

PERSONAL INFORMATION

Valeria Costantino, PhD

 DIP FARMACIA – UNIVERSITY OF NAPLES FEDERICO II
VIA D. MONTESANO 49, 80131 NAPLES, ITALY



 personal website(s)

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<http://orcid.org/0000-0001-8723-9505>

Sex F | Date of birth 13/04/1966 | Nationality Italy

CURRENT POSITION

2021 - present

Full professor – CHIM ORGANICA CHEM-05/A, settore scientifico disciplinare 03/CHEM-05

University of Naples Federico II, Department of Pharmacy

Via D. Montesano 49, 80131 Naples, Italy

- Cyanobacteria blooms, Natural Products, novel metabolites from marine organisms, cyanobacterial blooms monitoring

SCIENTIFIC SKILLS AND COMPETENCES

Publications

Author of 115 journal papers in peer-reviewed journals

Keynote/Plenary speaker

more than 20 international conferences

Member of scientific committees

- CUCS 2022, NAPLES, APRIL 2022
- 7th ECBS / LS-EuChemS meeting - Milan 2021
- XI International Meeting on Marine Natural Products, Sorrento (Italy), 2004
- V International Meeting (ECMNP) Ischia (Italy), 2007
- VIII Simposio sulla Chimica delle Sostanze Naturali (NAT 8), 2009
- International Meeting “NatPharma: Nature Aided Drug Design” , 2011
- BlueGenics, International Annual Meeting, Napoli, 2015
- Challenges in Organic Synthesis: Efficient Processes for novel Applications, Napoli, 2015

Editorial activities

- Since 2015 - Member of the Editorial Board of Marine Drugs, <http://www.mdpi.com/journal/marinedrugs/editors>
- Since 2017 – Member of Editor for the journal Frontiers for Young Minds, <https://www.frontiersin.org/myfrontiers/overview>
- Since 2019 - Member of the Editorial Board of Molecules, https://www.mdpi.com/journal/molecules/sectioneditors/natural_products_chemistry
- Since 2019: Member of the Editorial Board of SCI, <https://www.mdpi.com/journal/sci/editors#editorialboard>

RELEVANT ROLES AND COMPETENCES

Relevant roles

- Vice Rector for Erasmus Program.
- Vice President of the European Universities Foundation
- PI group "TheBLUECHEMISTRYLAB"
- President of the Scientific Committee of the International Summer School on Natural Products: edition 2017, 2019, 2021,2023, and 2025
- Member of the Scientific Committee of the "Spring School inTransferable Skills Spring School" (TSSS) <http://www.farmacia.unina.it/didattica/post-laurea/spring-schoolin-soft-skills>
- Member of the Scientific Committee of the 2021 MUNA Summer School

Fundings

- PNRR-TNE 230011 SULIEIA- PI
- EMBRC Unlocking the Potential for Health and Food From The Seas, Area Esfri H&F- 2022-2026.
- NBFC PNRR, Missione 4 Componente 2, "Dalla ricerca all'impresa", Investimento 1.4, Project CN00000033, 2022-2026.
- 2021-2022 "CyaAq - I cianobatteri come promettente risorsa di antimicrobici non convenzionali"
- 2021-2024 FESR BASILICATA Prodotti Attivi da Piante: Ricerca, Innovazione e Avanzamento delle Conoscenze attraverso un Team Internazionale" (PAPRIKANET.IT)
- 2016-2020 - PSR BASILICATA Progetto ALIMINTEGRA, 2019-2022, € 75,000 per unità.
- 2012-2016 - FP7 BlueGenics - Funding Source: European Community - Number: 311848, WP leader ; € 800,000 per unità.
- 2008-2011 FP7 NatPharma - Funding Source: European Community - Number: 229893, WP leader; €110,000.
- 2012-2014 Italy-Israel Scientific and Technological Cooperation Funding Source: MAE - Ministry of Foreign Affairs, (Italy-Israel R&D Cooperation, € 40,000, 2012-14).

Outreaching activities

- Editorial board member: Frontiers for YOUNG MINDS
<https://kids.frontiersin.org/article/10.3389/frym.2018.00031>
- Member "Coordinamento napoletano Donne nella Scienza"
- Member task force UNINA "BIGFED2"
- Member MUNA (Mediterranean Middle East University Agreement)
- Board "Alla Corte Young" and "Corte Young Va a Scuola"
- Participant "Futuro Remoto"

PUBLICATION INDEXES (source Scopus)

<i>h</i> -index	29
citations	2578
publications	115

PUBLICATIONS IN THE LAST 8 YEARS

72. Teta R., Romano V., Della Sala G., Picchio S., De Sterlich C., Mangoni A., Di Tullio G., Costantino V., Lega M. Cyanobacteria as indicators of water quality in Campania coasts, Italy: a monitoring strategy combining remote/proximal sensing and in situ data, *Environ.Res. Lett.*, 2017, 12 (2), 024001. DOI:10.1088/1748-9326/aa5649.

73. Schirmeister T., Oli S., Wu H., Della Sala G., Costantino V., Seo E.-J., Efferth T. Cytotoxicity of Endoperoxides from the Caribbean Sponge *Plakortis halichondroides* towards Sensitive and Multidrug-Resistant Leukemia Cells: Acids vs. Esters Activity Evaluation. *Mar. Drugs*, 2017,15, 63. DOI: 10.3390/md15030063.

74. Caso A., Mangoni A., Piccialli G., Costantino V., Piccialli V. Studies toward the Synthesis

of Smenamide A, an antiproliferative Metabolite from *Smenospongia aurea*. Total Synthesis of ent-Smenamide A and epi-Smenamide A, *ACS Omega*, 2017, 2, 1477–1488. DOI: 10.1021/acsomega.7b00095.

75. Saurav K., Costantino V., Venturi V., Steindler L. Quorum Sensing Inhibitors from the Sea Discovered Using Bacterial N-acyl-homoserine Lactone-Based Biosensors. *Mar. Drugs*, 2017, 15, 53. DOI: 10.3390/md15030053.

76. Costantino V., Della Sala G., Saurav K., Teta R., Bar-Shalom R., Mangoni A., Steindler L. Plakofuranolactone as a Quorum Quenching Agent from the Indonesian Sponge *Plakortia cf. lita*, *Mar. Drugs*, 2017, 15, 59. DOI: 10.3390/md15030059.

77. Teta R., Marteinsson V. R., Longeon A., Klonowski A. M., Groben R., Bourguet-Kondracki M. L., Costantino V., Mangoni A. Thermoactinoamide A, an Antibiotic Lipophilic Cyclopeptide from the Icelandic Thermophilic Bacterium *Thermoactinomyces vulgaris*, *Journal of Natural Products*, 2017, 80, 9, 2530–2535. DOI: 10.1021/acs.jnatprod.7b00560.

78. Della Sala G., Teta R., Esposito G., Pawlik J. R., Mangoni A., Costantino V. Zeamide, a Glycosylinositol Phosphorylceramide with the Novel Core Arap(1 β →6)Ins Motif from the Marine Sponge *Svenzea zeai*, *Molecules*, 2017, 22, 1455. DOI: org/10.3390/molecules22091455.

79. Costantini S., Guerriero E., Teta R., Capone F., Caso A., Sorice A., Romano G., Ianora A., Ruocco N., Budillon A., Costantino V., Costantini M. Evaluating the Effects of an Organic Extract from the Mediterranean Sponge *Geodia cydonium* on Human Breast Cancer Cell Lines. *Int. J. Mol. Sci.*, 2017, 18, 2112. DOI: 10.3390/ijms18102112.

80. Britstein M., Saurav K., Teta R., Della Sala G., Bar-Shalom R., Stoppelli N., Zoccarato L., Costantino V., Steindler L. Identification and chemical characterization of N-acyl-homoserine lactone quorum sensing signals across sponge species and time, *FEMS Microbiology Ecology*, 2018, 94. DOI: 10.1093/femsec/fix182.

81. D'Errico S., Borbone N., Catalanotti B., Secondo A., Petrozziello T., Piccialli I., Pannaccione A., Costantino V., Mayol L., Piccialli G., Oliviero G. Synthesis and biological evaluation of a new structural simplified analogue of cADPR, a calcium-mobilizing secondary messenger firstly isolated from sea urchin eggs. *Mar. Drugs*, 2018, 16 (3), 89. DOI: 10.3390/md16030089.

82. Caso A., Laurenzana I., Lamorte D., Trino S., Esposito G., Piccialli V., Costantino V. Smenamide A Analogues. Synthesis and Biological Activity on Multiple Myeloma Cells., *Mar. Drugs*, 2018, 16, 206. DOI: 10.3390/md16060206.

83. Esposito G., Teta R., Della Sala G., Pawlik, J. R., Mangoni A., Costantino V. Isolation of Smenopyrone, a Bis- γ -Pyrone Polypropionate from the Caribbean Sponge *Smenospongia aurea*. *Mar. Drugs*, 2018, 16, 285. DOI: org/10.3390/md16080285.

84. Della Sala G., Agriesti F., Mazzoccoli C., Tataranni T. Costantino V., Piccoli C. Clogging the Ubiquitin-Proteasome Machinery with Marine Natural Products: Last Decade Update. *Mar. Drugs*, 2018, 16, 467. DOI: org/10.3390/md16120467.

85. Esposito G., Teta R., Marrone R., De Sterlich C., Casazza M., Anastasio A., Lega M., Costantino V. A Fast Detection Strategy for Cyanobacteria blooms and associated cyanotoxins (FDSCC) reveals the occurrence of Lyngbyatoxin A in Campania (South Italy), *Chemosphere*, 2019, 225, 342-351. DOI: 10.1016/j.chemosphere.2019.02.201.

86. Teta R., Esposito G., Casazza M., Zappa C. J., Endreny T., Mangoni A., Costantino V., Lega M. Bioindicators as a tool in environmental impact assessment: Cyanobacteria as a sentinel of pollution, *International Journal of Sustainable Development and Planning*, 2019, 14 (1), 1-8. DOI: 10.2495/SDP-V14-N1-1-8.

87. Della Sala G., Teta R., Esposito G., Costantino V. The chemical language of Gram-negative bacteria in: Quorum Sensing: Molecular Mechanism and Biotechnological Application, 2019, Ed. Elsevier, ISBN:978-0-12-814905-8. DOI: 10.1039/C9QO00074G.

88. Teta R., Della Sala G., Esposito G., Via C.W., Mazzoccoli C., Piccoli C., Bertin M. J.,

Costantino V., Mangoni A. A joint molecular networking study of a *Smenospongia* sponge and a cyanobacterial bloom revealed new antiproliferative chlorinated polyketides. *Org. Chem. Front.*, 2019, 6(11), 1762-1774. DOI: 10.1039/C9QO00074G.

89. Esposito G., Longeon A., Meijer L., Van Soest R., Mangoni A., Costantino V., Bourguet-Kondracki M. L. A collection of bioactive nitrogen-containing molecules from the marine sponge *Acanthostrongylophora ingens*, *Mar. Drugs*, 2019, 17 (8), 472. DOI:10.3390/md17080472.

90. Caso A., Esposito, G., Della Sala G., Pawlik J. R., Teta R., Mangoni A., Costantino V. Fast Detection of Two Smenamide Family Members Using Molecular Networking. *Mar. Drugs*, 2019, 17, 618.

91. Ishaque N. M., Burgsdorf I., Limlingan Malit J.J.; Saha S., Teta R., Ewe D., Kannabiran K. Hrouzek P., Steindler L., Costantino V., Saurav K. Isolation, Genomic and Metabolomic Characterization of *Streptomyces tendae* VITAKN with Quorum Sensing Inhibitory Activity from Southern India. *Microorganisms* 2020, 8, 121. DOI:10.3390/microorganisms8010121.

92. Saurav K., Borbone N., Burgsdorf I., Teta R., Caso A., Bar-Shalom R., Esposito G., Britstein M., Steindler L., Costantino V. Identification of quorum sensing activators and inhibitors in the marine sponge *Sarcotragus spinosulus*, *Mar. Drugs*, 2020, 18, 127.

93. Della Sala G., Mangoni A., Costantino V., Teta R. Identification of the Biosynthetic Gene Cluster of Thermoactinoamides and Discovery of New Congeners by Integrated Genome Mining and MS-Based Molecular Networking, *Front. Chem.*, 2020, 8, 397. DOI: 10.3389/fchem.2020.00397.

94. Costantino V., Bourguet-Kondracki M. L., Ioannou E. Peptide/Polyketide Molecules From Marine Macro and/or Microorganisms, Editorial Article, *Front. Chem.*, 2020. DOI: 10.3389/fchem.2020.00490.

95. Saha, S.; Esposito, G.; Urajova, P.; Mareš, J.; Ewe, D.; Caso, A.; Macho, M.; Delawska, K.; Kust, A.; Hrouzek, P.; Juraň, J.; Costantino, V.; Saurav, K. Discovery of Unusual Cyanobacterial Tryptophan-Containing Anabaenopeptins by MS/MS-Based Molecular Networking. *Molecules*, 2020, 25, 3786. DOI:10.3390/molecules25173786.

96. Scarpato, S.; Teta, R.; Della Sala, G.; Pawlik, J.R.; Costantino, V.; Mangoni, A.; New Tricks with an Old Sponge: Feature-Based Molecular Networking Led to Fast Identification of New Styliissamide L from *Stylissa caribica*, *Mar. Drugs*, 2020, DOI: 10.3390/md18090443.

97. Teta, R., Esposito, G., De Sterlich, C., Lega, M., Costantino, V. Early Detection of Cyanobacterial Blooms and Associated Cyanotoxins using Fast Detection Strategy. *J. Vis. Exp.* 2021, (168), e61889, DOI:10.3791/61889. <https://www.jove.com/v/61889>

98. Horchani, M.; Della Sala, G.; Caso, A.; D'Aria, F.; Esposito, G.; Laurenzana, I.; Giancola, C.; Costantino, V.; Jannet, H.B.; Romdhane, A. Molecular Docking and Biophysical Studies for Antiproliferative Assessment of Synthetic Pyrazolopyrimidinones Tethered with Hydrazide-Hydrazones. *Int. J. Mol. Sci.* 2021, 22, 2742. <https://doi.org/10.3390/ijms22052742>.

99. Galica T., Borbone N., Mares J., Kust, A., Caso A., Esposito, G., Saurav K., Hajek J., Řehakova K., Urajova P., Costantino V., and Hrouzek P. Cyanochelins, an overlooked class of widely distributed cyanobacterial siderophores, discovered by silent gene cluster awakening" *Applied and Environmental Microbiology* 2021, 87, e03128-20. ISSN: 0099-2240, doi: 10.1128/aem.03128-20.

100. Teta, R. Della Sala G., Esposito G., Stornaiuolo M., Scarpato S., Casazza M., Anastasio A., Lega, M., and Costantino, V. Monitoring cyanobacterial blooms during the COVID-19 pandemic in Campania, Italy: the case of Lake Avernus. *Toxins* 2021, 13, 471. <https://doi.org/10.3390/toxins13070471>

101. Caso, A.; da Silva, F.B.; Esposito, G.; Teta, R.; Sala, G.D.; Cavalcanti, L.P.A.N.; Valverde, A.L.; Martins, R.C.C.; Costantino, V. Exploring Chemical Diversity of Phorbas Sponges as a Source of Novel Lead Compounds in Drug Discovery. *Mar. Drugs*, 2021, 19, 667. <https://doi.org/10.3390/md19120667>

103. Teta, R.; Sala, G.D.; Esposito, G.; Stornaiuolo, M.; Scarpato, S.; Casazza, M.; Anastasio, A.; Lega, M.; Costantino, V. Monitoring Cyanobacterial Blooms during the COVID-19 Pandemic in Campania, Italy: The Case of Lake Avernus. *Toxins* **2021**, *13*, 471. <https://doi.org/10.3390/toxins13070471>
104. Teta, R.; Esposito, G.; Kundu, K.; Stornaiuolo, M.; Scarpato, S.; Pollio, A.; Costantino, V.; A Glimpse at Siderophores Production by *Anabaena Flos - aquae UTEX 1444*. *Mar. Drugs* **2022**, *20*, 256. <https://doi.org/10.3390/md20040256>
105. M. Lega, G. Medio, T. Endreny, G. Esposito, V. Costantino, R. Teta; *WIT Transactions on Ecology and the Environment*, **2022**, 257
106. Castaldi, A.; Teta, R.; Esposito, G.; Benididir, M.A.; De Voogd, N.J.; Duperron, S.; Costantino, V.; Bourguet-Kondracki, M.-L. Computational Metabolomics Tools Reveal Subarmigerides, Unprecedented Linear Peptides from the Marine Sponge Holobiont *Callyspongia subarmigera*. *Mar. Drugs* **2022**, *20*, 673. <https://doi.org/10.3390/md20110673>
107. Scarpato, S.; Teta, R.; De Cicco, P.; Borrelli, F.; Pawlik, J.R.; Costantino, V.; Mangoni, A. Molecular Networking Revealed Unique UV-Absorbing Phospholipids: Favilipids from the Marine Sponge *Clathria faviformis*. *Mar. Drugs* **2023**, *21*, 58. <https://doi.org/10.3390/md21020058Mar>.
108. Kundu, K.; Teta, R.; Esposito, G.; Stornaiuolo, M.; Costantino, V. A Four-Step Platform to Optimize Growth Conditions for High-Yield Production of Siderophores in Cyanobacteria. *Metabolites* **2023**, *13*, 154. <https://doi.org/10.3390/metabo13020154>
109. Pellicioni V, Esposito G, Greco G, Cruz-Chamorro I, Ferrini F, Sestili P, Teta R, Fimognari C, Costantino V. Novel Insights in the Potential of Halogenated Polyketide-Peptide Molecules as Lead Compounds in Cancer Drug Discovery. *Int J Mol Sci.* **2023** Mar 25;24(7):6208. doi: 10.3390/ijms24076208.
110. Lega, M., Medio, G., Endreny, T., Casazza, M., Esposito, G., Costantino, V., Teta, R., 2023. Cyanobacterial Biomonitoring in Lake Avernus During the COVID-19 Pandemic: Integrating Remote Sensing and Field Data for Pollution Source Detection. *International Journal of Computational Methods and Experimental Measurements* **2023**, *11*, 135 – 141. <https://doi.org/10.18280/ijcmem.110301>
111. Esposito, G.; Glukhov, E.; Gerwick, W.H.; Medio, G.; Teta, R.; Lega, M.; Costantino, V. Lake Avernus Has Turned Red: Bioindicator Monitoring Unveils the Secrets of “Gates of Hades” . *Toxins* **2023**, *15*, 698. <https://doi.org/10.3390/toxins15120698>
112. De Rosa, T.; Ponticelli, M.; Teta, R.; Carlucci, V.; Milella, L.; Esposito, G.; Costantino, V. Harnessing Cyanobacteria's Bioactive Potential: A Sustainable Strategy for Antioxidant Production. *Microorganisms* **2024**, *12*, 175. <https://doi.org/10.3390/microorganisms12010175>.
113. Di Matteo, V.; Esposito, G.; Costantino, V.; Della Sala, G.; Teta, R.; Mangoni, A., "When Synthesis Gets It Wrong: The Case of Cyclic Peptide Thermoactinoamide A". *Journal of Natural Products*, **2024**, DOI: 10.1021/acs.jnatprod.3c01229
114. Carlucci, V.; Ponticelli, M.; Russo, D.; Labanca, F.; Costantino, V.; Esposito, G.; Milella, L. Nutraceutical Valorization of Exhausted Olive Pomace from *Olea europaea* L. Using Advanced Extraction Techniques. *Plants* **2024**, *13*, 2310. <https://doi.org/10.3390/plants13162310>
115. Ponticelli, M.; Labanca, F.; Scognamiglio, P. Sinisgalli, Costantino, V.; Esposito, G.; Milella, L. “Aglianico Grape Pomace as a source of antioxidant and antiproliferative biomolecules: Eco-friendly Extraction and HRMS/MS-based Molecular Networking” , *Food Chemistry* **2024**, <https://doi.org/10.1016/j.foodchem.2024.142573>.

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Napoli, 15.02.2025

Signature

