2022 Joint Usage and Research Report

<table>
<tr><td colspan="2">Title of Research Project</td><td colspan="3">STAT3 isoforms in host-parasite interaction</td></tr>
<tr><td rowspan="2">Applicant</td><td>Institution</td><td>Karl Landsteiner University of Health Sciences</td><td>Under40
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<tr><td>Job title and Name</td><td>Prof. Dagmar Stoiber-Sakaguchi</td><td></td><td></td></tr>
<tr><td rowspan="4">Research collaborators
(Please add lines as appropriate)</td><td>Institution</td><td></td><td></td><td></td></tr>
<tr><td>Job title and Name</td><td></td><td></td><td></td></tr>
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<tr><td colspan="2">Host researcher at IGM</td><td colspan="3">Prof. Akinori Takaoka</td></tr>
<tr><td colspan="2">Purpose of the Research Project (approx. 250 words)</td><td colspan="3">STAT3 is the main mediator of interleukin (IL) 6-type cytokine signaling and exists in two alternatively spliced isoforms, the full-length STAT3alpha and the shorter form STAT3beta. Deregulated JAK/STAT signaling is often associated with cancer development. Especially STAT3 has been frequently described to have an oncogenic role, however, recently it has been also shown to have a tumor suppressive role in different contexts. One reason for this could be its presence as two alternatively spliced isoforms. We have previously shown that STAT3beta acts as a tumor suppressor in acute myeloid leukemia (AML) and that the balance of the two STAT3 isoforms is key in predicting outcome of AML patients. A high STAT3beta/STAT3alpha ratio correlates with favorable disease outcome in AML. As STAT3 is also induced by type I interferon (IFN) we would be interested in testing the expression levels of the distinct isoforms in the context of host-parasite interaction and which roles the two isoforms play therein.</td></tr>
<tr><td colspan="2">Development of the Research Project and Results
(approx.. 850 words)
*Enter the number of web meetings.</td><td colspan="3">Due to personal reasons of the applicant the research visit to the host researcher laboratory (originally planned for February 2023) could not be carried out. Due to the short remaining time of the potential funding time for the research visit it could not be done anymore in this period (until the end of March 2023).</td></tr>
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Publication *Enter the information of conference or journal (vol. page. Year.) where the above work was presented.	【Conference, symposium, workshop etc.】
	【Journals】