NCGG SEMINAR

"Targeting BCL-2 Family-Regulated Cell Death for Cancer Treatment "

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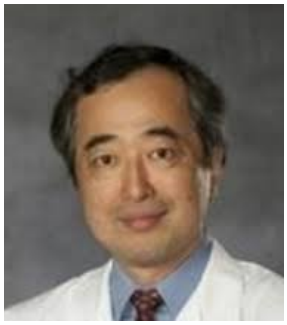

Time and Date: at **10:30 ~ 11:30** on **21 Oct, 2019 (Mon)**

Room: **The 2nd floor Conference Hall Small in the 1st Research building, NCGG**

Targeted molecular agents have revolutionized cancer care. The BCL-2 family members have long been understood to play key roles in mitochondrial integrity, serving as the key signaling nexus between kinase cascade-driven growth and survival/death signals, and they can also be found genetically altered in human cancers. Indeed, the FDA-approval of the BCL-2 homology (BH)3 domain mimetic, venetoclax (ABT-199) is the first clinically approved BCL-2 family member targeted therapeutic, bringing BCL-2 family member inhibitors into the spotlight. This presentation will highlight the current state of this exciting time for BCL-2 family member targeted therapies, by focusing on the BCL-2 BH3 mimetic, venetoclax and the dual BCL-2/BCL-X_L BH3 mimetic, navitoclax (ABT-263). I will discuss how these drugs may be combined with other currently available drugs to overcome resistance and induce robust clinical responses. Lastly, the use of navitoclax as a "senolytic" agent for combination therapies will be discussed.

<Reference>

1. Britt EL et al. Combination of fenretinide and ABT-263 induces apoptosis through NOXA for head and neck squamous cell carcinoma treatment. ***PLoS One*** 2019; 14, e0219398.
2. Lochmann TL et al. Venetoclax is effective in small cell lung cancers with high BCL-2 expression. ***Clin Cancer Res*** 2018; 24, 360-369.
3. Sieben et al. Two-step senescence-focused cancer therapies. ***Trends Cell Biol*** 2018; 28, 723-737

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