lines, oocytes, spermatozoa), Microbiology: liquid and solid culture of bacteria, isolation and biochemical

identification of bacterial strains.
Molecular biology: DNA/RNA extraction and purification, PCR.
Biochemistry: Western blot, ELISA, protein purification.
Clinical IVF: IVF, sperm preparation (spermiograms, sperm washing ("swim up", density gradient centrifugation etc.), sperm DNA fragmentation assays (Halsoperm etc.), sperm cryopreservation/thawing, FISH), embryo culture and transfer, embryo grading.

DIDACTIC ACTIVITY AND TUTORING

120 hours of didactic activity carried out in Laboratory of Anatomy, lectures for training bachelor and master students in Biological and Biotechnological Sciences.

SEMINAR INVITED TALKS

"8th International Seminar: the bilateral projects of anatomy @ Univaq", 12 July 2019. University of L'Aquila, L'Aquila, Italy.
Title of the talk: "A journey of the ovarian extracellular matrix from Okayama to L'Aquila".

PUBLICATIONS

FULL PAPERS:

Title: *Mancozeb impairs the ultrastructure of mouse granulosa cells in a dose-dependent manner.* **Authors:** Palmerini, M. G., Belli, M., Nottola, S. A., Miglietta, S., Bianchi, S., Bernardi, S., **Antonouli, S.**, Ceconi, S., Familiari, G., Macchiarelli, G. **Journal:** The Journal of Reproduction and Development. 2018; 64(1): 75-82. <https://doi.org/10.1262/jrd.2017-143>. **IF:** 1.500

Title: *Mitochondria in mammalian oocytes and early embryos. A review on morphological and functional studies.* **Authors:** Belli, M., **Antonouli, S.**, Nottola, S.A. **Journal:** EuroMediterranean Biomedical Journal. 2018; 13(26): 114-117. <https://doi.org/10.3269/1970-5492.2018.13.26>. **IF:** 0.510

Title: *The impact of sperm DNA fragmentation on ICSI outcome in cases of donated oocytes.* **Authors:** **Antonouli, S.**, Papatheodorou, A., Panagiotidis, Y., Petousis, S., Prapas, N., Nottola, S.A., Palmerini, M.G., Macchiarelli, G., Prapas, Y. **Journal:** Archives of Gynecology and Obstetrics. 2019; 300(1): 207–215. <https://doi.org/10.1007/s00404-019-05133-9>. **IF:** 2.199

Title: *Scanning Electron Microscopy Approach for Evaluation of Hair Dyed with Lawsonia inermis Powder: in vitro Study.* **Authors:** Bianchi, S., Bernardi, S., Continenza, M.A., Vincenti, E., **Antonouli, S.**, Torge, D., Macchiarelli, G. **Journal:** International Journal of Morphology. 2019; 38(1), 96-100. <http://dx.doi.org/10.4067/S0717-95022020000100096>. **IF:** 0.369

Title: *Pre-Implantation Mouse Embryos Cultured In Vitro under Different Oxygen Concentrations Show Altered Ultrastructures.* **Authors:** Belli, M., Rinaudo, P., Palmerini, M. G., Ruggeri, E., **Antonouli, S.**, Nottola, S. A., Macchiarelli, G. **Journal:** International journal of environmental research and public health. 2020; 17(10): E3384. <https://doi.org/10.3390/ijerph17103384>. **IF:** 2.468

Title: *Repeated hyperstimulation affects the ultrastructure of mouse fallopian tube epithelium.* **Authors:** **Antonouli, S.**, Palmerini, M. G., Bianchi, S., Rossi, G., Ceconi, S., Belli, M., Bernardi, S., Khalili, M. A., Familiari, G., Nottola, S. A., Macchiarelli, G. **Journal:** The Journal of Reproduction and Development. 2020; Advance online publication. <https://doi.org/10.1262/jrd.2019-147>. **IF:** 1.500

Title: *The effect of low and ultra-low oxygen tensions on mammalian embryo culture and development in experimental and clinical IVF.* **Authors:** **Antonouli, S.**, Belli, M., Palmerini, M. G., Bianchi, S., Bernardi, S., Khalili, M. A., Donfrancesco, O., Nottola, S. A., Macchiarelli, G. **Journal:** Systems Biology in Reproductive Medicine. 2020; 1–7. Advance online publication. <https://doi.org/10.1080/19396368.2020.1754961>. **IF:** 1.717

Title: *Commercial oral hygiene products and implant collar surfaces: Scanning electron microscopy observation.* **Authors:** Bianchi, S., Fantozzi, G., Bernardi, S., **Antonouli, S.**, Continenza, M.A., Macchiarelli, G. **Journal:** Canadian Journal of Dental Hygiene. 2020; 54(1): 26-31. **IF:** 0.280

Title: *Morphological changes of human immature oocytes after the application of GnRH agonist and GnRH antagonist protocols.* **Authors:** Nottola, S.A., **Antonouli, S.**, Palmerini, M.G., Belli, M., Donfrancesco, O., Budani, M.C., Familiari, G., Tiboni, G.M., Ceconi, S., Macchiarelli, G. **Journal:** Anatomical Science International. Submitted 27 December 2020; ANSID-20-00460. **IF:** 1.512

Title: *In vivo and in vitro postovulatory aging: is time running against oocyte quality?* **Authors:** Di Nisio, V., **Antonouli, S.**, Damdimopoulou, P., Salumets, A., Ceconi, S. **Journal:** Journal of Assisted Reproduction and Genetics. In press. DOI: 10.1007/s10815-022-02418-y. **IF:** 3.412

ABSTRACTS:

Title: *The impact of sperm DNA fragmentation on male fertility and ICSI outcome in cases of donated oocytes.* **Authors:** Antonouli, S., Papatheodorou, A., Panagiotidis, Y., Petousis, S., Nottola, S.A., Macchiarelli, G., Palmerini, M.G., Bianchi, S., Prapas, Y. 10th European Congress of Andrology (ECA). Budapest, Hungary. Andrology, 2018; 6:103.

Title: *Major endocannabinoid-binding receptors are differentially modulated during oocyte meiotic maturation.* **Authors:** Di Nisio, V., Rossi, G., Oddi, S., Antonouli, S., Macchiarelli, G., Maccarrone, M., Cecconi, S. 64^o Convegno GEI – Società Italiana di Biologia dello Sviluppo e della Cellula. L'Aquila, Italy. Eur J Histochem, 2018; 62(1):16.

Title: *Ultrastructural analysis of human germinal vesicle-stage oocytes retrieved after conventional and mild ovarian stimulation.* **Authors:** Antonouli, S., Belli, M., Palmerini, M.G., Bianchi, S., Bernardi, S., Cecconi, S., Di Nisio, V., Donfrancesco, O., Familiari, G., Nottola, S.A., Macchiarelli, G. 64^o Convegno GEI – Società Italiana di Biologia dello Sviluppo e della Cellula. L'Aquila, Italy. Eur J Histochem, 2018; 62(1):19.

Title: *Morphological changes of ampulla region from mouse oviducts after repeated cycles of hyperstimulation.* **Authors:** Antonouli S, Rossi G, Bianchi S, Palmerini MG, Donfrancesco O, Di Nisio V, Bernardi S, Nottola SA, Cecconi S, Macchiarelli G. 19th Congress of the International Federation of Associations of Anatomists. London, United Kingdom. Journal of Anatomy, 2020; 236:172.

CONFERENCE POSTERS:

Title: *Morphology and viability of human spermatozoa vitrified with a new, cryoprotectant-free, artificial seminal fluid.* **Authors:** Miglietta, S., Agha-Rahimi, A., Khalili, M.A., Moradi, A., Antonouli, S., Nottola, S.A. 70^o Congresso nazionale, Società Italiana di Anatomia e Istologia (SIAI), 15-17 September 2016. Rome, Italy.

Title: *Ultrastructural analysis of in vitro matured granulosa cell under treatment with the fungicide Mancozeb.* **Authors:** Belli, M., Donfrancesco, O., Palmerini, MG., Miglietta, S., Nottola, SA., Cecconi, S., Bianchi, S., Antonouli, S., Familiari, G., Macchiarelli, G. 13th Multinational Congress on Microscopy, 24-29 September 2017. Rovinj, Croatia.

Title: *The impact of sperm DNA fragmentation on male fertility and ICSI outcome in cases of donated oocytes.* **Authors:** Antonouli, S., Papatheodorou, A., Panagiotidis, Y., Petousis, S., Nottola, S.A., Macchiarelli, G., Palmerini, M.G., Bianchi, S., Prapas, Y. 10th European Congress of Andrology (ECA), 11-13 October 2018. Budapest, Hungary.

Title: *Ultrastructural analysis of human germinal vesicle-stage oocytes retrieved after conventional and mild ovarian stimulation.* **Authors:** Antonouli, S., Belli, M., Palmerini, M.G., Bianchi, S., Bernardi, S., Cecconi, S., Di Nisio, V., Donfrancesco, O., Familiari, G., Nottola, S.A., Macchiarelli, G. 64^o Convegno GEI – Società Italiana di Biologia dello Sviluppo e della Cellula – 11-14 June 2018. L'Aquila, Italy.

Title: *Uso della cheilosopia nello studio dei pattern dei solchi labiali.* **Authors:** Bernardi, S., Pinchi, V., Di Angelo, L., Antonouli, S., Continenza, M.A., Bianchi, S., Macchiarelli, G. 25^o Convegno Pro.o.f. l'odontoiatra, l'odontologo e le sfide delle nuove norme. 28-30 June 2018. Firenze, Italy.

Title: *Ultrastructural analysis of human germinal vesicle stage oocytes during the application of Assisted Reproductive Technologies.* **Authors:** Antonouli, S., Belli, M., Palmerini, M.G., Bianchi, S., Bernardi, S., Cecconi, S., Donfrancesco, O., Familiari, G., Nottola, S.A., Macchiarelli, G. XVII International Symposium on Morphological Sciences (ISMS). 5-7 July 2018. Prague, Czech Republic.

Title: *Major endocannabinoid-binding receptors are differentially modulated during oocyte meiotic maturation.* **Authors:** Di Nisio, V., Rossi, G., Oddi, S., Antonouli, S., Macchiarelli, G., Maccarrone, M., Cecconi, S. Gordon Research Conference on "Mammalian Reproduction – Pathways from gametogenesis to pregnancy", 29 July - 3 August 2018. Lucca, Italy.

Title: *Do reproductive ageing and parity modulate the expression of VEGF/VEGFR2 and cell cycle control proteins?* **Authors:** Di Luigi, G., Di Nisio, V., Rossi, G., Antonouli, S., Budani, M.C., Tiboni, G.M., Macchiarelli, G., Cecconi, S. 35th Annual Meeting European Society of Human Reproduction and Embryology (ESHRE), 23-26 June 2019. Vienna, Austria.

Title: *Morphological changes of ampulla region from mouse oviducts after repeated cycles of hyperstimulation.* **Authors:** Antonouli, S., Rossi, G., Bianchi, S., Palmerini, M.G., Donfrancesco, O., Di Nisio, V., Bernardi, S., Nottola, S.A., Cecconi, S., Macchiarelli, G. 19th Congress of the International Federation of Associations of Anatomists, 9-11 August 2019. London, United Kingdom.

ORAL PRESENTATIONS:

Title: *Effetti della stimolazione ovarica ripetuta sulle tube di falloppio di topo.* **Authors:** Di Nisio, V., Antonouli, S., Rossi, G., Tiboni, G.M., Macchiarelli, G., Cecconi, S. Congresso Nazionale S.I.F.E.S. e M.R., 17-19 May 2018. Riccione, Italy.

Title: *Major endocannabinoid-binding receptors are differentially modulated during oocyte meiotic maturation.* **Authors:** Di Nisio, V., Rossi, G., Oddi, S., **Antonouli, S.**, Macchiarelli, G., Maccarrone, M., Cecconi, S. 64° Convegno GEI – Società Italiana di Biologia dello Sviluppo e della Cellula, 11-14 June 2018. L'Aquila, Italy.

Title: *Volumetric study of maxillary sinuses using Cone Beam Computed Tomography: An in vivo study.* **Authors:** Bernardi, S., Rastelli, E., Bianchi, S., **Antonouli, S.**, Palmerini, M.G., Belli, M., Continenza, M.A., Macchiarelli, G. XVII International Symposium on Morphological Sciences (ISMS), 5-7 July 2018. Prague, Czech Republic.

Title: *Major endocannabinoid-binding receptors are differentially modulated during oocyte meiotic maturation.* **Authors:** Di Nisio, V., Rossi, G., Oddi, S., **Antonouli, S.**, Macchiarelli, G., Maccarrone, M., Cecconi, S. Gordon Research Seminars on “Mammalian Reproduction – Novel tools and technologies applied to mammalian reproduction”, 28-29 July 2018. Lucca, Italy.

Title: *Systematic review and meta-analysis of frequency and diameters of midline lingual foramina.* **Authors:** Bernardi, S., Continenza, M.A., Bianchi, S., **Antonouli, S.**, Macchiarelli, G. 72° Congresso Nazionale, Società Italiana di Anatomia e Istologia (SIAI), 20-22 September, 2018. Parma, Italy.

Title: *Repeated gonadotropin treatments and protein expression in mouse fallopian tubes.* **Authors:** Di Nisio, V., **Antonouli, S.**, Rossi, G., Tiboni, G.M., Budani, M.C., Macchiarelli, G., Cecconi, S. XVIII Congresso Nazionale AIBG, 21-22 September 2018. Ferrara, Italy.

Title: *L'invecchiamento riproduttivo e la gravidanza modulano l'espressione di VEGF/VEGFR2 e di proteine di controllo del ciclo cellulare.* **Authors:** Di Nisio, V., Di Luigi, G., **Antonouli, S.**, Rossi, G., Tiboni, G.M., Budani, M.C., Macchiarelli, G., Cecconi, S. Congresso Nazionale S.I.F.E.S. e M.R., 9-11 May 2019. Riccione, Italy.