

GriDock: An MPI-based software for virtual screening in drug discovery

Alessandro Pedretti, Cristina Marconi, Giulio Vistoli

Dipartimento di Scienze Farmaceutiche “Pietro Pratesi”, Facoltà di Farmacia, Università degli Studi di Milano, Via Mangiagalli 25, I-20133 Milano (Italy).

GriDock is a molecular modelling software developed to identify potentially bioactive compounds (*hit-compounds*) in order to speed-up the drug discovery process. It's based on the *virtual-screening* approach in which the activity of a large set of molecules is predicted by multiple molecular docking calculations distributed on a Grid system. More in details, GriDock joints the VEGA flexibility and the AutoDock 4 power to take full advantage of the Grid technology.