Huron Report Committee: Improving Research at Wayne State

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Abstract

This report is in response to a charge by Vice President for Research Hilary Ratner. She asked us in December of 2012 to answer the question of how Wayne State becomes a better research university. The context of this question was a review conducted by the Huron Consulting Group, “Wayne State University: Operational Review of Research Administration,”[1] which focused on research operations, but noted that the last Research Strategic Plan is from 2007, and there is a lack of clarity in our current research priorities. While this is not a Research Strategic Plan we did take an expansive view of our charge and make recommendations on how to improve the research enterprise at Wayne State and some focused action items on Research Cores and SPA raised by the Huron report.

1 General Recommendations on Research

1. Reverse the decline in research activity at the School of Medicine.

The relative decline in the level of research activity at the School of Medicine is a major threat to the research standing of Wayne State. This has been documented in numerous places including in the VPR’s charge to this committee and the recent Policy Committee’s White Paper. The committee felt that special attention should be focused on the School of Medicine because it is responsible for such a large percentage of the total research activity of the university, about 66%, and because the School of Medicine has some unique features as compared to the main campus, such as 12 months of operation rather than 9, clinicians and basic scientists doing research but

with different demands on their time, and different funding streams for research and clinical activities. The problems that we discussed are not trivial, but rather structural and cannot be solved simply by actions within the Office of Research. What is needed is a high level commission, charged by the University President, Dean of the School of Medicine, and the VP for Research, to reform the rules and practices of research by both the University and the School of Medicine that are contributing to the problem.

The major issue that needs to be addressed is that not enough resources are being invested in the research enterprise at the School of Medicine to improve, or even maintain, our relative research rank. **We need a University level examination of the reasons for the lack of investment in the research enterprises at the School of Medicine and explore possible University level solutions.**

Second, medical research has transformed from reductionist to emergent requiring interdisciplinary approaches. Wayne State currently ties almost all faculty to reductionist departments and thus we have great difficulty starting and nurturing the interdisciplinary teams that are at the forefront of medical research elsewhere. While we have some exemplary exceptions, high performing centers, such as Karmanos, the Center for Molecular Medicine and Genetics (CMMG), and the Institute of Gerontology (IOG), they are not the norm. **Our medical research effort should be reorganized to foster interdisciplinary efforts including making it easier to collaborate outside the School of Medicine.**

2. **Allocate our research resources more efficiently.**

Recognizing that we cannot be excellent in all things, a program to identify the most promising areas of research (criteria could include: current research funding, availability of funding, programs unique to WSU, for example, those focusing on issues relevant to the revitalization of Detroit, the health of Detroit citizens, etc.) should be systematically addressed and tagged for institutional support and faculty recruitment. As has been pointed out repeatedly, WSU has many points, but few true centers of excellence. Excellent research programs depend upon in-depth insights and multiple areas of expertise. We strongly support the current consulting groups that are reviewing the University’s research activities to identify the areas of excellence.

**Something has to be done to re-engage faculty who have become research inactive.** A well thought out incentive program would be a good start.

The level of staff support among colleges and departments varies widely, with a few having excellent support for personnel appointments, clerical, purchasing, and account management while others burden faculty lowering their research productivity. **We should benchmark the level of our staff support both within the University and against peer institutions with the goal of optimizing how our staff support is distributed.** This should also be done for teaching loads recognizing that this is primarily a departmental matter.
Similarly we should be asking ourselves if the resources we devote to support graduate students are being used optimally. Support, especially for GRA’s, should flow to programs that are research productive. A University wide study should be made of graduate student support and the current allocation rationalized. The earlier attempt at this led by Dean Fatouhi should be revived.

A three year time limit on the spending of start-up funds which can be extended on request is often seen as a burden on new faculty. New faculty are required to have a plan for spending their start-up funds and requests for extensions for spending start-up funds beyond three years should have minimal requirements and be treated with maximal flexibility as circumstances change and unforeseen opportunities present. An onerous procedure to deal with circumstances and opportunities is in no one’s interest.

A strong and robust research environment that strives for excellence rests on state of the art infrastructure. It is imperative to develop and implement a strategic plan for investment in research facilities. This investment should be used, at least, to update and upgrade research facilities, which are currently aging, and some of which do meet the basic standards for the conduct of research activities. Old research buildings with leaking ceilings, poor temperature control, and lack of electrical backups are not uncommon. These deficiencies are incompatible with state-of-the art research equipment acquired with federal funds. Laboratory space, most of which has been designed 35 or more years ago, needs to be updated to foster interactive and collaborative efforts and to accommodate modern technologies. Our animal facilities are also outdated.

3. More support from Development for research.

The research enterprise at Wayne State is starved for resources. One of the few ways we have to increase resources for research is to make support for research a center piece of our development efforts. While we are not development professionals, we are aware that alumni and donors are typically very excited by our research efforts and this excitement should be channeled by Development into material support for our research enterprise. We suggest some concrete avenues for this support.

While we have large numbers of internally supported graduate students, most of these are not supported to do research. On the main campus they are used as teachers and in the School of Medicine they are supported in the first years of the program. We get very little research out of these students. We should begin a development effort to support student research at both the undergraduate and graduate level. Undergraduates can move into an internally supported summer research program modeled on the NSF REU program. Expanding the number of internally supported Graduate Research Assistants would be an excellent way to reward both our highest performing researchers and graduate students.

Comparing ourselves to similar research universities undertaking development cam-
campaigns, Wayne State has a far smaller fraction of endowed chairs. **Endowed chairs should be increased as much as possible with the goal of growing the number of endowed chairs by a minimum of 50% over the next 10 years.**

Other suggestions to attract funds from development are increased support for pilot programs to support internal development of ideas and programs that lead to external funding and more support for bridge programs for faculty to recover from unexpected loss of external support.

Any direct investment in the research enterprise of the University from development funds would be welcome.

4. **Make best practices standard.**

We talked with the heads of some of the highest research performing units in the University. The commonality of some of their approaches is telling. Some of their best practices should be made University wide standards.

These include that the heads of all units that contain faculty conducting research must have research plans that benchmark their unit’s performance to peers and to an aspirational target. Deans and above should review these plans and coordinate plans with the aim of facilitating cross disciplinary and cluster hires.

**New research hires should undergo training and education on the perils of research misconduct.** This is a growing problem and we have to get on top of it with more than just the threat of a misconduct finding.

Because the high impact and the long-term commitment that a tenured position brings to the research enterprise of the University, the process of awarding tenure should be of the utmost thoroughness. It should be based on well-informed and impartial analyses of the candidate’s qualifications in research, scholarly activity, service, and teaching. Ability to obtain and sustain relevant external research funding should be a minimal qualification for tenure of faculty expected to do externally funded research. Tenure decisions at the University level should not simply rubber stamp departmental recommendations, but should thoroughly review the tenure case benchmarking the candidate not only with the expectations of the home department, but also disciplinary peer departments at higher performing institutions. Deficiencies in tenure decision process have serious negative impacts on our ability to maintain high research excellence.

**New faculty need to be mentored with care.** What works best varies from unit to unit, but our general observations are that clear feedback must be given, connecting new hires with the previous cohort of hires gives them the most relevant experiences to share, and periodic meetings with unit heads should focus on not only feedback, but also problem solving.

**All grant requests should be reviewed internally before submission.** Both inexperienced and seasoned proposers benefit from the process which leads to more
clearly written and more accessible proposals. This seems like an effort that would require modest resources and may yield large benefits. The Office of Research already has in place many programs for grant review before submission. These programs are under utilized.

**We should identify and promulgate the best practices for the recruiting of graduate students.** We recognize that there is wide variation by discipline, but the Graduate School should lead an effort to share methods and spread and support those that work best.

**Unit heads should be held responsible for the performance of their units as compared to the benchmarks in their plans.** Bluntly, leadership heads should roll at under performing units.

5. **Improve management and support for research cores.**

Here we only summarize what appears in Section 2. We should continue to develop and strengthen the university’s Core Services Committee; strongly consider establishing a Director of Core Facility Operations position in the OVPR; explore ways to improve the contribution and utility of individual core facilities’ advisory Committees, clarify and communicate the organizational responsibilities, or “home,” for all core facilities that charge users for services; require that all core research facilities on campus that charge user fees follow applicable federal regulations and university policies, including the development and use of their rates; strive for and devote significant attention toward achieving a much stronger understanding of the complete, actual costs of operating each core facility that charges user fees as well as the investments made across the university in the facilities; develop an improved investment and decision-making framework related to the university’s portfolio of core research facilities; develop and share clear, university-wide guidance on the external rates that core facilities should charge; continue to work on increasing the visibility and marketing of its core facilities; continue to explore the possibilities of enhanced core facility partnerships with universities and research institutions in the region; take steps to better communicate to faculty and other university stakeholders the university’s commitment to supporting and investing in cores to support research activity and the continued development of the university’s research enterprise; and continue to support faculty who have to use core facilities at other institutions.

6. **Continue to improve SPA.**

Here we only summarize what appears in Section 3. We need to strengthen research administrative support at both the local and central levels; clarify the delineation of roles and responsibilities between these two groups; provide appropriate tools for monitoring grant expenditures; improve communications both within SPA as well as between SPA and the local administrators; and enhance training for research administrators.
2 Recommendations on Research Cores

A core facility is a fee for service, centralized, shared resource affiliated with a University–acknowledged division which provides access to one or more of the following: instruments; technologies; services; and expert consultation. It is critical that core facilities maintain staff with expertise in the service areas, be able to assist in interpreting data, and provide consultation on how best to use its resources. Part of a core facility’s cost of providing service must be recovered through fees charged to its users. Core facility services should be available to all WSU scientists and, on a capacity available basis, external scientists.

Here we review the recommendations of Huron Report and steps take to date to respond to them:

1. **Wayne State should continue to develop and strengthen the university’s Core Services Committee.** The Committee meets every third Thursday of the month. Membership consists of the Directors of the largest cores as well as faculty and administrators from various units. Others are invited on an ad hoc basis, depending upon the topics considered. The committee has developed a standard definition of a core, given above, as well as a process of considering requests to enhance or start new core services. It has also established a list of university cores open to all faculty of the university. The committee considers requests for university investment of funds and makes recommendations to the Vice President of Research in this regard.

2. **Wayne State should strongly consider establishing a Director of Core Facility Operations position in the OVPR.** This was strongly considered to the point of developing a position description, advertising for a Director and obtaining funding for the position. Unfortunately, the funding was rescinded. For now, the direction of Core Facility Operations has been added to the portfolio of the Assistant VP for Research Compliance.

3. **Wayne State should explore ways to improve the contribution and utility of individual core facilities’ advisory Committees.** Each WSU core has a unique origin–departments, centers, etc.– which brings a unique advisory structure. So far, beyond discussion, there has not been an attempt to make the advisory committee structure uniform across cores.

4. **Wayne State should clarify and communicate the organizational responsibilities, or “home,” for all core facilities that charge users for services.** The first step on this recommendation was to identify all such facilities. This is complete. The financing for the cores is more challenging. Most cores evolved from a small laboratory headed by an active research scientist to a more complex operation that involves personnel other than the founder. During this evolution, many units may become involved in contributing funds from departments, colleges, OVPR, etc. without the recognition or desire that this become a permanent commitment. We are working with all the stakeholders of each core to ascertain their understanding of obligation.
5. **Wayne State should require that all core research facilities on campus that charge user fees follow applicable federal regulations and university policies, including the development and use of their rates.** To enable this recommendation the university must bolster related university services. Of course, Wayne State already requires that all core research facilities follow federal regulations and university policies. However, enforcing these requirements is challenging due to lack of knowledge on the part of Core directors of the regulations and policies, as well as a shortage of personnel to help with these administrative functions. To overcome some of these problems OVPR recently hired a Core Financial Manager, who reports to the Assistant VP for Research Compliance, and whose duties include working with each university core to monitor rate usage, establish feasible rates using cost-accounting principles and to serve as the liaison between the cores and the Finance Division, which has the ultimate responsibility to approve users rates. In this endeavor the Director of Administration for KCI has been playing a major role in training the Manager and also in working with cores individually.

6. **Wayne State should strive for and devote significant attention toward achieving a much stronger understanding of the complete, actual costs of operating each core facility that charges user fees as well as the investments made across the university in the facilities.** This is a work in progress. We anticipate that the newly hired Core Manager will greatly enhance the process of assessing the true costs of operating a core. As recommended, it would be ideal to have a central core facilities budget. The Vice President for Research made the case for this as part of the recent budget process. However, the money originally allocated for this purpose was subsequently rescinded.

7. **Building off the previous two recommendations, Wayne State should develop an improved investment and decision-making framework related to the university’s portfolio of core research facilities.** The Core Committee’s help in assessing funding requests for core facilities is greatly helping in this process. The Huron group’s suggested benchmarks for university investment in cores would put us somewhere between $2.5 and $5 million for annual investment in cores. The Core Manager will work with the cores to determine how much is actually invested across the entire university.

8. **Wayne State should develop and share clear, university-wide guidance on the external rates that core facilities should charge.** Providing guidance is a shared role between the Core Manager and her counterpart in the Finance Division. The sharing of this guidance as the general faculty who largely uninterested in such administrative details but want the cheapest rates possible.

9. **Wayne State should continue to work on increasing the visibility and marketing of its core facilities.** We already have a summer workshop series to introduce
interested faculty to cores. We are working on a meaningful website. Individual core directors give seminars on a frequent basis.

10. **Wayne State should continue to explore the possibilities of enhanced core facility partnerships with universities and research institutions in the region.** This is an ongoing effort. The Proteomics Core is the core facility for the University of Michigan’s Diabetic Center. The Henry Ford Health System investigators utilize many of our cores on an ongoing basis. The VP for Research is discussing shared core services with the Research VP’s of UM and Michigan State as part of the University Research Corridor.

11. **Wayne State should take steps to better communicate to faculty and other university stakeholders the university’s commitment to supporting and investing in cores to support research activity and the continued development of the university’s research enterprise.** Many of the initiatives commented upon above will contribute to our ability to improve our communications in this regard.

12. **Wayne State should continue to explore ways to support faculty who have to use core services at other institutions.** We cannot possibly support all the core services that might be valuable for faculty research. When faculty have to go outside Wayne State for core services we should strive to ameliorate the costs to at least make them the same as they are for the internal users. A pilot program for the High Throughput Screening Core at the University of Michigan is in place, and we should evaluate whether this program should be expanded generally.

Two key points are that we need to improve the management of the cores and maintain a level of investment in the cores such that they will continue to be valuable assets to research.

### 3 Recommendations on SPA

The section of the Huron report which focused on Sponsored Program Administration (SPA) resulted in recommendations on a few main themes, identifying areas of potential improvement surrounding the following needs:

- Strengthening research administrative support at both the local and central levels;
- Clarifying the delineation of roles and responsibilities between these two groups;
- Providing appropriate tools for monitoring grant expenditures;
- Improving communications both within SPA as well as between SPA and the local administrators;
- Enhancing training for research administrators.
Since the SPA office had undergone previous reviews, and was also operating in a model of continuous improvement, many of the recommendations were already in the process of implementation.

Actions taken to date include:

- Deployment of a training curriculum which includes a certification for administrators who successfully pass tests on the core modules.
- Launch of a “SPA Field Trip” initiative where SPA staff members visit the researchers to learn about their projects, see their labs, etc.
- Creation of a users group to provide feedback on additional tools/reports needed in order to successfully monitor sponsored account activity.
- Enhancements to the Researchers Dashboard to include contract activity so that, via pipeline, a researcher is able to see where a particular contract is in the process.
- Examination of business processes and realignment of SPA staff to gain efficiencies.
- Addition of a Grant & Contract Administrator position in the College of Liberal Arts & Sciences. This position will provide services to those units not having enough grant activity to warrant a dedicated grant administrator.

Additionally, efforts are ongoing to improve customer service, including development of a new annual survey to gauge satisfaction across a broad spectrum of services provided. Efforts are also underway to develop performance metrics, create a comprehensive on-line process/procedure manual, and evaluate business processes and systems to eliminate duplicities wherever possible.

4 Notes on Process

The committee met seven times, monthly, December of 2012 to June of 2013. The chair took expansive minutes of those meetings. Table 1 summarizes those meetings listing our guests and the topics of discussions. At the end of the summer the committee chair produced a draft report. Substantial changes were made by the committee to that draft. We met twice in the fall of 2013 to discuss the evolving draft and it was circulated by email until we arrived at a final draft.
Table 1: Summary of the seven committee meetings in the 2012/13 school year.

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<tr>
<th>Date</th>
<th>Guests</th>
<th>Topics</th>
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<tbody>
<tr>
<td>12 Dec 2012</td>
<td>Hilary Ratner</td>
<td>Charge Presentation, Initial Discussion</td>
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<tr>
<td>13 Jan 2013</td>
<td>-</td>
<td>Brainstorming</td>
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<td>13 Feb 2013</td>
<td>Jim Rigby, Farshad Fotouhi</td>
<td>Chemistry Best Practices, University Supported Graduate Students Initial Outline Comments</td>
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<tr>
<td>20 Mar 2013</td>
<td>Margaret Winters, Robert Harris, Susan Miller, Heidi Coats</td>
<td>Faculty Hiring, Development Support of Research</td>
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<tr>
<td>18 Apr 2013</td>
<td>Terry Margolis</td>
<td>Development Support of Research, SPA Huron Response</td>
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<tr>
<td>22 May 2013</td>
<td>Peter Litchenberg, Wei-Zen Wei</td>
<td>IOG and MPSI Best Practices, KCI Best Practices, Research Cores</td>
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<tr>
<td>19 Jun 2013</td>
<td>Bengt Arnetz, Marcus Dickson, Bob Sokol, Peter Hoffmann, Karen Myhr, Matt Ouellett</td>
<td>Research Culture, Center for STEM Teaching</td>
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