Molecular Simulation

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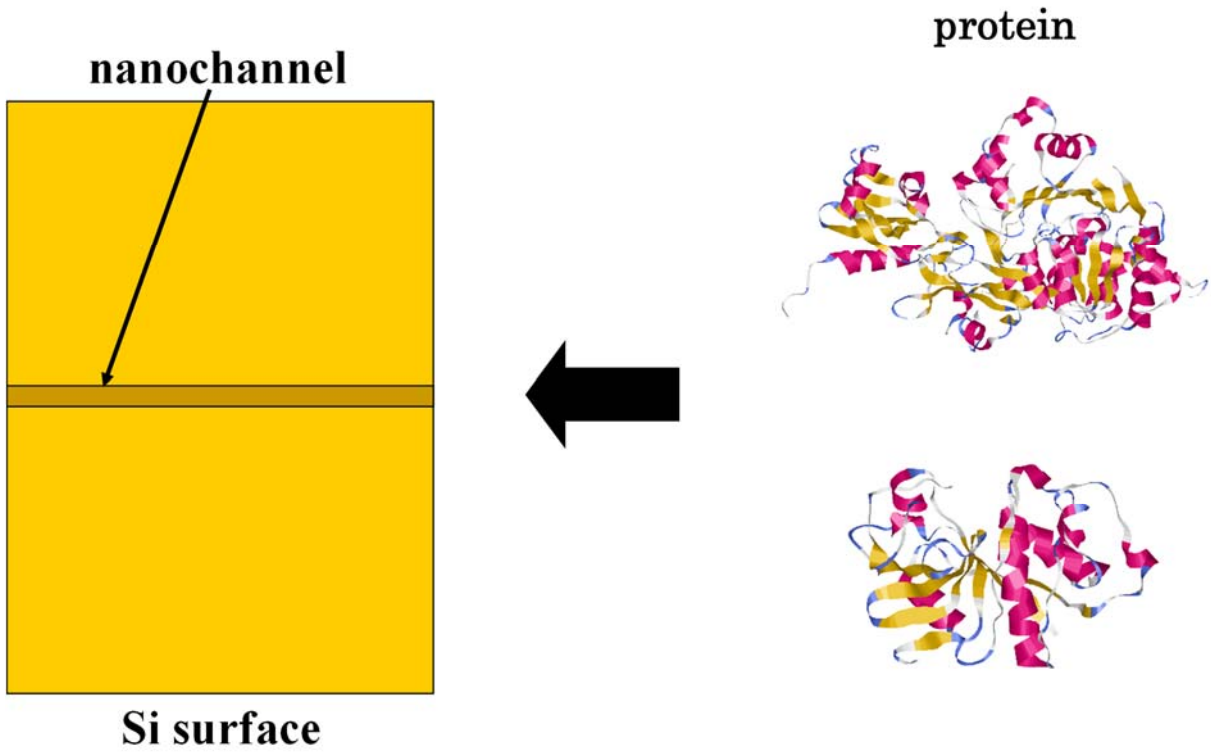
Keywords	simulation, genetic programming, biotechnology, nanotechnology		
Technical Support Skills	・ molecular dynamics simulation of protein ・ docking simulation between protein and ligand ・ modeling of binding behavior between protein and ligand ・ molecular dynamics simulation between protein and Si substrate		

Research Contents — Modification of protein function by adsorption on nanostructure

Current Si processing technology enables us to fabricate nanostructured arrays on Si surfaces. Delicate control of the surface conditions of Si, such as the hydrophobic or hydrophilic properties, is also possible because of recent progress in wet-treatment technology. Therefore, a Si surface with a nano-fabricated, wet-treated array may able to modify the structure of proteins to give them specific, desired functions. There is great potential for biomedical applications based on proteins with tailored functions created on a properly designed solid surface.



Available Facilities and Equipment

PC	DELL
Software AMBER	UCSF