[Outline and Purpose of the Course]

Director and Instructors:
(Director) Koji Kawakami (Professor, Pharmacoepidemiology) Shiro Tanaka (Program-specific Professor, Clinical Biostatistics), Junko Komura (Setsunan Univ.), Yasuhiro Fujiwara (National Cancer Center), Miyuki Niimi (Saku General Hospital), Christian Elze (Catenion), Haruko Yamamoto (National Cerebral and Cardiovascular Center), Hiromu Kutsumi (Shiga Univ. Of Medical Science), Ikuo Horii (Cambridge Univ.), Yoko Uryuhara (Doshisya Univ.), Shigeyuki Wakitani (Mukogawa Women's Univ.), Hisashi Urushihara (Keio Univ.), Shinya Kimura (Japan Medical Data Center), Yoshie Onishi (CreativCeutical)

The development strategy, protocol design, project management, safety/efficacy assessment, and economic evaluation of drugs and medical devices will be lectured. The development of drug and medical device and the regulatory review in terms of manufacturing and control, nonclinical studies, clinical protocol, the new drug applications, and post-marketing will be discussed.

[Course Goals]

The idea of drug/medical device development and regulatory review will be understood.
To understand the strategy, protocol development, and project management of drug development and clinical trials.

[Course Schedule and Contents]

Lectures and discussions

- Lecture schedule
  October 4  Drug Development strategy and translational research (Tanaka)
  October 11 Industry R&D and regulatory reviewer training: nonclinical studies (Komura)
  October 18 Industry R&D and regulatory reviewer training: CMC (Kawakami)
  October 25 Industry R&D and regulatory reviewer training: protocol review of clinical trial (Fujiwara)
  November 8 Project management of clinical trial (Niimi)
  November 15 The changing Dynamics of Bio-pharmaceutical Innovation (Elze)
  November 22 Industry R&D and regulatory reviewer training: medical devices (1) (Yamamoto)
  November 29 Industry R&D and regulatory reviewer training: medical devices (2) (Kutsumi)
  December 6 Life cycle management of drug (Uryuhara)
  December 13 Data review and personalized medicine in drug development (Horii)
  December 20 Industry R&D and regulatory reviewer training: postmarket (Urushihara)
  December 27 Health economy and outcomes research: Practice (Onishi)
  January 10 Industry R&D and regulatory reviewer training: regenerative medicine (Wakitani)
  January 17 Application of medical database in evaluation of health care (Kimura)
  January 24 Sight visiting of Kobe medical cluster
**[Class requirement]**

You must take this course along with the course H074 Drug policy and regulations and H079 Drug development, evaluation and regulatory sciences of Wednesday 2nd of the second semester for you to acquire fundamental understanding of the field.

**[Method, Point of view, and Attainment levels of Evaluation]**

Participation (50%) and report (50%)

**[Textbook]**

Suggested reading:

**[Reference books, etc.]**

(Reference books)
Introduced during class

**[Regarding studies out of class (preparation and review)]**

Preparation in advance and review after lecture

(Others (office hour, etc.)

Koji Kawakami (3F, Bldg G) appointment required by email.
e-mail: kawakami.koji.4e@kyoto-u.ac.jp

*Please visit KULASIS to find out about office hours.*