Context: We recognize the need to strengthen and expand physician training AS WELL AS research & scholarship in JABSOM while also sustaining the important services performed in the community. And we support the SoM desire to open the doors for SoM faculty to engage in student instruction and mentoring across the Life Sciences on campus. Some of our recommendations mirror the SoM dean’s ideas from two years ago on department reorganization. We view our present situation as an opportunity to re-visit that discussion.

The 2016 program review team identified several issues that were common across the JABSOM MS and PhD programs:

- **Overall, the programs seem to recruit separately, and since at least two are distinct in their area, this seems an opportunity to grow the programs by cooperative recruitment. Since a significant number of students are from Hawai‘i, either from local schools or from mainland schools but who went to high school in Hawai‘i, and have reasons to want to be near family, identifying ways to target their recruitment, perhaps with the help of the Graduate Division, could have a good yield. This would also benefit training grant applications.** -- page 5

- **The absence of a traditional MD PhD program is an opportunity for the JABSOM to pair MD students with some PhD programs outside the traditional MD PhD joint program path to develop clinical scientists to serve the state.** – page 4

- The team identified the MS program as a missed opportunity for students to prepare for medical school, which could help with recruitment of Hawai‘i students into the MD program:

  *In this program and across JABSOM MS programs, determining a path for pre MD students to increase their preparation and competitiveness for medical school at JABSOM and other universities is a goal that would bring in revenue, if set up properly for tuition return, to help fund PhD program costs, especially things like recruitment.* –page 16
Department of Anatomy, Biochemistry & Physiology

Summary Recommendations

• Consider merging the Departments of Anatomy, Biochemistry & Physiology, Quantitative Health Sciences, and Cell & Molecular Biology.

• Consider stopping out admission to the MS and PhD in Developmental & Reproductive Biology; establish concentrations within the Cell & Molecular Biology programs.

• If graduate programs continue, recommend reviewing the role of the MS program and its relationship with the PhD and MD programs.

Details

• The Department offers the MS and PhD in Developmental and Reproductive Biology, and undergraduate courses in Biochemistry and Physiology to support STEM majors. The graduate programs were last reviewed in 2016.

• There are 8 enrolled in the MS and 9 in the PhD program. Tenure-track FTE is 11, down from 12.50 in 2014.

• The external review team identified several issues with the MS program that merit attention.

  If an MS is required for matriculation to the PhD this should be clear to all applicants, and the program should consider the fairness of this requirement since they accept PhD students into their labs from CMB, which does not have this requirement. … Furthermore, if these students are qualified as PhD students when applying this may send a wrong message as to the goal of the program in education versus in obtaining researchers to staff the labs…It appears most of these are prePhD, thus this is indeed a very small MS program and, in fact, a small PhD program. It is also not clear the curriculum requires a separate program. –page 16

• The team also recommended that the DRB programs be merged into the Cell & Molecular Biology program as a concentration. If the programs merge, may want to consider merging the departments as well.

  In addition, considering issues of curriculum, student support, and overlap of the faculty with the CMB program, transitioning the DRB program into a specialization within CMB, like Neuroscience appears warranted. This is an efficient way to enhance the student experience and address many of the concerns raised above. –page 16

• The Department offers undergraduate courses in Biochemistry and Physiology that support multiple STEM (undergraduate) majors. Faculty in Natural Sciences, however, are often at odds with the JABSOM faculty over primary instruction (which governs which unit is credited with SSH). At times, the Natural Sciences departments have insisted that Life Sciences faculty teach the courses. Given that these courses belong to JABSOM (through official subject code assignments
through IRAO), the rationale behind that argument doesn’t make sense. Recommend that positions pulled from Life Sciences be reallocated as joint hires with JABSOM to help resolve this and other issues across these units (see discussions under Life Sciences, and Cell & Molecular Biology).

Department of Cell & Molecular Biology

Summary Recommendations
- Consider merging the Departments of Anatomy, Biochemistry & Physiology, Quantitative Health Sciences, and Cell & Molecular Biology.
- Increase collaboration between faculty in the Life Sciences (Natural Sciences) and Cell & Molecular Biology. Reallocate faculty positions and split FTE across both units to facilitate collaboration.
- Recommend that the MS/PhD programs be jointly administered by the School of Life Sciences and JABSOM.

Details
- The Department offers the MS and the PhD in Cell & Molecular Biology. The graduate programs were last reviewed in 2016.
- There are 5 enrolled in the MS and 18 in the PhD program. Tenure-track FTE is 7.25, down from 10.25 in 2014.
- Per the website, the program draws faculty from across campus, including the Cancer Center, the Natural Sciences, CTAHR, and SOEST. The faculty list only includes one faculty member from Natural Sciences (Chemistry), however.
- The creation of the School of Life Sciences provides the opportunity for increased collaboration (research, courses, programs) between faculty in Natural Sciences and JABSOM. Recommend that the School of Life Sciences and CMB jointly administer the graduate programs. Reallocating faculty positions to provide for a split of FTE between these units could assist with this effort.

Department of Tropical Medicine, Medical Microbiology & Pharmacology

Summary Recommendations
- Review recruitment strategies for all Tropical Medicine programs, including the Graduate Certificate offered through extension.

Details
- The Department offers the MS, PhD, and the Graduate Certificate in Tropical Medicine, and courses in support of the Medical Technology (BS), Public Health,
Biology, and Medicine (MD) programs. The graduate programs were last reviewed in 2016.

- There are 7 enrolled in the MS, 12 in the PhD, and 5 in the Graduate Certificate. Tenure-track FTE is 9.58, down from 10.12 in 2014.

- In response to the 2014 program review, the Department began collaborating with Outreach College to offer the Certificate in Tropical Medicine online to increase enrollment. Per day-school enrollment, there are 5 students in the program, however there may be more enrolled through extension.

Department of Quantitative Health Sciences

Summary Recommendations

- Consider merging the Departments of Anatomy, Biochemistry & Physiology, Quantitative Health Sciences, and Cell & Molecular Biology.

- Reconsider the cohort model for the MS in Clinical and Translational Research.

- Work with Outreach College to make Clinical & Translational Research courses available to clinicians and scientists.

Details

- The Department offers the MS in Clinical and Translational Research. Admission to the PhD program is stopped out. The graduate programs were last reviewed in 2016.

- There are 10 students enrolled in the MS program. Tenure-track FTE is 4.00, up from 3.00 in 2014.

- The review team identified the cohort model as a weakness of the program as it limits enrollment. It is unclear from the website whether the program still operates this way. Enrollment has remained stable, averaging 10 students since 2012.

While there are inherent advantages in student networking with this model, it yields a small and less efficient program. The program director informed the committee that students not in the entering MS cohort are not allowed to participate in the curriculum. This is unfortunate because many of these courses could be of great value to many clinicians and scientists who could enrich the course discussion and who need to accomplish competencies of clinical research for career development, such as individuals on a T or K award. Desire for this training was specifically cited among Tropical Medicine students. Translational research education is a mainstay of training grant programs and lack of these educational opportunities may impede institutional development. Last year, only one new student entered the program. – page 9
Doctor of Medicine Program

Summary Recommendations

- Work with the state to increase the number of residency slots.
- Follow-up on findings of 2017 LCME accreditation review.
- Work with the Mānoa Assessment Office on assessment and curricular review strategies and to implement regular student surveys to monitor satisfaction with career advising.

Details

- The Medical Education units include the Departments of Medicine; Family Medicine & Community Health; Geriatric Medicine; Obstetrics, Gynecology & Women’s Health; Native Hawaiian Health (a few faculty); Pathology; Pediatrics; Psychiatry; and Surgery.
- The Doctor of Medicine is accredited by the Liaison Committee on Medical Education (LCME) in the Association of American Medical Colleges. The program was last reviewed in 2017. The next review is scheduled for the 2024-25 academic year.
- There are 289 enrolled in the MD program, up from 249 in 2012.
- Tenure-track and Non-Tenure-track FTE:

<table>
<thead>
<tr>
<th>Medical Education Department</th>
<th>Tenure Track</th>
<th>Non-Tenure Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine &amp; Community Health</td>
<td>2.00</td>
<td>4.81</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>2.00</td>
<td>8.88</td>
</tr>
<tr>
<td>Medicine</td>
<td>5.00 (down from 6.83 in 2012)</td>
<td>13.99</td>
</tr>
<tr>
<td>Native Hawaiian Health</td>
<td>8.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Obstetrics, Gynecology &amp; Women’s Health</td>
<td>1.00</td>
<td>19.22</td>
</tr>
<tr>
<td>Pathology</td>
<td>0 (down from 1.00 in 2012)</td>
<td>4.62</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>2.00 (down from 3.00 in 2012)</td>
<td>14.03</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>4.00</td>
<td>20.13</td>
</tr>
<tr>
<td>Surgery</td>
<td>3.00 (down from 2.00 in 2012)</td>
<td>14.05</td>
</tr>
</tbody>
</table>

- The School may benefit by working with the Mānoa Assessment Office on assessment and curricular review strategies, and to help monitor student satisfaction with career advising.
- LCME did not identify any concerns with respect to faculty FTE for medical education.
Department of Communication Sciences & Disorders

Summary Recommendations

• Follow-up on any outstanding issues or concerns in advance of Fall 2020 accreditation review.

• Follow-up on the status of the CSD “online BS” degree (program terminated in 2015, no WASC approval for online delivery).

Details

• The Department offers the professionally accredited MS in Communication Sciences and Disorders. The next review is scheduled for Fall 2020. There are 31 students enrolled in the program. The BS was terminated in 2015.

• Retention is high, with an average of 98% of the cohort completing the program (3-year average). The Praxis pass rate for the last 3 years is 100%. All graduates found employment within a year of graduation (per data for last three cohorts).

• The Department operates the Speech and Hearing Clinic, affiliated with the University Health Partners of Hawai‘i. Graduate students work with clients under the supervision of faculty to provide diagnostic evaluations and therapy to children and adults.

• Tenure-track FTE is 2.50. Non-tenure track FTE is 3.99.

• The BS in Communication Sciences and Disorders, which was never (WASC) approved for distance delivery, was terminated in 2015. Recommend follow-up on the status of this program.

• The results of the previous accreditation review were not available. The Department modified the program a month ago to bring course requirements into alignment with accreditation standards, presumably before the review this fall. Recommend following up with the Department to identify any outstanding issues or concerns that may affect accreditation.
Department of Medical Technology

Summary Recommendations

- Review industry standards to determine whether the KCC program is sufficient to meet state needs.

Details

- The Department offers the BS in Medical Technology, accredited by the National Accrediting Agency for Clinical Laboratory Science. The program (last reviewed in 2019) is accredited through 2030.

- There are currently 19 students enrolled in the program. Tenure-track FTE is 1.00. Non-tenure-track FTE is 1.55.

- In 2010, admission was stopped to modify the program as a 2+2 program with the KCC Medical Laboratory Technician (AS) program. Admission reopened in 2014. The change in structure has not resulted in increased enrollment.

- While there may be a state need for medical technicians, it’s unclear at what level training is needed to meet that need. Recommend a review of industry standards to determine whether the KCC program is sufficient to meet state needs.