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論文審査の要旨
Summary of Dissertation Review

博士の専攻分野の名称 Degree	博　士　（農学）	氏名 Author	TRAN DUC VIET
学位授与の要件	学位規則第４条第①・２項該当		

論　文　題　目

Bioactive Compounds Isolated from *Celastrus hindsii* B. and Associated Anti-gout, Anti-diabetic, and Anti-tyrosinase Potentials

論文審査担当者　Dissertation Committee Member

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〔論文審査の要旨〕 Summary of Dissertation Review

This research was carried out to examine anti-gout, anti-diabetic and anti-tyrosinase potential of *Celastrus hindsii* B, a medicinal plant which is growing widely in Southern America, Southeast Asia as well as southern part of China. Different analytical techniques including TLC, HPLC, CC, GC-MS, ESI-MS, and NMR were applied to isolate and identify bioactive compounds from *C. hindsii* as well as their relevant biological activities.

The dissertation includes 6 Chapters. Chapter 1: General introduction; Chapter 2: Anti-gout potential; Chapter 3: Anti-diabetic potential; Chapter 4: Anti-tyrosinase potential; Chapter 5: Isolation of α-amyrin, β-amyrin and their biological properties; and Chapter 6: General discussion.

Findings of this research reveal that the ethyl acetate was the unique extracting solvent possessing anti-gout, anti-diabetic, and anti-tyrosinase potentials among different extracting solvents. Among the obtained fractions separated by column chromatography, the fraction P5 (chloroform/methanol=1/1) exerted the maximum inhibition on xanthine oxidase (IC_{50} =38.22 µg /mL), α-amylase (IC_{50} = 68.00 µg /mL), and α-glucosidase (IC_{50} = 293.22 µg /mL) activities. Among constituents identified by GC-MS, EIS-MS, and NMR, fucosterol, α-amyrin and β-amyrin may play important roles in the medicinal potentials of *C. hindsii*, although further *in vivo* and clinical trials of those compounds should be examined.

From the achievements mentioned above, the applicant Tran Duc Viet has published 3 papers in international journals with first name. Among them, two papers are published in Molecules (IF 4.419 and Medicines (Pubmed indexed). After carefully examining the results from presentation, dissertation, achievements, and the responses on the questions raised from the examiners, the committee agreed that the applicant passes the exam.