Summer Research Programs Spark Students' Biomedical Interests

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While the primary thrust of the Jefferson Medical College curriculum is toward excellent clinical education, the school offers three summer research training programs which have been successful in expanding student interest in the biomedical sciences and academic medicine.

Two of the three summer programs are externally funded, with the largest based in the Department of Radiation Oncology. Under the direction of Mahroo Haghbin, MD, P.I., and Ronald Coss, PhD, Co-P.I., each year 10 Jefferson medical students, 1 Penn State prematriculant, and 4 minority undergraduate students participate in clinical and basic research with faculty members who have funded cancer research projects. This program, which was originally established by George Alexander, MD, is funded by a multi-year grant from the National Cancer Institute. Another group of 8 Jefferson medical students participates in a program funded by the National Heart, Lung and Blood Institute. Directed by Allan Lefer, PhD, Chairman of the Department of Physiology, these students do research in heart, lung and blood areas with faculty members whose projects are separately funded by the NHLBI.

With funding provided by the Medical College, 8 students participate annually in the General Medical Research Program. Faculty members are solicited to submit projects to a subcommittee of the Committee on Research, which matches students and programs. Any type of basic or clinical science project including epidemiology is eligible for participation, with 3 of the positions designated for computer-based research in conjunction with Academic Computing. Research projects have been as varied as the development of educational videotapes, such as "Nutrition and the School-Age Child," to characterization of gene rearrangements in primary human brain tumors.

All student participants in these programs receive a stipend of $1,833- for their 10 week programs. In addition, participants who submit a manuscript in appropriate format to their coordinator after completing the program are eligible for a tuition rebate of $1,000- in the following academic year. To encourage publication the Medical College offers $2,000 per year in travel support funds, matching funds provided by investigators or their departments, up to $400- per student. These awards permit the selected students to travel to national meetings to present their accomplishments. Since 1986,104 manuscripts and abstracts have been published by student participants in these programs. A number of student participants have also received awards on Class Day in recognition of their research activities.

Overall institutional coordination of these programs is done by Kenneth P. Chepenik, PhD, Professor of Pathology, Anatomy and Cell Biology, and Coordinator for Special Programs, Office of Scientific Affairs.

Using data collected for the years 1983-1987 Mohammadreza Hojat, PhD, of the Center for Research in Medical Education and Health Care, is studying outcomes from Jefferson's summer research programs. His preliminary analysis indicates that medical student participants were twice as likely (15%) to take a position in academic medicine as were their nonparticipating classmates (8%). The high caliber of students attracted to the summer programs is documented by the finding that
participants had higher MCAT scores and higher grade-point averages than did the nonparticipating students of the same classes.

At this time it is not possible to determine whether these research programs attract very high caliber students who are inclined to do research, or whether they alter career choices. It may be that the major impact of the programs is the providing of an opportunity to reinforce or confirm a participant’s predisposition toward a career in the biomedical sciences. Without such an opportunity the student might abandon the notion of such a career.

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