

# 資源開発研究部門

## Medicinal Resources

### 天然物化学分野

#### Natural Products Chemistry

教授 森田 洋行 Hiroyuki Morita  
助教 ウォン チン ピアウ Chin Piow Wong

#### ◆ 原 著

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- 3) Nguyen HM\*, Ito T, Win NN, Vo HQ, Nguyen HT, Morita H. A new sterol from the Vietnamese marine sponge *Xestospongia testudinaria* and its biological activities. *Nat Prod Res.* 2018. in press. DOI: 10.1080/14786419.2018.1465057.
- 4) Nguyen HT, Duc HV, Raal A, Morita H. A new Limonoid from *Chisocheton paniculatus* Fruit collected in Vietnam and its NO production inhibitory activity. *Nat Prod Commun.* 2018 Nov; 13(10): 1255-7.
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- 8) Nguyen HT, Doan HT, Ho DV, Pham KT, Raal A, Morita H. Huperphlegmines A and B, two novel *Lycopodium* alkaloids with an unprecedented skeleton from *Huperzia phlegmaria*, and their acetylcholinesterase inhibitory activities. *Fitoterapia.* 2018 Sep; 129: 267-71. DOI: 10.1016/j.fitote.2018.07.016.
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- 10) Hoshino S, Ozeki M, Wong CP, Zhang H, Hayashi F, Awakawa T, Morita H, Onaka H, Abe I. Mirilactams C-E, novel polycyclic macrolactams isolated from combined-culture of *Actinosynnema mirum* NBRC 14064 and mycolic acid-containing bacterium. *Chem Pharm Bull.* 2018; 66(6): 660-7. DOI: 10.1248/cpb.c18-00143.
- 11) Win NN, Woo S, Ngwe H, Prema, Wong CP, Ito T, Okamoto Y, Tanaka M, Imagawa H, Asakawa Y, Abe I, Morita H. Tetrahydrofuran lignans: Melanogenesis inhibitors from *Premna integrifolia* wood collected in Myanmar. *Fitoterapia.* 2018 Jun; 127: 308-13. DOI: 10.1016/j.fitote.2018.03.002.
- 12) Ito T, Rakainsa SK, Nisa K, Morita H. Three new abietane-type diterpenoids from the leaves of Indonesian *Plectranthus scutellarioides*. *Fitoterapia.* 2018 Jun; 127: 146-50. DOI: 10.1016/j.fitote.2018.02.013.
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#### ◆ 学会報告

- 1) Morita H. Synthesis of unnatural compounds by enzyme engineering. The 10<sup>th</sup> KSP-JSP-CSP Joint Symposium on Pharmacognosy; 2018 Nov 21-23; Seoul. (Invited lecture)
- 2) Morita H. Biosynthesis of 2-alkylquinolone in the medicinal plant *Evodia rutaecarpa*. 2018 Joint Symposium of The Natural Products Research Institute at Seoul National University & The Institute of Natural Medicine at University of Toyama; 2018 Nov 5; Seoul, Korea.
- 3) Wong CP. Indole Alkaloids – Mechanism of its Biological Effect and Biosynthesis. 2018 Joint Symposium of The Natural Products Research Institute at Seoul National University & The Institute of Natural Medicine at University of Toyama; 2018 Nov 5; Seoul, Korea.
- 4) Morita H. Synthesis of unnatural compounds by exploiting secondary metabolite enzyme. The 60<sup>th</sup> Anniversary of School of Chinese Materia Medica Conference; 2018 Oct 19; Beijing. (Invited lecture)
- 5) Wong CP. Indole Alkaloids – Mechanism of its Biological Effect and Biosynthesis. The 60<sup>th</sup> Anniversary of School of Chinese Materia Medica Conference; 2018 Oct 19; Beijing. (Invited lecture)
- 6) Liu Q\*. Structural basis for the formation of pentyl-β-ketide CoA by olivetol synthase from *Primula obonica*. The 60<sup>th</sup> Anniversary of School of Chinese Materia Medica Conference; 2018 Oct 19; Beijing. (Invited lecture)
- 7) Morita H. Synthesis of unnatural compounds by enzyme engineering. Seminar on Cantho University; 2018 Sep 26; Cantho, Vietnam. (Invited lecture)
- 8) Morita H. Synthesis of unnatural compounds by enzyme engineering. Seminar on Ho Chi Minh Medicine and Pharmacy University; 2018 Sep 25; Ho Chi Minh, Vietnam. (Invited lecture)
- 9) Wong CP. Two distinct substrate binding modes for the normal and reverse prenylation by AmbP3. The 3rd International Symposium on Toyama-Asia-Africa Pharmaceutical Network; 2018 Sep 10-12; Toyama. (Invited lecture)
- 10) Prema\*, Wong CP, Awouafack MD, Win NN, Ngwe H, Morita H. Two new quassinoids isolated from a medicinal plant *Picrasma javanica* of Myanmar. The 3rd International Symposium on Toyama-Asia-Africa Pharmaceutical Network; 2018 Sep 10-12; Toyama.
- 11) Liu Q\*, Wong CP, Zhao Y, Shi S, Morita H. Crystal structure analysis of a new type III polyketide synthase that catalyzes one pot formation of the C6-C-5-C6 Diarylpentanoid. The 3rd International Symposium on Toyama-Asia-Africa Pharmaceutical Network; 2018 Sep 10-12; Toyama.
- 12) Morita H. Combinatorial biosynthesis of an unnatural novel aloeson analog by exploiting type III polyketide synthase and olivetolic acid cyclase. The Japan-German Biosynthesis Symposium; 2018 Sep 6-7; Bonn. (Invited lecture)
- 13) Morita H. Synthesis of unnatural compounds by enzyme engineering. Seminar Nasional Kefarmasian Indonesian Pharmaceutical Update 2018; 2018 Jul 28; Ampapa, Indonesia. (Invited lecture)
- 14) Wong CP, Abe I. X-ray crystal structure analysis of the prenyltransferase AmbP3. 第5回富山・バーゼル医薬品研究開発シンポジウム ; 2018 Aug 23 ; 富山.
- 15) Nguyen HM\*, Morita H. New sesquiterpene quinones from a Vietnamese marine sponge *Spongia* sp. and their biological activities. 第5回富山・バーゼル医薬品研究開発シンポジウム ; 2018 Aug 23 ; 富山.
- 16) Win NN, Morita H. Potent HIV-1 Vpr inhibitors from *Kaempferia pulchra* Rhizomes Collected in Myanmar. 第5回富山・バーゼル医薬品研究開発シンポジウム ; 2018 Aug 23 ; 富山.
- 17) Woo B\*, Morita H. Combinatorial biosynthesis of aloesone analog by exploiting a type III polyketide synthase and olivetolic cyclase. 第5回富山・バーゼル医薬品研究開発シンポジウム ; 2018 Aug 23 ; 富山.
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- 19) Morita H. Synthesis of unnatural compounds by enzyme engineering. 11<sup>th</sup> International Symposium on Chromatography of Natural Products; 2018 Jun 4-7; Lubilin, Poland. (Invited lecture)

- 20) Morita H. Discovery of naturally occurring new bioactive compounds and synthesis of unnatural compounds by enzyme engineering. Manipulation of plant polyketide-producing enzymes to produce new compounds. Seminar on Beijing University of Chinese Medicine; 2018 Mar 6; Beijing. (Invited lecture)
- 21) Nguyen HM\*, Ito T, Morita H. New sesquiterpene aminoquinones from a Vietnamese *Spongia* sp. and their biological activities. 第 65 回日本生薬学会年会 ; 2018 Sep 16-17 ; 広島.
- 22) Win NN, Woo S, Prema, Wong CP, Ito T, Ngwe H, Morita H. Melanogenesis is inhibitor tetrahydrofuran lignans from *Premna integrifolia* collected in Myanmar. 第 65 回日本生薬学会年会 ; 2018 Sep 16-17 ; 広島.
- 23) Wong CP, Awakawa T, Nakashima Y, Mori T, Liu X, Morita H, Abe I. Two distinct substrate binding modes for the normal and reverse prenylation by AmbP3. 第 65 回日本生薬学会年会 ; 2018 Sep 16-17 ; 広島.
- 24) 唐 怡鳴, 張 雯佳, Nugroho AE, Wong CP, 平澤祐介, 金田利夫, 森田博史. キョウチクトウ科 *Leuconotis eugenifolius* より単離した新規アルカロイドの構造と活性. 第 65 回日本生薬学会年会 ; 2018 Sep 16-17 ; 広島.
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- 26) Awouafack MD, Tane P, Morita H. Antibacterial constituents from a Cameroonian medicinal plant *Paullinia pinnata* L. 日本薬学会第 138 年会 ; 2018 Mar 26-28 ; 金沢.
- 27) Win NN, Ito T, Win YY, Prema, Ngwe H, Morita H. Quassinoids: Labdane Diterpenoids from *Curcuma amada* Rhizomes Collected in Myanmar. 日本薬学会第 138 年会 ; 2018 Mar 26-28 ; 金沢.
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#### ◆ その他

- 1) Morita H. Discovery of new bioactive compounds from natural sources and by engineering approaches of secondary metabolite enzyme. *Joint Seminar on Recent Advances in Drug Discovery and Biopharmaceutics*; 2018 Jan 22; Cairo.
- 2) 森田洋行. 植物成分の生合成. 漢方薬・生薬研修会 ; 2018 Jun 18 ; 東京. (講義)
- 3) ウォン チン ピアウ. Indole Alkaloids – Mechanism of its Biological Effect and Biosynthesis. 富山大学和漢医薬学総合研究所・長崎大学熱帯医学研究所 第 7 回交流セミナー ; 2018 Dec 3 ; 富山. (招へい講演)