

2020 Joint Usage and Research Report

Title of Research Project		Identification and characterization of novel coding and non-coding genes regulating the innate immunity during virus infection and cancer. (The Fifth Phase)		
Applicant	Institution	Indian Institute of Science Education and Research (IISER), Bhopal, Madhya Pradesh, India	Under40 put a <input type="radio"/>	Under35 put a <input type="radio"/>
	Job title and Name	Dr. (Ph.D.), Associate Professor Himanshu Kumar		
Research collaborators (Please add lines as appropriate)	Institution	Institute for Genetic Medicine (IGM), Hokkaido University		
	Job title and Name	Professor Akinori Takaoka		
	Institution			
	Job title and Name			
Host researcher at IGM		Professor Akinori Takaoka		
Purpose of the Research Project (approx. 250 words)		<p>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 miRNAs that play critical in regulation of innate immune responses in term of production of inflammatory cytokines and type I and III interferons.</p>		
Development of the Research Project and Results (approx.. 850 words) *Enter the number of web meetings.		<p>We could not visit IGM, Hokkaido University due to current pandemic situation worldwide. However, we had several email discussion through email exchanges to obtain the progress of the project and pre-requisite results and published below paper.</p> <p>Mishra R, Bhattacharya S, Rawat BS, Kumar A, Kumar A, Niraj K, Chande A, Gandhi P, Khetan D, Aggarwal A, Tailor P, Takaoka A, Kumar H*, <i>The microRNA-30e-5p has an integrated role in the regulation of the innate immune response during virus infection and systemic lupus erythematosus</i>, <i>iScience</i>, https://doi.org/10.1016/j.isci.2020.101322 ((# & *))</p>		

<p>Publication</p> <p>*Enter the information of conference or journal (vol. page. Year.) where the above work was presented.</p>	<p>【Conference, symposium, workshop etc.】</p> <p>Nil</p> <p>【Journals】</p> <p>Mishra R, Bhattacharya S, Rawat BS, Kumar A, Kumar A, Niraj K, Chande A, Gandhi P, Khetan D, Aggarwal A, Tailor P, Takaoka A, Kumar H*, <i>The microRNA-30e-5p has an integrated role in the regulation of the innate immune response during virus infection and systemic lupus erythematosus</i>, iScience, https://doi.org/10.1016/j.isci.2020.101322 ((# & *))</p>
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