Strategic Plan for the
Research Corporation of the University of Hawaii

December 15, 2003

Introduction

The fundamental mission of the Research Corporation of the University of Hawaii (RCUH) is to support the research and training programs of the University of Hawaii (UH) and to enhance research, development, and training generally in Hawaii.

RCUH is a State agency, established by the Legislature in 1965, attached to the University of Hawaii for administrative purposes. Its enabling legislation is codified as Chapter 307 of the Hawaii Revised Statutes. The Internal Agreement between the UH and RCUH defines the basic responsibilities of each party and the financial arrangement to pay for the cost of services rendered by each party. A master agreement between the State and RCUH sets forth the overall responsibilities of each party in the administration of projects initiated by an Executive Branch department or agency (excluding the UH) for which RCUH's services are sought. The affairs of the Corporation are under the general management and control of a Board of Directors. The Board consists of ten members — five appointed by the Governor and confirmed by the Senate and five members of the UH Board of Regents selected by the Board of Regents.

In order to further advance in its mission, RCUH has developed this strategic plan. A nine-person strategic planning committee (membership in Appendix A) was formed consisting of RCUH Board members, principal investigators from the UH, a representative from the UH’s System-wide administration, a UH research administrator, and a representative from the faculty union. The committee, with the assistance of the former RCUH Executive Director and a staff member from Hawaii’s Congressional delegation, reached agreement on the overall strategy and several strategic objectives to propose to the RCUH Board of Directors. In reaching this consensus, the Committee agreed upon 1) aspects of the present status of RCUH and UH, 2) assumptions about conditions that will affect both RCUH and the UH going forward, 3) the characteristics of an ideal future state of RCUH, 4) a transition state for RCUH roughly five years hence, and 5) a strategy and specific objectives that are needed to achieve this transition state.

Development of an implementation plan was considered. Because the position of Executive Director of RCUH is currently under recruitment, it was felt by the Committee that it would be more appropriate for the new Executive Director to work directly with the RCUH Board of Directors to develop the detailed plan, including priorities, milestones and funding.
Present Status

From 1998 to 2003, the dollar volume of extramurally funded research and training grants and contracts to the UH doubled (Table 1). During the past four years, RCUH has provided enhanced post-award services for an increasing fraction of this rapid growth1. Prior to 1999, individual UH projects were service-ordered to RCUH on a case-by-case basis. In addition to the growth of service-ordered UH research and training projects, the volume of direct grants and contracts to RCUH has shown steady growth, although their fraction of total RCUH activity has declined. Along with revolving funds and specialized service facilities accounts (mostly at UH), the dollar volume managed at RCUH has nearly doubled over the past two years. This rapid growth is largely due to UH projects.

Table 1. University of Hawaii grants and contracts, and RCUH projects and fund accounts, by fiscal year.

<table>
<thead>
<tr>
<th>UNIVERSITY OF HAWAII</th>
<th>RESEARCH CORPORATION OF THE UNIV OF HI</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY</td>
<td>Research %</td>
</tr>
<tr>
<td>1997</td>
<td>$88,694,565</td>
</tr>
<tr>
<td>1998</td>
<td>$90,374,230</td>
</tr>
<tr>
<td>1999</td>
<td>$92,737,645</td>
</tr>
<tr>
<td>2000</td>
<td>$102,845,010</td>
</tr>
<tr>
<td>2001</td>
<td>$132,833,308</td>
</tr>
<tr>
<td>2002</td>
<td>$141,875,022</td>
</tr>
<tr>
<td>2003</td>
<td>$190,374,465</td>
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The mission of RCUH requires that it pursue ways to help sustain the growth in research and training activities described above. In considering how RCUH can provide enhanced support to the research and training activities of UH, the answers to the following question highlight both barriers and potential opportunities:

What are the current unmet or increased requirements of UH research that RCUH could address?

In answering this question a number of institutional factors are apparent:

- The present UH research enterprise is under-supported by ~50%2.
- Principal Investigators (PIs) do not have enough facilitating support, and that support is fragmented and distant.
- Service levels are inconsistent; pre-award support is very weak.
- UH culture resists change to a service-oriented approach to research administration.
- Responsibility and accountability are not always clear.

1 The total dollar volume of extramural grants and contracts is not equal to the total for UH projects at RCUH because:
   a. Certain types of extramural awards (i.e., financial aid) are not assigned to RCUH.
   b. UH personnel expenditures are not included in the RCUH total expenditures volume.
   c. Certain inter-departmental UH transactions are not included.
   d. The UH indirect costs that are charged to the award are not included.
   e. Recent UH “E” purchasing transactions are excluded from the RCUH expenditure volume.

2 A 50% increase in allowable expenditures on research facilities and administration would be needed to increase the UH audited indirect cost rate of 36.3% to the peer norm of about 50%.
- Processes are manually intensive and complex, with significant redundancy.
- Information systems are not integrated between pre- and post-award, and between UH and RCUH.
- Policies, procedures and organizational capabilities are not in place to appropriately exploit intellectual property on behalf of faculty and the institution.

A number of external factors also influence the answers to the question posed above:

- Competition for Federal research dollars is increasing.
- Opportunities for innovative industry partnerships are increasing.
- Governmental regulations affecting research are changing and increasing rapidly.
- Implementation of an Electronic Research Administration is required under Federal regulations.

Planning Assumptions

The assumptions made in developing the characteristics of the transition state for RCUH and the strategy for achieving it are briefly discussed.

While perhaps obvious, it is assumed that RCUH will continue to exist over the next five years. RCUH will continue to save time and money for UH by providing efficient research support services. RCUH can conduct classified and other proprietary research. RCUH will continue to support economic development through support of research and training activities, and it can form/assist in forming 501(c)3 entities as required to achieve its mission. RCUH will continue to be able to hire employees outside of the collective bargaining process for urgent and/or limited term projects, or for exceptional services.

A number of assumptions about UH are suggested by experience. Because of competing priorities, both internal to the University and within the State, UH is not likely (during the next five years) to receive additional general funding from the State for research infrastructure. The recent rapid growth of extramurally funded research and training is unsustainable without added infrastructure. The present volume may even be unsustainable. The present UH ‘cultural’ resistance to client-oriented service is expected to continue despite recent discussions about improving business processes.

RCUH into the Future

The characteristics of an “ideal”, but distant, future for RCUH were envisioned to set a general direction for evolution of the organization relative to its mission. The more specific characteristics of an intermediate, or “transition”, state were then developed. This transition state of RCUH is considered to be one that is achievable on a five-year horizon. A strategy for

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3 The UH Research Task Force report of 2001 had recommended that RCUH be merged into the University under a Vice President for Research. However, that was not done and is no longer desirable for a number of reasons.
achieving this transition state is articulated, along with specific objectives, which collectively map a pathway and milestones. These are discussed in the rest of this document.

RCUH in the distant future

The “ideal” RCUH is envisioned as an agile, efficient, responsive organization with highly motivated staff providing excellent support for research and training at the University of Hawaii, and beyond. A range of organizational structures would exist as appropriate to support an increasing volume of basic research, applied research, training, and economic development activities, including a for-profit component.

One seamless, streamlined system for supporting UH research is desired, with the system being outside of, but closely collaborating with the University in service to the PIs. RCUH would provide all required support for extramural research and training grants and contracts, from “cradle-to-grave”. Duplication of effort will be minimized. PI time and talent will be highly leveraged to provide further growth in research and training awards through increased project support capability, including pre- and post-award support. Staff will help researchers to comply with research regulations.

Support staff will work with project teams in a way that ensures that they become part of the team. They will be cross-trained, and thus able to flexibly meet requirements of the organization. Institutional knowledge will be retained. Staff will be able to work effectively in a decentralized service/support environment, working in close proximity to clients. Disparities in salary and benefits between UH and RCUH employees would not exist.

RCUH in transition

The characteristics of an intermediate transition state for RCUH, as it evolves towards the “ideal” state, provide general goals for this strategic plan. This transition state will give the appearance of a single system for administration of UH research and training while still relying on both UH and RCUH structures and personnel. Continued expansion of extramural funding for UH research and training will be enabled by an increased support capacity. The RCUH organization will have evolved to provide the framework for enhanced collaborative support of UH research and training, and for applied research and training activities that may include profit making. RCUH will also support an increased volume of direct contracts and grants, particularly in the areas of applied research and training, to realize the growing potential of partnerships with the private sector, the State, and with the Federal government. Increased volume of non-UH activities at RCUH will provide enhanced capabilities and expertise that will benefit the UH, and will reduce the absolute financial dependence of RCUH on the University as UH evolves rapidly in the face of various challenges. This will allow RCUH to better assist the UH in leveraging its intellectual and facilities resources.

Strategy and Specific Objectives

The proposed strategy for RCUH to approach the transition state is to address barriers and take advantage of opportunities by filling critical gaps in the UH research and training infrastructure, and providing a functionally enhanced interface to governmental entities and the
This would involve providing additional support staff with unique capabilities to work directly with UH researchers, and would include development of new organizational structures needed to support both basic research and applied research through commercialization. This requires improved coordination between UH and RCUH at a minimum, and ideally a purposeful collaboration.

![Matrix Management Concept](image)

Figure 1. Illustration of the matrix management concept for enhanced UH research support by RCUH.

The faculty of the University of Hawaii is the critical limiting resource for continued growth of the UH research enterprise. Leveraging PI time and increasing their competitiveness requires a substantial increase in the quantity and quality of support services, especially in the pre-award phase. The characteristics of the RCUH support model for UH Hilo should be refined to take into account the substantial State-funded administrative support structures at UH Manoa. The refined model would provide a ‘virtual cradle-to-grave’ contracts and grant support system by employing matrix management (Figure1). Current pre-award contract problems between UH and the State and between UH and other entities could be eliminated by using pre-negotiated RCUH master agreements. By providing critically needed enhanced services, RCUH will help contribute to a reversal of the downward spiral of the UH indirect cost rate. Specific objectives for this strategic goal are:

1) **Develop and implement cradle-to-grave matrix management of UH research and training in collaboration with UH administration.**

   - Refine and transport the cradle-to-grave research and training support model from Hilo to Manoa in consideration of existing Manoa administrative support.
   - Create and implement a pilot program that develops the matrix management model and rolls it out to major units at Manoa.
   - Develop decentralized services through satellite field offices to assist PIs.
   - Collaborate with UH to improve and unify UH and RCUH research and training administration, including participation in the UH System Business Process Council.
- Recommend RCUH structural changes (e.g., adding a department) needed to support these actions.

2) Implement an electronic research administration system in collaboration with UH
   - Conduct RCUH review of Indiana State system - hire independent evaluator if necessary.
   - Determine appropriate RCUH role after evaluation.

Expansion of RCUH capacity and capabilities, while maintaining efficiency, will advance the RCUH mission by enabling it to provide better support for the UH research enterprise, and for other clients. Specific objectives are:

3) Increase staff capabilities in research and support activities at RCUH in collaboration with select UH personnel.
   - Provide ongoing, systematic internal training for RCUH and UH research and training processes/systems, including on-line, on-demand training materials.
   - Improve service and support.
   - Eliminate redundant work.
   - Align expertise to keep pace with changing regulatory environment and demands of clients.
   - Streamline procurement, employment, inventory and travel processes.

4) Expand infrastructure (people, facilities, etc.) to support an increase in direct grants and contracts by 100%.
   - Provide leadership and resources for development of inter-disciplinary research and training initiatives.
   - Expand private contracts through partnerships with private entities.

Organizational restructuring will advance the RCUH mission both by facilitating development of UH research in areas that the University cannot easily enter on its own, and by providing support to fledgling research enterprises that need many of the same services. Thus, specific objectives are:

5) Work with UH to transfer OTTED responsibilities to RCUH and expand RCUH economic development activities.

6) Establish the capability within RCUH to facilitate establishment of private ventures, both profit and non-profit.
   - Create an entity through which UH faculty can do classified and proprietary research.
   - Create a limited liability corporation that can generate profits.