

## **Andrea Sommella**



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**Current Position:** Permanent Staff - Research Technician (CTER VI degree) and Manager of the Functional Area ‘Biochemistry and Cell Biology’

### **Current Affiliation:**

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

### **Education/Training/Experience**

Institute and Location	Degree / Function	Year	Field of Study
University Federico II – Naples (Italy)	Bachelor's degree	2002-2005	Gene Therapy
University Federico II – Naples (Italy)	Master's degree	2005-2006	Epigenetics
INRA French National Institute For Agricultural Research – Nantes (France)	Leonardo Da Vinci Post-graduate Research Internship	2007-2008	Plant autophagy
TIGEM institute (Telethon) – Naples (Italy)	Fellowship/contract	2008-2014	Retina Gene Therapy
Okairos/Reithera – Naples/Rome (Italy)	R&D Scientist	2014-2023	Immunology/Vaccines
Stazione Zoologica Anton Dohrn, Naples (Italy)	CTER VI degree	2023-present	Biology and Evolution of Marine Organisms

### Working experience

03/07/2023 – CURRENT Naples, Italy

**SCIENTIFIC LABORATORY TECHNICIAN & LAB MANAGER STAZIONE ZOOLOGICA ANTON DOHRN**

**Business or Sector** Professional, scientific and technical activities

**Department** Biology and Evolution of Marine Organisms **Address** Villa comunale, 80121, Naples, Italy  
**Website** [www.szn.it](http://www.szn.it)

03/06/2014 – 16/06/2023 Naples / Castel Romano (RM), Italy

**R&D SCIENTIST - IMMUNOLOGY UNIT OKAIROS / REITHERA SRL**

Vaccines / immunology

Characterization of the immune responses elicited after vaccination in animals and humans with nucleic acids, viral vectors and proteins.

03/07/2008 – 30/05/2014 Naples, Italy

**FELLOW/COLLABORATOR TIGEM (TELETHON)**

Retinal gene therapy.

Support in research projects aimed at the development and the preclinical characterization of viral vectors for the treatment of genetically inherited retinal disorders

12/2007 – 05/2008 Nantes, France

**LEONARDO DA VINCI POST-GRADUATE RESEARCH INTERNSHIP INRA FRENCH NATIONAL INSTITUTE FOR AGRICULTURAL RESEARCH**

Supervisor Dr. Khalil Elmorjani

“Cloning and expression of atg8 and atg4, the wheat autophagy master genes ”

Europass patent mobility no. IT/00/2008/047/02/FR/10 released on 12 June 2008

#### Education and Training

09/2002 – 21/03/2005 Naples, Italy

**BACHELOR'S DEGREE IN BIOTECHNOLOGY FOR HEALTH** Università degli Studi di Napoli Federico II

Cell cultures; western blot analysis of lysates from infected cells

**Final grade** 110/110 **Thesis** “Analisi di proteine in cellule infettate con vettori adenovirali”

03/2005 – 26/10/2006 Naples, Italy

**MASTER'S DEGREE IN MEDICAL BIOTECHNOLOGY SCIENCES** Università degli Studi di Napoli Federico II

Epigenetics.

Dissection of the mechanisms involved in methylation and downregulation of genes.

Study of interactors that affect the recruitment of factors that modify the chromatin functional status. Analysis of the methylation of promoters.

**Final grade** 110/110 cum laude **Thesis** “Studio di una nuova interazione molecolare tra le proteine MBD2 e TACC3”

#### Other

##### Digital skills

Microsoft Office: Word, PowerPoint, Excel / Graph Pad Prism / Extensive knowledge in search and selection of information through search engines (i.e. Pubmed) / FreezerPro / basic statistical analysis with Prism

## Conferences and Courses

06/07/2015 – 10/07/2015 – Valencia

**ESCCA Functional Cytometry 2015** ESCCA Coordinator:  
Claude Lambert, Université de Saint-Etienne, Saint-Etienne, France

11/07/2016 – 12/07/2016 – Coventry

**Corso breve di immunologia di base: “An introduction to Immunology (two-day course)”**  
Warwick University

21/06/2017 – 23/06/2017 – C.E.R.C. – Fondazione Santa Lucia - Roma (RM)

**Corso breve di statistica biomedica: “L’uso della statistica nella ricerca biomedica”**

05/05/2018 – 12/05/2018 – Porto Cervo (Italy)

**13th ENII EFIS EJI Immunology Summer School**

21/05/2018 – 24/05/2018 – Consiglio Nazionale Ricerche, Via dei Taurini 19 - 00185 Roma

**Corso breve di statistica biomedica: “L’uso della statistica nella ricerca biomedica e applicazione del software R – CORSO AVANZATO”**

19/05/2019 – 21/05/2019 – SIICA-FOCIS - Firenze

**SIICA FOCIS Advanced Course 2019 lezioni di immunologia generale e clinica “Bridging basic & clinical immunology”**

28/09/2020 – Rome (Italy)

**GCLP training (seQure) GXP Fundamentals**

22/11/2021 – 01/12/2021 – Fondazione Santa Lucia (Rome)

**FELASA Accredited Course F 023/09 "Scienza degli Animali da Laboratorio"**  
mouse/rat - Functions A, B, C, D

23/05/2022 – 26/05/2022 – Naples (Italy)

**SIICA 2022 - XIII National Congress**

## Publications

*List of publications of the last 10 years (2013-present):*

Colella, P., **Sommella, A.**, Marrocco, E., Di Vicino, U., Polishchuk, E., Garcia Garrido, M., Seeliger, M. W., Polishchuk, R., & Auricchio, A. (2013). Myosin7a deficiency results in reduced retinal activity which is improved by gene therapy. *PloS one*, 8(8), e72027. <https://doi.org/10.1371/journal.pone.0072027>

Manfredi, A., Marrocco, E., Puppo, A., Cesi, G., **Sommella, A.**, Della Corte, M., Rossi, S., Giunti, M., Craft, C. M., Bacci, M. L., Simonelli, F., Surace, E. M., & Auricchio, A. (2013). Combined rod and cone transduction by adeno-associated virus 2/8. *Human gene therapy*, 24(12), 982–992. <https://doi.org/10.1089/hum.2013.154>

Trapani, I., Toriello, E., de Simone, S., Colella, P., Iodice, C., Polishchuk, E. V., **Sommella, A.**, Colecchi, L., Rossi, S., Simonelli, F., Giunti, M., Bacci, M. L., Polishchuk, R. S., & Auricchio, A. (2015). Improved dual AAV vectors with reduced expression of truncated proteins are safe and

effective in the retina of a mouse model of Stargardt disease. Human molecular genetics, 24(23), 6811–6825. <https://doi.org/10.1093/hmg/ddv386>

Napolitano, F., Merone, R., Abbate, A., Ammendola, V., Horncastle, E., Lanzaro, F., Esposito, M., Contino, A. M., Sbrocchi, R., **Sommella, A.**, Duncan, J. D., Hinds, J., Urbanowicz, R. A., Lahm, A., Colloca, S., Folgori, A., Ball, J. K., Nicosia, A., Wizel, B., Capone, S., ... Vitelli, A. (2020). A next generation vaccine against human rabies based on a single dose of a chimpanzee adenovirus vector serotype C. PLoS neglected tropical diseases, 14(7), e0008459. <https://doi.org/10.1371/journal.pntd.0008459>

Napolitano, F., Merone, R., Abbate, A., Ammendola, V., Horncastle, E., Lanzaro, F., Esposito, M., Contino, A. M., Sbrocchi, R., **Sommella, A.**, Duncan, J. D., Hinds, J., Urbanowicz, R. A., Lahm, A., Colloca, S., Folgori, A., Ball, J. K., Nicosia, A., Wizel, B., Capone, S., ... Vitelli, A. (2021). Correction: A next generation vaccine against human rabies based on a single dose of a chimpanzee adenovirus vector serotype C. PLoS neglected tropical diseases, 15(4), e0009348. <https://doi.org/10.1371/journal.pntd.0009348>

Capone, S., Raggioli, A., Gentile, M., Battella, S., Lahm, A., **Sommella, A.**, Contino, A. M., Urbanowicz, R. A., Scala, R., Barra, F., Leuzzi, A., Lilli, E., Miselli, G., Noto, A., Ferraiuolo, M., Talotta, F., Tsoleridis, T., Castilletti, C., Matusali, G., Colavita, F., ... Vitelli, A. (2021). Immunogenicity of a new gorilla adenovirus vaccine candidate for COVID-19. Molecular therapy : the journal of the American Society of Gene Therapy, 29(8), 2412–2423. <https://doi.org/10.1016/j.ymthe.2021.04.022>

Lanini, S., Capone, S., Antinori, A., Milleri, S., Nicastri, E., Camerini, R., Agrati, C., Castilletti, C., Mori, F., Sacchi, A., Matusali, G., Gagliardini, R., Ammendola, V., Cimini, E., Grazioli, F., Scorzolini, L., Napolitano, F., Plazzi, M. M., Soriano, M., De Luca, A., ... Ippolito, G. (2022). GRAd-COV2, a gorilla adenovirus-based candidate vaccine against COVID-19, is safe and immunogenic in younger and older adults. Science translational medicine, 14(627), eabj1996. <https://doi.org/10.1126/scitranslmed.abj1996>

Agrati, C., Castilletti, C., Battella, S., Cimini, E., Matusali, G., **Sommella, A.**, Sacchi, A., Colavita, F., Contino, A. M., Bordoni, V., Meschi, S., Gramigna, G., Barra, F., Grassi, G., Bordi, L., Lapa, D., Notari, S., Casetti, R., Bettini, A., Francalancia, M., ... Capone, S. (2022). Safety and immune response kinetics of GRAd-COV2 vaccine: phase 1 clinical trial results. NPJ vaccines, 7(1), 111. <https://doi.org/10.1038/s41541-022-00531-8>