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THE IPPI-DB INITIATIVE

Olivier Sperandio^{1,2}

¹Institut Pasteur, France

²Inserm, French Institute for Health and Medical Research, France

The iPPI-DB initiative consists of collecting pharmacological data and gaining knowledge about protein-protein interaction (PPI) modulators. First, it provides the scientific community with a set of web-based tools, both chemical probe-centric and target-centric, to query our iPPI-DB database of PPI modulators. Second, it uses this data collection into adapted chemoinformatics technologies as a mean to identify the physico-chemical properties and the privileged chemical substructures that can facilitate the modulation of PPI targets. This presentation will describe the full re-foundation of our database and of the last developed tools to query it as well as our last results about the design of PPI-tailored libraries and of privileged chemical structures for PPI. During the speech, I will also describe our new web application for maintaining iPPI-DB which has been designed for remote contribution in order to build a community of contributors and co-authors.

Biography

Olivier Sperandio has more than 15 years of experience in Bioinformatics and Drug Design. He obtained his Master's degree from the University of Alabama at Birmingham in Biochemistry and Bioinformatics during a 3-year stage in the US in the lab of Dr. Stephen C. Harvey. Then, he obtained an industrial PhD at the company MEDIT SA in partnership with the University Paris Descartes (Lab of Pr. Christiane Garbay) in virtual screening, in silico drug design and the design of computational chemistry tools. He was then recruited Junior Researcher at the Inserm. as a Drug Designer within the Inserm CDithem. In 2010, he was recruited as a Senior Research Associate (CR1) at the Inserm within the lab of Dr. Bruno Villoutreix with the project of characterizing the chemical space of Protein-Protein Interaction inhibitors. He is now Group Leader in Chemoinformatics in the structural bioinformatics unit of Pr. Michael Nilges at Institut Pasteur in Paris.

olivier.sperandio@inserm.fr