

NCRIS Virtual Seminar Series

Non-canonical mutations: diamonds in the rough.

Abstract:

Oncogenic activating mutations in the ATP binding sites of receptor tyrosine kinases are potent tumor drivers in a variety of cancers. However, clinical data indicates these oncogenes also can be activated by mutation in regions that are far removed from the active site, and we sought to understand their mechanisms of activation.

Functional validation of non-canonical driver mutations has led us to conclude that in individual oncogenes there are multiple active conformations, many of which result in an alternate drug selectivity pattern. We show that rare and recurrent driver mutations in well-known oncogenes (ErbB, FGFR, BRAF, PI3K etc.) can be grouped into novel druggable families that merit clinical study.

Evaluation of population-level NGS data from cancer patients suggests a complex mutation landscape from which novel families of rare and recurrent driver mutations can be derived.

Speaker:



David M. Epstein, Ph.D.

Adjunct Associate Professor & Peripatetic Scholar,
CSCB, Duke-NUS

Founder & CEO, Black Diamond Therapeutics

David M. Epstein has led large and small R&D teams in academic, start-up, mid-size, and global-pharma settings. His teams have progressed multiple novel agents through development in oncology, cardiovascular disease, and retinal degeneration. Prior to his role as Black Diamond's CEO (2019), David was Vice Dean, Innovation & Entrepreneurship, and Associate Professor in Cancer & Stem Cell Biology, at Duke-NUS Medical School (2013-2018).

Date:

20th July 2020
(Monday)

Venue:

via Zoom

For details:

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Time:

11am-12noon

Host:

David Virshup

Professor & Director
Programme in Cancer &
Stem Cell Biology
Duke-NUS Medical School
Singapore

**No registration is
required.**

All are welcome.

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