SS03-4 **The case study to logical design and synthesis of nuclear receptor ligands; PPAR agonists as an example**

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Recently, as you aware, it is very difficult to create and explore new drugs for the treatment of various kinds of disease. Although it is well recognized that there exist a high wall at the final stage of the development, but current status clearly indicated that the initial step to find high quality lead compound to explore is also a problem. To obtain the intellectually refined lead, the researchers are always do their best. However, there is no royal road to discover new drug lead easily. I think the importance of the integration of each resources of the compound library construction, the compound synthesis, the assay of the compound efficacy, the molecular modeling analysis technics, and the X-ray crystal structure analysis. In this symposium, I would like to talk about this integration study, using the design and the synthesis of subtype-selective PPAR ligand as an example.