

Orr Ravitz was born in the last century in Israel. He received his B.Sc. In Chemistry and Physics from Tel Aviv University Summa Cum Laude in 1998. During his studies he worked with Professor Oren Becker on developing ligand-flexibility QSAR descriptors using conformations space sampling techniques. Orr wrote his Ph.D. thesis under the supervision of Professor Philip Pechukas at Columbia University, which focused on developing methods for the calculation of quantum mechanical correlation functions in imaginary time. Following his graduation in 2004, Orr pursued post doctoral research at the University of Rochester in Professor Harry Stern's lab. In his work he employed QM/MM methods for structure prediction of isoforms of rhodopsin, and TD-DFT and CASPT2 methods for excited states calculation of the bound retinal. His studies demonstrated the importance of electrostatic mechanisms in tuning the spectral sensitivity of photoreceptors. Orr joined SimBioSys Inc. as an applications scientist in 2008. Together with Dr. Zsolt Zsoldos, the leader of SimBioSys, he is involved in the development of docking, virtual screening and retrosynthetic analysis software, and is investigating the applicability of the tools in various drug discovery scenarios.