

# SAMUELE MARAMAI, PhD

## PERSONAL INFORMATION

|                                     |                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <i>Nationality</i>                  | Italian                                                                                                                   |
| <i>Affiliation</i>                  | Department of Biotechnology, Chemistry and Pharmacy – University of Siena<br>Via Aldo Moro, 2 – 53100, Siena (SI) - Italy |
| <i>Phone</i>                        | (+39) 0577 232933 (int. 2933)                                                                                             |
| <i>Institutional e-mail</i>         | samuele.maramai@unisi.it                                                                                                  |
| <i>ORCID</i>                        | 0000-0001-7499-6961                                                                                                       |
| <i>Web of Science Researcher ID</i> | AAP-7585-2020                                                                                                             |
| <i>Website</i>                      | <a href="https://docenti.unisi.it/en/maramai">https://docenti.unisi.it/en/maramai</a>                                     |

## CURRENT POSITION

|                                    |                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------|
|                                    | <b>Associate Professor in organic chemistry</b>                                 |
| <i>Institution</i>                 | University of Siena                                                             |
| <i>Type of Business and Sector</i> | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI) |

## RESEARCH EXPERTISE

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Date</i>                                 | <b>2023-2026</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Institution</i>                          | University of Siena                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Type of Business and Sector</i>          | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                                                                                                                                                                                                                                                                                                                   |
| <i>Occupation or Position Held</i>          | <b>Assistant Professor (Ricercatore Legge 240/10 tipo B)</b>                                                                                                                                                                                                                                                                                                                                                      |
| <i>Main Activities and Responsibilities</i> | <ul style="list-style-type: none"><li>- Metabolomic and lipidomic analysis of biomasses extracts and biological matrices;</li><li>- Development of new green and MW-assisted synthetic methodologies;</li><li>- Design and synthesis of stimuli-responsive prodrugs for the treatment of cancer.</li></ul>                                                                                                        |
| <i>Date</i>                                 | <b>2020-2023</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Institution</i>                          | University of Siena                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Type of Business and Sector</i>          | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                                                                                                                                                                                                                                                                                                                   |
| <i>Occupation or Position Held</i>          | <b>Research Fellow</b>                                                                                                                                                                                                                                                                                                                                                                                            |
| <i>Main Activities and Responsibilities</i> | <ul style="list-style-type: none"><li>- <b>2021-2022:</b> Preclinical development and characterization of GLI-selective therapeutics for the treatment of basal cell carcinoma and melanoma.</li><li>- <b>2020:</b> Synthesis and structural modifications of cytotoxic natural products.</li></ul>                                                                                                               |
| <i>Date</i>                                 | <b>2016-2019</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Institution</i>                          | University of Sussex, Falmer, Brighton BN1 9RH, UK                                                                                                                                                                                                                                                                                                                                                                |
| <i>Type of Business and Sector</i>          | Sussex Drug Discovery Centre (SDDC), School of Life Sciences                                                                                                                                                                                                                                                                                                                                                      |
| <i>Occupation or Position Held</i>          | <b>Research Fellow</b>                                                                                                                                                                                                                                                                                                                                                                                            |
| <i>Main Activities and Responsibilities</i> | <ul style="list-style-type: none"><li>- <b>2018-2019:</b> an integrated drug discovery and validation platform for the identification of novel agents targeting DNA damage response for the treatment of cancer.</li><li>- <b>2016-2018:</b> Valium without sedation. Design and synthesis of positive allosteric modulators of GABA-A receptors selective for <math>\alpha 2/\alpha 3</math> subunits.</li></ul> |
| <i>Date</i>                                 | <b>2013-2016</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Institution</i>                          | University of Siena                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Type of Business and Sector</i>          | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                                                                                                                                                                                                                                                                                                                   |
| <i>Occupation or Position Held</i>          | <b>Post-Doctoral Fellow</b>                                                                                                                                                                                                                                                                                                                                                                                       |
| <i>Main Activities and Responsibilities</i> | <ul style="list-style-type: none"><li>- <b>2016:</b> synthesis of antitumoral drugs.</li><li>- <b>2014-2016:</b> synthesis of peptidomimetics and bioconjugates.</li><li>- <b>2013-2014:</b> synthesis of bioactive molecules.</li></ul>                                                                                                                                                                          |

## TEACHING EXPERIENCE

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|------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <i>Date</i>                        | a.y. 2025/2026                                                                                                 |
| <i>Institution</i>                 | University of Siena, V. Aldo Moro n° 2, 53100, Siena                                                           |
| <i>Type of Business and Sector</i> | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                |
| <i>Course</i>                      | <b>Advanced Organic Chemistry III – Catalysis: principle and laboratory practice</b> – Chemistry (LM-54, D628) |
| <i>Date</i>                        | a.y. 2025/2026                                                                                                 |
| <i>Institution</i>                 | University of Siena, V. Aldo Moro n° 2, 53100, Siena                                                           |
| <i>Type of Business and Sector</i> | Department of Information, Engineering and Mathematics                                                         |
| <i>Course</i>                      | <b>Chemistry – Organic Chemistry</b> - Biotech Engineering for Health (L2/L8, D625)                            |
| <i>Date</i>                        | a.y. 2025/2026 - 2024/2025 – a.y. 2023/2024                                                                    |
| <i>Institution</i>                 | University of Siena                                                                                            |
| <i>Type of Business and Sector</i> | Department of Life Sciences - Via A. Moro 2, 53100 (SI)                                                        |
| <i>Course</i>                      | <b>Fundamentals of Organic Chemistry</b> – Biological Sciences (SE001)                                         |
| <i>Date</i>                        | a.y. 2024/2025 – a.y. 2023/2024                                                                                |
| <i>Institution</i>                 | University of Siena                                                                                            |
| <i>Type of Business and Sector</i> | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                |
| <i>Course</i>                      | <b>Organic Chemistry Laboratory</b> – Chemical Sciences (SE002)                                                |
| <i>Date</i>                        | a.y. 2022/2023 – a.y. 2021/2022 – a.y. 2020/2021                                                               |
| <i>Institution</i>                 | University of Siena                                                                                            |
| <i>Type of Business and Sector</i> | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                |
| <i>Occupation or Position Held</i> | <b>Adjunct Professor (60 h)</b> – Quantitative Drug Analysis - Pharmacy (FF003)                                |

## TEACHING IN

### DOCTORAL PROGRAMS

|                                    |                                                                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Date</i>                        | a.y. 2021/2022 – a.y. 2020/2021                                                                                                                                    |
| <i>Institution</i>                 | University of Siena                                                                                                                                                |
| <i>Type of Business and Sector</i> | Department of Biotechnology, Chemistry and Pharmacy - Via A. Moro 2, 53100 (SI)                                                                                    |
| <i>Occupation or Position Held</i> | <b>PhD Program in Chemical and Pharmaceutical Sciences</b> – Course title “The chemistry of CNS modulators: Valium without sedation” (8 h lessons -1 ECTS credit). |

## PhD AND EDUCATION

|                                       |                                                                                                                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Date</i>                           | <b>2012</b>                                                                                                                                                                 |
| <i>Institution</i>                    | University of Siena                                                                                                                                                         |
| <i>Type of Business and Sector</i>    | Department of Pharmaceutical and Applied Chemistry, Faculty of Pharmacy                                                                                                     |
| <i>Title of Qualification Awarded</i> | <b>PhD in Pharmaceutical Sciences</b> (MIUR fellowship for PhD)                                                                                                             |
| <i>Date</i>                           | <b>2010</b>                                                                                                                                                                 |
| <i>Institution</i>                    | University of Siena, V. Banchi di Sotto 55, 53100 - Siena                                                                                                                   |
| <i>Title of Qualification Awarded</i> | <b>Second Level Master in “Drug Design and Synthesis”</b>                                                                                                                   |
| <i>Date</i>                           | <b>2008</b>                                                                                                                                                                 |
| <i>Institution</i>                    | University of Siena, V. Banchi di Sotto 55, 53100 - Siena                                                                                                                   |
| <i>Title of Qualification Awarded</i> | <b>Master’s degree</b> UE normative in Pharmaceutical Chemistry and Technology <i>cum laude</i> .<br>December 2008: successful evaluation in the state exam for pharmacist. |

## PERSONAL SKILLS

MOTHER TONGUE Italian

OTHER LANGUAGES **English** (3.5 years in the UK)

Certificates **First Certificate in English** (FCE) issued by University of Cambridge  
**Preliminary English Test** (PET) issued by University of Cambridge

## NATIONAL SCIENTIFIC QUALIFICATION

**03/CHEM-05** National Scientific qualification as **associate professor** in the Italian higher education system, in the call 2023/2025 (Ministerial Decree n. 1796/2023) for the disciplinary field of **03/C1 - Organic chemistry** (Academic Recruitment Field 03/C - Organic, industrial and applied chemistry, according to the national classification).

**03/CHEM-07** National Scientific qualification as **full professor** in the Italian higher education system, in the call 2023/2025 (Ministerial Decree n. 1796/2023) for the disciplinary field of **03/D1 - Medicinal, toxicological and nutritional chemistry and applied technologies**. (Academic Recruitment Field 03/D - Medicinal and food chemistry and applied technologies, according to the national classification).

**03/CHEM-07** National Scientific qualification as **associate professor** in the Italian higher education system, in the call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary field of **03/D1 - Medicinal, toxicological and nutritional chemistry and applied technologies**. (Academic Recruitment Field 03/D - Medicinal and food chemistry and applied technologies, according to the national classification).

## EDITORIAL BOARDS

**Academic editor for Scientific Reports** (2025, Springer)

**Academic Editor for Bentham** (2023) - Anti-Cancer Agents in Medicinal Chemistry (Thematic issue: Challenges in the use of aptamers for targeted anticancer therapy).

**Academic Editor for BioMed Research International** (2021-2025, Wiley)

**Guest Editor for Pharmaceuticals** (2024, MDPI). Special Issue "Hsp90 Inhibitors: Progress, Challenges, and Opportunities in Drug Discovery and Development"

**Guest Editor for IJMS** (2023, MDPI) – Small Molecules: From Design, Synthesis and Characterization to Pharmacological Functional Analysis.

**Guest Associate Editor for Frontiers in Molecular Biosciences** (2021/2022) – Research Topic: Modulators of 14-3-3 Protein-Protein Interactions involved in Cancer Pathology

**Guest Editor for IJMS** (2021, MDPI) – Special Issue: Recent Advances in the Identification of Biologically Active Natural and Synthetic Small Molecules

**Guest Editor for BioMed Research International: Neurology** (2019, HINDAWI) – Special Issue: Multitarget Therapeutics for Neurodegenerative Diseases

## RESEARCH PROJECTS

**F-INTERDX**, University of Siena – **45.000€**. Valorisation of Solid Waste from Sheep industry for a chemically circular and sustainable approach to metal-catalyzed industrial processes – **ValorWasteS**. PI: Dr Samuele Maramai.

**PNRR Project SOLE-H2** - Produzione diffusa fotoattivata di idrogeno verde tramite materiali e processi sostenibili - CUP F57G25000080006, M2C2-3.5. PI: Prof. Adalgisa Sinicropi

**F-New Frontiers**, University of Siena – **20.000€**. Bioconjugates and XRay Activated Prodrugs Charged with DNA Damage Repair Inhibitors: Precision Oncology Strategies for Health Care 4.0, **BIXREP**. PI: Dr Samuele Maramai.

**PNRR Project MNESYS** - Partnership with Alfasigma spa - **100.000€**. – *A Multiscale integrated approach to the study of the nervous system in health and disease (DN. 1553 11.10.2022)*. PI @Unisi: Dr Samuele Maramai.

**PRIN PNRR AntiReTub**: An ANTibody drug conjugate approach to face multidrug REsistant TUBerculosis - Prot. 20227MP3CW\_002 Missione 4 Componente 2 (M4C2). PI: Prof. Elena Petricci.

#### LIST OF PUBLICATIONS

**Documents by author: 44; h-Index: 17; Citations: 850 (Scopus 17/07/26)**

- 44.** Neuberger A., Romeo I., Aiello F., Alekseev A., **Maramai S.\***, et al. *Design, synthesis and structural mechanism of action of TRPV1 agonist MSP20 with long-lasting analgesic effect*. Nat Commun. **2026**, doi: 10.1038/s41467-026-74972-3.
- 43.** Zurzolo S., Romagnoli G., Braconi D., Signori G., Ruggirello M., Truglio G., Calamante M., **Maramai S.**, et al. *From Waste to Functional Biomicroreactors: Exploration of Wool-Based Stimuli-Triggered Reversible Pickering Emulsions for Transition Metal Catalysis in Water*. ACS Sustainable Chem. Eng. **2026**, 14 (26), 11680–11694.
- 42.** Ciccone V., Cecchin C., Frosini M., Saletti M., **Maramai S.**, et al. *VA1213, a selective COX-2 inhibitor, exhibits antitumor activity by suppressing EGFR, AKT, and ERK1/2 phosphorylation*. Eur J Pharm Sci. **2026**, 219, 107422.
- 41.** Corallo A.A., **Maramai S.**, et al. *Targeting TRPA1 with Novel Synthetic Compounds Based on Different Scaffolds to Reduce Acute and Chronic Pain*. Int J Mol Sci. **2026**, 27 (4), 1716.
- 40.** Saletti M., Paolino M., Venditti J., Giuliani G., Rossi A., D'Avino D., Perna S., Varfaj I., Sardella R., Macchiarulo A., **Maramai S.**, et al. *Design, Synthesis, and Biological Characterization of Macromolecular Ester Prodrugs of a Selective Cyclooxygenase-2 Inhibitor*. ChemMedChem. **2025**, 20 (24), e202500691.
- 39.** **Maramai S.\***, et al. *Drug enteric metabolism in gut microbiota-brain crosstalk*. Life Sci. **2025**, 15 (383), 124075.
- 38.** Cazzola J., Talpo F., Faravelli G., Donati C., **Maramai S.**, et al. *Evaluation of a New Riluzole-Based Compound VA945 on Sodium and Potassium Conductances Expressed by SH-SY5Y-Derived Neurons*. J Neurochem. **2025**, 169 (11), e70280.
- 37.** Poggialini F., Governa P., Vagaggini C., **Maramai S.**, et al. *Light-mediated activation/deactivation control and in vitro ADME-Tox profiling of a donepezil-like Dual AChE/MAO-B Inhibitor*. Eur J Pharm Sci., **2025**, 209, 107066.
- 36.** **Maramai S.\***, et al. *Indole-2-Carboxamide as an Effective Scaffold for the Design of New TRPV1 Agonists*. Molecules, **2025**, 30 (3), 721.
- 35.** Paolino M., Saletti M., Venditti J., Castriconi F., Giuliani G., **Maramai S.**, et al. *Use of imidazo[1,5-a]quinoline scaffold as the pharmacophore in the design of bivalent ligands of central benzodiazepine receptors*. Bioorg. Med. Chem., **2025**, 117, 118006.
- 34.** Tassone G., **Maramai S.\***, et al. *Exploiting the bile acid binding protein as transporter of a Cholic Acid/Mirin bioconjugate for potential applications in liver cancer therapy*. Sci. Rep., **2024**, 14 (1), 22514.
- 33.** **Maramai S.** et al. *Novel multitarget directed ligands inspired by riluzole: A serendipitous synthesis of substituted benzo[b][1,4]thiazepines potentially useful as neuroprotective agents*. Bioorg. Med. Chem., **2024**, 1121, 117872.
- 32.** Butini S., Grether U., Jung K. M., Ligresti A., Allarà M., Postmus A. G. J., **Maramai S.**, et al. *Development of Potent and Selective Monoacylglycerol Lipase Inhibitors. SARs, Structural Analysis, and Biological Characterization*. J. Med. Chem., **2024**, 67 (3), 1758-1782.
- 31.** Valentini F., Di Erasmo B., Ciancuti C., Rossi S., **Maramai S.**, et al. *Macroreticular POLITAG-Pd(0) for the waste minimized hydrogenation/reductive amination of phenols using formic acid as hydrogen source*. Catalysis Today, **2023**, 424, 113833.

30. Romeo I., Brizzi A., Pessina F., Ambrosio F. A., Aiello F., Belardo C., Carullo G., Costa G., De Petrocellis L., Frosini M., Luongo L., **Maramai S.\*** et al. *In Silico-Guided Rational Drug Design and Synthesis of Novel 4-(Thiophen-2-yl)butanamides as Potent and Selective TRPV1 Agonists*. J. Med. Chem., **2023**, 66 (10), 6994.
29. Brizzi A. # **Maramai S.#** et al. *Lipoic/Capsaicin-Related Amides: Synthesis and Biological Characterization of New TRPV1 Agonists Endowed with Protective Properties against Oxidative Stress*. Int. J. Mol. Sci. **2022**, 23 (21), 13580.
28. Tassone G.; Mazzorana M.; Mangani S.; Petricci E.; Cini E.; Giannini G.; Pozzi C.; **Maramai S.** *Structural Characterization of Human Heat Shock Protein 90 N-Terminal Domain and Its Variants K112R and K112A in Complex with a Potent 1,2,3-Triazole-Based Inhibitor*. Int. J. Mol. Sci. **2022**, 23, 9458.
27. Micheli L.#; **Maramai S.#** et al. *Inhibition of Monoacylglycerol Lipase by NSD1819 as an Effective Strategy for the Endocannabinoid System Modulation against Neuroinflammation-Related Disorders*. Int. J. Mol. Sci. **2022**, 23, 8428.
26. Petricci E., Zurzolo S., Matassini C., **Maramai S.** et al. *An Intramolecular Hydroaminomethylation-Based Approach to Pyrrolizidine Alkaloids under Microwave-Assisted Heating*. Molecules **2022**, 27, 4762.
25. Manetti F., Maresca L., Crivaro E., Pepe S., Cini E., Singh S., Governa P., **Maramai S.** et al. *Quinolines and Oxazinoquinoline Derivatives as Small Molecule GLI1 Inhibitors Identified by Virtual Screening*. ACS Med. Chem. Lett. **2022**, 13, 1329-1336
24. Saletti M.#; **Maramai S.#** et al. *Novel analgesic/anti-inflammatory agents: 1,5-Diarylpyrrole nitrooxyethyl sulfides and related compounds as Cyclooxygenase-2 inhibitors containing a nitric oxide donor moiety endowed with vasorelaxant properties*. Eur. J. Med. Chem., **2022**, 241, 114615
23. Paolino M., Rullo M.#, **Maramai S.#**, et al. *Design, synthesis and biological evaluation of light-driven on-off multitarget AChE and MAO-B inhibitors*. RSC Med. Chem., **2022**, 13, 873-883
22. Brizzi A., Trezza A., Spiga O., **Maramai S.**, et al. *2-Hydroxy-5-(3,5,7-trihydroxy-4-oxo-4H-chromen-2-yl)phenyl (E)-3-(4-hydroxy-3-methoxyphenyl)acrylate: Synthesis, In Silico Analysis and In Vitro Pharmacological Evaluation*. Molbank, **2021**, 2021(3), M1258.
21. Campiani G., Cavella C., Osoko J. D., Brindisi M., Relitti N., Brogi S., Saraswati P., Federico S., Chemi G., **Maramai S.**, et al. *Harnessing the role of HDAC6 in Idiopathic Pulmonary Fibrosis: Design, Synthesis, Structural Analysis, and Biological Evaluation of Potent Inhibitors*. J. Med. Chem., **2021**, 64, 9960-9988
20. Migliorini F., Dei F., **Maramai S.**, et al. *Micellar catalysis for sustainable hydroformylation*. ChemCatChem, **2021**, 13, 2794-2806.
19. **Maramai S.\***, Brindisi, M. *Targeting Endocannabinoid Metabolism: An Arrow with Multiple Tips Against Multiple Sclerosis*. ChemMedChem, **2020**, 15, 1985-2003
18. **Maramai S.\***, et al. *Multitarget Therapeutic Strategies for Alzheimer's Disease: Review on Emerging Target Combinations*. BioMed Research International, **2020**, Article ID 5120230.
17. **Maramai S.\***, et al. *Subtype selective  $\gamma$ -Aminobutyric Acid Type A Receptor (GABA<sub>A</sub>R) modulators Acting at the Benzodiazepine Binding Site: An Update*. J. Med. Chem., **2020**, 63 (7), 3425-3446.
16. Benchekroun M., **Maramai S.** *Multitarget-Directed Ligands for neurodegenerative diseases: real opportunity or blurry mirage?* Future Medicinal Chemistry, **2019**, 11 (4), 261-263
15. Brindisi M., #Borrelli G., #Brogi S., #Grillo A., #**Maramai S.**, et al. *Development of Potent Inhibitors of Fatty Acid Amide Hydrolase Useful for the Treatment of Neuropathic Pain*, ChemMedChem, **2018**, 13, 2090-2103.
14. Brogi S., Brindisi M., Butini S., Kshirsagar G., **Maramai S.**, et al. *AMPA and Kainate Receptor Ligands: Further Exploration of Bioisosteric Replacements, Structural and Biological Investigation*. J. Med. Chem., **2018**, 61 (5), 2124-2130.
13. Brogi S., **Maramai S.**, et al. *Activation of the Wnt Pathway by Small Peptides: Rational Design, Synthesis and Biological Evaluation*. ChemMedChem, **2017**, 12, 2074-2085.

12. **Maramai S.**, et al. *Dopamine D3 Receptor Antagonists as Potential Therapeutics for the Treatment of Neurological Diseases*. Front. Neurosci., **2016**, 10:451.
11. Brindisi M., Cavella C., Brogi S., Nebbioso A., Senger J., **Maramai S.**, et al, *Phenylpyrrole-based HDAC inhibitors: synthesis, molecular modeling and biological studies*. Future Med Chem. **2016**, 8 (13), 1573-87.
10. Brindisi M., **Maramai S.**, et al. *Development of novel cyclic peptides as pro-apoptotic agents*. Eur. J. Med. Chem., 117, **2016**, 301-320
9. Brindisi M., **Maramai S.**, et al. *Development and Pharmacological Characterization of Selective Blockers of 2-Arachidonoyl Glycerol Degradation with Efficacy in Rodent Models of Multiple Sclerosis and Pain*. J. Med. Chem., **2016**, 59 (6), 2612–2632.
8. Brindisi M., Brogi S., **Maramai S.**, et al. *Harnessing the pyrroloquinoxaline scaffold for FAAH and MAGL interaction: definition of the structural determinants for enzyme inhibition*. RSC Adv., **2016**, 6 (69), 64651-64664.
7. Brindisi M.<sup>#</sup>, **Maramai S.**<sup>#</sup>, et al, *Development of a practical and scalable route for the preparation of the deacetoxytubuvalline (dTuv) fragment of Pretubulysin and analogues*. Tetrahedron Letters 57, **2016**, 920–923.
6. Brogi S., Butini S., **Maramai S.**, et al. *Disease modifying anti-Alzheimer's drugs: inhibitors of human cholinesterases interfering with  $\beta$ -amyloid aggregation*. CNS Neuroscience & Therapeutics 20, **2014**, 624–632.
5. Butini S., Brindisi M., Brogi S., **Maramai S.**, et al. *Multifunctional Cholinesterase and Amyloid Beta Fibrillization Modulators. Synthesis and Biological Investigation*. ACS Med. Chem. Lett., **2013**, 4 (12), 1178-1182.
4. Butini S., Gabellieri E., Brindisi M., Giovani S., **Maramai S.**, et al. *A stereoselective approach to peptidomimetic BACE1 inhibitors*. Eur. J. Med. Chem., 70, **2013**, 233-247
3. Butini S., Gemma S., Brindisi M., **Maramai S.**, et al. *Identification of a novel arylpiperazine scaffold for fatty acid amide hydrolase inhibition with improved drug disposition properties*. Bioorg. Med. Chem. Lett. 23, **2013**, 492–495.
2. Butini S., Brindisi M., Gemma S., Minetti P., Cabri W., Gallo G., Vincenti S., Talamonti E., Borsini F., Caprioli A., Stasi M. A., Di Serio S., Ros S., Borrelli G., **Maramai S.**, et al. *Discovery of Potent Inhibitors of Human and Mouse Fatty Acid Amide Hydrolases*. J. Med. Chem., **2012**, 55 (15), 6898–6915.
1. Venskutonité R.; Butini S.; Sanna Coccone S.; Gemma S.; Brindisi M.; Kumar V.; Guarino E.; **Maramai S.**, et al. *Selective Kainate Receptors (GluK1) Ligands Structurally Based upon 1H-Cyclopentapyrimidin-2,4(1H, 3H)-dione: Synthesis, Molecular Modeling, and Pharmacological and Biostructural Characterization*. J. Med. Chem., **2011**, 54 (13), 4793-4805.

#### BOOK CHAPTERS

3. Tassone G., Carradori S., **Maramai S.\***, D'Agostino I. *Catechol-O-methyltransferase (COMT). Metalloenzymes: From Bench to Bedside*, **2023**, 63 - 81
2. Giordani A., Poce G., Consalvi S., **Maramai S.**, et al. *Nitric Oxide in Health and Disease: Therapeutic Applications in Cancer and Inflammatory Disorders – 2023*. Chapter 3: Therapeutic potential for coxib-nitric oxide releasing hybrids in cancer treatment.
1. **Maramai S.\***, Taddei M\*. *Sustainable Organic Synthesis: Tools and Strategies – 2021* Chapter 18: Microwave Irradiation.

#### PATENTS

- Baek K. S., Khoo J. H., Choi S., Park Y. W., Ward S., Le Grand D., West R., Turner P., **Maramai S.**, Reuillon T. *Preparation of Substituted 1,2-Diaminoheterocyclic Compound Derivatives and Their Use as Pharmaceutical Agents*. **WO2022260441A1**
- Maramai S.**, Mazzacani A., Paradowski M., Ward S. *2-Oxo-dihydroquinoline-3-carboxamide Derivatives as GABA Type A Receptor Modulators*. **WO2022079432A1**

## CONFERENCES AND MEETINGS

**18 conferences, 11 oral communications, 4 poster presentation**

XLII CDCO – Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana. Cagliari, September 21<sup>st</sup>-25<sup>th</sup> 2025. **Poster Presentation:** Synthesis and characterization of small molecule-drug conjugates for targeted drug delivery.

XXVII Congresso Nazionale della Società Chimica Italiana – August 26<sup>th</sup>-30<sup>rd</sup>, 2024, Milan. **Poster Presentation:** Synthesis and characterization of small molecule-drug conjugates for targeted drug delivery.

New frontiers in synthetic chemistry 2023 – The Royal Society of Chemistry. November 09<sup>th</sup>, 2023, London.

XXVIII National Meeting on Medicinal Chemistry, September 17<sup>th</sup>-20<sup>th</sup>, 2023, Chieti. **Oral Communication:** 1,4,5-Trisubstituted 1,2,3-triazole derivatives as HSP90 inhibitors: synthesis, evaluation and structural characterization.

XLI CDCO – Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana. Rome September 10<sup>th</sup>-14<sup>th</sup>, 2023. **Oral Communication:** *Efficient click chemistry towards 1,4,5-trisubstituted 1,2,3-triazole derivatives: synthesis, evaluation, and structural characterization of novel Hsp90 inhibitors*

ACS Spring 2023 – March 26<sup>th</sup>-30<sup>th</sup>, 2023. **Oral Communication:** *Efficient click chemistry towards 1,4,5-trisubstituted 1,2,3-triazole derivatives: synthesis, evaluation, and structural characterization of novel Hsp90 inhibitors*

XL CDCO – Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana. Palermo September 11<sup>th</sup>-15<sup>th</sup>, 2022. **Oral Communication:** *Exploiting the  $\beta$ -lactam scaffold for the synthesis of biologically active compounds*

ACS Spring 2022 – March 20<sup>th</sup>-24<sup>th</sup>, 2022. **Oral Communication:** *Selective blockers of 2-arachidonoylglycerol degradation useful for the treatment of neurodegenerative and neuroinflammatory disorders*

XXVII Congresso Nazionale della Società Chimica Italiana – September 14<sup>th</sup>-23<sup>rd</sup>, 2021. **Poster Presentation:** *Metal Catalysis for Sustainable Transformations in Aqueous Micellar Conditions*

13<sup>o</sup> Young Medicinal Chemists' Symposium, April 26<sup>th</sup>-29<sup>th</sup>, 2021, Florence. **Oral Communication:** *Subtype Selective  $\gamma$ -Aminobutyric Acid Type A Receptors (GABA<sub>A</sub>R) Modulators Acting at the Benzodiazepine Binding Site.*

XXVI National Meeting on Medicinal Chemistry, July 16<sup>th</sup>-19<sup>th</sup>, 2019, Milan. **Oral Communication:** *Design, Synthesis and Pharmacological Characterization of Selective Blockers of 2-Arachidoylglycerol Degradation*

XXIII National Meeting on Medicinal Chemistry, 9<sup>o</sup> Young Medicinal Chemists Symposium, September 06<sup>th</sup>-09<sup>th</sup>, 2015, Fisciano (SA) – **Poster Presentation:** *Development of Cyclic Peptides as Pro-Apoptotic Agents*

8<sup>o</sup> Young Medicinal Chemists' Symposium, June 10<sup>th</sup>-12<sup>th</sup>, 2014, Starhotel Du Park – Parma. **Oral Communication:** *Disease Modifying Anti-Alzheimer Drugs. Inhibitors of Human Cholinesterases Interfering with  $\beta$ -Amyloid Aggregation*

XXI National Meeting on Medicinal Chemistry, July 17<sup>th</sup>-20<sup>th</sup>, 2012, Palermo. **Oral Communication:** *Discovery of Potent Inhibitors of Human and Mouse Fatty Acid Amide Hydrolases*

III Italian-Hispano-Portuguese Workshop on Ion Channels and Transporters, July 7<sup>th</sup>-10<sup>th</sup>, 2011, Imola. **Oral Communication:** *Selective Kainate Receptors (GluK1) Ligands Structurally Based upon 1H-Cyclopentapyrimidin-2,4(1H,3H)-dione: Synthesis, Molecular Modeling, and Pharmacological and Biostructural Characterization*

5<sup>o</sup> Young Medicinal Chemists' Symposium, March 28<sup>th</sup>-30<sup>th</sup>, 2011, Hotel Excelsior – Trieste. **Oral Communication:** *Selective Kainate Receptors (GluK1) Ligands Structurally Based upon 1H-Cyclopentapyrimidin-2,4(1H,3H)-dione: Synthesis, Molecular Modelling, and Pharmacological and Biostructural Characterization*

4<sup>o</sup> Young Medicinal Chemists' Symposium, May 6<sup>th</sup>-7<sup>th</sup>, 2010, Hotel Flamingo – Pula (CA)

3<sup>o</sup> Young Medicinal Chemists' Symposium, February 13<sup>th</sup>-14<sup>th</sup>, 2009, Il Ciocco – Castelvevchio Pascoli (LU)

**ORGANIZING AND  
SCIENTIFIC COMMITTEES**

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**ScienceS@SI – Scientific Symposium at Unisi**, Second Edition, July 21<sup>st</sup>, 2022 –. Sciences@SI Scientific and Organizing Committee. <http://www.congressi.unisi.it/sciencesatsi>

**ScienceS@SI – Scientific Symposium at Unisi**, Summer Edition, July 16<sup>th</sup>, 2021 – Sciences@SI Scientific and Organizing Committee. <http://www.congressi.unisi.it/sciencesatsi>

**8° European Workshop in Drug Synthesis EWDSy**, May 21<sup>st</sup>, 2021, Siena. EWDSy Organizing Committee. <http://www.congressi.unisi.it/ewdsy>

Siena, 24/06/2026