

Title	Studies on the metabolites of griseofulvin-producing fungi (4) : dynamic aspects of biosynthesis and metabolism of griseofulvin in the growing cells
Sub Title	
Author	佐藤, 良博(Sato, Yoshihiro) 坂本, 由紀子( Sakamoto, Yukiko) 関, 敏子( Seki, Toshiko) 正田, 佐代子( Shoda, Sayoko)
Publisher	共立薬科大学
Publication year	1971
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.16 (1971. ) ,p.65- 65
JaLC DOI	
Abstract	
Notes	学会講演要旨
Genre	Technical Report
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000016-0068">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000016-0068</a>

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the Keio Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Studies on the Metabolites of Griseofulvin-Producing Fungi (4)  
Dynamic Aspects of Biosynthesis and Metabolism of  
Griseofulvin in the Growing Cells  
Yoshihiro SATO, Yukiko SAKAMOTO, Toshiko SEKI  
and Sayoko SHODA

(Reported at 15 th Symposium on the Chemistry)  
of Natural Products, Oct. 1971)

The dynamic aspects of the biosynthesis and metabolism of griseofulvin were elucidated on *Penicillium urticae* by isotopic techniques. At first,  $^{14}\text{C}$ -2- $\text{CH}_3\text{CO}_2\text{Na}$  was added at a definite time to the fermentation broth (growing cells) of *P. urticae*, and after culture of further 24 hr. or at the end of 12th day, the neutral and acidic metabolites were isolated by the usual procedures. The metabolites were analyzed by the liquid scintillation counting, radio gas chromatography, or auto-radiography of TLC. The results indicated that  $^{14}\text{C}$ -2- $\text{CH}_3\text{CO}_2\text{Na}$  was incorporated into ergosterol mainly at the 5th day and into griseofulvin at the 7th to 11th days. The important result is the increase of total radioactivity of griseofulvin in the mycelium and the decrease of that in the filtrate, by analyses of radio activities. Further evidence of the above results was supplied by experiment using  $^{14}\text{C}$ -griseophenone C as a precursor of griseofulvin.

Consideration of these results indicates that griseofulvin is metabolized while it is biosynthesized, which is recognized as only secondary metabolite.