



# WILAILAK KAEWSRI, PHD

## PROFILE

I am an organic chemist specializing in the synthesis and structural identification of natural compounds and drugs. My skill is currently applied to identify the aroma nature of food. The research could guide food manufacturers to handle the manufacturing process with right conditions. With my expertise, I believe I could also leverage my skills to other sectors in global companies.

## CONTACT

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## WORK EXPERIENCE

**National Science and Technology Development Agency (NSTDA),  
Pathum Thani, THAILAND**

Jan 2022– Aug 2023

**Postdoctoral Researcher**

- Extract and Identify odor compounds of food products via gas chromatographic methods (GC-QTOF, GC-O-FID) in collaboration with R&D team from food companies
- Provide/update scientific information and results to the R&D team
- Writing the scientific proposals for funding applications

**CPF Food Research & Development Center Co., Ltd., Phranakhon Si  
Ayutthaya, THAILAND**

Nov 2018–Jun 2021

**Food Research Department Manager**

- Adjust the chemical properties of raw materials to save production costs and perform experiments in both lab and pilot scales
- Create research projects according to company's vision and strategy
- Collaborate with R&D, marketing team and academic staff to create ideas and to accomplish the research
- Update scientific literatures and provide data to our team, R&D team and CEO

## EDUCATION

**Chulabhorn Graduate Institute, Bangkok, THAILAND**

May 2013 – Jun 2018

**Doctor of Philosophy in Chemical Biology**

- Cumulative GPA: 3.75
- Thesis title: Cyclization of Alkynyl Substrates for the Synthesis of 4-Chloroisoxazole and 2-Cyclohexenone-2-Carboxylate Derivatives

**Kasetsart University, Bangkok, THAILAND**

May 2008 – Mar 2012

**Bachelor of Science in Chemistry**

- Cumulative GPA: 3.60 (First Class Honor)
- Thesis title: The Next Generation Design of HIV-1 Reverse Transcriptase Inhibitor

## RESEARCH EXPERIENCE

**Research Topic: Asymmetric Total Synthesis and Structure Elucidation of  
Huperzine H**

Jan 2017-Feb 2018

Department of Bio-functional Molecular Chemistry, Graduate School of  
Pharmaceutical Sciences, Chiba University, JAPAN

Advisor: Prof. Hiromitsu Takayama

**Research Topic: Structure and Energetic Properties of HIV-1 Reverse  
Transcriptase Inhibitors for Design of Next Generation Drug**

Feb 2013-Mar 2013

Department of Chemistry and Biochemistry School of Advanced  
Science and Engineering, Waseda University, JAPAN

Advisor: Prof. Hiromi Nakai

**Research Topic: The Next Generation Design of HIV-1 Reverse  
Transcriptase Inhibitor**

Mar 2012

Department of Chemistry, Kasetsart University, Bangkok, THAILAND  
Advisor: Prof. Supa Hannongbua

#### PUBLICATIONS

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1. Shinya Shiomi, **Kaewsri Wilailak**, Wataru Soutome, Hiromitsu Takayama, Mariko Kitajima, and Hayato Ishikawa: Asymmetric Total Synthesis and Structure Elucidation of Huperzine H. *J. Org. Chem.* 2022, 87, 3730–3735. DOI: 10.1021/acs.joc.1c02672
2. Nattawadee Chaisan, **Wilailak Kaewsri**, Charnsak Thongsornkleeb, Jumreang Tummatorn, Somsak Ruchirawat: PtCl<sub>4</sub> -Catalyzed cyclization of N-acetyl-2-alkynylanilines: a mild and efficient synthesis of N -acetyl-2-substituted indoles. *Tetrahedron Lett.* 2018, 59, 675–680. DOI:10.1016/j.tetlet.2018.01.014
3. **Wilailak Kaewsri**, Krissada Norseeda, Sureeporn Ruengsangtongkul, Nattawadee Chaisan, Charnsak Thongsornkleeb, Jumreang Tummatorn, Somsak Ruchirawat: Synthesis of 2-Cyclohexenone-2-carboxylate and 4-Chloro-2-cyclohexenone-2-carboxylate Derivatives by Cyclization of Alkyne-Tethered 1,3-Ketoesters. *Asian J. Org. Chem.* 2018, 7, 203–211. DOI:10.1002/ajoc.201700510
4. Phatcharida Jantaree, Kriengsak Lirdprapamongkol, **Wilailak Kaewsri**, Charnsak Thongsornkleeb, Kiattawee Choowongkamon, Korakot Atjanasuppat, Somsak Ruchirawat, Jisnuson Svasti: Homo-Dimers of Vanillin and Apocynin Decrease Metastatic Potential of Human Cancer Cells by Inhibiting the FAK/PI3K/Akt Signaling Pathway. *J. Agric. Food Chem.* 2017, 65, 2299–2306. DOI:10.1021/acs.jafc.6b05697
5. **Wilailak Kaewsri**, Charnsak Thongsornkleeb, Jumreang Tummatorn, Somsak Ruchirawat: ChemInform Abstract: Isomerizable (E/Z)-Alkynyl-O-methyl Oximes Employing TMSCl-NCS in Chlorinative Cyclization for the Direct Synthesis of 4-Chloroisoxazoles. *RSC Adv.* 2016, 6, 48666–48675. DOI:10.1002/chin.201640142

#### POSTER PRESENTATIONS

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1. **Wilailak Kaewsri**, Charnsak Thongsornkleeb,\* Jumreang Tummatorn, Somsak Ruchirawat "Practical and Metal-Free Synthesis of 4-Chloroisoxazoles" Presented at The 5<sup>th</sup> Junior International Conference on Cutting-edge Organic Chemistry in Asia (5<sup>th</sup> Junior ICCEOCA), National Taiwan Normal University (NTNU), Taipei, TAIWAN, Oct. 30-Nov. 1, 2015.
  2. **Wilailak Kaewsri**, Patchreenart Saparpakorn, Supa Hannongbua\* "Structure and Energetic Properties of HIV-1 Reverse Transcriptase Inhibitors for Design of Next Generation Drug" Presented at The International Kasetsart University Science and Technology Annual Research Symposium (I-KUSTARS), Kasetsart University (KU), Bangkok, THAILAND, Mar. 28-29, 2013.
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