MODEL CORE CURRICULUM FOR PHARMACY EDUCATION

-2015 version-

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PREFACE

Progress in advanced science and technology for the development and application of pharmaceuticals is dependent on the availability of highly skilled pharmacists and pharmaceutical researchers. Pharmacists of the future should have an international outlook and be committed to lifelong learning. University and college faculties and departments of pharmaceutical sciences play a major role in ensuring that pools of such pharmacists and pharmaceutical researchers are available by improving the quality of pharmacy education offered and meeting social responsibilities to uphold the highest standards for their qualification. To achieve those goals, Japanese educators reviewed the curriculum content from the viewpoint of overall pharmacy education and reorganized the courses from a "teacher-centered" to a "learner-focused" format.

The Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) compiled the first version of the *Model Core Curriculum for Pharmaceutical Education*, which was published by the Pharmaceutical Society of Japan in August 2002. That volume was used during the period of transition (starting in 2006) of tertiary pharmaceutical science education from a 4-year to a 6-year course. Enrollment in the 6-year course has shown steady growth since its introduction. Evaluations of the new curriculum for the education of pharmacists, which includes practical hospital and pharmacy training, indicated that it represents an improvement over the previous, traditional format.

Approximately 10 years after the initial curriculum was published, the *Model Core Curriculum for Pharmacy Practice Experiences* was separately collected in an additional volume. During and after the transition period in pharmacy education, certain problems in applying the new curriculum became evident, for example: 1) The scientific content had become outdated. 2) The practical training aspects needed to be improved to reflect progress in various medical fields. 3) The content was overabundant, because the curriculum was developed as a stacked system, making it difficult to demonstrate the uniqueness of university education for pharmacists. 4) In addition to training activities, the importance of research also needed to be emphasized. Therefore, MEXT and the Pharmaceutical Society of Japan set up multiple committees to examine revision of the curriculum.

The subsequent revision of the *Model Core Curriculum for Pharmacy Practice Experiences* addressed five main points. 1) The contents were reduced to coverage of the model core curriculum, with 70% equivalent to the number of education courses and the remaining 30% offering specialized educational text. 2) The "Pharmacy Practice Experiences" and "Research" regions were enhanced. 3) The format of the curriculum-based contents focused on the application of an "outcome-based education" system instead of the "ticked-off item system." 4) The 10 required items upon graduation from the 6-year course were grouped under "Professional Competencies for Pharmacists." 5) Learning areas were clearly distinguished under seven major headings.

This *Model Core Curriculum for Pharmacy Education (2015 Version)* was also developed through a process of review and revision, including MEXT approval, and has been used by newly enrolled students

in pharmaceutical science faculties since 2015. Major new features of this curriculum are: 1) The focus was changed to outcome-based education in terms of "Professional Competencies for Pharmacists." 2) To help students acquire the final "Professional Competencies for Pharmacists," general instructional objectives (GIOs) and specific behavioral objectives (SBOs) were set. 3) Text related to Items A to G was edited to minimize the number of pages covering carefully selected contents. 4) The "Pharmacy Practice Experiences" and "Research" sections were limited to actual practices in hospitals and pharmacies and those that can be carried out in all faculties and departments of pharmaceutical science, respectively.

Continuing advances in pharmacist technology and drug development are remarkable, although they are accompanied by rising healthcare costs in developing countries. It is therefore an urgent task to globalize medical education, including that in the pharmaceutical sciences. In recognition of that reality, Japan will continue efforts to ensure that its education system, curriculum content, and knowledge taught meet or exceed international standards. The *Model Core Curriculum for Pharmacy Education (2015 version)* is therefore consistent with the WHO 8-star pharmacist concept for optimum pharmaceutical care and decision making.

PROFESSIONAL COMPETENCIES FOR PHARMACISTS

- 1. **Professionalism**: Fulfill the legal, ethical, and professional responsibilities of pharmacists.
- 2. **Patient-oriented attitude**: Respect the rights of individuals and promote the health and welfare of patients and consumers.
- 3. **Communication skills**: Communicate effectively with patients, consumers, and other healthcare professionals to provide necessary information.
- 4. **Interprofessional team-care**: Collaborate with healthcare teams in hospitals and regional communities.
- 5. **Basic sciences**: Understand the effects of medicines and chemicals on living bodies and the environments.
- 6. **Medication therapy management**: Contribute to the optimal use of medicines through pharmaceutical care.
- 7. **Community health and medical care**: Contribute to public health and pharmaceutical hygiene and enhance community healthcare and home care.
- 8. **Research**: Engage in research on drug development and the appropriate use of medicines to improve the healthcare environment.
- 9. **Lifelong learning**: Continue lifelong professional development in response to the advances in healthcare.
- 10. **Education and training**: Contribute to the development of the next generation of professional pharmacists.

To ensure that pharmacists acquire professional competencies, general instructional objectives (GIOs) and specific behavioral objectives (SBOs) were established.

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* Preface

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