

BioGrid Center Kansai

(Nonprofit Organization)



In February 2004, the BioGrid Center Kansai was established to promote bio/IT related R&D, educational activities, intellectual property management and to assist business promotion in these fields. The NPO has a mission of quick technology transfer from academic research to industry. Striving hard toward its goal, the NPO has helped to create a community that integrates IT, bio and medical science. The BioGrid Center Kansai currently conducts the following activities.

- 1) Planning and coordinating Research & Development projects
- 2) Coordinating and assisting collaborated research between academia and industry
- 3) Providing a cutting-edge IT-based test-bed environment developed by universities and other research institutes
- 4) Managing and utilizing intellectual property invested through R&D
- 5) Promoting and fostering business by venture companies
- 6) Bio-IT human resource development

The Value Chain for Drug Discovery

Mission

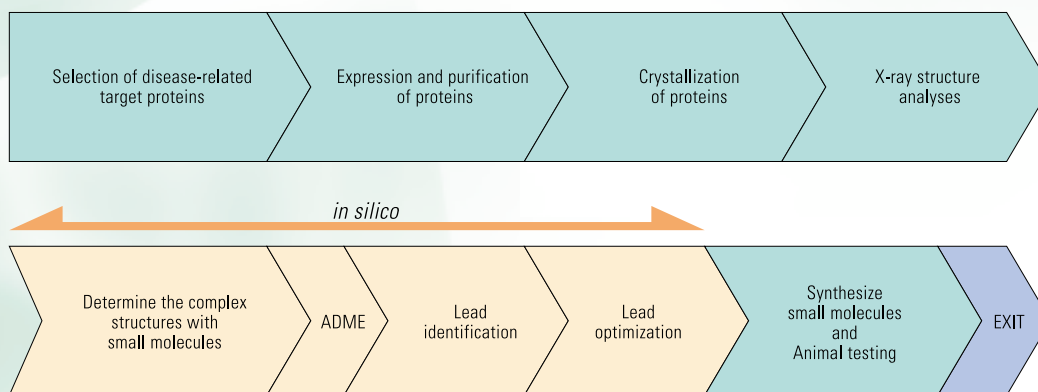
We contribute to society by discovering drugs while reducing costs and the development period by using the output of the BioGrid project.

Background

BioGrid computing technology enables us to determine protein structures and to execute docking simulation of small molecules for medicine *in silico*. We are developing software to calculate these simulations and to find lead compounds for medicine in cooperation with other academia laboratories.

Our target

In 2005-2006 we will modify the known chemical compounds to new lead compounds for medicine, a process in which we will also check the reliability of software performance and measure these performances inhibition constant by surface plasmon resonance: the SPR method. The X-ray structure analyses of the inhibitor complexes will provide a relationship between the structure and the inhibition constant, improving the inhibitor activity by synthesizing new derivatives. In 2007-2008 we will establish a new bio-venture company which will achieve these processes. Our Drug Discovery process is described as below.



Structure-based Drug Discovery

