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January 13, 2017

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Patrice Koehl, Professor, Computer Science and Genome Center
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Julin Maloof, Professor, Plant Biology
John McPherson, Professor, Biochemistry & Molecular Medicine
Juan Medrano, Professor, Animal Science
Richard Michelmore, Professor and Director, Genome Center, Plant Sciences, Molecular & Cellular Biology and Medical Microbiology & Immunology
Viji Murali, Vice Provost and Chief Information Officer, Information and Educational Technology
Donna Olsson, Assistant Dean, College of Biological Sciences
Jeffrey Ross-Ibarra, Associate Professor, Plant Sciences
Matt Settles, Manager, Genome Center Bioinformatics Core
Duncan Temple-Lang, Professor, Statistics

RE: Task Force on Bioinformatics at UC Davis

Dear Colleagues,

I write to request your participation on an *ad hoc* Task Force, chaired by Professor Ian Korf, to explore the challenges and opportunities presented to UC Davis by the unprecedented and ever-increasing volume of biological data and means to analyze such data. Providing bioinformatics training and support services, in support of faculty research across the campus, can provide a competitive advantage for funding opportunities in a broad range of disciplines, including but not limited to studies of microbiomes, the one health initiative, global food security, food safety, zoonotic disease, precision medicine of both humans and animals, and plant breeding that are the subjects of major scientific inquiry and funding initiatives. Furthermore, changes in the type and scale of biological data sets require ever more sophisticated technologies, algorithms and software for effective analysis. In turn, such demands drive the need for increasingly powerful high-performance computing resources that are beyond the means of any single investigator or laboratory to support.

Addressing these challenges and taking advantage of the opportunities will require careful planning and a coordinated strategic approach. Investments in bioinformatics infrastructure at the university, college/school, departmental and individual levels will benefit many areas of biological research across campus. However, such investments need to be coordinated to avoid duplication of effort and resources that may result in multiple sub-optimal solutions.

For this reason, I ask the assistance of this task force in preparing an advisory report to the campus that addresses the following questions:

- What is the current state of bioinformatics efforts and resources available to the Davis campus?
- What are the major bioinformatics challenges or unaddressed opportunities facing the campus?
- What are the bioinformatics services that are most vital to the campus?
- What training in bioinformatics should be provided to campus and by whom?
- What is the appropriate balance between analytical support, computational infrastructure support, and training?
- What services should be provided by what campus entities and what resources are required to do so?
- How can services be provided to both small and large users so that they are accessible and affordable for everyone who needs to use them?

With these questions in mind, I ask that the task force propose a strategic plan for the next five years that articulates a vision, goals and objectives for bioinformatics research support. I ask that the report also discuss alternatives and deliver recommendations for governance, organizational structure and funding models to achieve the identified objectives. In so doing, I ask that you strongly consider partnership approaches and opportunities to leverage external funds as key principles in the funding model.

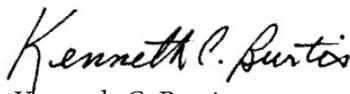
In your recommendations, please consider what should be done locally by individual campus units, as part of a campus-wide entity, a UC-wide entity (e.g. the UCSD Supercomputer Center), nationally (e.g. XCEDE), and commercially (e.g. AWS) in the cloud. Please also consider how high performance computing entities on- and off-campus can interact with bioinformatics needs in the short- and long-term.

If relevant, please note in your recommendations successful models that have been or are being implemented at other comparable universities.

In developing your report and recommendations, I strongly encourage you to solicit input from campus constituencies with interest in various elements of this topic, including but not necessarily limited to appropriate Academic Senate committees, school and college deans, the Office of Research and graduate students. I would like to receive your report by June 1, 2017.

I know this effort will take a substantial amount of your valuable time and I thank you for your willingness to help the campus move forward on this important topic. Rose Cabral from the Office of the Provost will be in touch soon to schedule the initial meeting of the task force. You need not respond to this letter unless you are unable to serve.

Sincerely,



Kenneth C. Burtis

Interim Provost and Executive Vice Chancellor

c: Interim Chancellor Hexter
Interim Vice Chancellor Carter
Interim Lead Ratliff
Deans
Assistant Executive Vice Chancellor Mohr