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Sara M. Rutter,
Chair, Manoa Faculty Senate Ad Hoc UARC Subcommittee,
University of Hawai'i Manoa

Dear Ms. Rutter:

It could reasonably be observed that the general provisions of grants, cooperative agreements and contracts by which the Department of Defense and other Government sponsors support university research have been fine-tuned over the years to promote innovation and encourage the transition of new technologies developed in the course of these programs from the laboratory to production and sale on a commercial basis.

Though we now take most of the provisions of these funding agreements for granted, it nonetheless remains true that it would be far more difficult to transition the technologies developed with these funds if it were not for the independence these agreements grant to their investigators, the patent policies and language encouraging commercial investment and development, and the ability to team with other university, Government and industrial investigators as required to carry out the post-invention development work that turns concepts and laboratory research into products.

But the specific guidelines that govern the research conducted at UARCs in support of their sponsoring agencies' mission-oriented objectives differ significantly from the general provisions incorporated in the DoD's conventional funding agreements to promote technology transfer and economic development at US universities. Indeed, several authoritative public documents^{1,2} have observed, ironically, that the special mission, management guidelines and contractual terms and conditions of the DoD's UARCs have tended to obstruct, rather than promote, these critical objectives.

The problems referred to in these documents appear to be consequences of the special role³ that UARCs play as advisors to the Government (sometimes referred to as "trusted agents" of the Government), of restrictions on entrepreneurship intended to maintain, insofar as possible, a level playing field in competitions pitting UARCs against other organizations and individuals who do not have the benefit of the guaranteed, non-competitive funding available to UARCs, and of patent policies intended to

insure public access to intellectual property developed through use of UARC funded facilities and equipment.

Given these observations, a key question is the extent to which the establishment of the proposed UARC at the University of Hawai'i might have the entirely unintended consequence of compromising the ability of the faculty and the University to promote the commercialization of the technologies developed at UH for the benefit of the local economy, and to apply the funds generated through this process to supplement UH's ever shrinking access to State of Hawai'i public funding.

It can readily be concluded that the constraints on UARCs' ability to support the transition of new technologies to the marketplace will not be an issue for most of the work done at these Centers, which by its nature will simply not have significant commercial potential. But the point remains worthy of attention in the context of the current proposition that such a center at UH could serve as a focus for applied research in engineering and the sciences through its integration as a regular academic and research unit.

A particular point of concern, given what appears to be the required practice⁴ of assigning "unlimited Government rights" to privately funded intellectual property conceived or reduced to practice "in the performance of the agreement", is the cross-contamination of intellectual property funded by private, non-Government sponsors and developed at UH in fields falling within the definition of UH's "core competencies", if this IP happened to be even partially developed through the use of facilities or equipment funded through the UARC, through access to information held by UARC-funded UH faculty members, etc.

In the absence of rigorous physical, management and operational barriers separating the proposed UH UARC from the University's broader but related non-UARC and non-Government funded research programs, it would appear that this practice could (and at other UARCs apparently has) resulted in loss of the control of intellectual property rights critical to commercial development.

All of the DoD's previously established UARCs have, perhaps as a consequence, implemented precisely such firewalls. But such a division would appear to be fundamentally incompatible with what appears to be the intent of the proposed UH UARC to operate as an integrated component of UH's established academic and research programs.

Is such integration of UARC and non-UARC programs possible without loss of the intellectual property rights critical to the transition of the new technologies that UH also aspires to help bring to the marketplace?

The United States' high technology corporate sector has been consistently reluctant to risk its intellectual property rights through acceptance of Government research funds or participation in collaborations requiring the assignment of patent rights. And the problem is a serious one: congressional testimony on acquisition reform in 2002 established that 92% of the Fortune 500 companies and three fourths of the United States top information technology companies refused to do research for the Government because such work would compromise their intellectual property⁵.

The prospective loss or compromise of these rights as a consequence of the merging of the facilities and resources of the proposed UARC with UH's related and parallel research programs could thus deprive our colleagues and ourselves of any prospect of support or funding from the greater part of the United States' high tech corporate sector, a devastating blow to the prospects for transitioning the technologies for which we are responsible.

It is this potentially ruinous impact of the proposed UARC on the University of Hawaii's intellectual property rights that we believe to be one of the most serious problems with the proposed Center.

Sincerely,

John Madey

John M. J. Madey,
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University of Hawai'i Manoa

Eric Szarmes

Eric B. Szarmes,
Associate Professor, Physics and Astronomy,
University of Hawai'i Manoa

cc: David McClain, President, University of Hawai'i
Jim Gaines, Vice President for Research, University of Hawai'i
Denise Konan, Interim Chancellor, UH Manoa
Gary Ostrander, Vice Chancellor for Research & Graduate Education, UH Manoa
Charles Hayes, Interim Dean, College of Natural Sciences, UH Manoa
Robert Bley-Vroman, Chair, Manoa Faculty Senate, UH Manoa

Attachments:

1. Terry C. Pierce, Capt. USN, "Sunk Costs Sink Innovation," in *Proceedings of the US Naval Institute*, May 2002.
2. Charles S. Hamilton, Capt. USN, "DARPA – Arsenal Ship Lessons Learned," 31 December 1997.
3. DoD UARC Management Plan, 13 May 1996.
4. USC Institute for Creative Technologies Summary of Patent Rights
5. Library of Congress Serial No. 107-181, testimony presented to the House Committee on Government Reform on "Intellectual Property and Government R&D for Homeland Security," 10 May 2002.