School of Life Sciences Seminar Series

No. 2019-19

Thu., 5 September, 4:00pm



Jukhyun Bio Auditorium(RM.121)

Korean

High Throughput Compound Library Screen and High Content Image **Analysis for Cancer Drug Study**

Speaker | Sang Kyun Lim, Ph.D.



Affiliation | Kanaph Therapeutics



Host | Prof. Steve K. Cho



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Speaker
Sang Kyun Lim, Ph.D.

Education/Experience

2001	B.S., Seoul National University, Department of Microbiology, Republic of Korea
2006	Ph.D., University of Wisconsin-Madison, Cancer Biology, McArdle Laboratory for Cancer Research, USA
	Advisor: Dr. F. Michael Hoffmann
2001-2006	Graduate student, Lab. of Dr. F. Michael Hoffmann, University of Wisconsin – Madison, Madison, USA
2007-2011	Postdoctoral Fellow, Lab. of Dr. Luis F. Parada, UT Southwestern Medical Center, Dallas, USA
2011-2016	Instructor, Lab. of Drs. Luis F. Parada and Jef De Brabander, UT Southwestern Medical Center, USA
2016-2018	Senior Staff Scientist, Harvard Program in Therapeutic Science, Harvard Medical School, Boston, USA
	Supervisor: Drs. Peter K. Sorger and Lau <mark>r</mark> a E. Maliszewski
2018-2019	Principal Sci <mark>e</mark> ntist, Vivid Biosciences, Bo <mark>s</mark> ton, USA
2019-present	Sr. Vice President, Kanaph Therapeutics <mark>,</mark> Seoul, Korea

Abstract

Glioblastoma multiforme is one of the most invasive and lethal cancers, with about one year of median survival rate. To identify compounds that provide new therapeutic strategies, we have screened 200,000 compound library, specifically targeting the primary cancer cells we established directly from the mouse brain tumors. We successfully finished the screen and are pursuing about 50 lead compounds in order to test in vivo animal models and also to investigate the mechanism of each compound. Three chemotypes are of particular interest, of which cellular target pathways were identified by multiple approaches with molecular, cellular, pharmacokinetic, and biochemical characterization. In addition, I will also introduce the newly developed technology, cyclic immunofluorescence (cyclF), from the LSP (Laboratory o Systems Pharmacology) at Harvard medical school. As an example of application, our study on the heterogenous drug response of cancer cells with high content image analysis will be presented.

