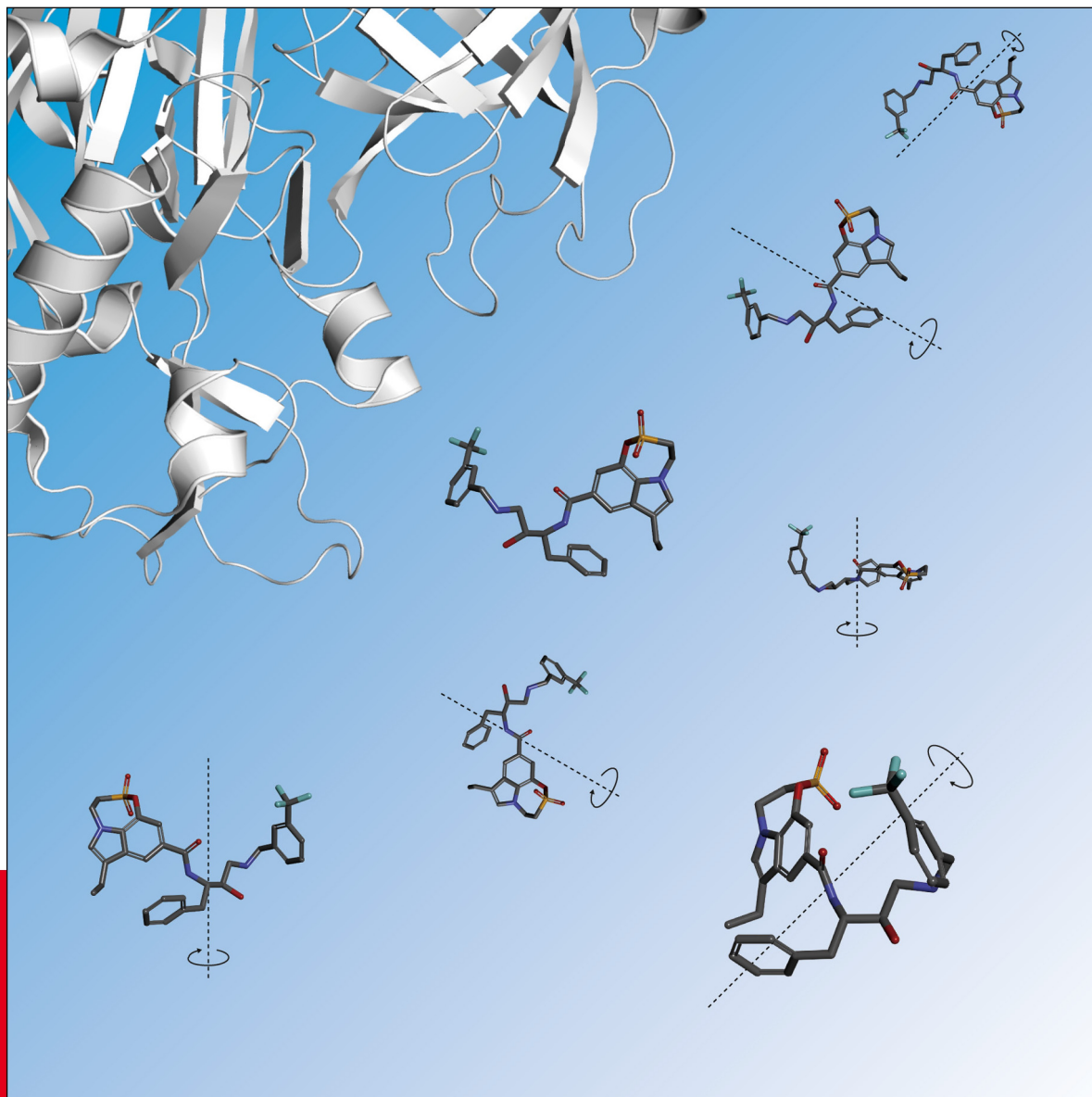


# CHEMISTRY

## AN **ASIAN** JOURNAL

[www.chemasianj.org](http://www.chemasianj.org)



16/18  
2021

A Journal of

**ACES**

Asian Chemical  
Editorial Society

**Front Cover:**

*Won June Kim, Insung S. Choi et al.*

Rotational Variance-Based Data Augmentation in 3D Graph Convolutional Network

WILEY-VCH

**Data augmentation for 3D graph convolutional network (3DGCN)** has been achieved, for the classification task of human  $\beta$ -secretase 1 (BACE-1)-ligand binding, by randomly rotating known active (1-labeled) ligands in the 3D Cartesian coordinate and assigning the rotated ones as label-0. The data augmentation improves the orientation-recognizing ability of 3DGCN significantly, suggesting the potential for identification of active ligands from a dataset, with rotation of candidates and evaluation of output sigmoid values. More information can be found in the Communication by Won June Kim, Insung S. Choi et al.



*J. Kim, Y. Kim, Prof. E. K. Lee, Dr. C. H. Chae, Dr. K. Lee, Prof. W. J. Kim\*, Prof. I. S. Choi\**

1 – 2