ID No.	K2006	
Project Title	Establishment of drug testing system for a precision medicine in	
	cholangiocarcinoma	
Principal	Watcharin Loilome (Associate Prof., Kohn Kaen Univ.(KKU))	
Investigator		
Project Members		
IMSUT Host	Yoshinori Murakam	(Prof., IMSUT)
Researcher Members	Narong Khuntikeo	(Associate Prof., KKU)
	Attapol Titapun	(Surgeon, KKU)
	Hasaya Dokduang	(Research Associate, KKU)
	Poramate Klanrit	(Postdoc, KKU)
	Jutarop Petcharaburanin	(Postdoc, KKU)
	Daisuke Matsubara	(Prof., Tsukuba Univ.)
	Motoi Oba	(Research Associate, IMSUT)
	Yutaka Kasai	(Research Associate, IMSUT)
	Takeshi Ito	(Assistant Prof., IMSUT)

Report

In this collaboration, we have challenged multi-omics and drug sensitivity analyses of patient-derived CCA tissues from Thailand and Japan by several new techniques in molecular pathology, including histo-culture drug response assay (HDRA), patient-derived xenografts (PDX), and patient-derived organoids (PDO). Extensive screening systems of cell adhesion molecules, which was established by IMSUT team, has been used to identify possible key molecules in malignant progression of CCA, including those involved in cancerstromal cells interactions, such as immune cells and vascular endothelial cells, in CCA. In these 3 years, we preliminary generated HDRA, PDX and PDO in CCA by exchanging the information through E-mail discussion and Zoom meeting, instead of direct collaboration by visiting scientists from KKU to IMSUT, which could not be achieved due to COVID-19 pandemic. Since this collaborative project has been accepted in 2022, we are planning a Zoom meeting by all members in Thailand and Japan someday from January to March, 2023.