

## 外国人客員部

## Division of Visiting Professors

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客員教授	Visiting Professor	Suwidjiyo Pramono (Ph.D.) <i>Gadjah Mada University, Indonesia</i> (Apr. 13, 2006 ~ Aug. 31, 2006; Nov. 1, 2006 ~ Mar. 31, 2007)
客員助教授	Visiting Associate Professor	Bambang Prajogo E.W. (Ph.D.) <i>Airlangga University, Indonesia</i> (May 1, 2006 ~ Aug. 31, 2006)
客員助教授	Visiting Associate Professor	Mangestuti Agil (Ph.D.) <i>Airlangga University, Indonesia</i> (Sep. 1, 2006 ~ Mar. 31, 2007)

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### ◇ 研究目的

民族薬物に関する文献学的・生薬学的情報の整理と分析及び民族薬物に関する化学的・薬理学的研究を遂行する。

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### ◇ 研究概要

本年度は、インドネシアの伝統薬物ジャムーの専門家を招聘し、ジャムー薬物の先端技術による科学的評価ならびに規格化についての研究を行なった。以下に研究概要を示した。

#### I) **Cytotoxicity screening of Indonesian medicinal plants on pancreatic cell line under nutrient-deprived condition** : By Prof.S.Pramono

In the first step, 20 Indonesian medicinal plants were dried, pulverized, and macerated with ethanol 70%. After filtration, the solutions were evaporated and the obtained extracts were tested their bioactivity on pancreatic cell line under nutrient-deprived condition. Among them ethanolic extract of two plant materials namely *Eucalyptus alba* fruits and *Melaleuca leucadendron* fruits exhibited 100% preferential cytotoxicity under nutrient-deprived condition at concentration of 10 microg/ml and 9 microg/ml respectively with virtually no cytotoxicity under nutrient rich condition. Further bioassay-guided fractionation, hexane soluble fraction of those two extracts were found as fractions responsible for such preferential cytotoxicity and will be subject of further research in determining active chemical constituents. In the second step, the same bioactivity screening is carried out on 100 other Indonesian medicinal plants and will be subject of further research in the frame work of cooperation between two institutes.

#### II) **Study for standardization of Indonesian traditional crude drugs**: By Assoc.Prof.B.Prajogo E.W.& Assoc.Prof.M.Agril

Standard information on Indonesian traditional crude drugs which had been collected and catalogued in the Museum of Materia Medica has been established for constructing a database. The inventory is reorganized to confirm the total of 611 items, which include 603 drugs of plant origin, 2 items of animal origin and 6 items of mineral origin. Revision on some previously identified plant drugs is made.

### ◇ Seminars

- 1) "Recent Status and Collaboration Needed of Jamu Medicine in Indonesia" [By Prof.S.Pramono, Institute of Natural Medicine, University of Toyama, May 17, 2006]
- 2) "Male antifertility of *Justicia gendarussa* Burm.f. as development model of Indonesian phytopharmaceutical" [By Assoc.Prof.B.Prajogo E.W., Institute of Natural Medicine, University of Toyama, Aug. 21, 2006]

◇ **Book**

"Jamu in Indonesian Daily Life and Industry" [Author:Prof.S.Pramono:published by Institute of Natural Medicine, University of Toyama, March 1, 2007]