

PERSONAL INFORMATION

Nicola Borbone



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🌐 <https://sites.google.com/view/hybridbiosystems/home>

Sex Male | Date of birth 23/02/1972 | Nationality -Italian

| Enterprise | University | EPR |
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| <input type="checkbox"/> Management Level | <input type="checkbox"/> Full professor | <input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist |
| <input type="checkbox"/> Mid-Management Level | <input checked="" type="checkbox"/> Associate Professor | <input type="checkbox"/> Level III Researcher and Technologist |
| <input type="checkbox"/> Employee / worker level | <input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator | <input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator |

WORK EXPERIENCE

2019–today

Associate Professor

Università degli Studi di Napoli Federico II, Napoli, Italy

- Leader of The HybridBioSystems research group at the Department of Pharmacy, working on the design and synthesis of novel nucleic acids-based drugs and tools to be used as antiviral or anticancer therapeutics and for the development of diagnostics devices, respectively (<https://sites.google.com/view/nicola-borbone/home>)

Teaching and tutoring for undergraduate and PhD students; Research activity in the field of nucleic acids chemistry and biology.

April 2018

Achievement of the National Scientific Qualification for the position of Full Professor for the Organic Chemistry disciplinary sector (CHIM/06)

2013–2019

Full time Researcher

Università degli Studi di Napoli Federico II, Napoli, Italy

- Teaching and tutoring for undergraduate and PhD students; Research activity in the field of nucleic acids chemistry and biology.

January-February 2017

Visiting professor at the Faculty of Pharmacy, University of Helsinki, Finland

January-March 2014

Visiting researcher at the ImmunoVirotherapy Lab, Faculty of Pharmacy, University of Helsinki, Finland

2003–2012

Post-Doc Scientist

Università degli Studi di Napoli Federico II, Napoli, Italy

- Research activity in the field of nucleic acids chemistry and structural elucidation of organic natural compounds.

October 2011 -March 2012

Visiting researcher at the Biomedicum University Hospital, University of Helsinki, Finland

EDUCATION AND TRAINING

2002

PhD in Pharmacologically active natural substances

Università degli Studi di Napoli Federico II, Napoli, Italy

- Isolation and structural characterization of bioactive natural compounds from marine organisms and terrestrial plants.

1999

Master Degree in Pharmaceutical Chemistry and Technology

Università degli Studi di Napoli Federico II, Napoli, Italy

WORK ACTIVITIES

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| Editorial activity | Since 2019 member of the Editorial Board of "Molecules" journal; 2018-2022 Guest Editor of "International Journal of Molecular Sciences" and "Molecules" journals; Referee ad hoc for the following journals: Journal of Agricultural and Food Chemistry, Molecular Biosystems, European Journal of Organic Chemistry, Molecules, Nucleic Acid Research, Medicinal Chemistry Letters, Analytical Chemistry, Chemical Communications, Marine Drugs, Physical Chemistry Chemical Physics, Biochimica et Biophysica Acta – General Subjects, Scientific Reports, International Journal of Molecular Sciences, Molecular Therapy – Nucleic Acids journals. |
| Invited presentations | His scientific production is validated by several national and international cooperation with Italian and foreign researchers, and by several participations as speaker to national and international conferences and meetings. |
| Grants | PI of the UNINA-CNR joint project "Funzionalizzazione di supporti solidi con nuovi acidi nucleici e analoghi a potenziale attività antitumorale"; PI of the project "AHDD – Advanced Healthcare Diagnostic Devices: DNA-based porous silicon biosensors"; PI of the project "System Biology" within the Italian node of ESFRI roadmap; Scientific collaboration for the project on PRRN 2022: National Center for Gene Therapy and Drugs based on RNA Technology Codice progetto MUR: CN00000041 – CUP UNINA: E63C22000940007. |
| Patents | Deposition of an Italian Patent for the invention "3-(3-ossoisindolin-1-il)pentan-2,4-dione (ISOAC1) in malattie correlate alla β - amiloide" is currently ongoing. |
| Collaborations | - Prof. Helder Santos (Health Technology Research and Innovation Cluster, University of Groningen, The Netherlands). - Prof. Serena Riela (STEBICEF Department, University of Palermo, Italy). - Prof. Maxim Berezovski (Faculty of Science, University of Ottawa, Canada) - Prof. Vincenzo Cerullo (ImmunoViroTherapy Laboratory, University of Helsinki, Finland). |

ADDITIONAL INFORMATION

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| Publications | total number of publications in peer-review journals: 122 number of publications in the last ten years: 71 H index: 31 |
| Selected Publications | <p>Tramontano, C., Martins, J.P., De Stefano, L., Kemell, M., Correia, A., Terracciano, M., Borbone, N. et al. Microfluidic-Assisted Production of Gastro-Resistant Active-Targeted Diatomite Nanoparticles for the Local Release of Galunisertib in Metastatic Colorectal Cancer Cells (2023) <i>Adv. Healthcare Mat.</i>, 12, 2202672.</p> <p>Terracciano, M., Fontana, F., Falanga, A.P., D'Errico, S., Torrieri, G., Greco, F., Tramontano, C. et al. Development of Surface Chemical Strategies for Synthesizing Redox-Responsive Diatomite Nanoparticles as a Green Platform for On-Demand Intracellular Release of an Antisense Peptide Nucleic Acid Anticancer Agent (2022) <i>Small</i>, 18, 2204732.</p> <p>Mironov, V., Schugoreva, I.A., Artyushenko, P.V., Morozov, D., Borbone, N., Oliviero, G., Zamay, T.N., et al. Structure and Interaction Based Design of Anti-SARS-CoV-2 Aptamers (2022) <i>Chemistry-A European Journal</i>, 28, e202104481.</p> <p>Comegna, M., Conte, G., Falanga, A.P., Marzano, M., Cernera, G., Di Lullo, A.M., Amato, F., et al. Assisting PNA transport through cystic fibrosis human airway epithelia with biodegradable hybrid lipid-polymer nanoparticles (2021) <i>Scientific Reports</i>, 11, 6393.</p> <p>Falanga, A.P., Cerullo, V., Marzano, M., Feola, S., Oliviero, G., Piccialli, G., Borbone, N. Peptide Nucleic Acid-Functionalized Adenoviral Vectors Targeting G-Quadruplexes in the P1 Promoter of Bcl-2 Proto-Oncogene: A New Tool for Gene Modulation in Anticancer Therapy (2019) <i>Bioconjugate Chemistry</i>, 30, 572-582.</p> <p>Scuotto, M., Riviuccio, E., Varone, A., Corda, D., Bucci, M., Vellecco, V., Cirino, G. et al. Site specific replacements of a single loop nucleoside with a dibenzyl linker may switch the activity of TBA from anticoagulant to antiproliferative (2015) <i>Nucleic Acids Research</i>, 43, 7702-7716.</p> |

Napoli, 10/05/2023

Nicola Borbone
