

# An Enhanced Machine Learning Models for Predicting Retrosynthesis Accessibility

## Mami OZAWA<sup>1</sup>, Nobuaki YASUO<sup>2</sup>, Masakazu SEKIJIMA<sup>1</sup>

<sup>1</sup>Department of Computer Science, Tokyo Institute of Technology

<sup>2</sup>Academy for Convergence of Materials and Informatics, Tokyo Institute of Technology



Dynamical interaction analysis of Remdesivir with SARS-CoV-2 RNA-dependent RNA polymerase by MD and FMO calculations

Shuhei MIYAKAWA<sup>1</sup>, Koji OKUWAKI<sup>1</sup>, Yuma HANDA<sup>1, 3</sup>, Takayuki FURUISHI<sup>1</sup>, Etsuo YONEMOCHI<sup>1</sup>, Koichiro KATO<sup>2</sup>, Kaori FUKUZAWA<sup>1, 3</sup>

<sup>1</sup>Hoshi University, <sup>2</sup>Kyushu University, <sup>3</sup>Osaka University



Lipid composition is critical for accurate membrane permeability prediction of large cyclic peptides by molecular dynamics simulations

Masatake SUGITA, Takuya FUJIE, Keisuke YANAGISAWA, Masahito OHUE, Yutaka AKIYAMA

Department of Computer Science, School of Computing,
Tokyo Institute of Technology



### Hit Identification for SARS-CoV-2 Main Protease Using Convolutional Neural Network

## Nobuaki YASUO<sup>1</sup>, Hiroshi YODA<sup>2</sup>, Masakazu SEKIJIMA<sup>2</sup>

<sup>1</sup>Academy for Convergence of Materials and Informatics (TAC-MI), Tokyo Institute of Technology, <sup>2</sup>Department of Computer Science, Tokyo Institute of Technology



SmilesFormer: Language Model for Molecular Design

Joshua OWOYEMI, Nazim MEDZHIDOV

Elix Inc.



Development of protein-ligand binding affinity evaluation method by combining classical MD and FMO calculations

Hiromu MATSUMOTO, Tsuyohiko FUJIGAYA, Koichiro KATO

Kyushu University



Force measurement of kinesinpropelled microtubules in swarming using electromagnetic tweezers

Mst Rubaya RASHID<sup>1</sup>, Mousumi AKTER<sup>2</sup>, Arif Md. Rashedul KABIR<sup>2</sup>, Jakia Jannat KEYA<sup>2</sup>, Kazuki SADA<sup>1, 2</sup>, Akira KAKUGO<sup>1, 2</sup>

<sup>1</sup> Department of Chemistry, Graduate School of Chemical Sciences and Engineering, Hokkaido University, Japan, <sup>2</sup> Department of Chemistry, Faculty of Science, Hokkaido University, Japan