（様式８）
(Attached Form 8)

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 NGOC QUY
学位授与の要件	学位規則第４条第①・２項該当		

論　文　題　目　Isolation and Evaluation of Biological Activities of Compounds from *Cordyceps militaris* (L.) Link Fruiting Body

論文審査担当者　Dissertation Committee Member

主　　査	Committee Chair	Tran Dang Xuan, Associate Professor, IDEC, Hiroshima University　印 Seal
審査委員	Committee	Teruo Maeda, Professor, IDEC, Hiroshima University
審査委員	Committee	Masaoki Tsudzuki, Professor, IDEC, Hiroshima University
審査委員	Committee	Tetsuro Hosaka, Associate Professor, IDEC, Hiroshima University
審査委員	Committee	Masanori Morimoto, Associate Professor, Kinki University

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

This research was carried out to examine antioxidant, antigout, antibacterial and allelopathic activities of the fungus *Cordyceps millitaris* (L.) Link fruiting body, as well as isolated and identified principal constituents responsible for these biological activities.

The thesis included 6 Chapters. Chapter 1: Introduction. Chapter 2: Xanthine oxidase (XO) inhibitory and antioxidant activities of *Cordyceps militaris* (L.) Link fruiting body. Chapter 3: Antibacterial activity of *Cordyceps militaris* (L.) Link fruiting body. Chapter 4: Allelopathic activity and identification of allelochemicals from fruiting body of *Cordyceps mililatis* (L.) Link; Chapter 5: Cordycepin isolated from *Cordyceps militaris*: Its newly discovered herbicidal property and potential plant-based novel alternative to glyphosate and paraquat. Chapter 6: General discussion and conclusions.

Findings of this research reveal that the fruiting body of *C. millitaris* shows excellent antioxidant, antigout, antibacterial, as well as allelopathic activities. Among many compounds isolated and identified from *C. millitaris*, cordycepin was the principal compound which is responsible for these biological activities of *C. millitaris*. Especially, this compound exerts much stronger inhibition on the growth of indicator weeds as compared with the herbicides glyphosate and paraquat. It is suggested that this chemical is potential to develop new herbicides to replace the problematic glyphosate and paraquat.

From the achievements noted above, the applicant Tran Ngoc Quy has published 2 papers with first name (Molecules, IF 3.060; Medicines, Pubmed indexed). After carefully examined the results from presentation, graduate thesis, achievements, and the responses on the questions raise from the examiners. The judged committee agree that the applicant passes the exam.