I testified today at the BOR Planning & Facilities meeting in support of the construction of a new “Sinclair” building. I am attaching a written version of my testimony for the record and for any further consideration by the board.

Thank you,
Dr. Joseph Jarrett

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Joseph T. Jarrett
Professor and Associate Chair
Department of Chemistry
University of Hawaii at Manoa
Honolulu, HI 96822-2275
Phone: 808-956-6721
I wish to testify in support of the construction of a new building, “Sinclair Prime,” for teaching and research in Microbiology and Biology.

I am a Professor and Associate Chair of the Department of Chemistry, and the de facto Director of the undergraduate Biochemistry Program. In the 2012-13 academic year, under my leadership, the Chemistry Department initiated two new undergraduate degrees: B.S. and B.A. degrees in Biochemistry. In four years, our program has grown and now has approximately 130 majors, and at the current rate of growth, we anticipate the program will house 200 – 250 students within 3 – 4 years. As of May 2016, we will have conferred ca. 50 degrees, with our students going on to attend JABSOM, the UH Hilo School of Pharmacy, and science graduate programs within UH Manoa, as well as numerous graduate and professional schools on the mainland.

We believe strongly that students earning a degree in biochemistry must learn state-of-the-art techniques from faculty and graduate students by taking advanced laboratory courses in chemistry, biology, and microbiology. These courses require dedicated instructional laboratory space, and in many cases, that space must be customized and dedicated to certain types of experiments.

Within our the Chemistry Department, we currently have only two faculty members who teach the biochemistry-related courses required for this degree (largely due to the succession of hiring freezes within CNS), and we have no dedicated instructional space for teaching biochemistry labs (although renovation of one teaching lab is currently in the planning stages).

In order to initiate this major with such limited resources, and in part to avoid duplication of existing course content, we require our biochemistry majors to take several courses taught by the Biology, Microbiology, and MBBE departments. These include, for example, BIOL 275: Cell and Molecular Biology and BIOL 402: Principles of Biochemistry, courses which teach essential aspects of biology and for which instructional support is already well established within the Biology and MBBE Departments, respectively.

Also among these courses are several important highly-enrolled laboratory courses that are either required or are commonly taken by our majors:

- BIOL 275L: Cell & Molecular Biology Laboratory
- BIOL 375L: Genetics Laboratory
- MICR 351L: Biology of Microorganisms Laboratory
- MICR 461L: Immunology Laboratory

We anticipate that these courses will need to accommodate approximately 50 biochemistry majors per year, in addition to the students majoring in the biology, microbiology, marine biology, and botany. The ability of our students to graduate on time will depend on the availability of these courses, which depends on having additional and larger instructional teaching labs. In addition, the quality of instruction depends at least in part on the quality of the instructional space, and the current instructional labs in Sinclair must be updated or replaced.

In summary, I support the construction of a new teaching and research facility that will benefit all of our undergraduate biochemistry majors, as well as many other students, faculty, and scientists at University of Hawai‘i at Manoa.