PROFILE

Hardworking Postdoctoral Research fellow with demonstrated record of research success in. Self-directed and motivated professional with a highly ethical, meticulous and thorough approach.

CONTACT

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DINESH KUMAR SRIRAMULU

Postdoctoral Researcher

EDUCATION

Pusan National University

2017 – 2021 Ph.D. Chemical Engineering

- Thesis: Study on the Effect of Protein-Ligand properties on the Prediction Accuracy of a Molecular Docking Tool, AutoDock.
- GPA 4.17/4.5

Pondicherry University

2014 – 2016 M. Tech Computational Biology

- Thesis: Identification of potential BACE1 inhibitor – an *in-silico* analysis
- GPA 8.67/10

SASTRA University

2009 – 2013 B. Tech Bioinformatics

- Thesis: Analysis of temperature factor distribution in ultra-high-resolution protein structures
  GPA 7.27/10

WORK EXPERIENCE

POSTDOCTORAL RESEARCHER, KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY

OCTOBER 2024 – PRESENT

POSTDOCTORAL RESEARCHER, KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY

MARCH 2023 – FEBRUARY 2024

- Devised and carried out research initiatives to investigate challenges in the context of Target Screening.
- Collaborated with multiple research groups to work on interdisciplinary projects.

POSTDOCTORAL RESEARCHER, PUSAN NATIONAL UNIVERSITY

MARCH 2021 – FEBRUARY 2023

- Conducted independent computational research and development to attain short- and long-term objectives.
- Contributed to and actively participated in research conception, design, and execution to address defined problems.

PUBLICATIONS

- G Munussami, S Sokalingam, **DK Sriramulu**, SG Lee., Identification of common and distinct features of ligand-binding sites in kernel and outlier lipocalins. *Journal of Industrial and Engineering Chemistry*, **2019**, 78, 344-351.
- **Sriramulu, D. K**.; Wu, S.; Lee, S.-G., Effect of ligand torsion number on the AutoDock mediated prediction of protein-ligand binding affinity. *Journal of Industrial and Engineering Chemistry* **2020,** *83*, 359-365
- **Sriramulu, D. K**.; Lee, S.-G., Combinatorial Effect of Ligand and Ligand-Binding Site Hydrophobicities on Binding Affinity. *Journal of Chemical Information and Modeling* **2020,** *60* (3), 1678-1684.
- P Jebamani, S Sokalingam, **DK Sriramulu**, ST Jung, SG Lee., Assessment of Computational Modeling of Fc-Fc Receptor Binding Through Protein-protein Docking Tool. *Biotechnology and Bioprocess Engineering*, **2020**, 25 (5), 734-741
- **Sriramulu, D. K**.; Lee, S.-G., Effect of molecular properties of the protein-ligand complex on the prediction accuracy of AutoDock. *Journal of Molecular Graphics and Modeling* **2021**,106.

- Jebamani, P., **Sriramulu, D.K**., Jung, S.T. *et al.* Structural Study on the Impact of S239D/I332E Mutations in the Binding of Fc and FcγRIIIa. *Biotechnol Bioproc E* **26,** 985–992 (2021).

- Hyeona Kang, Dinesh Kumar Sriramulu, Sun-Gu, Lee In silico Study on Binding Specificities of Cellular Retinol Binding Protein and Its Q108R Mutant. *Biotechnol Bioproc* E **27**, 126-134 (2022).

- Jebamani, P., **Sriramulu, D.K**., Lee, S.-G., Residue interaction network and molecular dynamics simulation study on the binding of S239D/I332E Fc variant with enhanced affinity to FcγRIIIa receptor. *Journal of Molecular Graphics and Modeling* **2023**, 118

- **Dinesh Kumar Sriramulu**, Sun-Gu Lee. Combinatorial Effect of Ligand Aromaticity, Torsion Number and Hydrophobicity on the Predictability of AutoDock for Protein-Ligand Binding Conformation. KSBB Journal, 38 (1), 70-75 (2023).

- **Dinesh Kumar Sriramulu**, Sun-Gu Lee, Analysis of protein-protein interface with incorporating low-frequency molecular interactions in molecular dynamics simulation, Journal of Molecular Graphics and Modelling, Volume 122, 2023,108461

- InWha Park, Keunwan Park, Hyeon-Seong Lee, Seong-Min Hong, **Dinesh Kumar Sriramulu**, Hoseong Hwang, Sungmin Song, Jong Gwon Baek, Dong Hoon Kim, Sun Yeou Kim, Jaeyoung Kwon,Hak Cheol Kwon. Ecdysteroids from the Korean Endemic Species Ajuga spectabilis with Activities against Glucocorticoid Receptors and 11β-Hydroxysteroid Dehydrogenase Type 1, ACS Omega 2023 8 (29), 26191-26200.

SKILLS

- Biomolecular interaction analysis
- Computer-Aided drug design
- Drug-Target prediction
- Python
- Perl
- C++
- R programming
- MATLAB
- Scientific Writing

REFERENCES

1. Dr. Pavlo Polishchuk,

   Senior Researcher, Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry,

   Palacky University, Olomouc,

   Czech Republic

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