［附件二　技術介紹］

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Technology/ Title	DBPR114: an IND Approved Multi-targeted Kinase Inhibitor for Anticancer	
Technology Type	☐Biotechnology	☐Device/Diagnostics
	■Pharmaceutical	☐Others:_____-
Contact Person	Name: Po-Hsuan Sung	Title: Project Manager
	Telephone(work): +886-37-246-166 ext. 35702	Mobile: N/A
	Email: phsung@nhri.org.tw	
Link	http://ibpr.nhri.org.tw/zhtw/wp-content/uploads/2019/02/New-2018_NCR-of-DBPR114_20181219.pdf	
Technology Description	DBPR114 is a novel small molecule multi-target kinase inhibitor with potent activities against more than 57 oncogenic kinases, including Aurora-A, TRKA, FLT3, PDGFR β, VEGFR1, VEGFR2, TYRO3/RSE, CSF1R, MET, TEK, PTK2B/PYK2, EPHA4, RPS6KA2/RSK3 and RET. DBPR114 is classified as potent multiple kinase inhibitors. Furthermore, DBPR114 significantly shrank tumor growth of 8 different cancer cells in vivo including Mia-Paca2, AsPC-1 (pancreatic cancers), Hep3B (hepatocellular carcinoma), MKN-45 (gastric cancer), MOLM-13 and MV4;11 (acute myeloid leukemia), NTUB-1 (bladder cancer) and Colo-205 (colorectal cancer) by intravenous administration. These results indicate the potential of DBPR114 as a novel development candidate for various cancers, including AML, pancreatic, liver and gastric cancers, and all important cancers currently without very effective treatments. It is our hope that this novel multi-targeted agent can positively impact both the overall survival and the quality of life of patients.	

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Intellectual Property	Patent title: Fused multicyclic compounds as protein kinase inhibitors Granted USA (US9,006,252B2); Taiwan, ROC (I400242); China (ZL200980137849.0); Hong Kong (HK1163089); Macao (J/002109); Europe (11 countries, EP2331530B1); South Korea (10-1718386)
Key Publications	1. Hsu, Y.C., Coumar, M.S., Wang, W.C., Shiao, H.Y., Ke, Y.Y., Lin, W.H., Kuo, C.C., Chang, C.W., Kuo, F.M., Chen, P.Y., Wang, S.Y., Li,

	A.S., Chen, C.H., Kuo, P.C., Chen, C.P., Wu, M.H., Huang, C.L., Yen, K.J., Chang, Y.I, Hsu, T.A., Chen, C.T., Yeh, T.K., Song, J.S., Shih, C., Hsieh, H.P.. Discovery of BPR1K871, a quinazoline based, multi-kinase inhibitor for the treatment of AML and solid tumors: Rational design, synthesis, *in vitro* and *in vivo* evaluation. ***Oncotarget***, 7 (52), 86239-86256, 2016.
Business Opportunity	The success of multi-targets drugs provides promising opportunities for chemo-resistant and hard to treat cancers, particularly to those high incidence, prevalence, and high mortality cancers in Taiwan. DBPR114 has demonstrated broad spectrum antitumor activities against a variety of human cancer lines both *in vitro* and *in vivo*. Hence, the clinical potential of DBPR114 may provide therapeutic benefit over existing treatment modalities for the tough to treat cancers such as pancreatic, liver and gastric cancers. DBPR114 thus has the potential to be developed as first-in-class asset for GI cancers (gastric, liver, pancreas, colon, and bladder) and acute myeloid leukemia (AML).