Title	Inhibition of microtubule polymerization by synthetic estrogens : formation of a ribbon structure
Sub Title	
Author	佐藤, 良博(Sato, Yoshihiro) 村井, 知子(Murai, Tomoko) 小田, 泰子(Oda, Taiko) 斎藤, 肇(Saito, Hajime) 児玉, 昌彦(Kodama, Masahiko) 平田, 愛子(Hirata, Aiko)
Publisher	共立薬科大学
Publication year	1987
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.32 (1987.),p.64- 64
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000032-0064

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.

Inhibition of Microtubule Polymerization by Synthetic Estrogens: Formation of a Ribbon Structure*

Yoshihiro SATO, Tomoko MURAI, Taiko ODA, Hazime SAITÔ**,
Masahiko KODAMA** and Aiko HIRATA***

佐藤良博, 村井知子, 小田泰子, 斎藤 肇**, 児玉昌彦**, 平田愛子***

Dienestrol, meso-hexestrol, and dl-hexestrol, synthetic nonsteroidal estrogens, were shown to be inhibitors of microtubule assembly *in vitro* using microtubule proteins isolated from porcine brains. The order of activity of the synthetic estrogens as inhibitors of microtubule assembly is : dienestrol > diethylstilbestrol > meso-hexestrol > dl-hexestrol > isodienestrol. The activity of dienestrol as an inhibitor was almost in the same order with that of (+)-griseofulvin as determined by turbidity measurement. Electron microscopic observation revealed that twisted ribbon structures are formed from microtubule proteins in the presence of some synthetic estrogens (dienestrol, meso-hexestrol, and dl-hexestrol).

Fig. 1. Structures of synthetic estrogens : a, diethylstilbestrol ; b, meso-hexestrol ; c, *dl*-hexestrol (3S, 4S isomer) ; d, dienestrol ; and e, isodienestrol.

* 本報告は *J. Biochem.*, 101, 1247—1252 (1987) に発表.

** 国立がんセンター研

*** 東大応微研