



DeCAF – Discriminatio

1. Introduction

Predicting biological activity of small molecules is a key element of computer-aided drug design. Existing methods often fail to capture similar physicochemical properties but different structures. Many of the current approaches rely on generating 3D conformations, which is a sampling problems and unacceptably high computational costs for large sets of molecules. Herein we present DeCAF – a novel method for predicting ligand properties and a fast and effective tool for comparing multiple molecules, and merging them into a single pharmacophore. DeCAF is available as an open source Python module (<http://bitbucket.org/marta-sd/decaf>) and can be easily combined with RDKit to facilitate drug design.

