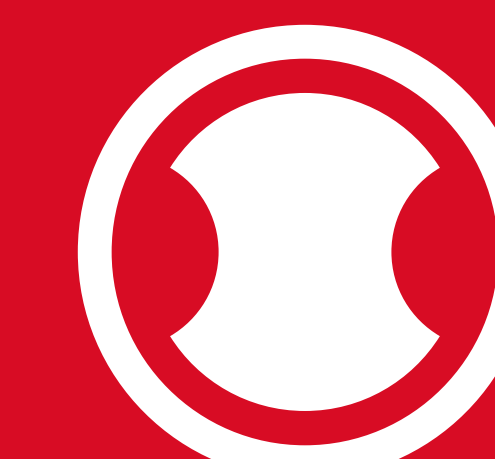


Drug Discovery Technology (1/3)



SHIONOGI

(Revised November 12, 2025)

Small Molecules Targeting RNA	● Method for measuring the binding affinity of RNA-targeting small molecules with in vivo relevance ● Excludes SPR, ITC, MST, AS-MS and SHAPE ● High through put in silico screening technology for RNA ● Efficient method for evaluating the three-dimensional structure of RNA
Drug discovery method aimed at covalent binders	● Fundamental technologies ● Evaluation methods for drug discovery
Cheminformatics	● Virtual screening methods that can screen a large-scale virtual library with high accuracy and speed ● Technology for highly accurate docking (SBDD) and simulation (LBDD) of peptide drug molecules
Screening and Synthesis Automation Technologies	● Operate throughout the day

Drug Discovery Technology (2/3)



(Revised November 12, 2025)

Peptide Therapeutics	● Identification of targets suitable for peptide drug discovery (e.g. undruggable targets that cannot be addressed with small molecules, such as protein-protein interaction) ● Synthesis technology to reduce the manufacturing costs of peptide drugs ● Formulation technology for efficient oral or nasal absorption of peptide drugs (e.g. solubilized formulations)
Antibody Therapeutics	● Technology to deliver antibodies into brain ● Discovery of novel target molecules for antibody drug development - Chronic infectious diseases - Central nervous system diseases - Motor dysfunction diseases
Nucleic Acid Therapeutics	● Neurodegenerative diseases and motor dysfunction diseases for siRNA therapeutics ● Deliver siRNA into the brain and immune cells

Drug Discovery Technology (3/3)



(Revised August 7, 2025)

Pharmacokinetics	● In vitro assay for predicting human biliary clearance and enterohepatic circulation ● Drug transport and drug-drug interaction (DDI) risk prediction models using human P-gp/BCRP transgenic or knock-in animals ● Intracellular drug quantification for PK/PD and MoA insights ● Predict the risk of P-gp or BCRP inhibitory effects on drug absorption and disposition
Safety	● AI system to classify biochemical toxicity data as adverse or non-adverse ● In silico toxicity mechanism analysis system ● Predicting toxicity target organs using live animal image diagnosis (CT, MRI, etc.) ● In vitro model for ocular toxicity evaluation and mechanism analysis ● In vitro evaluation system to evaluate damage and regeneration of inner ear hair cells ● In vivo evaluation system for ototoxicity using ABR (Auditory Brainstem Response) ● Ames avoidance measures and prediction tools in nucleic acid analog drug discovery
Drug Discovery Platform Technologies	● Method for screening and optimizing enzyme activity based on substrate specificity of metabolite biosynthetic enzymes ● Bioinformatics techniques including enzyme sequence data ● Data-driven optimization for reproducible scale-up cultivation