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Maria Pellizzaro, Ph.D.

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Professional Profile

Dr. Pellizzaro has extensive knowledge of many in silico methods (QSAR); including Derek Nexus, Leadscope, OECD QSAR Toolbox, TEST, VEGA, ToxTree and ECOSAR, for the prediction of various toxicity endpoints, including genotoxicity. Genotoxicity predictions are used in the assessment of crop metabolites (EFSA Guidance on the establishment of the residue definition for dietary risk assessment) and impurities (Guidance document on the assessment of the equivalence of technical materials of substances regulated under regulation (EC) No 1107/2009).

She also has experience in a wide range of human health exposure models for pesticides, biocides and industrial and consumer chemicals, for use both at European Union and individual Member State Level. She has developed strategies to address specific regulatory toxicology and exposure concerns, which have included the use of higher tier exposure assessment approaches.

After completing a Ph.D. in organic chemistry, which involved the synthesis of small molecules and NMR analysis of their intermolecular interactions, Dr. Pellizzaro worked at Lhasa Limited which develops QSAR software. Whilst at Lhasa she specialized in writing structural alerts for various toxicological endpoints, including skin sensitization and mutagenicity. She also gained experience in in vitro dermal absorption studies.

Academic Credentials & Professional Honors

Ph.D., Chemistry, University of Leeds, UK, 2012

M.Chem., Chemistry with Medicinal Chemistry, University of Leeds, UK, 2008

Prior Experience

Scientist, Lhasa Limited, 2012-2015

Publications

Pellizzaro ML, Covey-Crump EM, Fisher J, Werner ALD, Williams RV. Investigating a relationship between the mutagenicity of arylboronic acids and 11B NMR chemical shifts. Chemical Research in Toxicology 2015; 28:1422-1426. doi: 10.1021/acs.chemrestox.5b00078.

Pellizzaro ML, Houton K, Wilson AJ. Sequential and phototriggered supramolecular self-sorting cascades using hydrogen-bonded motifs. Chemical Science 2013; 4:1825-1829. doi 10.1039/C3SC22194F.

Pellizzaro ML, Fisher J, Wilson AJ. Electronic substituent effects on hydrogen-bonding motifs modulate

supramolecular polymerization. Royal Society of Chemistry Advances, 2013; 3:3103-3108. doi 10.1039/c2ra22715k.

Pellizzaro ML, Barrett SA, Fisher J, Wilson AJ. Design, synthesis and binding studies of a novel quadruple ADDA hydrogen-bond array. Organic & Biomolecular Chemistry 2012; 10:4899-4906. doi: 10.1039/C2OB25333J.

Pellizzaro ML. Development of building blocks exhibiting self-sorting molecular recognition properties: Towards coded self-assembly processes. Ph.D. Thesis, University of Leeds, January 2012. http://etheses.whiterose.ac.uk/2281/.

Pellizzaro ML, McGhee AM, Renton LC, Nix MG, Turnbull WB, Fisher J, Wilson AJ. Conformer independent ureidoimidazole motifs - tools to probe conformational and tautomeric effects on the molecular recognition of triply hydrogen-bonded heterodimers. Chemistry - A European Journal 2011; 17:14508-14517. doi: 10.1002/chem.201102128.

Gooch A, McGhee AM, Pellizzaro ML, Lindsay CI, Wilson AJ. Substituent control over dimerization affinity of triply hydrogen bonded heterodimers. Organic Letters 2011; 13:240-243. doi: 10.1021/ol102619u.

