Prospect for Undergraduate — Graduate Pharmaceutical Research to Achieve Pharmaceutical Identity

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Graduate research has great significance in the 6-year course of pharmaceutical education in the sense that students can, without exception, improve their troubleshooting skills. In professional activities they will be assigned to after graduation, students will encounter various problems that will surely affect the lives of patients in many cases. Troubleshooting is one of the most important skills needed in the workplace. The presence or absence of this skill is equivalent to the presence or absence of the ability to catch fish or game for the person who has drifted ashore on an uninhabited island. Within the time constraints of the 6-year course, students must master a certain level of troubleshooting ability. It is difficult to assess this skill in a collective test; thus, universities should approach graduate research positively and innovatively. Graduate research reflects the characteristics, individuality and competence of a university. It may be effective to organize meetings for the presentation and assessment of graduate research according to certain criteria.

Through on-the-job training, students accumulate job experience at outside medical institutions and acquire information about clinical settings. However, the level of understanding differs from instructor to instructor. Unless instructors specializing in basic sciences and those specializing in medical sciences have or are aware of "drug-related central dogma" (drug discovery, proper use of drugs, drug development procedures) and have a certain degree of understanding about what happens in the clinical setting, it is impossible to differentiate achievement in graduate research after the 6-year course from that after the existing 4-year course. Students will surely master troubleshooting skills irrespective of the focus of the research, but instructors should also understand what the students will experience in the clinical setting. This will be the first step in establishing a fruitful system for graduate research in the 6-year pharmaceutical course.