Emidio Camaioni is an Associate Professor in Medicinal Chemistry at the *Dipartimento di Scienze Farmaceutiche* (Department of Pharmaceutical Sciences), University of Perugia (Italy).

Academic Track Record

In 1992 he received his degree with honours (*cum laude)* in Chimica e Tecnologia Farmaceutiche (Chemistry and Drug Technologies) from Faculty of Pharmacy at the University of Camerino (Italy).

From 1993 to 1996 he attended a three years Doctoral Course in *Chimica del Farmaco* (Drug Chemistry) under the supervision of Prof. Gloria Cristalli. On July 8th, 1997 at the University of Pisa, he received his PhD discussing an experimental thesis entitled *Agonisti ed Antagonisti del Recettore Adenosinico* (Agonists and Antagonists for Adenosine Receptors).

From 01/10/1996 to 07/12/1997 he spent a postdoctoral experience conducting research activity in medicinal chemistry at the National Institutes of Health, Molecular Recognition Section, LBC (Bethesda, MD, USA) under the supervision of Dr. Kenneth A. Jacobson.

From 1998 to 1999 he got a post-doctoral fellowship doing medicinal chemistry research at *Dipartimento di Scienze Chimiche* - University of Camerino under the supervision of Prof. Gloria Cristalli and then at *Istituto di Chimica Farmaceutica* – University of Perugia, under the supervision of Prof. Roberto Pellicciari.

In November 1999 he became Assistant Professor (D.R. n. 3462-20/10/1999 - SSD CHIM/08 Medicinal Chemistry) at the *Dipartimento di Chimica e Tecnologia del Farmaco*, University of Perugia (Italy).

In January 2005 he became Associate Professor (D.R. n. 2918-30/12/2004) in Medicinal Chemistry (SSD CHIM/08 – 3D1, D.M. 336-29/07/2011) at the *Dipartimento di Chimica e Tecnologia del Farmaco* (from 2014, Department of Pharmaceutical Sciences), University of Perugia (Italy), where he is currently working. From January 2008 he is Associate Professor confirmed (D.R. 891-22/04/2008). He was a member of the board of the PhD course *Dottorato in Chimica e Tecnologia del Farmaco a Profilo Nazionale ed Internazionale* (from 2005 up to 2013); of the PhD course *Dottorato in Scienze Chimiche e Farmaceutiche* (from 2013 up to 2016) and from 2014 is a board member of the PhD course *Dottorato in Scienze Farmaceutiche*.

Teaching Activities

From 2001 up to 2008 he taught a practical course of *Analisi dei Medicinali II* (Drug Analysis II, 12 CFU) for the degree in *Controllo Qualità nel Settore Industriale, Farmaceutico ed Alimentare* (CQSIFA), Faculty of Pharmacy.

From 2008 up to 2012 he taught a practical course of *Analisi dei Farmaci II* (Drug Analysis II, 8 CFU) for the degree in *Chimica e Tecnologia Farmaceutiche* (Chemistry and Drug Technologies), Faculty of Pharmacy.

From 2013, he is teaching a practical course of *Analisi Chimico-Farmaceutica II* (Drug Analysis II, 8 CFU) for the degree in *Chimica e Tecnologia Farmaceutiche* (Chemistry and Drug Technologies), Department of Pharmaceutical Sciences (DSF). From 2018 he is also teaching the teoretical course of *Prodotti Nutraceutici* (Nutraceutical Products, 2 CFU) for the degree in *Scienze della Alimentazione e della Nutrizione Umana* (Human Feeding and Nutrition Sciences, DSF).

He usually supervises students in carrying out the work of experimental thesis in medicinal chemistry and in nutraceutical sciences. He has been a member of numerous committees of the exams.

Scientific Research Fields

His research interests spanned in various medicinal, analytical and computational chemistry fields. Indeed, his research activities are, particularly, focused on design and synthesis of biological active heterocyclic derivatives. More in detail: i) design and synthesis of nucleosides and nucleotides as antiviral, antitumor and ligands for purinergic receptors; ii) design and synthesis of new modulators of glutamate receptors; iii) design, synthesis and characterization of novel steroidal ligands for the nuclear FXR receptor; iv) design and synthesis of novel inhibitors of the PARP family of proteins as neuroprotecting and/or anticancer agents; v) design and synthesis of novel enzyme inhibitors involved in the catabolism of the tryptophan (kynurenine pathway): Recent explorative new fields: i) drug repurposing and ii) circular economy in the development of natural pesticites.

The research activities is highlighted by a high number of peer reviewed international publications, book chapters, patent and abstracts presented at various national and international symposia (listed below). Bibliometric indices from Web of Science (update 09/07/2021): Hirsch index, 30; number of citations over 3000 (average citations per item: 30.4).

Patent (1)

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Book (1)

1 **E. Camaioni**. Compendio Teorico-Pratico di Analisi Farmaceutica. ISBN-10: 8831973223; Bertoni Ed. (2018) pp.280.

Book chapters (7)

1 G. Cristalli, **E. Camaioni**, R. Volpini, S. Vittori. Selective A2 adenosine receptor agonists with potent inhibitory activity on platelet aggregation. From Adenosine and Adenine Nucleotides: from Molecular Biology to Integrative Physiology, Kluwer Academic Publishers, L. Belardinelli and A. Pelleg Eds.(1995) 140-148.

2 G. Cristalli, **E. Camaioni**, E. Di Francesco, R. Volpini, S. Vittori. Chemical and pharmacological profile of selective adenosine receptor agonists. From Perspectives in Receptor Research, Elsevier Science Publishers, Amsterdam, Pharmacochemistry Library, D. Giardinà, S. Piergentili, and M. Pigini Eds,(1996) 165-180.

3 K. A. Jacobson, Y.-C. Kim, **E. Camaioni**, A. M. van Rhee. Structure-activity relationships of P2 receptor agonists and antagonists. Chapter 4 in the P2 Nucleotide Receptors, in the series The receptors; Humana Press: Clifton, NJ, J. T. Turner, G. Weisman, J. Fedan Eds, (1997). 81-107.

4 K. A. Jacobson, C. Hoffmann, Y. C. Kim, **E. Camaioni, E.** Nandanan, S. Y. Jang, D. P. Guo, X. D. Ji, K. I. Von, S. Moro, A. U. Ziganshin, A. Rychkov, B. F. King, , S. G. S. S. BrownWildman, G.. Burnstock, J. L. Boyer, A. Mohanram, T. K. Harden. Molecular recognition in P2 receptors: Ligand development aided by molecular modeling and mutagenesis. Progr. in Brain Res. Illes P.; Zimmermann H. Eds, (1999) 120, 119-132.

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6 R. Pellicciari, **E. Camaioni**, G. Costantino. Life or Death Decisions. The case of Poly(ADP-Ribose)Polymerase (PARP) as therapeutic target for brain ischemia. Chapter 3 in Progress in Medicinal Chemistry (2004), 42, 125-169.

7 B. Natalini, R. Sardella, A. Macchiarulo, M. Marinozzi, **E. Camaioni**, R. Pellicciari. Mechanistic Aspects and Applications of Chiral Ligand-Exchange Chromatography. From Advances in Chromatography, Boca Raton, FL, United States (2011), 49, 71-134.

Abstracts on peer reviewed journals (16)

1 T. K. Harden, R. K. Palmer, **E. Camaioni**, J. R. Schachter, K. A. Jacobson, R. A. Nicholas, J. L. Boyer. The $P2Y_1$ receptor: agonist selectivity, evolution of a high affinity and second messenger selectivity. Drug Dev Res. 1998, 43 (1), 4.

2 S. Costanzi, **E. Camaioni**, R. Volpini, S. Vittori, G. Lupidi, G. Cristalli. Synthesis and biological evaluation of adenosine deaminase inhibitors. Drug Dev Res. 1998, 43 (1), 16.

3 **E. Camaioni**, J. L. Boyer, A. Mohanram, T. K. Harden, K. A. Jacobson. Deoxyadenosine bisphosphate derivatives as potent antagonists at $P2Y_1$ receptors. Drug Dev Res. 1998, 43 (1), 26.

4 R. Volpini, S. Vittori, S. Costanzi, **E. Camaioni**, G. Baraldi, K. A. Jakcobson, G. Cristalli. Novel trisubstituted adenosine-uronamides as potential agonist at A_3 adenosine receptor. Drug Dev Res. 1998, 43 (1), 31.

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9 G. Costantino, M. Belenekin, A. Macchiarulo, **E. Camaioni**, R. Pellicciari. Molecular determinats for metabptropic glutamate receptor activation and blockade. Molecular dynamics and electrostatic potential analysis studies. Drug Future 2002, 27 (Suppl. A), 80.

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11 R. Pellicciari, **E. Camaioni**, F. Moroni, A. Chiarugi, G. Costantino. Novel PARP inhibitors: synthesis and molecular modeling studies. Medical Science Monitor 2005, 11 (Suppl 1), 23-24.

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Abstracts of Symposium presentations (> 130)

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He was also involved in the organizing committee of the following scientific meetings:

1) Recent Development in Pharmaceutical Analysis (RDPA2015), Perugia (PG, Italy) June 28 – July 1, 2015.
2) National Meeting in Medicinal Chemistry and 10 Young Medicinal Chemists' Symposium (XIV NMMC & 10th NPCF) - Perugia (Italy), September 11-14, 2016.

He is a peer reviewer for PRIN Projects (Italian Ministry of Education, University and Research) and for several international journals.

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