

## 2021 Joint Usage and Research Report

Title of Research Project		<b>Identification and characterization of novel coding and non-coding genes regulating the innate immunity during virus infection and cancer. (The Sixth Phase)</b>		
Applicant	Institution	<b>Indian Institute of Science Education and Research (IISER), Bhopal, Madhya Pradesh, India</b>	Under40 put a <input type="radio"/>	Under35 put a <input type="radio"/>
	Job title and Name	<b>Dr. (Ph.D.), Associate Professor Himanshu Kumar</b>		
Research collaborators (Please add lines as appropriate)	Institution	<b>Institute for Genetic Medicine (IGM), Hokkaido University</b>		
	Job title and Name	<b>Professor Akinori Takaoka</b>		
	Institution			
	Job title and Name			
Host researcher at IGM		<b>Professor Akinori Takaoka</b>		
Purpose of the Research Project (approx. 250 words)		Innate immunity is a major arm of immunity against plethora of microbial infection including viruses. Sensing of microbe through PRRs (sensors) induces innate cytokines through interaction of cascade of molecules such as adaptors, kinases and transcription factors. The expression of these molecules is tightly regulated at transcriptional, post-transcriptional, translational and post-translational levels. We have identified a novel gene, Rnd1 that play critical in regulation of innate immune responses against bacterial and viral infection.		
Development of the Research Project and Results (approx.. 850 words) *Enter the number of web meetings.		We could not visit IGM, Hokkaido University due to current pandemic situation worldwide. However, we had several email discussions through email exchanges to obtain the progress of the project and pre-requisite results and communicated below paper, currently the revised paper has been submitted.  Kumar A, Mishra S, Kumar A, Raut AA, Sato S, <b>Takaoka A, Kumar H*</b> , <i><b>Essential role of Rnd1 in innate immunity during viral and bacterial infections. Communicated (# &amp; *)</b></i>		
Publication *Enter the information of conference or journal (vol. page. Year.) where the above work was presented.		<div>【Conference, symposium, workshop etc.】</div> <div> <b>【Journals】</b>  Kumar A, Mishra S, Kumar A, Raut AA, Sato S, <b>Takaoka A, Kumar H*</b>, <i><b>Essential role of Rnd1 in innate immunity during viral and bacterial</b></i> </div>		

	<i>infections. Communicated (# &amp; *)</i>
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