

# HAN-P-29



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Research Field(s)	chemical glycobiology, chemical proximity, medicinal chemistry, ferroptosis, drug discovery

#### Academic Career

Principal Investigator, School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong (CUHK), 2019 - Present; Postdoctoral Training, Harvard Medical School, 2016 - 2019; Postdoctoral Training, University of Oxford, 2014 - 2016; Fulbright Scholar, MIT, 2013 - 2014; B.Sc. & Ph.D. in Chemistry, CUHK, 2007 -2014

### **Selected Publications**

1. Lactone-to-lactam editing alters the pharmacology of bilobalide. JACS Au 4, 3537–3546 (2024)

2. Targeted protein O-GlcNAcylation using bifunctional small molecules. J. Am. Chem. Soc. 146, 9779–9789 (2024).

3. Design and Synthesis of Bicyclo[4.3.0]nonene Nucleoside Analogues. Org Lett 25, 9002–9007 (2023).

4. Simeprevir suppresses SARS- CoV-2 replication and synergizes with remdesivir. ACS Cent Sci 7, 792–802 (2021).

5. Coronavirus RNA proofreading: molecular basis and therapeutic targeting. Mol. Cell 79, 710–727 (2020).

6. Phase separation in viral infections. Trends Microbiol 30, 1217–1231 (2022).

7. Palladium-catalyzed arylation of carbasugars enables the discovery of potent and selective SGLT2 inhibitors. Angew Chem Int Ed 55, 13818–13821 (2016).

## Why My Lab?

Located in a top medical school, our young chemical biology lab (~5 years) is passionate about mentoring international students and fostering global collaborations. We specialize in organic synthesis and molecular biology, with a strong focus on translating discoveries into clinical applications through close collaborations with clinicians.

Let's connect: billyng@cuhk.edu.hk