Survey of Faculty and Student Exchanges Among Colleges of Pharmacy\(^1\)

Marilyn F. Harris\(^2\)

School of Pharmacy, Duquesne University, Pittsburgh PA 15282

Hubert M.G. Leufkens

Department of Pharmacoepidemiology, Faculty of Pharmacy, Utrecht University, Box 80.082, NL-3508 TB Utrecht, The Netherlands

Pierre A. Sado

Department of Clinical Pharmacy, Universite de Rennes, 2 Avenue Professeur Leon-Bernard, 35043 Rennes, France

INTRODUCTION

Over the last decade, an increasing number of cooperative programs between schools of pharmacy, both within countries and with other countries, have developed. The advantages gained by both parties in the collaborative programs are often cited. The Academic Section of FIP has recognized the value of collaborative programs between institutions

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\(^2\)Corresponding author.
and has adopted as a major effort a Global Cooperative Project for 1992-1994. The Global Cooperative Project is envisioned as a data-gathering and coordinating project for those schools interested in developing inter-country contacts. It is not expected to provide funding and will cooperate with the already established programs in any way that would be mutually beneficial to matching interested Schools of Pharmacy. The first step in this project was to survey the level and type of cooperation that currently exists and to determine if there is sufficient interest to pursue such a project among our sister institutions.

Several cooperative programs between Schools of Pharmacy in the United States and Schools of Pharmacy in other countries are reported in the literature(1-3). These anecdotal reports indicate the structure and level of development of these programs. In 1983, a Task Force of the Academy of Pharmaceutical Sciences of APhA assessed the needs of pharmaceutical scientists in developing countries(4). The Task Force’s final report was directed at pharmacy education as well as the pharmaceutical industry. One of their recommendations,

“Communication with the Colleges of Pharmacy in other nations to assess their needs. This assessment should be utilized in developing specific activities within the Academy that would be of assistance to pharmaceutical scientists in Colleges of Pharmacy,”

specifically directs a survey to be done. This recommendation was not acted upon. In 1987-1988 the Educational Commission for Foreign Medical Graduates (ECFMG) jointly with the AACP surveyed U.S. schools of pharmacy to identify and describe existing programs and current participation in international education. A directory was published but did not contain useful information for Schools of Pharmacy on a global basis(5).

A European program, the EuRopean Action Scheme for the Mobility of University Students (ERASMUS) allows E.C. and EFTA (European Free Trade Agreement) students to study in certain other European states, for 3-12 months. The program was developed in 1987 by the European Community and its goal is to enhance the mobility of undergraduate and postgraduate students and to promote studying part of one’s curriculum in another E.C. country.

In 1992, the European Pharmaceutical Students Association (EPS A) completed an evaluation of the ERASMUS program(6). Their evaluation reports on 80 percent [103] of the member schools. Out of the 103 schools examined, 56 had participated in the Inter-University Cooperation Program, 14 of these were in an undergraduate program. These undergraduate program exchanges were primarily in Dutch and German Schools.

TEMPUS is an EEC program to increase cooperation in higher education between western Europe and central and eastern Europe (PHARE) and with those countries that were members of the former Soviet Union (TACIS). PHARE funds the following five types of projects: (i) PEC, project concerning University administration; (ii) PECN, Common European Project of Mobility, which concerns student mobility; (iii) CME, helps national University authorities in developing teaching policy; (iv) grants—stipends for individual mobility; and (v) stipends for activities complementing the above. TACIS provides funding for the preparation of a proposal concerning University organization and administration.

METHODS
A survey was developed and revised by a committee of section members. It was sent in the Spring of 1993 to all Schools of Pharmacy in the world known from The World List of Schools of Pharmacy published by the Academic Section of FIP. The total number of surveys sent by first class mail was 692. As a follow-up, the survey was included in the Spring 1993 Newsletter of the Section with a note indicating to the members to complete the survey for their institution if it had not previously been returned.

The survey included questions regarding existence of cooperative programs or the interest if no program(s) existed. The type of agreements (teaching, research, consultative, visits), length, and how the programs were funded was asked. The survey participants were asked to prioritize the types of programs they would be most interested in pursuing. In addition, they were asked to identify the area(s) of collaboration they would be interested in providing and those they would be interested in receiving. Demographic questions (size of school, type of programs(s), language facility required, etc.) were included to enable a more in-depth analysis of the results.

RESULTS AND DISCUSSION
Responses
Responses were received from 159 Schools of Pharmacy by September 30. This is a 23 percent response rate. The geographic distribution of the responses (see Figure 1) indicate that the combined Asia/Middle East grouping had the largest number of responses. This was followed by Europe and North America.

Some type of agreement with at least one other institution was reported by 79 Schools (50 percent). The schools with agreements are highest in Europe [32], followed by North America [22], Asia/Middle East [17], Australia, New Zealand, Fiji [3], South/Central America [3] and Africa [2]. Of the schools with agreements, 49 percent have some type of formal signed agreement while the balance have a mixture of formal and informal (33 percent) or informal (18 percent) agreements. Of those respondents who did not have agreements, 95 percent reported an interest in establishing some type of collaboration.

3 Copy of the survey can be obtained from the corresponding author.
Demographic Questions
The average length of the professional program was 4.67 ± 1 years with a range of 1 to 8 years. The average number of students in the professional program was 403 with a range of 10 to 3,550. Postgraduate/graduate programs were reported by 106 of the schools. English was listed as the language facility necessary in 110 institutions, six required French and six Spanish. Other language facilities necessary were German [4], Japanese [4], Portuguese [3], and Russian, Chinese, Norwegian and Greek [each 1].

Types of Agreements
Short-term (4-8 weeks) faculty agreements are the most common type reported. Of those schools with short-term agreements, 60 percent reported faculty visits, 55 percent teaching exchanges, and 52 percent research exchanges. Long-term agreements were less frequent (see Figure 2). The funding sources were grouped and are shown in Figure 3. The most usual type of funding was obtained from the host university. The second most frequent funding source was from the visiting faculty member's university or from personal funds such as grants. A number of faculty exchanges are funded by individualized agreements with no in-place funding plan evident. The only agency to be mentioned repeatedly for faculty exchanges was the British Council. It appears that funding sources might be grouped into three levels of support: national and international agencies, universities, and individual agreements.

Student exchanges, although not reported as frequently as faculty exchanges, are reported by a number of institutions. Short-term student exchanges are reported by 37 institutions. This was followed closely by long-term student exchange programs [31] and graduate/post graduate fellowships [28]. Student internship programs [22] and postdoctoral fellowships [21] were reported less frequently. Funding for student programs is most frequently provided by the visiting student. Other programs such as Tempus and Erasmus were reported as the funding source by several institutions (see Figure 4).

The academic disciplines of agreements most frequently reported were pharmaceutics, medicinal chemistry, pharmacokinetics and pharmacology (Figure 5). These were separated by geographic region. All regions reported most agreements in these areas. These were highest in Europe, followed by Asia and North America. Administrative science and clinical service agreements were most often reported in North America. Although the total number was small, more than one-half of the Primary Care exchanges were reported in Europe. Textbooks [24], equipment [12], computer software [10] and computer hardware [5] were reported as being provided to a collaborating institution by a number of respondents.

Interest in Establishing Agreements
Survey participants were asked to prioritize the type of program in which they might be interested in pursuing international involvement. The following program types were mentioned as a first or second priority, with the total number of times in descending order: teaching short term [35], research short term [30], research long term [26], faculty visit [22], and teaching long term (13). This seems to indicate our sample is most interested in establishing short-
term faculty exchanges. Although generally ranked lower than faculty programs, short-term student exchanges were of considerably more interest than other types of student programs.

The question asking respondents to prioritize those areas of collaboration they would be most interested in providing and in receiving was frequently not interpreted as expected. A number of respondents did not prioritize but used a check mark. The largest number of respondents [41] checked or used priority one for providing curriculum consulting. The geographic grouping indicated North American colleges were most interested in providing this collaboration, followed by those in Asia/Middle East. Research development was checked or marked as priority number one, the second most frequently. The geographic grouping showed again North America was most interested, followed by a European interest in providing this collaboration. The greatest interest in receiving collaboration was in research development. This was checked or priority one 45 times followed in decreasing order by computer development [33], curriculum [27], library [25], and facilities planning [21]. Research development by continent indicated that North America and the Asia/Middle East groupings were the most interested. Curriculum, although of less total interest in receiving collaboration, was of highest interest to Europe and the Asia/Middle East continental groups. Fifty percent of the respondents from Africa [3] for this question chose curriculum as their major interest.

CONCLUSIONS
One hundred-fifty-nine schools of pharmacy responded to this survey. Approximately 50 percent currently have agreements with other institutions. The respondents identified for this group of institutions will form a core group for the Academic Section of FIP to establish the Global Cooperative Project. Interest is indicated especially for short-term teaching and research collaboration. Student exchanges, although of less interest than faculty exchanges, are of sufficient interest for further exploration. The current agreements are generally in the traditional pharmaceutical sciences (pharmacokinetics, medicinal chemistry and pharmacology) with emerging interest in the newer pharmaceutical sciences (administrative and clinical). Institutions appear willing to share their expertise, especially in curriculum and research development. Institutions in our sample appear to be most interested in receiving research and curriculum development assistance.

The data may be further analyzed to determine if a different division of countries will identify more clearly a pattern of interest. In addition, further correspondence with the core group identified in the survey is planned.

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References