# Jiho Sim

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## Introduction

PhD candidate, Lab of Computational Biology and Biomolecular Engineering, Seoul National University.

Interested in: **Protein ligand interaction** and **making tools that understand such interactions**.

## Education

**Seoul National University**, BS in Chemistry                                               Mar 2016 – Feb 2021

## Current Projects

**End-to-end Virtual Screening Model**                                                                 Mar 2022 –
- Built a virtual screening tool that captures structure information without a heavy docking process.
- Multi-modal training to help model learn important protein ligand interactions.
- Building a more generalizable model with careful data curation of training and test set.
- Initial version of the model is available through web server.

**Foundation Model**                                                                                   Mar 2024 –
- Developing a foundation model for protein structure prediction.
- Foundation model development is a large project within the lab, with teams divided for specific tasks.
- Working as one of the main project coordinators. Led input (protein) featurization and dataset curation.

**Affinity Prediction Model**                                                                          Jan 2025 –
- Developing a model for affinity prediction that understands more than just protein ligand pairwise interaction.

## Publications

**HProteome-BSite: predicted binding sites and ligands in human 3D proteome**                          Jan 2023
*Jiho Sim*, Sohee Kwon, Chaok Seok
10.1093/nar/gkac873

**Deep learning molecular interaction motifs from Receptor structure alone**                          Jan 2025
Seeun Kim, Simaek Oh, Hyeonuk Woo, *Jiho Sim*, Chaok Seok, Hahnbeom Park
biorxiv

**ECPAS/Ecm29-mediated 26S proteasome disassembly is an adaptive response**                           Jul 2023
**to glucose starvation**
Won Hoon Choi, Yejin Yun, Insuk Byun, Sumin Kim, Seho Lee, *Jiho Sim*, Shahar Levi, Seo Hyeong Park,
Jeongmoo Jun, Oded Kleifeld, Kwang Pyo Kim, Dohyun Han, Tomoki Chiba, Chaok Seok, Yong Tae Kwon,
Michael H. Glickman, Min Jae Lee
10.1016/j.celrep.2023.112701

## Honors and Awards

**Asan Scholarship (국내 의생명과학분야 대학원 장학생), Asan Foundation**                           Mar 2023 - Feb 2025
**Best Senior Paper Award (2020년 학부 졸업생 우수논문)**                                                    2020
주중광허지영 장학금                                                                                        2019