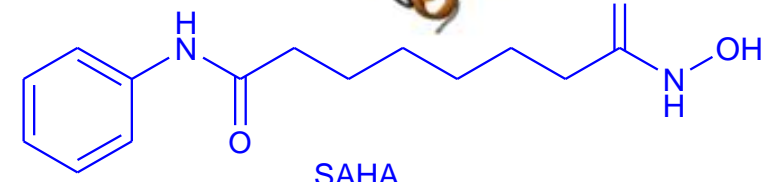
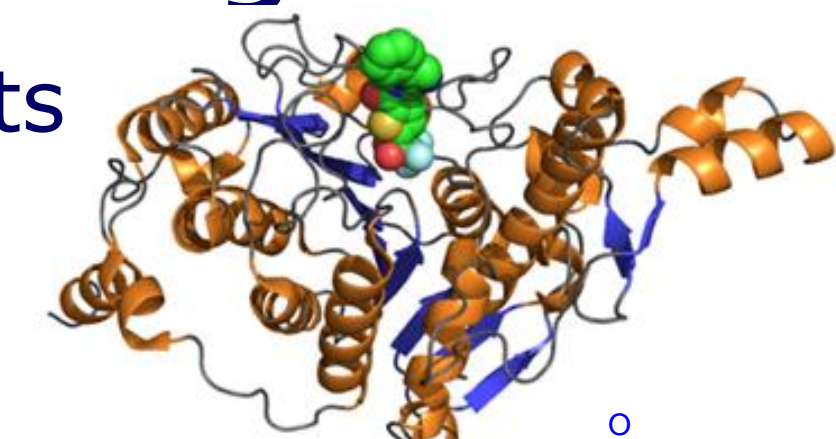


Department's research activities currently include:

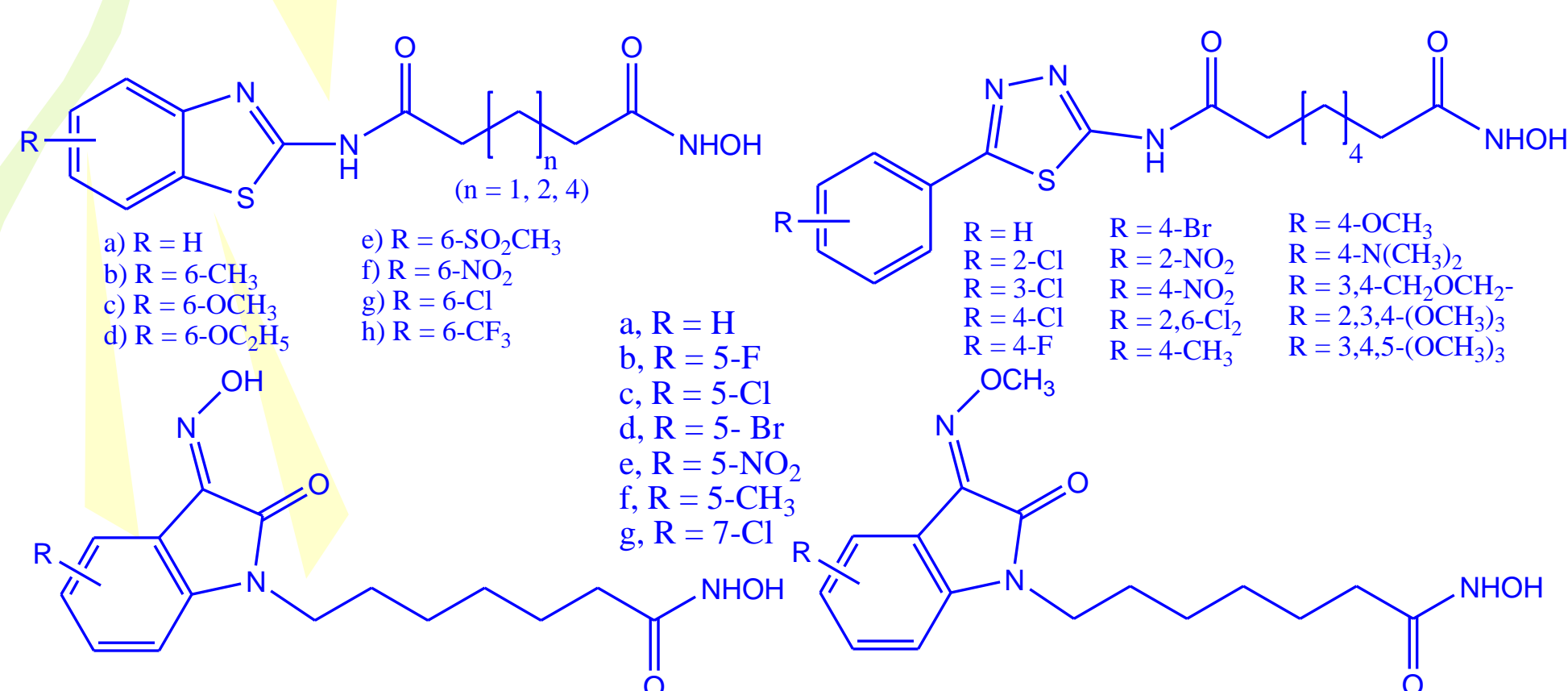
Project # 1:

Design & development of novel histone deacetylase (HDAC) inhibitors as anticancer agents

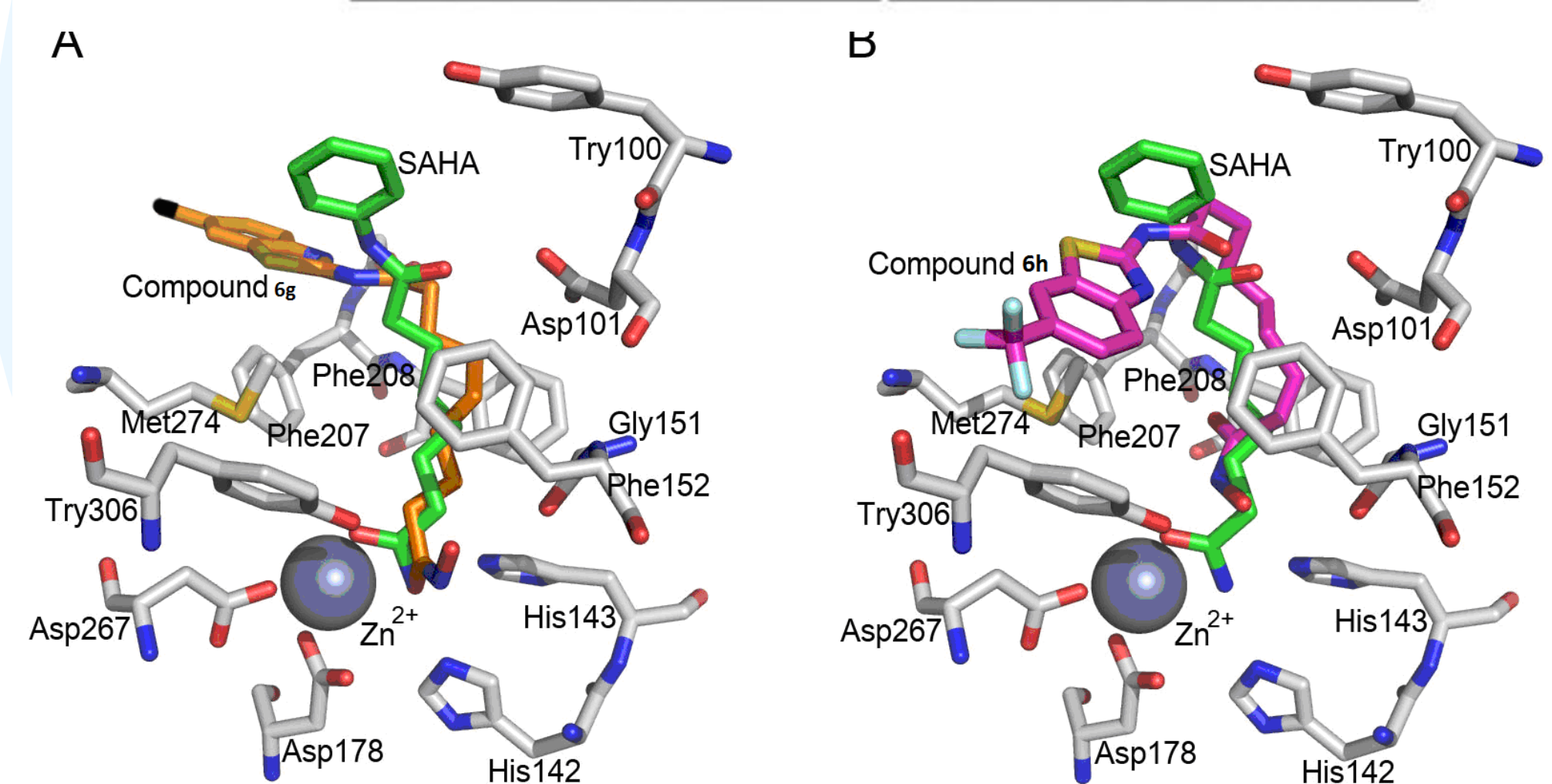
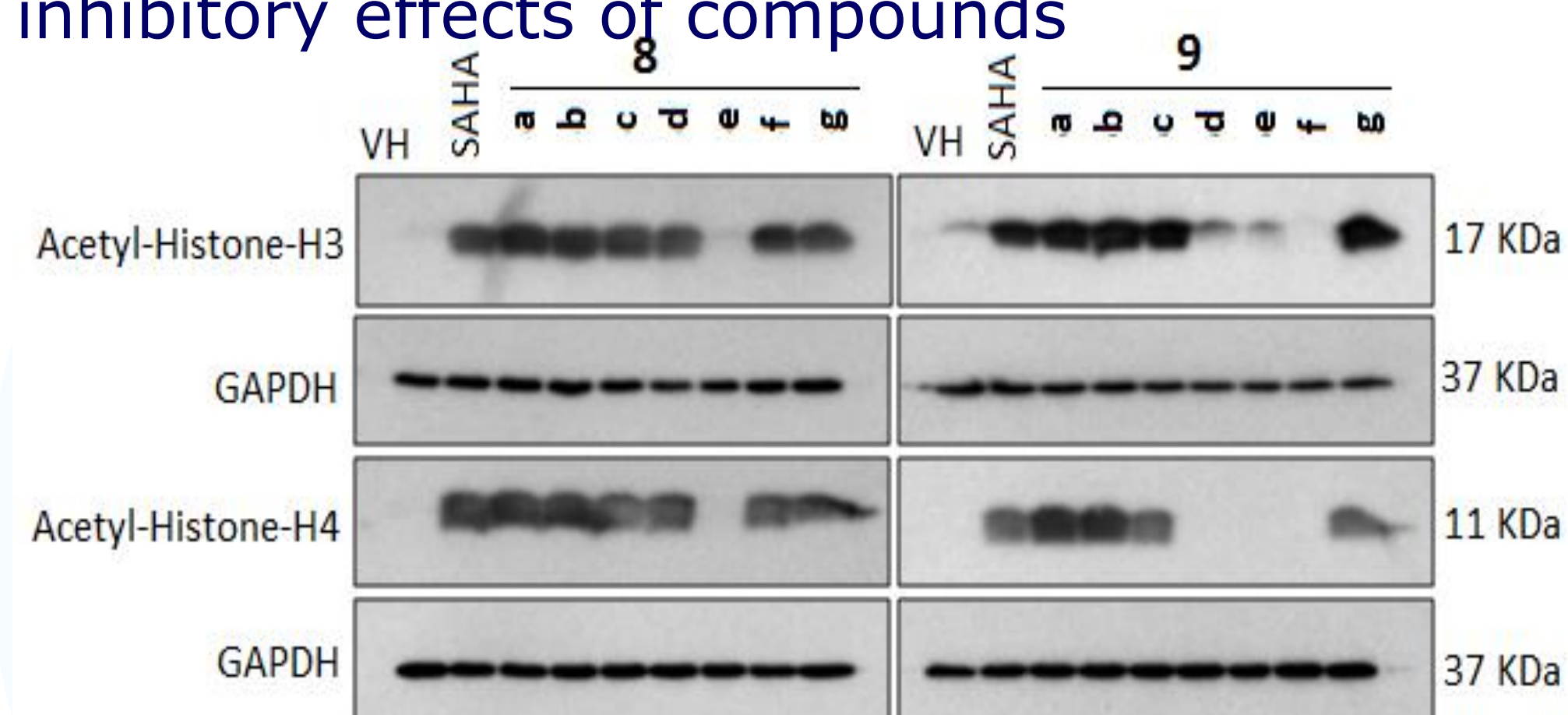
HDACs are validated targets for anticancer drug design. SAHA is one of HDAC inhibitors approved for the treatment of cancer.



We have designed, synthesized and evaluated series of novel SAHA analogues. A number of compounds showed promising biological profiles.



Western blot analysis is used to qualify HDAC inhibitory effects of compounds



Docking studies used to predict binding modes and binding affinities of compounds synthesized

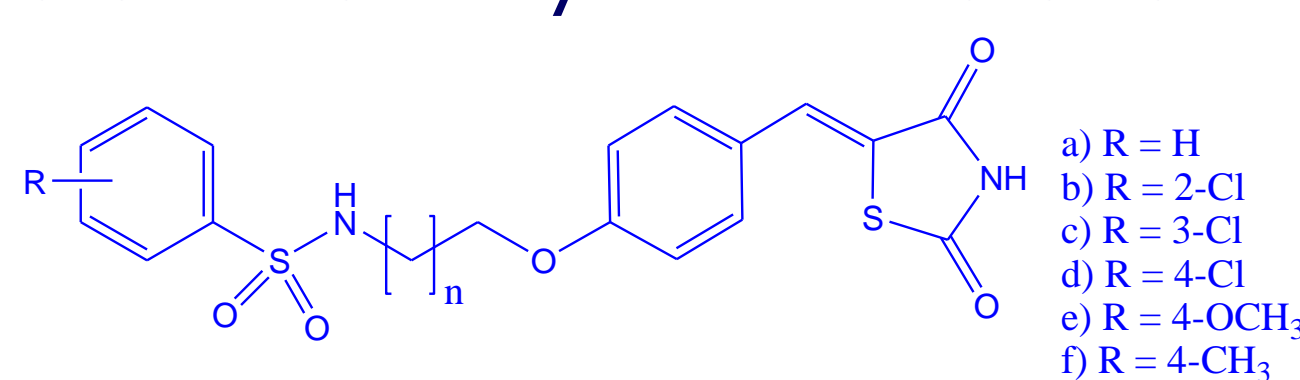
Ongoing funding projects

- 1) Design, synthesis and evaluation of several series of new hydroxamic acids as histone deacetylase inhibitors. PI: Nguyen Hai Nam; Funding Agency: NAFOSTED.
- 2) Design, synthesis and bioevaluation of several series of new heterocycle-based hydroxamic acids. PI: Phan Thi Phuong Dung; Funding Agency: NAFOSTED
- 3) Synthesis of pidotimod. PI: Nguyen Hai Nam; Funding Agency: MOH.

Project # 2:

Design & development of novel PTP1B inhibitors as antidiabetic agents

PTP1B is an interesting target for design and development of antidiabetic agents. In this project, a series of novel thiazolidine-2,4-diones are synthesized and evaluated



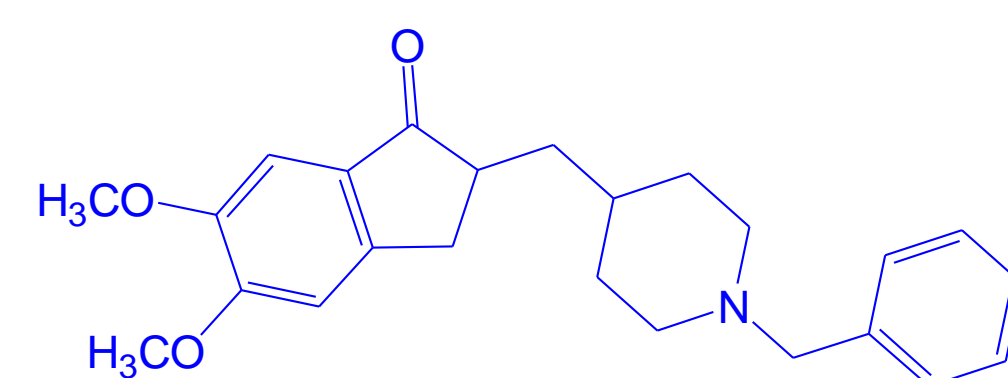
Project # 3:

Design & development of novel acetylcholine esterase inhibitors for treatment of alzheimer disease; and

Research on design and development of AchE inhibitors for treatment of AD currently attracts intense interest of medicinal chemists. Donepezil is one of AchE inhibitors which has been approved for use in clinical settings to treat AD.

In this project, a series of donepezil analogues are designed, being synthesized and evaluated as novel AchE inhibitors

Donepezil is one of AchE inhibitors which has been approved for use in clinical settings to treat AD.



Project # 4:

Synthesis of standard substances and impurities for drug quality control.

Currently impurities A, B, C and D of clopidogrel are synthesized. Also, captopril disulfid, an impurity in captopril, is being studied

