

Andrea Danani graduated in Physics at ETH Zürich in 1987. After his PhD at SISSA in Trieste in 1992, he was postdoctoral fellow at the Physics departments of Polytechnic University of Turin and University of Milan, and worked as scientific collaborator by the Swiss National Supercomputing Center (CSCS) in Manno. In 2001, Andrea Danani moved to SUPSI as scientific collaborator and teacher, where he received the Professor title in 2006. He is currently head of the Computational Biophysics Group at IDSIA, the Dalle Molle Institute for Artificial Intelligence affiliated to USI and SUPSI. Andrea Danani shows a long-standing expertise in molecular and multiscale modelling of several physical systems, such as many-electron systems and their phase transitions, polymer nanocomposites, biological systems in interaction with drugs and nucleic acids, macromolecules and nanoparticles for biomedical applications. In more recent years, he has applied classical and enhanced computational techniques to investigate protein conformational properties and protein-protein interactions responsible for their aggregation, with particular attention to related diseases such as Ataxia and Alzheimer and mechanisms of cellular membrane penetration. He is also collaborating with pharmaceutical companies on Virtual Screening projects implementing standard docking techniques together with AI approaches such as Machine and Deep learning.

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