I. OPTIMIZE BROWN’S RESEARCH ENVIRONMENT

We will increase the efficiency and effectiveness of the processes through which Brown identifies and obtains research funding, manages research administration and reporting, and develops research leadership. Ensuring that these processes fully support the needs of faculty and staff will allow Brown to attract, retain and ensure success for the very best faculty, staff, and students.

1. Connect faculty with a larger and more diverse set of external research funding sources (Primary responsibility: Research Development)

   - Enhance OVPR’s ability to identify and provide faculty with funding opportunities that reach beyond traditional sources to include a broad array of federal agencies, private foundations, corporate partners, and potentially, private philanthropists.

   **Implementation Tasks**

   - Research Development (RD) specialists interact regularly with research-active faculty, diverse funding agencies, and Brown Foundation Relations, including participation by all of these groups in research events, seminars, symposia, open houses, lecture series, etc.

   - Use *Academic Analytics* and other data sources to identify departments and research areas in which Brown is strong academically but appears to be underperforming on external research funding, and develop specific growth plans for these areas which will identify funding agencies to target, specific faculty with potential for expanded research activity, and connections to other researchers at Brown to increase opportunities for research funding.

   - Create database of faculty with significant connections to agencies (e.g., service on advisory grant-review groups, experience working within the agency) as a resource for OVPR and faculty researchers in developing relationships with funders and identifying new grant opportunities.

   - Create opportunities for faculty to network with program managers at funding organizations, through mechanisms such as having RD specialists and faculty attending agency events; inviting selected program managers for campus visits; arranging faculty visits to funding agencies to network with program managers; advising faculty on preparation of effective written inquiries and other interaction (e.g., brief white papers) with program managers; and evaluating the results of these experiences, identifying the
most effective practices, and making this information accessible on the OVPR server

• Use University seed funding to improve the competitiveness of funding proposals by making them more compelling and demonstrating their feasibility.

  **Implementation Tasks**
  o Assign RD specialists to work with seed funding recipients during their project period to offer assistance in preparing external proposals and to consider supplementary funding if warranted

• Improve Brown's success on limited-submission\(^1\) and other large-scale proposals by identifying the strongest researchers and assisting them in putting forward the most competitive proposals possible.

  **Implementation Tasks**
  o Identify characteristics of successful applicants and confer with the funding agency to select the strongest Brown candidates, and ensure that the best candidates are aware of the opportunity and give it serious consideration

  o Develop, with guidance from Brown researchers, an online submission and review platform to standardize limited submission application and review process

  o Develop a listing of career development grants suitable for junior faculty, disseminate to chairs and candidates with sufficient lead time to allow for improved support from RD staff

  o Expand early career roadmap to all research active departments

• Increase the quality and competitiveness of grant applications by encouraging interdisciplinary collaboration among Brown researchers – as well as between Brown researchers and their counterparts at other RI institutions – and by developing workshops and other tools and resources to assist faculty in preparing strong grant proposals

  **Implementation Tasks**
  o Organize research exchange events with strategic partner institutions

  o Hold thematic technology-oriented events with partners as a means of showcasing expertise and synergy

\(^1\) Funding opportunities in which the funding agency restricts the number of proposals per institution
o Continue Grant Writers LLC workshops, open up to grad students and post docs every other year

o Develop internal workshop on visits to funding agencies

o Develop internal workshop on leading large proposals

o Continue CAREER workshops and mock review panel

2. **Streamline the administrative process for obtaining external funding** (Primary responsibility: Associate VP for Research, Office of Sponsored Projects)

   - Implement new information technology and modify policies to streamline the grant submission process and reduce the administrative burden on faculty

   *Implementation Tasks*

   o Seek faculty approval to allow Office of Sponsored Projects (OSP) staff to make minor administrative changes during application review rather than returning material to the faculty for revisions

   o Streamline COEUS budget entry and enter details only when awards are made or sponsors ask for budget revision.

   o Design InfoEd to enter only the minimum data required for submission by the funding agency

   o Review all OSP policies and procedures in parallel with the development and implementation of InfoEd in order to eliminate unnecessary administrative restrictions

   o Streamline OSP reviews of grant submissions by providing pre-award grant managers a matrix matching skill level and experience with type/complexity of grant

   o Conduct regular meetings between OSP pre- and post-grant managers and relevant department administrators to identify problematic issues and devise solutions

   o Provide daily time slots for discussing OSP grant reviews with the relevant principal investigator or administrator.

   • Develop an accelerated process for obtaining and managing corporate research partnerships (Technology Ventures Office, Associate Vice President for Research)
Implementation Tasks
- Identify corporate solicitation opportunities and circulate RFPs widely and as early as possible to appropriate researchers
- Create and disseminate an information package to researchers and research administrators on how to proceed on a corporate agreement focusing in particular on early stages and administrative practicalities
- Develop and post ‘best practices’ documents on the TVO website addressing such subjects as how to be a good corporate collaborator, what companies are looking for, and how to manage cultural differences between academia and industry
- Develop OVPR’s expertise and staffing in the area of corporate grant funding.

3. **Provide the infrastructure, information, and services needed to conduct research in a highly efficient yet ethically and fiscally responsible manner** (Primary responsibility: Associate Vice President for Research, Office of Sponsored Projects, Office of Research Integrity)

- Implement new information systems, and address deficiencies in current systems that will improve the efficiency and effectiveness of research administration and reduce administrative burden on faculty

    Implementation Tasks
    - Develop and implement InfoEd, a robust integrated research administration technology platform, to streamline the processes for managing grant budgets and ensuring compliance with regulations
    - Continue efforts with the WorkDay Operations Group to implement system enhancements that will improve financial grant management
    - Collaborate with CIS to develop and implement a PI Portal—a single site providing high-level information on all research applications, compliance protocols and sponsored funds as well as the ability to drill down to the transactional level

- Improve integration of the research infrastructure across departments, centers, and OVPR so that all faculty are provided with a seamless network of support and able to manage their grants efficiently

    Implementation Tasks
    - Identifying research administration functions that are handled very effectively in some departments and centers, and explore how to replicate
them in other units either by replicating the approach, consolidating services across units, or providing central assistance

- Develop a communications plan for OSP and ORI that ensures faculty and grant managers are fully informed regarding improvements to the research infrastructure
- Provide pre- and post-award financial management for small departments not served by substantial administrative infrastructure.
- Create a research administration orientation “Toolkit” for all new department administrators who will have any involvement in grants or protocol, to include: meetings with and a guide to OVPR staff; review of policies and processes, relevant software to be familiar with (InfoEd/COEUS/Workday); navigating OVPR website to find information
- Create an analogous orientation “Toolkit” for new faculty
- Reestablish regularly-scheduled meetings between OSP staff and research administrators on at least a bi-monthly basis
- Review all OSP compliance policies and processes in light of federal regulations and guidelines to ensure that Brown strikes an appropriate balance between providing as much flexibility to researchers as possible and ensuring ethically and fiscally responsible research
- Enhance the training of research administrators so that they are better able to guide faculty in handling IRB, IACUC, and COI issues

4. **Facilitate development of concentrated research programs in selected areas of Brown’s strength** (Primary responsibility: Vice President for Research, Research Development)

   - Identify clusters of faculty expertise at Brown that could be integrated to achieve critical mass and become leading research programs, particularly in areas related to the seven integrative scholarship themes identified in *Building on Distinction.*

   **Implementation Tasks**
   - RD specialists apply knowledge of promising researchers and potential funding programs in their research areas, monitor award reports from OSP, and track national priorities in research funding to see where such opportunities may exist
   - Develop effective approaches for assisting Brown researchers to identify common and complementary interests and potential collaborative activities
• Work with successful research teams on campus to understand the practices and skills that have enabled them to thrive so that OVPR can provide more informed, effective guidance to nascent programs with such potential

• Cultivate research team leadership skills among our faculty members with the interest, talent, and motivation to pursue such goals

  Implementation Tasks
  o Create a structured leadership development program for potential team leaders

II. Translate Research Discoveries into Benefits for Society
We will assist Brown’s researchers in translating their discoveries and inventions into products and methods that will benefit society. By actively promoting these accomplishments, we will amplify the impact of Brown’s research while enhancing the University’s research visibility and reputation.

1. Commercialize research results and disseminate knowledge to the public. (Primary responsibility: Technology Ventures Office)

   • Streamline the process to move from research discovery to commercial application, make it clearer and more transparent, and promote it widely among faculty researchers.

     Implementation Tasks
     o Simplify the process for faculty to obtain assistance from TVO in determining if their discoveries are viable candidates for invention disclosure, for example, developing a simple “ask TVO” form or an automated portal that would allow faculty to submit innovations for consideration

     o Develop and make easily available to faculty informational booklets, such as “Inventor’s Handbook,” “Startup Handbook,” and similar materials.

   • Promote within Brown and to audiences outside the University the achievements of faculty who have successfully moved from research discovery to product development

   • Implement and manage a proof of concept funding program, with mentoring, to help investigators design and implement translational programs that can ultimately be commercialized

2. Enhance internal and external recognition of Brown research and celebrate faculty research achievements. (Primary responsibility: Research Development)
• Support the nominations of Brown faculty for prestigious association/society memberships, awards, and other important recognition by identifying opportunities and assisting faculty in putting their candidacies forward

  Implementation Tasks
  o Create database of opportunities and potential Brown nominees
  o Establish Advisory Group of senior faculty and administrators to oversee process and Implementation Group to manage solicitation, review, and selection

• Collaborate with University Communications to develop written and web-based marketing materials that effectively catalog and promote Brown’s research capabilities to funding agencies and throughout the University research community

III. Ensure Maximum Impact for Brown’s Investments in Research
To support responsible stewardship of University resources, OVPR will help to identify areas for University research investments and document the return on those resources to better focus our investment strategy and maximize its impact. Strong returns on Brown’s research investments will provide greater resources with which to strengthen research capacity and support the University’s overall financial base.

1. **Secure University resources that will increase Brown’s research capacity in a strategic, cost-effective manner** (Primary responsibility: Research Development, Vice President for Research)
   
   • Monitor the results of seed awards for research to identify predictors of success and refine the selection process to increase the impact of future seed funding
   
   • Experiment with new approaches to providing strategic financial support for favorably reviewed proposals that were favorably reviewed but did not receive funding (such as the existing Grant Resubmission Award)
   
   • Develop a strategy for investments in core laboratories and data analysis and computation cores that will strengthen Brown’s research capacity and impact
   
   • Help identify and manage institutional cost-share to optimize financial efficiency and benefit to the University

2. **Coordinate OVPR’s support for research with that of Brown’s research-intensive schools, institutes and centers to identify opportunities for joint investment, consolidation/centralization of common activities, and other mutually-supportive initiatives** (Primary responsibility: Vice President for Research)
• Conduct discussions with IBES, BIBS, Watson, SSRI, Data Sciences and other major academic programs on campus to identify resources available for joint investment in research, including both seed funding and infrastructure development

IV. Advocate for Brown Research Within the University
Advocate for research across all levels of the University—not only highlighting the research community’s financial resource needs but also identifying issues of academic and management policy (e.g., teaching load, academic calendar, space assignment, etc.) that bear on Brown’s research productivity. OVPR can aid Brown in creating a supportive culture for research by being a “voice at the table” for faculty researcher needs that can only be addressed by the senior leadership of the University.

1. Support changes in University policies and procedures that would make Brown’s research environment more supportive (Primary responsibility: Associate Vice President for Research)

• Work with the Research Advisory Board to identify University-wide policies and procedures that are seen as hindering research productivity, identify how they might be improved, and elevate discussion of potential changes to the appropriate decision-making body

2. Work with the Office of Advancement to identify opportunities for private philanthropic research funding and to connect faculty to them (Primary responsibility: Vice President for Research)

3. Coordinate with offices on campus such as Office of the General Counsel, the Controller, and Health & Safety to make compliance with federal research as simple and efficient as possible (Primary responsibility: Associate Vice President for Research)

4. Raise the visibility of research at Brown, demonstrate the University’s support for it, and highlight its centrality to the University’s mission (Primary responsibility: Research Development)

• Collaborate with offices that handle such functions as public information, external relations, alumni relations, media relations, Brown news to develop a core set of messages about research at Brown and identify the best avenues for communicating them to key internal and external audiences

5. Work with the Office of the Provost to establish metrics and targets for research productivity that are appropriate to Brown (Primary responsibility: Vice President for Research)
• Work with the deans, departments and faculty to identify approaches to measuring research productivity that are sensitive to the wide variety of research, scholarly, and creative activity across the disciplines.

• Establish a systematic process for monitoring research productivity and incorporating the results into department, college, and University decision-making.

V. Metrics to Monitor Impact of OVPR’s Actions

1. Overarching Metrics for all of OVPR
   • Number of proposals submitted and amount of funding requested by major funding source
   • Number of proposals awarded and total funding by major funding source
   • Researcher and research administrator satisfaction for all services provided by OVPR
   • Faculty perceptions of the University’s appreciation of and support for research

2. Metrics for Research Development
   • Number of faculty and number of departments served by Research Development activities
   • Return on investment (external support) generated by Research Seed, Salomon, Grant Resubmission Award, and other internal research funding
   • Number of proposals submitted to funding agencies discovered by Research Development

3. Metrics for Research Administration
   • Time from proposal arrival in Office of Sponsored Projects to submission to the funding agency
   • Faculty satisfaction with services provided by the Office of Sponsored Projects, both pre-award and post-award
• Faculty satisfaction with services provided by the Office of Research Integrity, including the Institutional Review Board and IACUC

• Time from proposal arrival in Office of Sponsored Projects to submission to the funding agency

4. Metrics for Technology Ventures Office

• Number of meetings of Brown faculty with potential corporate partners, number of corporate research partnerships, and total volume of research funding from corporations

• Number of licenses and options resulting from Brown's intellectual property

• Number of viable startups formed from Brown's innovations

• Faculty satisfaction with services provided in support of corporate research partnerships and commercialization of intellectual property