

## ***Research and development in the pharmaceutical industry***

The objective of the course is to provide an overview of the preclinical research and development process of today's pharmaceutical industry. Participants will be led through the process from the generation of an idea to nominating a drug candidate. Following the presentation of the basic principles, tools, and approaches in drug discovery their implementation will be showcased through 3 case studies. The major stages following the declaration of a preclinical candidate are also be discussed, although in less detail. The course is delivered by leading expert of the discussed subject areas.

The individual lectures will cover the following topics:

- 1, The process of drug discovery and development (Andras Kotschy, Servier)
- 2, Original drug discovery I – from an idea to a research program (Andras Kotschy, Servier)
- 3, Original drug discovery II – from a hit to a drug candidate (Andras Kotschy, Servier)
- 4, Novel therapeutic approaches – future directions (Andras Kotschy, Servier)
- 5, The life of the drug in our body – absorption, distribution, metabolism, excretion (Andras Kotschy, Servier)
- 6, Case study I – a kinase inhibitor research program (Andras Kotschy, Servier)
- 7, Case study II – a protein-protein interaction inhibitor research program (Andras Kotschy, Servier)
- 8, Case study III – CNS drug discovery (János Éles, Gedeon Richter)
- 9, Generic drug discovery and chemical process development (Balázs Volk, EGIS)
- 10, Preclinical product development (Ádám Dávid, EGIS)
- 11, Clinical research (Kata Mazalin MD, Servier)
- 12, Intellectual property – patenting (Laszlo Filák, SZTNH)