

DATE: Day 23 Month 4 Year 2019

**SUMMARY of**  
**2018 RESEARCH RESULTS REPORT**  
**For International Collaborative Research with IPR, Osaka University**

<b>Research Title</b>		Structural and functional studies on protein-protein complexes and oncogenic factors involved in continuous active transcription and <i>Helicobacter pylori</i> -dependent carcinogenesis
<b>Applicant</b>	<b>Name</b>	Kim, Hyoun Sook
	<b>Affiliation</b>	National Cancer Center, Korea
	<b>Present Title</b>	Senior researcher/ Principal investigator
<b>Research Collaborator (Host PI)</b>		Prof. Atsushi Nakagawa and Prof. Eiki Yamashita (Host PI: Prof. Atsushi Nakagawa)
<b>Summary</b>		
<p>Transcription of certain oncogenic genes are disproportionately sensitive to inhibition of the “continuous active transcription”, which is controlled by a set of ‘transcriptional Cdks’ and affect certain cancer types such as triple-negative breast cancer. We tried to solve three-dimensional structures of the specific transcriptional-Cdk, as a novel potential therapeutic target. As another major target for new drug discovery, we have studied the project for human-pathogenic bacterial proteins that affect human cell adhesion and tumor development. In this beam time, we have collected many data sets for <i>E. faecalis</i> VanY, <i>H. pylori</i> protease and GTases from <i>L. pneumoniae</i> and <i>S. aureus</i>, as well as human NIBL1 and NDRG3, with or without their ligands. From those data, we could determine crystal structures and get the several ligand-bound structures. As one of these results, the research article about structural studies on <i>E. faecalis</i> VanY has been published. Also, one research paper will be submitted soon and writing manuscripts for two targets are in preparation.</p>		

**\*Deadline: May 17, 2019**

**\*Please submit it to E-mail: tanpakuken-kyoten@office.osaka-u.ac.jp.**

**\*We accept only PDF file. Please file it after converting WORD to PDF.**

**\*Please describe this summary within 1 sheet. Please DON'T add some sheets.**

**\*This summary will be published on the web.**