

Giulia CARON PhD - Curriculum Vitae

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Giulia Caron studied at the University of Torino (Italy) where she received a B.Sc. in Pharmaceutical Chemistry and Technology in 1992, and a B.Sc. in Pharmacy in 1994. She then moved to the University of Lausanne for doctoral and post-doctoral studies, and was awarded a Ph.D. in Pharmaceutical Sciences in 1997 under the supervision of prof. B. Testa (Dissertation title: Physicochemical determinants of drug binding and distribution). From 1999 to 2014 she was Assistant Professor at the Molecular Biotechnology and Health Sciences Department at the University of Torino where now she holds the position of Associate Professor. She teaches medicinal chemistry, pharmaceutical analysis and chemometrics also with blended learning technologies using Moodle as Learning Management System.

Her primary scientific activity was lipophilicity, then she moved to the design, experimental determination and computational prediction of physicochemical properties related to ADME properties and to permeability measurements. The integration of Intramolecular Hydrogen Bonding (IMHB) considerations in drug design and the development and application of a tool named Block Relevance (BR) analysis to provide a mechanistic interpretation of QSAR/QSPR models based on the PLS algorithm are two of her main field of interest. To fit new drug discovery exigences she is now focusing on defining a set of experimental and in silico tools for molecular properties evaluation in the bRo5 chemical space.

She is coauthor of about 75 papers, 4 book chapters, 2 software products and serves as a reviewer for more than 10 international journals in the field of medicinal chemistry and pharmaceutical sciences.

Some recent publications

1. G. Ermondi, M. Vallaro, **G. Caron** (2018), ***Learning how to use IAM chromatography for predicting permeability***. Eur. J. Pharm. Sci, vol. 14, pp. 385-390.
2. **G. Caron**, M. Vallaro, G. Ermondi (2017), ***The need of implementing Intramolecular Hydrogen Bonding (IMHB) considerations in drug discovery. Measuring the propensity of compounds to form IMHBs***. Med. Chem. Comm, vol. 8, pp.1143-1151.
3. **G. Caron** and G. Ermondi (2017), ***Updating molecular properties in early drug discovery***. DDT, vol 22, pp. 835-840
4. G. Goetz, M. Shalaeva, **G. Caron**, G. Ermondi, L. Philippe (2017), ***Relating passive permeability to molecular polarity using Block Relevance analysis***. Mol. Pharmaceut. vol. 14, pp. 386-393.
5. **G. Caron** and G. Ermondi (2016), ***Molecular descriptors for polarity: the need of going beyond PSA***. Fut. Med. Chem. vol. 8, pp 2013-2016.