December 30, 2019

The Honorable Ronald D. Kouchi,  
President and Members of the Senate  
Thirtieth State Legislature  
Honolulu, Hawai‘i 96813

The Honorable Scott Saiki, Speaker  
and Members of the House of Representatives  
Thirtieth State Legislature  
Honolulu, Hawai‘i 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

For your information and consideration, the University of Hawai‘i is transmitting one copy of the Report on High Incidence of Liver and Bile Duct Cancer (Act 265, Session Laws of Hawai‘i 2019) as requested by the Legislature.

In accordance with Section 93-16, Hawai‘i Revised Statutes, this report may be viewed electronically at: https://www.hawaii.edu/offices/government-relations/2020-legislative-reports/.

Should you have any questions about this report, please do not hesitate to contact Stephanie Kim at 956-4250, or via e-mail at scskim@hawaii.edu.

Sincerely,

David Lassner  
President

Enclosure
REPORT TO THE 2020 LEGISLATURE

Report on High Incidence of Liver and Bile Duct Cancer in Hawai‘i

Act 265, SLH 2019

December 2019
The 2019 Hawai'i State Legislature appropriated funds to the University of Hawai'i Cancer Center (UHCC) to determine the etiologies of the high incidence of liver and bile duct cancer in Hawai'i. The report will contain UHCC's findings, including how the appropriated funds will be spent.

The appropriated funds were not released until late October 2019. Funds were allocated to projects to conform to the guidelines and intent of the legislation, in order to conduct research to determine the etiologies of the high incidence of liver and bile duct cancer in Hawai'i. The projects are as outlined in the table below.

### Liver Cancer Legislative Allocation

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>UHCC Principal Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Liver Fluke and Aflatoxin as an etiology for liver and bile duct cancer</td>
<td>Yu, Jia</td>
</tr>
<tr>
<td>2019</td>
<td>Immunotherapy of liver cancer (IIT)</td>
<td>Acoba</td>
</tr>
<tr>
<td>2019</td>
<td>Solicited proposals</td>
<td></td>
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<tr>
<td></td>
<td>1. Oral microbiome and HCC risk</td>
<td>1. Hernandez</td>
</tr>
<tr>
<td></td>
<td>2. Non-alcoholic steatohepatitis (NASH) and hepatocellular cancer</td>
<td>2. Kuwada</td>
</tr>
<tr>
<td></td>
<td>3. Identify signature of exosomal miRs transferred from TAMs to HCC and mechanism of PDL-1 upregulation in HCC by TAM-derived exosomal miRs</td>
<td>3. Fabbri</td>
</tr>
<tr>
<td></td>
<td>4. Pet imaging and liquid biopsy detection of CTNNB1 exon 3 mutations in HCC</td>
<td>4. Kwee</td>
</tr>
</tbody>
</table>

Research is ongoing and it is too early to report on results from these investigations. An interim report will be made available by January 2020 with results available to that date. A full report outlining all results from this year of funding will be made available by July 2020. In that final report, full accounting for all funds spent will be included.

Randall F. Holcombe, MD, MBA
Director, University of Hawai'i Cancer Center
December 2019