

information? Obviously, this system of testing is expensive, time consuming, and frustrating for the drug companies, but what can they do as long as physicians dominate clinical testing?

The basic problem with clinical testing is the assumption that physicians are scientists. There is no reason to expect a physician to be a scientist.

Clinical testing will improve only when properly qualified people do the work. The physicians who are members of a testing team should be selected for scientific aptitude and then given the needed training. The team should include a physician, a pharmacist (preferably Pharm.D.), an experienced technical writer (to help organize data and prepare the reports), and such other support personnel as needed for that particular study. In the case of antibiotic testing, the team should include someone experienced in the principles and practices of using a microbiological assay for antibiotics (these people are rare).

One reason I am pessimistic about the possibility of improving clinical testing is the difficulty in getting physicians to give up the power they now possess. The ego problem could be minimized by selecting the physician members from among those who have a Ph.D. degree in a related subject such as zoology or physiology. Their previous experience in a laboratory would assure their understanding the importance of scientific protocol, the awareness that correlation and cause are not synonymous, and the effects of genetic makeup of the patients on results.

Many more examples could be given, but these are sufficient to indicate what some of the problems are. Obviously, no drug firm would dare make public these complaints. The firms doing the research are dependent on the good will of physicians for their success.

Frederick Kavanagh  
Corvallis, Oregon 97330

Received August 9, 1983.

<sup>1</sup> E. G. Feldmann, *J. Pharm. Sci.*, 72, 463 (1983).

## Pharmaceutical Analysis and Control Award

Members of the Pharmaceutical Analysis and Control (PAC) Section of the APhA Academy of Pharmaceutical Sciences are concerned about the paucity of students choosing to study pharmaceutical analysis at the doctoral level. As a means of promoting graduate study in this discipline, the PAC Section is offering an undergraduate award in pharmaceutical analysis for 1984. Applications are currently being invited from undergraduate students enrolled in the last two years of baccalaureate or equivalent degree programs in accredited schools or colleges of pharmacy and departments of chemistry who have demonstrated interest and potential for a career in pharmaceutical analysis. The Award will consist of scholarship support (\$1,000) for a ten-week summer period or equivalent (NLT 400 hrs) of laboratory research in pharmaceutical analysis. Applications are due in the Academy Office by December 31, 1983. Notice of awards will be mailed by March 31, 1984. Application instructions and application forms are available by calling or writing: APhA Academy of Pharmaceutical Sciences, Undergraduate Award in Pharmaceutical Analysis, 2215 Constitution Avenue, N.W., Washington, D.C., 20037, (202) 628-4410.

We encourage faculty and students to apply for the PAC Award in Pharmaceutical Analysis. Thank you.

Robert V. Smith, Ph.D.  
Chairman Elect,  
PAC Section, APhA Academy of  
Pharmaceutical Sciences

Received August 18, 1983.

# PHARMACY RESEARCH & DEVELOPMENT Group Leaders

The aggressive Ayerst Research program has resulted in expansion in the Pharmacy Research and Development Division. Opportunities exist for four Group Leaders in various areas. For each position, the successful candidate should possess a PhD in Pharmaceutics with 0-5 years of appropriate experience desirable.

### LIQUIDS SECTION (2 new opportunities)

Responsibilities include development of liquid injectables, semisolids, ophthalmics, and suspensions. Successful candidates will have an innovative approach to formulation problems and possess good communication skills. The positions involve substantial interaction with preformulation, toxicology, and scale-up sections.

### BIOPHARMACY SECTION

For this position, a PhD degree majoring in pharmacokinetics is essential. Responsibilities include pharmacokinetic modeling of data from various preclinical and clinical studies, computer simulation of plasma levels for controlled delivery systems development of assay methodology for drugs in body fluid.



### TRANSDERMAL SECTION

The successful candidate will be responsible for physicochemical and *in vitro* analysis of compounds for their applicability to transdermal delivery. A PhD degree with emphasis in Physical Pharmacy is highly desirable. Excellent oral written, and computer skills are necessary. Some formulation experience and a knowledge of pharmaceutical products are highly desirable.

We offer a competitive salary with a full line of benefits including dental and prescription plans, relocation and interview expenses.

Our facility is located in the scenic Adirondack Mountains, Lake Champlain region of New York State, a short distance from Montreal in the Lake Placid Olympic area.

Send resume and salary history to:  
Gary D. Wagoner, Personnel Manager

**AYERST LABORATORIES, INC.**  
64 Maple Street, Rouses Point, NY 12979

An equal opportunity employer M/F/H