PERSONAL INFORMATION

Vito Capriati, CChem FRSC
Full Professor of Organic Chemistry
Director of Interuniversity Consortium C.I.N.M.P.I.S.

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EDUCATION

1983	*High School Scientific Diploma*, Liceo Scientifico Statale Mola di Bari (BA), Italy (mark: 60/60)
1990	*M.Sc. degree (summa cum laude)*, University of Bari Aldo Moro, Italy (Chemistry and Pharmaceutical Technology, 5-year degree course; Mentor: Prof. Leonardo Di Nunno)
1991	Qualified to practice as a *Pharmacist* with full marks (250/250)
1992–1993	*CNR (National Research Council) fellowship* at "MISO" (Innovative Methodologies in Organic Synthesis) centre, then merged into "ICCOM" (Institute of Chemistry of Organometallic Compounds), Bari (I); Mentor: Prof. Francesco Naso

PROFESSIONAL HISTORY AND EXPERIENCE

1990–1991	*Carabinieri Officer*, Forensic Chemistry Unit, Carabinieri Scientific Investigation Department (RIS), Rome, Italy (formerly the Carabinieri Scientific Investigation Centre, CCIS).
1993–2002	*Assistant Professor* of Organic Chemistry, Department of Pharmacy-Drug Sciences, University of Bari Aldo Moro; started a Scientific Collaboration with Prof. Saverio Florio's group
2001	*Visiting Scientist* at the Department of Chemistry (Gideon Fraenkel's group), Ohio State University (Ohio, USA)
2002–2018	*Associate Professor* of Organic Chemistry, Department of Pharmacy-Drug Sciences, University of Bari Aldo Moro
2003	*Visiting Professor* at the Department of Chemistry and Molecular Biology (Per Ahlberg's group), Göthenburg University (Göteborg, Sweden)
2014	National Habilitation for *Full Professorship* of Organic Chemistry
2019	*Chair* of Organic Chemistry, University of Bari Aldo Moro
2024	*Visiting Fellowship* at the University of Normandy in Rouen (France) (groups of Profs. Muriel Durandetti and Hassan Oulyadi)

TEACHING

- *Chemistry of Organic Natural Products* (Master's degree courses in Pharmacy and Chemistry and Pharmaceutical Technology (5-yr degree courses) (1997–2006)
- *Organic Chemistry* (Master's degree course in Pharmacy (5-yr degree course)) (2003–2011)
- *Organic Chemistry* (Bachelor's degree course in Herbal and Nutraceutical Sciences (formerly Herbal Techniques (3-yr degree course)) (2000–2005)
- *Organic Chemistry I* (Master's degree course in Chemistry and Pharmaceutical Technology (5-yr degree course)) (since 2011)
- *Organic Chemistry II* (Master's degree course in Chemistry and Pharmaceutical Technology (5-yr degree course)) (since 2012)

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PRESENT INTERNATIONAL COLLABORATION

Prof. Konstantin Karaghiosoff (Ludwig-Maximilians-Universität München, Germany); Profs. Dietmar Stalke and Konrad Koszinowski (University of Göttingen, Germany); Prof. Anne Milet (Université Grenoble Alpes, France); Dr. Jacques Maddaluno, Profs. Hassan Oulyadi , and Muriel Durandetti (Université de Rouen & INSA de Rouen, France); Prof. Mohamed Amedjkouh (Kjemisk institutt, Oslo, Norway); Prof. Eva Hevia (University of Bern, Switzerland); Profs. Joaquín García-Álvarez, Alejandro Presa Soto, and Vicente Gotor-Fernández (University of Oviedo, Spain); Prof. Enrico Marsili (University of Nottingham, Ningbo, China); Prof. Selin Kara (Leibniz University Hannover).

SCIENTIFIC MERITS

Capriati's main research revolves around:

(a) **Polar Organometallic Reagents in Stereoselective Organic Synthesis:** Development and application of novel polar organometallic reagents, with a particular focus on functionalized organolithium species, and investigation of the structure-reactivity relationship of reactive lithiated intermediates using multinuclear magnetic resonance investigations, X-ray crystallography, and *ab initio* calculations (*J. Org. Chem.* **2008**, *73*, 9552; *Chem. Eur. J.* **2009**, *15*, 7958; *Chem. Eur. J.* **2010**, *16*, 9778; *Chem. Eur. J.* **2011**, *17*, 8216; *Chem. Sci.* **2014**, *5*, 528; *Eur. J. Org. Chem.* **2019**, 5549). Contributions to key challenges in organometallic and lithium carbenoid chemistry, both in synthetic and mechanistic contexts. Notable advance include the direct functionalization of aryl-substituted oxygen-containing heterocycles (e.g., oxetanes, tetrahydrofurans and tetrahydropyrans) (*Chem. Commun*. **2011**, *47*, 9918; *Chem. Commun*. **2013**, *49*, 10160; *Eur. J. Org. Chem.* **2016**, 3157), and the *ortho*-functionalization of aryloxetanes (*Angew. Chem. Int. Ed.* **2012**, *51*, 7532; *Eur. J. Org. Chem.* **2019**, 5549); for reviews, see: *Chem. Eur. J.* **2010**, *16*, 4152; *Dalton Trans.* **2014**, *43*, 14204

(b) **Mechanistic Insights into Deprotonative Metallation:** Elucidation of how deprotonative metallation can be strategically leveraged in asymmetric synthesis to construct key building blocks *en route* to natural and bioactive compounds (*Chem. Eur. J.* **2009**, 15, 7958; *Chem. Commun*. **2013**, *49*, 4911; *Chem. Sci.* **2014**, *5*, 528; *Eur. J. Org. Chem.* **2019**, 5549)

(c) **Boron and Fluorine chemistry in Supramolecular Assembly:** Exploration of weak, non-covalent inter- and intramolecular interactions that drive the formation of supramolecular architectures via spontaneous self-assembly processes (*Chem. Eur. J.* **2010**, *16*, 9778; *Dalton Trans.* **2015**, *44*, 19447)

(d) **Deep Eutectic Solvents (DESs) as Green Reaction Media**: Pioneering the use of DESs as sustainable, biodegradable alternatives to toxic VOCs in various chemical transformations, including: (a) organocatalysis (*Green Chem.* **2016**, *18*, 792; *Beilstein J. Org. Chem.* **2016**, *12*, 2620); (b) whole cells biocatalysis (*Adv. Synth. Cat.* **2017**, *359*, 1049; *Catalysts* **2018**, *8*, 55; *React. Chem. Eng.* **2020**, *5*, 859); (c) metal-catalysis also integrated with biocatalysis (*Green Chem.* **2017**, *19*, 69; *Green Chem.* **2018**, *20*, 3468; *ChemSusChem* **2018**, *11*, 3495; *Front. Chem.* **2019**, *7,* 723; *ChemCatChem* **2020**, *12*, 1979; *Org. Biom. Chem.* **2021**, *19*, 1773; *ChemSusChem* **2022**, *15*, e202102211; *RSC Sustain.* **2023**, *1*, 847; *EurJOC* **2024**, e202400300; *ChemCatChem* **2025**, *17*, e01019); (d) aminocarbonylation reactions (*Chem. Commun.* **2018**, *54*, 8100); (e) as electrolyte components in dye-sensitized solar cells and for photocatalytic hydrogen production (*Energy Technol.* **2017**, *5*, 345; *Chem. Eur. J.* **2018**, *24*, 17656; *ChemElettroChem* **2020**, *7*, 1707; *Sustain. Energy Fuels* **2024**, *8*, 504; *Commun. Chem.* **2026**, *9*, 70; *ChemSusChem* **2026**, *19*, e70697); (f) synthesis of (chiral) amines and heterocycles of pharmaceutical interests (*ChemSusChem* **2020**, *13*, 358; *Molecules* **2022**, *27*, 7594; *ACS Sustainable Chem. Eng.* **2022**, *10*, 4065*; Molecules* **2024**, *29*, 1399; *ChemSusChem* **2026**, *19*, e202502114; *ChemSusChem* **2026**, *19*, e70697); (g) electrochemistry (*Solid State Ionics* **2018**, *323*, 48); (h) biotechnological applications with photosynthetic bacteria, expanding the prospects for photocatalysis and innovative bioprocesses (*ACS Sust. Chem. Eng.* **2017**, *5*, 7768); (i) chemistry of graphene (*Sci. Rep.* **2019**, *9*, 5463); (j) synthesis of heterocycles (*Tetrahedron* **2016**, *72*, 4239; *Molecules* **2016**, *21*, 924; *Eur. J. Org. Chem.* **2019**, 5549; *Molecules* **2020**, *25*, 574; *Beilstein J. Org. Chem.* **2020**, *16*, 1915; *Eur. J. Org. Chem.* **2022**, e202200843; *Eur. J. Org. Chem.* **2023**, *26*, e202200814); (k) extractive processes of mycotoxins (*Molecules* **2017**, *22*, 121); and (l) protein crystallization (*ACS Sustainable Chem. Eng.* **2021**, *9*, 8435).

(e) **Organometallic Chemistry in Aqueous and Eutectic Environments**: Challenging the long-standing paradigm that highly polarized organometallic compounds require strict anhydrous conditions, Capriati's research team has demonstrated that highly reactive s-block organometallic reagents (organolithium, organomagnesium, and organosodium reagents) can be successfully employed in protic eutectic mixtures and even in water under ambient aerobic conditions. This strategy has enabled applications in: (a) in nucleophilic additions to carbonyl derivatives, imines, nitriles, Weinreb amides, and acyl nucleophilic substitution reactions (*Chem. Sci.* **2016**, *7*, 1992; *Green Chem.* **2017**, *19*, 3069; *Angew. Chem. Int. Ed.* **2017**, *56*, 1020; *Angew. Chem. Int. Ed.* **2023**, e202304720); (b) *ortho*-lithiation, side-chain lithiation, and acyl nucleophilic substitution of benzamide derivatives (*Chem. Commun*. **2014**, *50*, 8655; *Chem. Commun*. **2015**, *51*, 9459; *Chem. Commun.* **2019**, *55*, 7741); (c) enolate chemistry (*React. Chem. Eng.* **2021**, *6*, 1796; *Org. Biom. Chem.* **2024**, *22*, 1885); (d) direct Pd-catalyzed cross-coupling reactions with aryl halides in water (*Angew. Chem. Int. Ed.* **2019**, *58*, 1799); and (e) ultrafast Negishi cross-coupling reactions in DESs and water (*Angew. Chem. Int. Ed.* **2021**, *60*, 10632). For recent reviews, see: *Eur. J. Org. Chem.* **2015**, *31*, 6778; *Chem. Eur. J.* **2018**, *24*, 14854; *Curr. Opin. Green Sust. Chem.* **2021**, *30*, 100487; *Molecules* **2024**, *29*, 1422, *SynOpen* **2026**, *10*, 12. These discoveries have fundamentally reshaped our understanding of organometallic reactivity and opened new avenues for sustainable synthetic methodologies.

SELECTED PUBLICATIONS

- B. Delvecchio, L. Cicco, A. Paparella, G. Di Salvo, F. M. Perna, **V. Capriati** "A Scalable and Sustainable Synthesis of Indirubin Frameworks Enabled by Deep Eutectic Solvents" *ChemSusChem* **2026** *19*, e202502114
- G. Dilauro, C. Luccarelli, A. F. Quivelli, A.Vitale, F. M. Perna, **V. Capriati** "Introducing Water and Deep Eutectic Solvents in Organosodium Chemistry: Chemoselective Nucleophilic Functionalizations in Air" *Angewandte Chemie International Edition* **2023**, e202304720 (selected by the Editorial Office as **Hot Paper**)

- G. Dilauro, L. Cicco, P. Vitale, F. M. Perna, **V. Capriati** "Ligand-Free Pd-Catalyzed Reductive Mizoroki-Heck Reaction Strategy for the One-Pot Synthesis of Functionalized Oxygen Heterocycles in Deep Eutectic Solvents"
  European Journal of Organic Chemistry **2023**, e202200814
  (selected by the Editorial Office as **Very Important Paper** and for the **Front Cover** of the corresponding issue)
- A. F. Quivelli, M. Marinò, P. Vitale, J. García-Álvarez, F. M. Perna, **Vito Capriati** "Ligand-free Copper-Catalyzed Ullmann-type C–O Bond Formation in Non-innocent Deep Eutectic Solvents under Aerobic Conditions"
  ChemSusChem **2022**, *15*, e202102211
- G. Dilauro, C. S. Azzolini, P. Vitale, A. Salomone, F. M. Perna, **V. Capriati** "Scalable Negishi Coupling between Organozinc Compounds and (Hetero)Aryl Bromides under Aerobic Conditions when using Bulk Water or Deep Eutectic Solvents with no Additional Ligands"
  Angewandte Chemie International Edition **2021**, *60*, 10632
  (this article appears in: **Hot Topic: C-C Coupling**, *ChemCatChem*)
- L. Cicco, A. Fombona-Pascual, A. Sánchez-Condado, G. A. Carriedo, F. M. Perna, **V. Capriati**, A. Presa Soto, J. García-Álvarez "Fast and Chemoselective Addition of Highly Polarized Lithium Phosphides Generated in Deep Eutectic Solvents to Aldehydes and Epoxides"
  ChemSusChem **2020**, *13*, 4967 (selected by the Editorial Office as **Very Important Paper** and for the **Cover Feature** of the corresponding issue; **Highlighted in ChemistryViews**)
- L. Cicco, A. Salomone, P. Vitale, N. Ríos-Lombardía, J. González-Sabín. J. García-Álvarez, F. M. Perna, **V. Capriati** "Addition of Highly Polarized Organometallic Compounds to *N-tert*-Butanesulfinyl Imines in Deep Eutectic Solvents under Air: Preparation of Chiral Amines of Pharmaceutical Interest"
  ChemSusChem **2020**, *13*, 3583 (selected by the Editorial Office for the **Cover Feature** of the corresponding issue)
- G. Dilauro, A. F. Quivelli, P. Vitale, **V. Capriati**, F. M. Perna "Water and Sodium Chloride: Essential Ingredients for Robust and Fast Pd-Catalysed Cross-Coupling Reactions between Organolithium Reagents and (Hetero)aryl Halides"
  Angewandte Chemie International Edition **2019**, *58*, 1799 (selected by the Editorial Office as **Hot Paper**; **Top Downloaded Paper 2018–2019**)
- G. Dilauro, S. M. García, D. Tagarelli, P. Vitale, F. M. Perna, **V. Capriati** "Ligand-Free Bioinspired Suzuki–Miyaura Coupling Reactions using Aryltrifluoroborates as Effective Partners in Deep Eutectic Solvents"
  ChemSusChem **2018**, *11*, 3495
- G. Dilauro, M. Dell'Aera, P. Vitale, **V. Capriati**, F. M. Perna "Unprecedented Nucleophilic Additions of Highly Polar Organometallic Compounds to Imines and Nitriles Using Water as a Noninnocent Reaction Medium"
  Angewandte Chemie International Edition **2017**, *56*, 10200 (**HIGHLIGHTED** in *Synfacts* **2017**, *13* (10), 1074 and in **ChemistryViews**)
- L. Cicco, S. Sblendorio, R. Mansueto, F. M. Perna, A. Salomone, S. Florio, **V. Capriati** "Water Opens the Door to Organolithiums and Grignard Reagents: Exploring and Comparing the Reactivity of Highly Polar Organometallic Compounds in Unconventional Reaction Media Towards the Synthesis of Tetrahydrofurans"
  Chemical Science **2016**, *7*, 1192 (**HIGHLIGHTED** in *Synfacts* **2016**, *12* (1), 0081)
- A. Salomone, F. M. Perna, A. Falcicchio, S. O. Nilsson Lill, A. Moliterni, R. Michel, S. Florio, D. Stalke, **V. Capriati** "Direct Observation of a Lithiated Oxirane: A Synergistic Study Using Spectroscopic, Crystallographic, and Theoretical Methods on the Structure and Stereodynamics of Lithiated *ortho*-Trifluoromethyl Styrene Oxide"
  Chemical Science **2014**, *5*, 528 (selected by the Chemical Science Editorial Office as **Hot Paper**)
- D. I. Coppi, A. Salomone, F. M. Perna, **V. Capriati** "Exploiting the Lithiation-Directing Ability of Oxetane for the Regioselective Preparation of Functionalized 2-Aryloxetane Scaffolds under Mild Conditions"
  Angewandte Chemie International Edition **2012**, *51*, 7532

ORGANIZING & SCIENTIFIC COMMITTEES

1996	"XXIII National Meeting of the Organic Division of the Italian Chemical Society", Monopoli (BA), Italy (Organizing Committee)
2002	"2nd Trans-Mediterranean Colloquium on Heterocyclic Chemistry (TRAMEC)", Bari, Italy (Organizing Committee)
2002	Scientific meeting organized by the "Puglia Section" of the Italian Chemical Society: "I Giovani e la Ricerca Chimica in Puglia", Bari, Italy (Organizing Committee)
2004	Scientific meeting organized by the "Puglia Section" of the Italian Chemical Society: "La Chimica per la Qualità della Vita", Bari, Italy (Organizing Committee)
2006	"22nd European Colloquium on Heterocyclic Chemistry (ECHC)", Bari, Italy (Organizing Committee)
2010	One-Day Symposium on "Advances in Organolithium Chemistry" on the occasion of the 70th birthday of Prof. Saverio Florio, Dipartimento di Farmacia – Scienze del Farmaco, University of Bari, Bari, Italy (10 international speakers invited) (Organizing Committee and Co-Chair)
2016	"Scientific Seminars of C.I.N.M.P.I.S. Fellows (XVI Edition)", University of Calabria, Rende (CS), Italy (Scientific Committee)
2017	"Scientific Seminars of C.I.N.M.P.I.S. Fellows (XVII Edition)", University of Cagliari, Cagliari, Italy (Scientific Committee)

2018	"28th European Colloquium on Heterocyclic Chemistry (ECHC)" University of Lecce, Lecce, Italy (Organizing Committee)
2019	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XVIII Edition)", University of Bologna, Bologna, Italy (Scientific Committee)
2019	"The Fourth China-Italy Bilateral Symposium on Organic Chemistry (CISOC-IV)", Bologna, Italy (Scientific Board)
2020	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XIX Edition)", University of Pavia, Pavia, Italy (Scientific Committee)
2021	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XX Edition)", University of Messina, Messina, Italy (Scientific Committee)
2022	"International Conference on Coordination Chemistry – ICCC (44° Edition)", "Session Chair" within the Topic "T05 – Main Group Coordination Chemistry" (Rimini, Italy) (Organizing Committee)
2023	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XXI Edition)", University of Pisa, Pisa, Italy (Scientific Committee)
2023	"XIV International School of Organometallic Chemistry (ISOC 2023)", Camerino (MC), Italy (Scientific Committee)
2024	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XXII Edition)", 30th Anniversary Conference, University of Bari Aldo Moro, Bari, Italy (Chair, Organizing and Scientific Committees)
2025	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XXIII Edition)", University of Naples Federico II, Naples, Italy (Scientific Committee)
2025	"1st International Symposium on Deep Eutectic Solvents – ISYDES 2025", Bari, Italy (Chair, Organizing and Scientific Committees)
2025	"XLIX International School on Organic Synthesis A. Corbella (ISOS 2025)", Gargnano (BS), Italy (Organizing Committee)
2025	"XV International School of Organometallic Chemistry (ISOC 2023)," Camerino (MC), Italy (Scientific Committee)
2026	"C.I.N.M.P.I.S. DAYS (Scientific Seminars) (XXIV Edition)", University of Catania, Catania, Italy (Scientific Committee)
2026	"The National Congress of Organometallic Chemistry Group (Co.GICO 2026)", Bologna, Italy (Scientific Committee)
2026	"L International School on Organic Synthesis A. Corbella (ISOS 2026)", Gargnano (BS), Italy (Organizing Committee)
2027	24th European Symposium on Organic Chemistry" (ESOC 2027), Bologna, Italy (National Scientific Committee)

ADMINISTRATIVE ROLE & POSITION RESPONSABIITY

1999–2004	*Member* of the Steering Committee of "Puglia Section" of the Italian Chemical Society
1999–2004	*Member* and secretary of the Technical-Scientific Committee of the "Interdipartimental Centre for Services in the Spectroscopy Sector"
2007–2009	*Member* of the Area Committee 03 – Chemistry– of the University of Bari Aldo Moro for the allocation of resources for research grants and post-doctoral fellowships
2008–2024	*Co-founder* and Advisor of the academic spin-off "SYNCHIMIA Materials & Nanomaterials" at the University of Bari Aldo Moro, dedicated to the preparation of (a) innovative material and nanomaterial useful for photonic and electronic applications, and (b) chiral nonracemic products of pharmaceutical, biological, and agrochemical interest, including heterocyclic compounds and pheromones traps, also through the use of environmentally sustainable technologies based on DES systems
2012–onward	*Legally authorized representative* for the University of Bari Aldo Moro within the Interuniversity Consortium C.I.N.M.P.I.S.
2012–2015	*Member* of the Class Board (Class LM-13, Pharmacy and Industrial Pharmacy), Degree Courses in Pharmacy and Chemistry and Pharmaceutical Technology
2016–onward	*Director* of Interuniversity Consortium C.I.N.M.P.I.S.
1997–2004, 2004–2006, 2022–onward	*Board Member* of the Department of Pharmacy-Drug Sciences of the University of Bari Aldo Moro
2022–onward	*Board Member* of the *Thematic Group of Organometallic Chemistry* of the Italian Chemical Society (SCI)
2022–onward	*Scientific Committee Member* of the *International School of Organometallic Chemistry (ISOC)* of SCI
2023-onward	*Scientific Committee Member* of the *China-Italy Symposium on Organic Chemistry (CISOC*), Organic Chemistry Division of SCI
2025–onward	*Organizing Committee Member* of the *International Summer School of Organic Synthesis (ISOS) "A. Corbella*", Organic Chemistry Division of SCI

ACHIEVEMENTS AND HONOURS

1993–1995 and 1995–1997	"*Nato Research Grant* for the development of bilateral scientific collaborations between Italy and USA in collaboration with Prof. Saverio Florio (University of Bari Aldo Moro, Italy) and Prof. Theodore Cohen (University of Pittsburgh, USA)

1999	*JSP Fellowship*, 34th EucheMS Conference on Stereochemistry – Bürgenstock Conference (Bürgenstock, Lucerna, Switzerland)
2009	*Recipient of the C.I.N.M.P.I.S. Prize* "Innovation in Organic synthesis" awarded by the Interuniversity Consortium C.I.N.M.P.I.S.
2014	*Recipient of the Award of the Italian Chemical Society's Organic Chemistry Division* for "Mechanistic and Theoretical Aspects of Organic Chemistry"
2019	*Fellow* of the Royal Society of Chemistry
2021	Recognized as ranking among the top 1% of reviewers for *Angewandte Chemie*
2022	Paola Mariani Award (Forum on Industrial Biotechnology and Bioeconomy, Bari, best poster presentation)
2023	*EurJOC Lecture*, XLI National Congress of the Division of Organic Chemistry of the Italian Chemical Society (SCI), Rome, September 10-14, 2023 (CDCO 2023)
2023	*Start Cup Puglia 2023* (Lecce) – The Psoriatrix Team (Vito Capriati, Filippo Maria Perna, Luciana Cicco, Gaetano Di Salvo, and Michele Forenza), competing in the *Life Science-MedTech* category, received the following awards: Special Prize PRO.BAN – Business Angel Network; Special Prize The Qube; Special Prize BINP – Boosting Innovation in Poliba; and a Special Mention for Equal Opportunities.
2021–2023, 2025	Included in Stanford University's *Top 2% Scientists list*
2026	*Apulian Sustainable Innovation Award* by Confindustria Puglia (GAPInDES project)
2026	Awarded the *Chartered Chemist (CChem)* status by the Royal Society of Chemistry
2026	*Angelo Mangini Gold Medal*, awarded by the Italian Chemical Society's Organic Chemistry Division
2026	*Arfvedson–Schlenk Prize*, awarded by the Gesellschaft Deutscher Chemiker (GDCh), sponsored by Albemarle Corporation .

RECENT FUNDED PROJECTS: ROLES AND RESPONSABILITIES

2011–2015	*Collaboration with the pharmaceutical industry Dompè* (L'Aquila, Italy) within the framework of the National Operative Programme for Research and Competitiveness (PON) 2007–2013 (PON01_00862), co-funded by MIUR, on "An Integrated Technological Platform for the Development of New Drugs for Rare Diseases" (overall funding: 18.500 k€; assigned to the C.I.N.M.P.I.S.'s Unit of Bari: 831 k€)
2012–2013	*PI for the italian part of the international bilateral Vigoni Project*: "Functional Organoboron and Organolithium Intermediates: Structural Characterization and Applications in Stereoselective Synthesis and Material Sciences" in collaboration with Prof. Dietmar Stalke (University of Göttingen, Germany)
2016	*Responsible for a triennal fellowship from Regione Puglia, within the call "Future in Research"*; funded an Adjunct Temporary Assistant Professor (RTDa) position on the topic "Synthesis of Novel Chelating Agents for Copper and Zinc with Potential Application in Neurodegenerative Diseases" (ID: I2PTCF6). This position was renewed for additional two years.
2017	*Responsible for a PhD Fellowship for 2017/2018 Academic Year* (course XXXIII) within the framework of the National Operative Programme for Research and Competitiveness (PON RI 2014/2020), Axis I "Investments in Human Capital", Action I.1. – "Innovative PhDs with industrial characterization". Funding: FSE-FESR (D.D. n. 1377 on 5/6/2017)
2017	*Responsible for the management of the C.I.N.M.P.I.S. project* "Synthesis of New Molecules as Drugs for Rare Diseases" co-funded by MIUR (code: COCM8470P0) (overall funding: € 82.452)
2019	*Responsible for a one-year foreign fellowship for post-doc* funded by *Fondazione Puglia* within the framework "Scientific and Technological Research" on the topic "Development of Sustainable Synthetic Processes in Unconventional Solvents for the Preparation of Molecules of Pharmaceutical Interest"
2019	*Local PI* of the *National PRIN Project 2017* "Unlocking Sustainable Technologies Through Nature-Inspired Solvents (NATUREChem)" funded by the Italian Ministry of University and Research (MUR) (code: 2017A5HXFC) (total funding: € 607.700; University of Bari: € 114.306)
2020	*Responsible for a triennal fellowship from Regione Puglia, within the call "Research for Innovation – REFIN"*; funded an Adjunct Temporary Assistant Professor (RTDa) position on the topic "Eco-sustainable and Innovative Synthetic Methodologies of New Compounds with Potential Application in Neurodegenerative Diseases Treatment in Environmentally Friendly Solvents (Deep Eutectic Solvents, DESs)" (POR Puglia FESR-FSE 2014/2020; public notice n. 2/FSE/2019)
2021	*PI of the National Project FISR 2020* "On the Sustainable Repurposing of Existing Drugs: Combining Batch and Continuous Flow Processes using Deep Eutectic Solvents for the preparation of Ruxolitinib (SusDesFlow) (code: FISR2020IP_01721) (sector PE) co-funded by MUR (€ 70.027,18; DD n. 1049, 30 aprile 2021) (Phase I)
2021	*PI of the Project PON "Green Chemistry and Biocatalysis for Innovative and Eco-sustainable Synthetic procedures for the Preparation of APIs (Active Pharmaceutical Ingredients) and Food Supplements"* – Action IV.4 – "PhD programmes and research contracts on innovation" and Action IV.5 – "PhD programmes on green related topics" of the new Axis IV of the PON Research and Innovation 2014–2020 "Education and research for recovery – REACT-EU", funded under the revised Program with the thematic objective of cohesion policies "Promote overcoming the effects of the crisis in the context of the COVID-19 pandemic and its social consequences and prepare a recovery green, digital and resilient economy" (Regulation (EU) 2020/2021 of the European Parliament and of the Council of December 23rd 2020). D.M .1061/2021.
2022	*Responsible for a biennal "Margarita Salas" post-doctoral internship* awarded to Spanish post-doctoral researchers to support a research stay outside Spain (host institution: Dipartimento di Farmacia-Scienze del Farmaco, University of Bari, Bari, Italy). Project: "Reshaping metal-catalyzed C-C coupling process under greener conditions: Sustainable Deep Eutectic Solvents (DESs) are the answer"

2023 *MASE project* "Biocatalysis and Green Chemistry for the Development of New Low-Impact Methodologies for Converting Polymer Waste into Renewable and Reusable Materials and Biogas" (GreenChemBioDEP) (Grant Code: H93C22000380001) (Team member)

2023 *PI* of the *National PRIN Project 2022* "green revolution by Merging mEtal-orgaNic frameworks with Deep Eutectic soLvEnts for the dEVelopment of sustainable technologies and artificial nitrogen fixation (MENDELEEV)" (Grant Code: 2022KMS84P), Italian Ministry of University and Research (MUR), funded by the European Union–NextGenerationEU, PNRR, Mission 4 C2 I.1.1 (CUP H53D23004580006) (total funding: € 284.529; University of Bari: € 103.849; 2023–2026)

2025 *Local PI* of the *PNRR MASE Project* "Widespread photoactivated production of green hydrogen through sustainable materials and processes" (SOLE-H2) (grant code: RSH2A_000004), MUR, funded by the European Union - NextGenerationEU, PNRR Mission 2 C2 I.3.5 - D.D. 279 05/08/2025 (total funding € 2.523.719,39; UNIBA € 555.281,48; 2025–2026)

PROFESSIONAL AFFILIATIONS

- **Italian Chemical Society** [Division of Organic Chemistry (since 1992); Division of Chemical Education (1992–2020); Thematic Group of Organometallic Chemistry (since 1992); Thematic Group of Green Chemistry–Sustainable Chemistry (since 2014); Thematic Group of Catalysis (2014–2019); Thematic Group of Chemistry for Renewable Energies (EnerCHEM) (2014-2024)]
- **The American Chemical Society** (Division of Organic Chemistry; Division of Chemical Education) (1998-2023)
- **International Society of Heterocyclic Chemistry** (2003–2008; 2016–)
- **Royal Society of Chemistry** (FRSC) (since 2019) (Interest Groups: Environmental Chemistry Group; Heterocyclic and Synthesis Group; Main Group Chemistry Group; Molten Salts and Ionic Liquids Discussion Group; Water Science Forum) (Subject Communities: Analytical Science; Chemistry Biology Interface; Dalton, Education; Environment, Sustainability and Energy; Faraday Community for Physical Chemistry; Material Chemistry; Organic Chemistry)

MENTORING

6 MSCs undergraduates under supervision in *Chemistry and Pharmaceutical Technology* (University of Bari Aldo Moro, Italy) (113 BSCs + MSCs Alumni in *Pharmacy*, *Chemistry and Pharmaceutical Technology*, and *Herbal Technologies* (University of Bari Aldo Moro, Italy)) (1998–Present); **2 Adjunct Temporary Assistant Professor** (RTDa) (2016–2019; 2019-2020; 2020–2023); **1 Tenure-Track Assistant Professor** (RTDb) under supervision; **4 PhDs** under supervision (3 in the National Doctorate in "Catalysis and Energy" (administrative headquarters: Perugia) and 1 in the Doctorate School of "Drug Sciences" (Department of Pharmacy-Drug Sciences of the University of Bari Aldo Moro, Italy); 13 PhDs Alumni) (2003–Present); **8 Postdocs/Fellows** (2012–2026); **30 Erasmus/"Global thesis" students** (2013–2026); **8 Visiting undergraduate/graduate students** (2015–2026); **4 Visiting PhD students** (2017–2026). **Hosted 3 Visiting Professors** – Prof. Marek Majewski (University of Saskatchewan, Saskatoon, SK, Canada; 09/2013–12/2013), Prof. Joaquín García-Álvarez (Universidad de Oviedo, Spain; 07/2025), Prof. Felipe García (Universidad de Oviedo, Spain; 07/2026)– contributing to joint projects, seminars, and mentoring activities within the group.

BRIEF TRACK RECORD AND EDITORIAL ACTIVITY

- Author of more than **180 papers** in high-profile peer-reviewed international scientific journals; **5 editor-reviewed specialized monographies**; **7 editor-reviewed book chapters**; **2 International Patents**; **1 Proceeding**; delivered more than **180 Communications** (oral and poster), and **38 plenary and invited talks and seminars** at national and international meetings; **h-index: 43** (source: Scopus; more than 6400 citations, July 2026) (for details, see: https://ricerca.uniba.it)
- **Co-author** in the english-to-italian translation of **four university textbooks** of Organic Chemistry: "Essential of Organic Chemistry" (1st ed., Bruice), "Organic Chemistry" (9th ed., Solomoms & Fryhle), "Organic Chemistry" (2nd ed., Clayden, Greeves, Warren and Wothers); and "Solution Manual to Accompany Organic Chemistry" (2nd ed., Clayden Warren)
- **Co-editor** of "Lithium Compounds in Organic Synthesis From Fundamentals to Applications"; Publisher: Wiley-VCH (**2014**)
- **Guest Editor** with Prof. Paola Vitale of the **Special Issue** in *Catalysts* "Chiral Building Blocks via Asymmetric Catalysis" (**2018**)
- **Topic Editor** with Prof. Joaquin García-Álvarez of the **Research Topic** in *Frontiers in Chemistry* "Metal-Mediated and Metal-Catalyzed Reactions in Nonconventional Solvents"; Section: "Green and Sustainable Chemistry" (**2018–2019**)
- **Guest Editor** with Prof. Yurii Yagupolskii of the **Special Issue** in *Molecules* "Organofluorine Chemistry" (**2020**–**2021**)
- **Guest Editor** with Prof. Daniele Castagnolo of the **Special Issue** in *Molecules* "Green Methodologies for the Synthesis of Active Pharmaceutical Ingredients and Drug-Like Compounds" (**2020**–**2021**)
- **Section Editor** of the Section Board "Green Chemistry" of *Molecules* (**2018**–)

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- **Co-author** with Prof. Alessandro Abbotto of the book *La Nuova Chimica del XXI Secolo – Rivoluzione Verde e Transizione Ecologica* (Edizioni Dedalo, **2023**)
- **Guest Editor** with Prof. Gabriela Guillena of the **Conference Collection** *ISYDES 2025*, organized in collaboration with the Wiley Journals *ChemSusChem*, *ChemistryEurope*, *EurJOC,* and *ChemistryOpen* (**2025**)

PLENARY AND INVITED TALKS AND SEMINARS

2026 September – XLIII Convegno Nazionale della Divisione di Chimica Organica**,** Napoli, Italy (Angelo Mangini Gold Medal, Award lecture)**; 2026 September –** GDCh Conference on Inorganic Chemistry, Jena, Germany (Arfvedson-Schlenk Prize, Award Lecture);**2026 June –** PhD in Chemistry-Summer Workshop 2026, University of Trieste, Italy (host: Prof. Lucia Pasquato) (plenary speaker); **2025 May –** Departmental Colloquium at the University of Siena, Italy (host: Prof. Maurizio Taddei) (invited speaker); **2024 October** – XI Workshop Gruppo Interdivisionale Green Chemistry–Chimica Sostenibile, Torino, Italy (invited speaker); **2024 October** – Departmental Colloquium at the University of Rouen, France (host: Prof. Muriel Durandetti) (invited speaker); **2024 September –** Beilstein Organic Chemistry Symposium: Main-group Chemistry for Modern Catalysis and Synthesis, Limburg an der Lahn, Germany (invited speaker); **2023 September** – XLI National Congress of the Italian Chemical Society, Roma, Italy (invited speaker; *EurJOC Lecture*); **2023 June –** XXXIX Reunión Bienal de Química – Zaragoza, Spain (invited speaker); **2022 June –** XLVI International Summer School on Organic Chemistry – ISOS 2022, Gargnano, Italy (invited speaker); **2022 May –** International School of Process Chemistry (ISPROCHEM 2022), Gargnano, Italy (invited speaker); **2019 October –** Departmental Colloquium at the University of Oviedo (Spain) (host: Prof. Joaquín García-Álvarez) (invited speaker); **2019 March** Departmental Colloquium at the University Bari, Italy, within the framework "I Mercoledì del Farmaco" (host: Prof. Francesco Leonetti) (invited speaker); **2018 November** – Green Extraction of Natural Products (GENP2018), Bari, Italy (invited speaker); **2018 July** – 28th International Conference on Organometallic Chemistry (ICOMC 2018), Florence, Italy (invited speaker); **2018 February** – Departmental Colloquium at the University of Napoli Federico II, Italy (host: Prof. Daniela Montesarchio) (invited speaker); **2017 December** – II International Caparica Congress on Translational Chemistry (IIIC3TC 2017), Caparica, Lisbon, Portugal (invited speaker); **2017 November** – New Directions in Organic Synthesis, Milano, Italy (invited speaker); **2017 September** Departmental Colloquium at the University of Alicante (Spain) (host: Prof. Rafael Chinchilla) (invited speaker); **2017 April** – Third China-Italy Bilateral Symposium on Organic Chemistry, Wuhan, China (invited speaker); **2017 January** – Organic Chemistry Winter Meeting organized by the Norwegian Chemical Society (Division of Organic Chemistry), Gausdal (Oslo), Norway (plenary speaker); **2016 July** – 11th International Symposium on Carbanion Chemistry (ISCC11), Rouen, Normandy, France (plenary speaker); **2016 June** – XII Congress of the International Group of Organometallic Chemistry (Co.G.I.C.O. 2016), Genova, Italy (plenary speaker); **2015 December** – Pacifichem 2015, Honolulu, Hawaii, USA (invited speaker); **2014 September** – XXV National Congress of the Italian Chemical Society, Rende (CS), Italy (Lectureship Award of the Organic Chemistry Division of the Italian Chemical Society) (invited speaker); **2014 February** – Departmental Colloquium at the University of Camerino (MC), Italy (host: Prof. Enrico Marcantoni) (invited speaker); **2013 January** – Departmental Colloquium at the Georg-August Universität, Institut für Anorganische Chemie (Anorganisch-Chemisches Kolloquium), Göttingen, Germany (host: Prof. Dietmar Stalke) (invited speaker); **2012 June** – XXXVII "A. Corbella" Summer School on Organic Synthesis, Gargnano, Italy (invited speaker); **2011 February** – Departmental Colloquium at the Faculty of Chemistry and Pharmacy Ludwig-Maximilians Universität (LMU), "Organic Chemistry Seminars", Munich, Germany (host: Prof. Paul Knochel) (invited speaker); **2010 July** – 8th Italian-Spanish Symposium on Organic Chemistry (SISOC-VIII), Padova, Italy (invited speaker); **2010 May** – "Recent Advances in Organolithium Chemistry" – A celebratory one-day Symposium on the occasion of Prof. Saverio Florio's 70th Birthday, Bari, Italy (speaker and co-chair); **2010 May** – SardiniaChem 2010, A One-day Seminar Devoted to the Organic Chemistry of Biologically Active Molecules, Cagliari, Italy (plenary speaker); **2010 January** – Departmental Colloquium at the University Bari, Italy, within the framework "Giornata Pugliese su Farmaco e Prodotti della Salute (1st ed.), in collaboration with "Confindustria Bari" (host: Prof. Roberto Perrone) (invited speaker); **2009 September** – International Congress "The Centenary", Padova, Italy (C.I.N.M.P.I.S. Prize Lectureship) (invited speaker); **2008 September** – Lectureship, Awarding the Gold Seal to Prof. Jean-Marie Pierre Lehn, Bari, Italy (invited speaker); **2006 September** – National Conference on Physical Organic Chemistry (COFEM 2006), Catania (Acicastello), Italy (plenary speaker); **2003 May** – Departmental Colloquium at the Göteborg University, Göteborg, Sweden (hosts: Prof. Mohamed Amedjkouh and Prof. Per Ahlberg) (invited speaker); **2002 June** – Trans Mediterranean Colloquium on Heterocyclic Chemistry (TRAMECH 2002), Bari, Italy (invited speaker).

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APPOINTMENTS AND OTHER INFORMATION

- **Board of Directors' member** of the Doctorate School in "Chemical and Molecular Sciences" (University of Bari Aldo Moro, Italy) (2009–2018)
- **Board of Directors' member** of the Doctorate School in "Drug Sciences" (University of Bari Aldo Moro, Italy) (2019-onward)
- **Board of Directors' member** of the Doctorate School in "Sustainable Technologies for the Industrial Development of Drugs and Diagnostics" (University of Bari Aldo Moro, Italy) (2022)
- **Board of Directors' member** of the National Doctorate in "Catalysis and Energy" (2023-onward)
- **Departmental Coordinator of 5 Erasmus programmes** with (a) The Ludwig-Maximilians-Universität (München, Germany), (b) The Oslo University (Oslo, Norway), (c) The University of Grenoble-Alpes (Grenoble, France), (d) The University of Rouen (Rouen, France), and (e) The University of Göttingen (Göttingen, Germany)
- **Application reviewer** for MUR-Italian Ministry of University and Research and other European Agencies (e.g., National Research Agency, ANR, France; Croatian Science Foundation, Croatia; DFG, Germany), and **regular reviewer** for several internationally leading peer-reviewed chemistry Journals of ACS, Wiley-VCH, RSC, Thieme Verlag, Elsevier, Springer, Bentham and others (average number of papers reviewed : >40 per year) (see: https://publons.com/author/1175139/vito-capriati#profile) (Top Peer Reviewer for Chemistry in September 2017, September 2018, and September 2019).
- **PhD External Examiner**: University of Florence, Department of Chemistry (Italy-France co-tutorship PhD programme, 2010); University of Camerino (MC), Department of Chemistry (Italy) (2014); University of Oslo, Department of Chemistry (Norway) (2016); University of Calabria, Department of Chemistry and Chemical Technologies (Italy) (2016); University of Alicante, Department of Organic Chemistry (Spain) (2017); University of Naples Federico II, Department of Chemical Sciences (Italy) (2018); University of Strathclyde (Glasgow) Department of Pure and Applied Chemistry (UK) (2019); University of Calabria, Department of Chemistry and Chemical Technologies (Italy) (2021); University of Milano-Bicocca, Department of Material Sciences (Italy) (2022); University of Salento, Department of Biological and Environmental Sciences and Technologies (Di.S.Te.B.A.) (Italy) (2023); Monash University (Melbourne), Faculty of Science, School of Chemistry (Australia) (2023); University of Pisa, Department of Chemistry and Industrial Chemistry (Italy) (2024); University of Genova, Department of Chemistry and Industrial Chemistry (Italy) (2024); Alma Mater Studiorum–University of Bologna, Department of Chemistry "Giacomo Ciamician" (Italy) (2025); University of Siena, Department of Biotechnologies, Chemistry, and Pharmacy (Italy) (2025); University of Palermo, Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (Italy) (2025).
- **Hobbies**: trekking, golf, shooting, stamp collecting, and chess.