



A NEW RESEARCH STRATEGIC PLAN

for SUNY Upstate Medical University

THE UPSTATE DISCOVERY CHALLENGE

A NEW RESEARCH STRATEGIC PLAN FOR SUNY UPSTATE MEDICAL UNIVERSITY

On the cover: Preethi Ganapathy, MD/PhD, in her lab.

Submitted by: David C. Amberg Vice President for Research

1-8-2021

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INTRODUCTION

It is with great pleasure and pride that I introduce a new Research Strategic Plan for SUNY Upstate Medical University. This new plan was developed by a highly inclusive, interactive and iterative process we call “The Upstate Discovery Challenge.” We challenged our community to discover the future of our research enterprise.

This plan was developed during the time of COVID, but is not a reaction to the conditions of that time, as it seeks to chart an evolvable 5-10 year blueprint to expand our research support structures, capabilities, expertise and research personnel with the overarching goal to accelerate the footprint, impact and reputation of Upstate’s research mission. I mention this to make the



point that the bizarre video-conference world that existed during this time actually made it easier to bring together large numbers of our researchers to collaboratively ideate and create the grist for the mill that is our final document. To memorialize this, we have included a screen shot of one of our many Zoom calls.

As you read the plan, you will notice this is not your typical strategic plan with grandiose goals, aspirations and promises of wild growth. Instead, it is a practical plan that focuses on

what we need to change/add/improve to empower our researchers to achieve their full potential. This will drive broad and deep growth, encompassing clinical, basic, translational and educational research, as well as public health and entrepreneurial activities.

Why formulate a new research strategic plan now? Upstate has been on a trajectory of research growth for the past six years as evidenced by the data shown nearby. In all key performance indicators there has been growth including: research expenditures, grant submissions, publications and intellectual property. In expenditures alone, we have grown 35 percent over this time period. This indicates that we are at an important inflection point to accelerated growth. Therefore, we need to be ready to support this growth by ensuring we take full advantage of this opportunity to realize the reputational benefits to the University with a rapidly expanding research enterprise that has global impact.

RESEARCH MISSION STATEMENT

To create a world-class research enterprise that supports biomedical innovation, development and entrepreneurship improving the health and well-being of the world’s people while training the next generation of scientific innovators.

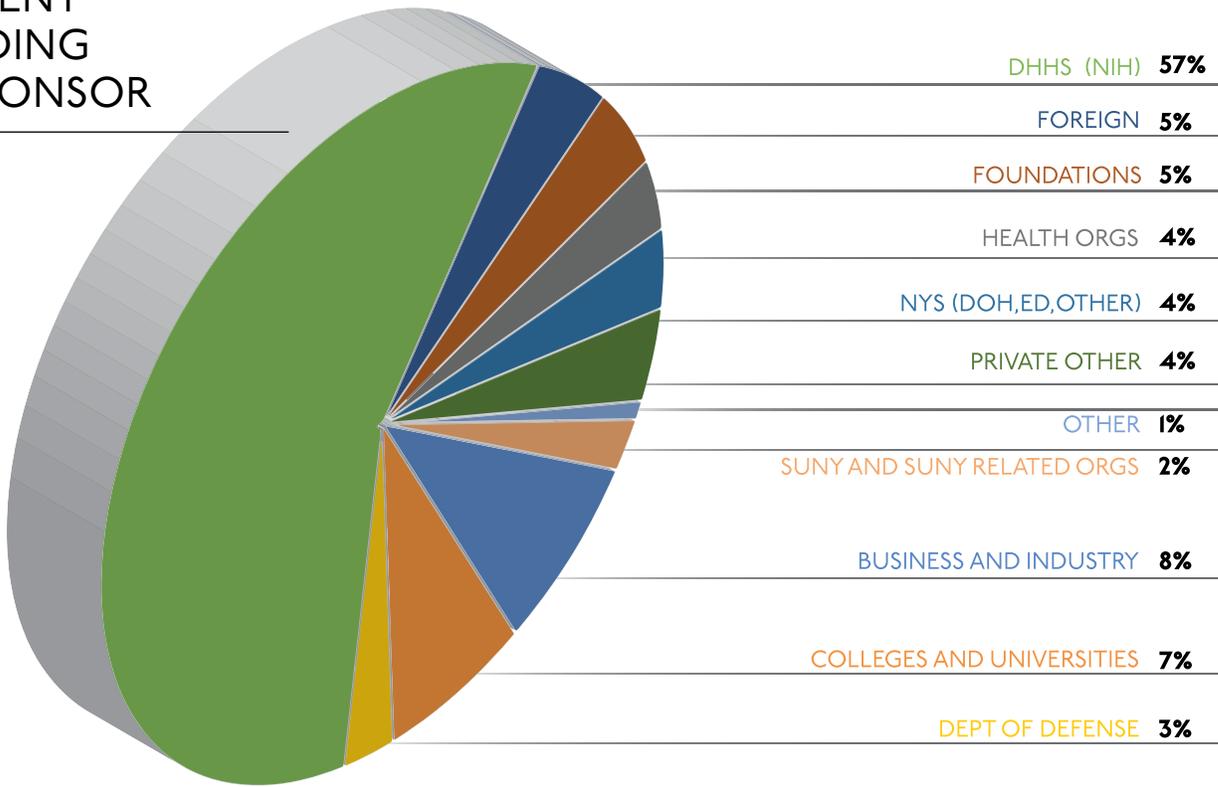
FAST FACTS

GRANTS SUBMITTED IN THE PAST 5 YEARS	1,351
TOTAL DOLLARS REQUESTED PAST 5 FISCAL YEARS	\$1,196,523,389
CURRENT NUMBER OF ACTIVE CLINICAL TRIALS	546
TOTAL RESEARCH EXPENDITURES PAST 5 FISCAL YEARS	\$167,255,812
CLINICAL TRIAL EXPENDITURES PAST 5 FISCAL YEARS	\$10,883,852

CURRENT NUMBER OF ACTIVE RESEARCH FACULTY:

BASIC AND TRANSLATIONAL RESEARCHERS	95
CLINICAL RESEARCHERS	153
NUMBER OF PATENTS FILED PAST 5 FISCAL YEARS	113

PERCENT FUNDING BY SPONSOR



EXECUTIVE SUMMARY

A New Research Strategic Plan for Upstate Medical University; The Upstate Discovery Challenge

THE PROCESS TO DEVELOP A NEW RESEARCH STRATEGIC PLAN

A highly inclusive and participatory process was employed to develop the ideas that form the basis of this new Research Strategic Plan. We refer to this as a “Discovery Challenge” as it challenges the faculty to work collaboratively to discover the foci and initiatives that will not only advance research capabilities and productivity in their areas of interest, but that will advance the impact and reputation of the University’s research mission as a whole.

The Discovery Challenge process was first designed and implemented at The SUNY College of Environmental Science and Forestry (ESF) by Upstate’s current Vice President for Research (VPR) when he was acting as Interim President at ESF. At ESF, the entire faculty were encouraged to self-organize around cross-cutting initiatives of their design. This worked well at an organization with a strong shared mission of environmental stewardship. However, at an organization of Upstate’s size and diversity, there was a need to provide more structure to guide faculty ideation.

The structure provided was to organize groups of, on average 10 faculty and staff, into eleven “working groups” focused on an area of strength and/or strategic priority. These included:

- Bioinformatics
- Cancer
- Clinical Research
- Educational Research
- Entrepreneurship and Industry Relations
- Environmental Health and Environmental Medicine
- Facilities, Technology and Operations
- Global Health, Infectious Disease and COVID-19
- Immunity and Autoimmunity in Disease
- Mechanisms of Disease
- Neuroscience

Dozens of faculty and staff were involved in formulating the Research Strategic Plan, often meeting online.





Students and faculty work closely in pursuit of new knowledge.

Working group members were chosen by the VPR, in consultation with leadership, but the goal was to include on each group highly functional researchers at all stages of their careers, including early career investigators reflecting the fresh ideas they bring and their strong investment in the future of this institution. With an eye to driving inter-SUNY campus collaboration, working group members included one faculty member from SUNY Oswego on the Bioinformatics Working Group and four faculty from SUNY ESF on the Environmental Health and Environmental Medicine Working Group. Working Group members and group chairs can be seen in Appendix A, "Research Strategic Planning Process."

Each working group was provided with a charge that included a set of deliverables to be addressed in a concise report that was to be delivered approximately a month after the groups began their work. The basic/translational biomedical-research-focused working groups shared a generic charge and deliverables, while some groups required a topic-specific charge, including Clinical Research, Educational Research, Entrepreneurship and Industry Relations, and Facilities, Instrumentation and Operations. The Working Group charges can be seen in Appendix A, "Research Strategic Planning Process".



Multiple layers of containment serve to help keep researchers safe as they expand the boundaries of scientific knowledge.

At the completion of the working groups reports, a “Synthesis Committee” was assembled, chaired by the VPR, that included all of the chairs of the working groups, the Dean of The College of Medicine, senior staff of Research Administration, a representative from Marketing and Communications, and a representative from the Upstate Foundation. Synthesis Committee members can be seen in Appendix A, “Research Strategic Planning Process”. The work of the Synthesis Committee was to meld the ideas, priorities, and mini-strategies from the working group reports into a cohesive and synergistic draft strategic plan. The working group reports can be seen in Appendix D, “Working Group Reports”.

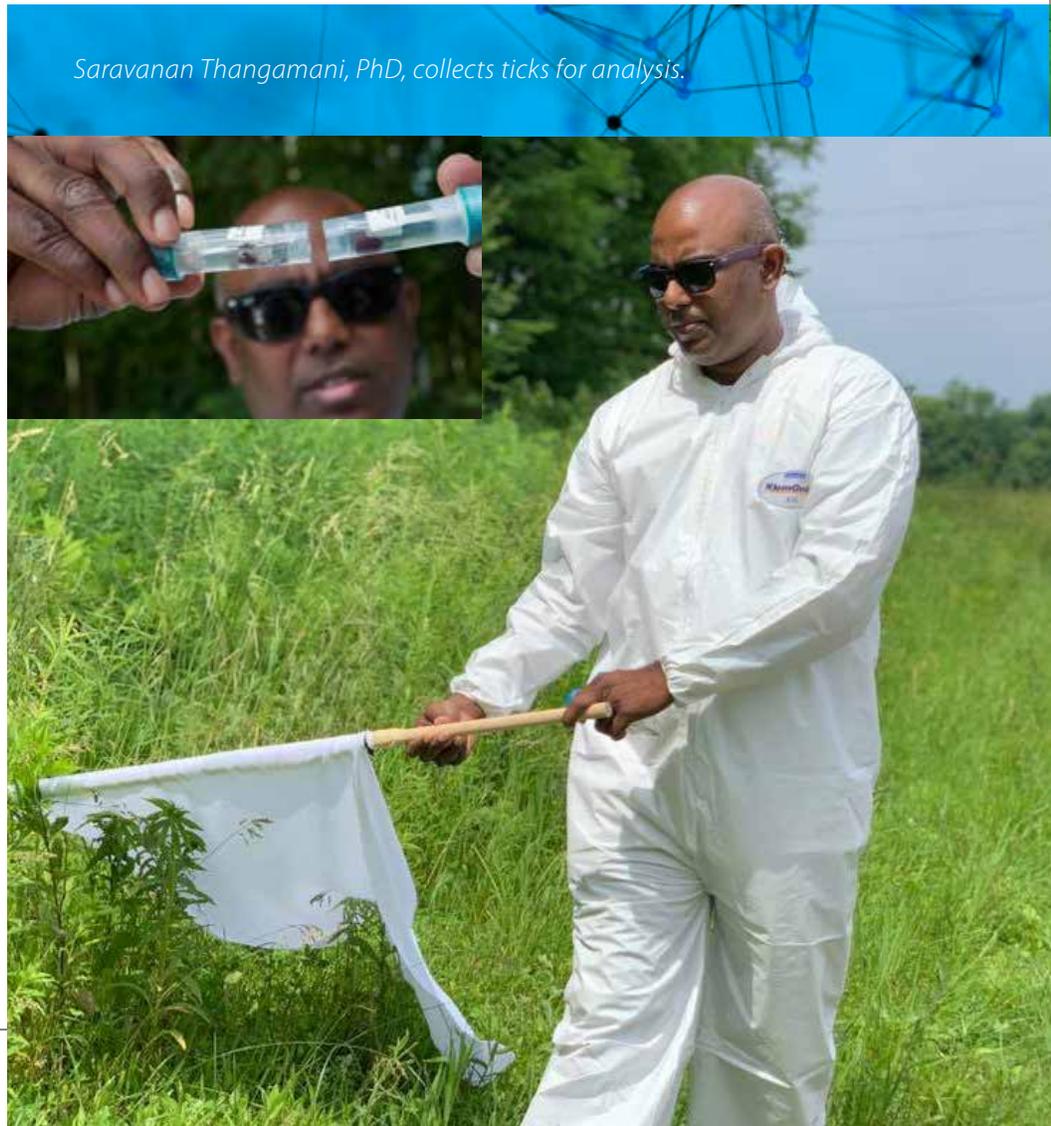
The Synthesis Committee work progressed in two stages. In the first stage, committee members were asked to find cross-cutting initiatives and ideas that were identified by most, if not all, of the working groups. Since these initiatives will have the broadest impacts across the research enterprise, they are the highest priority initiatives in the implementation of the new research strategic plan. These cross-cutting initiatives are summarized in the next section of this Executive Summary and are described in more detail in Appendix B; “Cross-Cutting Initiatives”.

In the second stage, the Synthesis Committee members were asked to extract from each working group report the highest priority faculty hires and high-impact initiatives that are specific to each working group's area of focus. These are briefly discussed in the third section of this Executive Summary and can be found in detail in Appendix C, "Priority Hires and Working Group Specific Impactful Initiatives". This document is intended to guide future faculty hiring decisions and EIP submissions to SUNY Central, to inform the next layers of research strategic plan implementation, to inform institutional and departmental areas for investment, and inform the Office of The VPR on areas to focus efforts and resources.

The last stage of the Upstate Discovery Challenge process is to hold a series of virtual retreats, to which all University members, including students, will be invited to participate. During these sessions we will share and socialize the draft plan; we will attempt to achieve broad buy-in in support of the plan and to collect feedback. After these retreat sessions are completed, we will finalize the new Research Strategic Plan.

CROSS-CUTTING INITIATIVES

One of the unique aspects to the new Research Strategic Plan is that it is not merely inspirational with lofty goals, but seeks to address what holds the faculty back from achieving their full potential. The research enterprise is fundamentally healthy with a 35% growth in research expenditures over the past five years. Some of this success has resulted from increased, focused support of research faculty through investment in new cores, bridge and pilot grants, and targeted hiring of new highly productive faculty, such as Empire Scholars. In addition, we have seen many more faculty with multiple, large federal grants. However, there is the perception that in a number of key areas and capabilities we lag well behind our competitors, and that will continue to present us with reputational, recruiting and retention challenges. In order for Upstate to accelerate the growth of its research enterprise, we must begin to address the major challenges identified by our research faculty. These are issues and



Saravanan Thangamani, PhD, collects ticks for analysis.



Lab space in the Neuroscience Research Building includes areas for ophthalmologic research.

initiatives identified by many, if not all, of the research strategic plan working groups as cross-cutting initiatives that, if addressed, will have the largest impact across the whole research enterprise. They are briefly summarized in this section and ordered by their perceived level of importance. More detail can be found in Appendix B; “Cross-Cutting Initiatives.”

#1. Establish a research-dedicated information technology core.

Although some progress has been made in providing more support from Information Management Technology for research needs, this was still identified by all research strategic plan working groups as a barrier and deficiency as compared to their needs and what is provided at peer institutions. The needs are diverse and complex including: support for data storage and data sharing, experts in the many facets of bioinformatics including machine learning and artificial intelligence, data sourcing and hygiene, ready availability of institutional data, and data integration with electronic health records. A task force will be required to develop a staged implementation plan for this core. Given the importance of this initiative, the task force should begin work immediately with a plan to begin implementation before the end of 2021.

#2. Develop a positive incentive strategy for research protected time for clinical faculty.

There are currently disincentives for clinical faculty to engage in clinical and translational research which boils down to the absence of compensated protected time for research. This challenge was highlighted by strategic plan working group members from both clinical and basic science departments. It was cited by both sides as a major challenge to develop the kind of collaborative, translational research projects that drive innovations

from “the bench to the bedside” that will distinguish Upstate as a premier academic medical center. This issue is also complex and potentially controversial in our current structure. Therefore, tackling it will require a task force composed of accomplished and well-regarded faculty and staff that will be able to win the support of the clinical chairs.

#3. Develop new core facilities in histopathology and electron microscopy.

Research histopathology has been a challenge at Upstate for some time, leaving faculty to use slow and costly external vendors. The current Chair of Pathology has committed to develop a research histopathology core over the next couple of years and so the solution to this challenge is in sight.



Audrey Bernstein, PhD, in her lab.

Upstate has for several years supported a very high-end cryo-electron microscope obtained with a federal instrumentation grant and housed at ESF. This microscope is well beyond the needs of a large number of faculty at Upstate, who require simple transmission electron microscopy (TEM). This need was recognized by the VPR prior to the completion of this research strategic plan. A new EM core is currently being established, with support from the VPR Office, by repurposing a TEM housed in the Department of Cell and Developmental Biology. We hope this core will be operational within the next four to six months.

#4. Expand the Biobanking Core in capacity and in capability to support data integration.

Approximately three years ago, as a part of the Cancer Center initiative, a new core for biobanking was established with dedicated space, a single technician and equipment. This core has now reached capacity servicing just the needs for banking cancer-specific samples. This has now been identified as a huge need outside of cancer by several of the research strategic plan working groups and there are currently plans to expand the core to support needs in rheumatology; further expansion may be required in particular to meet the extensive needs by well-funded investigators in neuroscience.

Biobanked samples across the spectrum of our research enterprise would be most powerful if they were coupled to electronic health records data and genetic data including genome sequence data. This may require additional investment in the sequencing capabilities of the Molecular Analysis Core (SUNY MAC). There is currently a task force that has been working on these issues and they should continue their work to make recommendations for implementation to leadership. However, data integration with biobanked samples will likely require IT support through a new research-dedicated IT core (cross-cutting initiative #1).

#5. Improve the research institutional profile.

All of the research strategic planning working groups asserted that there needs to be better marketing and communication of the accomplishments and capabilities of the research enterprise to external audiences. In particular, they cited a complete lack of a research focused social media presence and a weak web presence as problematic. Unfortunately, the research mission of Upstate is a well-kept secret and this most negatively impacts the recruiting of talent across the research enterprise including the recruitment of chairs, faculty, post-docs and students. It is recommended that the Office of Marketing and Communications, and The Office of External Affairs meet with research faculty to understand their concerns and to work collaboratively to develop a plan to address those concerns; many institutions of our size have a dedicated person or team to market the research enterprise.

#6. Strengthen the postdoctoral fellows program in numbers and prestige.

Many of our research labs are highly reliant on PhD students as the primary workforce beyond research technicians. However, it takes two to three years for graduate students to become optimally productive. Postdocs, on the other hand, arrive well-trained from day one and as such can be incredible drivers of productivity, innovation and increased competitiveness to obtain new federal grants. Therefore, supporting

an increase in postdocs on campus will have an impact across the research enterprise. Tangible initiatives that would move the needle in this area include: increased marketing to support a postdoc recruiting strategy, better support and encouragement for postdocs to apply for F32 grants with an eye to future institutional postdoc training grants, and better support for career development. Addressing this issue should be a collaborative effort between the Office of the VPR, Office of Post-Doctoral Affairs, and Marketing and Communications.

#7. Develop formal mentoring programs to support the success of our research faculty.

Mentoring of research faculty across the career spectrum, but in particular for junior faculty, needs to be supported at an institutional level. We frequently invest large amounts of resources in recruiting research faculty to campus, but do not follow with the kind of mentoring and support that will ensure success. Some departments and units do this well, while others struggle and thus institutional-level support and guidance is required. The Office of the VPR, working collaboratively with the Senior Associate Dean for Faculty Affairs & Faculty Development, chairs, and center/institute directors, should develop a strategy for faculty mentoring and development.



Dr. Ruth Weinstock

#8. Develop pipeline and development programs to diversify our research work force.

The diversity of our research workforce falls well below our aspirations, and should include a better reflection of the community in which we reside. In addition to making Upstate a welcoming environment for underrepresented minority (URM) learners and faculty, a prime goal of the Office of Diversity and Inclusion (ODI) Task Force, we need to be better at recruiting diverse individuals and retaining them by providing high quality support, mentoring and career development (see above). A strategy proposed by many of the research strategic plan working groups is to develop relationships and pipeline programs with institutions that have diverse populations and then to retain those URM learners and faculty by providing opportunities and high-quality career support. We also plan to submit for a Post-Baccalaureate Research and Education grant from the NIH, a one-year program that supports URM learners to obtain research experience; this program could pipeline into our graduate program. It is also proposed to develop research tracks for medical students and residents.

#9. Create an easily searchable and public, web-based resource of faculty expertise.

There is currently a lack of ability for researchers on campus to identify colleagues with particular experience and expertise for either consultative purposes or to establish collaborative research projects. Funding agencies are asking for multi-disciplinary research proposals that also tend to come with larger budgets, so there is strong incentive for us to encourage collaboration between researchers on campus. An additional benefit of creating this resource is for researchers outside of Upstate to identify potential collaborators but also for industry to identify potential partnerships for intellectual property (IP) development or possible consultative/contract arrangements that would bring additional financial support to our research labs.

INFRASTRUCTURE

Supporting a biomedical research enterprise and its faculty and staff requires a large and highly functioning infrastructure to enable the faculty, in particular, to focus on their research programs, publishing, mentoring students and obtaining grants. For this reason, there was a Research Strategic Planning Working Group specifically focused on Facilities, Technology and Operations.

The Central New York Biotechnology Accelerator.





Learning involves simulation, technology and classroom discussion.

In regards to facilities, this working group focused on the space needs for the research enterprise. They recommended the creation of a research space planning committee and the finalization of a research space allocation policy to create transparency in research space decisions. They were also mindful, that the science-focused working groups recommended additional core facilities and advocated for identifying appropriate space for these cores and/or to look at consolidation of some core facilities. In addition, it was recommended to resume the schedule of research floor renovations in Weiskotten Hall and Weiskotten Addition in anticipation of research growth.

In regards to technology, this working group echoed the calls for robust dedicated IT support for the research enterprise. They also shared with other working groups, the observation that the Clinical Research and Evaluation Core (CRE) that resides in the Department of Public Health and Preventive Medicine (PHPM), will only become more important for the growth of clinical research and, as such, needs to be evaluated for missing expertise and capacity. In conversations with the chair of PHPM and the CRE core director, it was ascertained that the current business model does not work in that much of the important support they provide to faculty, students, and residents is uncompensated. Ideally, the CRE should evolve to a business model that accepts the CRE as an institutionally supported asset that serves both the research enterprise but also the educational missions of all four colleges.

Concerns in operations were also noted and recommendations were made about adequate staffing of the pre-award office. Grant submissions have been rising significantly and the current level of staffing is barely keeping up and completely unable to provide the kinds of highly useful faculty training provided by most pre-award offices. This group also echoed the call from their colleagues in other working groups for a dedicated grant writer in the Research Development Office. Other priorities included data management policies and support, a dedicated office of institutional research, the development of data dashboards for



Upstate trains tomorrow's scientists today.

chairs and principal investigators (PIs), a faculty-development series on our processes and procedures, and in general more efficient and user-friendly support services across the life-cycle of grant awards.

FACULTY HIRING

There is consensus that the SUNY Empire Scholar program is a powerful means to recruit highly functioning research leaders to our campus. It is encouraged that we fill our approved EIP positions: two more in environmental health and medicine (one of the hires is slated for SUNY ESF), two in Alzheimer's, one in addiction science and two in vision research. All fit well within the priorities of the Research Strategic Plan. There is strong indication that SUNY sees the value and ROI of the EIP program and as such there is every reason to believe the program will continue post- pandemic. To ensure alignment of EIP position applications with the Research Strategic Plan, a process and committee should be established to vet and approve the targeted research areas. EIP proposals should be drawn from the priority hiring areas identified by the science-focused working groups. Suggested committee members would include the Dean of the College of Medicine, the Vice President for Research, Dean of the College of Graduate Studies, and appropriate basic science and clinical chairs.

In concert, Upstate should pursue the growth of the research faculty body by replacing retiring and under-performing senior faculty and creating new positions to include the recruitment of outstanding early career faculty to ensure the vibrancy and age diversity of the research faculty. In parallel, a strategy for recruiting underrepresented minority (URM) research faculty needs to be developed and implemented as described in cross-cutting initiative #8.

SHORT SUMMARIES OF THE RESEARCH STRATEGIC PLAN WORKING GROUP REPORTS

BIOINFORMATICS

This group identified the importance to fill a void Upstate has in medical and public health informatics, the opportunity to pipeline from SUNY Oswego to create a PhD program in Biomedical and Health Informatics. Also identified the importance to further develop this area, initiate a seminar series on Bioinformatics and a full graduate-level course in biomedical informatics and data analytics.

CANCER

This group emphasized the need to find a new Cancer Center Director with a strong track record and plans to support cancer research. In addition, Upstate should resume the committed hires in the priority areas of the cancer center, continue to build cancer bioinformatics, and fill a glaring void at Upstate in cancer immunotherapy. A deficiency was identified in cancer public health and health disparities research that will be a pre-requisite for National Cancer Institute (NCI) designation. This team also suggested that a new basic science department in cancer biology should be established, that the Cancer Center Director be the chair of this department which he/she could use as a means to recruit research faculty. To help facilitate bench to bedside drug development, it was suggested to establish a new core facility in pharmacokinetics; this would have a positive impact in many research areas and should be explored further.

Educating researchers is an integral part of our work.



CLINICAL RESEARCH

This group identified a need for an increase in seasoned clinical researchers on campus to serve as mentors and, of course, protected time for both senior and junior clinical researchers, as well as increased support staff for research including research nurses and coordinators. If an aspirational goal is to submit a Clinical and Translational Science Award (CTSA) application, we need to develop our clinical research education and training programs with funded training grants. Increased collaboration in clinical research with our partners in the Syracuse VA was identified as a great opportunity. Additional recommendations: Implement more of the research functionalities of EPIC and solve the issues around contacting our patients to be on clinical research studies; address disparate demographics of research subjects; develop a Clinical Research Coordinator (CRC) certificate program to address the shortage of well-trained CRCs; a sub-committee on the Clinical Research Unit (CRU) suggested expanding the CRU and developing more satellite sites near the sites of patient care, for example The Nappi Longevity Institute.

EDUCATION RESEARCH

This group identified a need for supporting staff and faculty interested in educational research to address the challenges around obtaining and analyzing institutional data. Also highlighted was the impact of educational initiatives on patient care, as were ways to incentivize, reward and support educational research. Particularly impactful would be developing a Center for Educational Innovation and Excellence that would house a number of capabilities, including the IDEA lab.

ENTREPRENEURSHIP AND INDUSTRY RELATIONS

Priority initiatives to advance our footprint in this area included: increase entrepreneurial postdocs on campus (which dovetails nicely with cross-cutting initiative #6), raise the branding awareness of Upstate's entrepreneurial activities (which fits well with cross-cutting initiative #5), incentivize innovation and industry engagement, streamline transactions with industry partners, invest in service-oriented resources and events, develop mechanisms to match industry partners with faculty expertise (which fits well with cross-cutting initiative #9), and use IP revenue to support pilot grants for early-stage technology development.

ENVIRONMENTAL HEALTH AND MEDICINE

The opportunity to drive collaboration between Upstate and ESF was highlighted as a tremendous opportunity. A possible bridge could be to focus on the impact of environmental degradation on health disparities, which

Amit Dhamoon, MD/PhD, Division Chief of General Internal Medicine, in his lab.





Harry Taylor, PhD, in his lab.

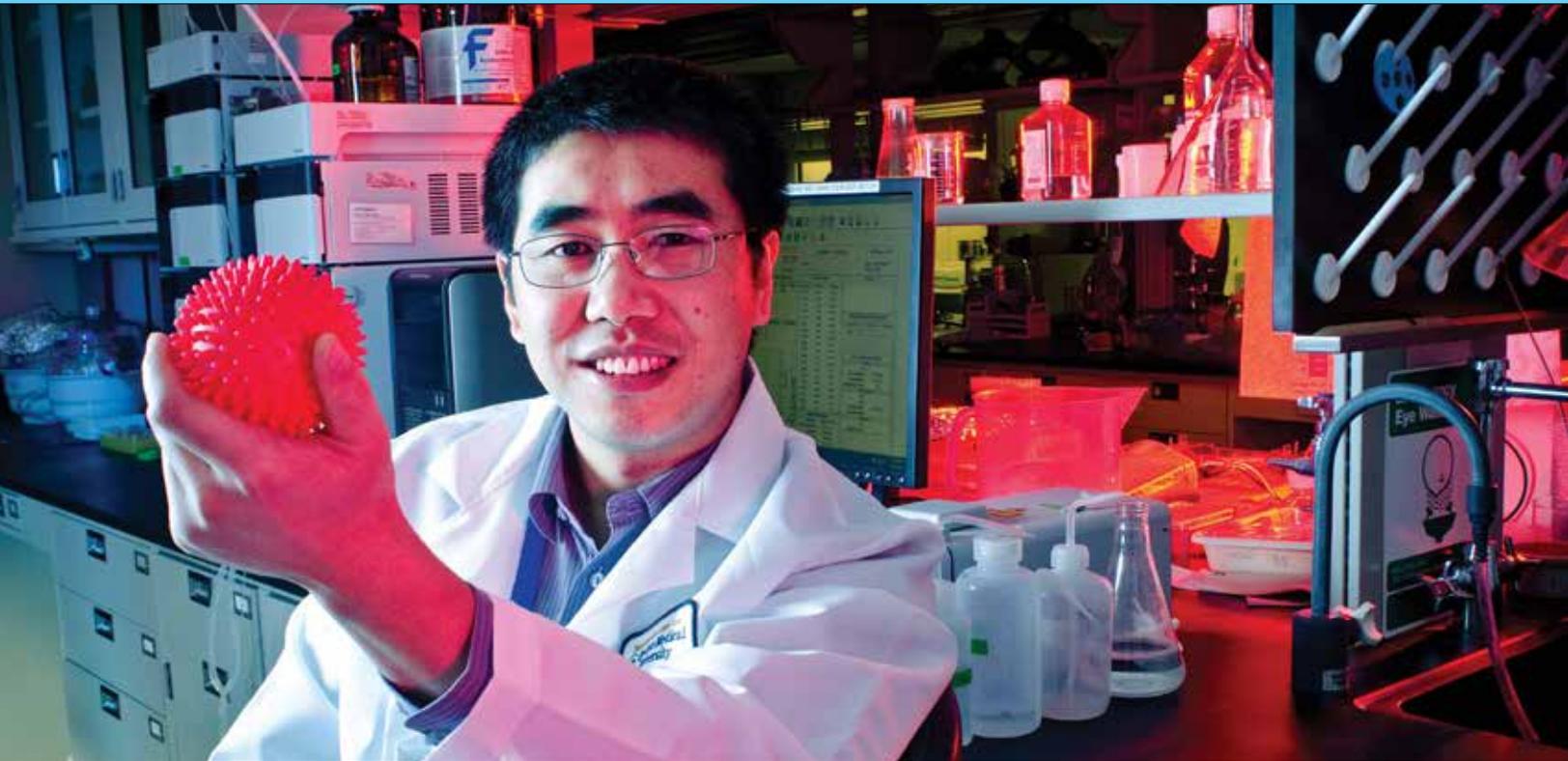
would complement the priorities of several working groups. Developing geospatial analytics would also bridge the two universities. Other initiatives include developing a well-funded Center of Excellence in Vector Borne Disease, a SUNY-supported summit on environmental health and medicine, submitting pre-and postdoctoral training grants in this area, developing collaborative grant proposals between PIs at ESF and Upstate, and expanding the tick surveillance program through external funding.

GLOBAL HEALTH AND INFECTIOUS DISEASE

The need was identified to not only increase depth in this area, but the breadth beyond the current focus in infectious disease. Central New York's refugee population was cited as an opportunity to bridge global health issues. There is a need to break down silos to develop a broad population health program that crosses service lines and create multi-disciplinary teams organized around chronic disease states. Efforts to pursue a center in research and education in bioproduction/biomanufacturing should be reinvigorated. The current poor state of relations with the County Department of Health was cited as a missed opportunity and barrier to progress. Additional initiatives included: increased clinical research space that aligns with the priorities of the clinical research working group, a global health pathway for residents, seed and travel grants for global health research, and submitting more multi-PI/multi-disciplinary grants to increase our ultimate competitiveness for a CTSA application.

IMMUNITY AND AUTO-IMMUNITY IN DISEASE

This group pointed out that virtually all chronic disease has as a critical component of an immune response, such as inflammation or a mis-regulation of the immune system. As such, priority faculty hires in this area overlap strongly with the priorities of other working groups and should be joint appointments with other departments,



Juntao Luo, PhD, in his lab.

creating further opportunities for collaboration. Hiring areas of interest include: genetics and biomarker development, cancer immunology/regulatory T-cells, neuroimmunology in CNS disease, and hires in radiology that support imaging and pathology of disease. Pathobiology was identified as a high-impact area for a new department or center, and for the development of a new graduate-level course. This would drive collaboration and fill an important, missing set of capabilities. Continued institutional support of the Lupus, Autoimmunity, Inflammation and Immune Health Center of Excellence (LACE) was recommended with an expansion in scope focused on immune-mediated diseases. This group, like many others, identified the weakness of not being able to contact and leverage our large patient pool for research studies. Solving this problem would have the added benefit of allowing us to diversify participants in clinical trials. Lastly, and also overlapping with other groups, would be to have high-resolution research MRIs for human and animal studies.

MECHANISMS OF DISEASE

This group emphasized the drug development pipeline focusing on faculty hires to expand structure-based drug design and high-throughput screening, basic research faculty in proteostasis as it applies to Alzheimer's and neurodegenerative diseases, and more clinical faculty with 100% protected time for research to help drive translational collaborations with basic science faculty. All these areas overlap strongly with the priorities of several other groups. This team also sees great potential in increased communication across the enterprise with topic-focused journal clubs, joint meetings, and research presentations at Grand Rounds. Overlapping strongly with Cancer, they propose a program or center that spans the lifecycle of drug development. An Assistant Vice President of Translational Research was proposed with the responsibility of facilitating collaboration with clinical investigators. This could also be achieved through coordination of research liaisons proposed in each



Christine King, PhD, in her lab.

department. In agreement with all other groups, mentoring programs and facilitating more training grants were identified as priorities. Lastly, a distinguished seminar series, jointly sponsored by basic science and clinical departments, and supported by the Office of the VPR, was proposed.

NEUROSCIENCE

Neuroscience was a priority in the last research strategic plan with the opening of the Neuroscience Research Building (NRB), and, as a result, it has grown to be one of Upstate's strongest research areas. One challenge has been to bring together the groups and departments in the NRB doing neuroscience research. A new chair for the Department of Neuroscience and Physiology with strong leadership skills who could act as a convener of the neuroscience community is greatly needed. The chair would need a revitalization package for the department, including faculty lines. A number of other hiring areas were prioritized including:

Alzheimer's, neuro-oncology, advanced retinal imaging, neuro-virology, cell and molecular neuroscience, electrophysiology, systems neuroscience, bioinformatics, neuro-trauma, drug screening and development, induced pluripotent stem cell-based disease models and regenerative medicine. Several of these proposed hires overlap with the priorities of other working groups and with approved EIP positions awaiting permission for recruitment. Priority initiatives included further development of the behavioral core, advanced ocular imaging, opportunities for increased communication to drive collaboration, a pilot grant mechanism, cross-departmental interest groups to develop large multi-PI grant proposals, and the development of advanced technical capabilities such as regenerative medicine and animal model genome-editing.

IMPLEMENTATION; MAKING THE RESEARCH STRATEGIC PLAN A LIVING AND EVOLVING PROCESS

One criticism often lobbed at strategic plans is that they are a snapshot in time that sits on a shelf and is never implemented. To prevent this from happening to this new Research Strategic Plan, we have to make this not merely a document, but a living process that has the opportunity to evolve. The Discovery Challenge process used to develop this document was an inclusive and highly interactive process and that approach should be encouraged to continue. The Office of the VPR is committed to reconvening all of the working groups on an annual basis to evaluate progress, lack of progress, establish the new priorities for the coming year for implementation, identify new areas of focus and to develop a report that documents progress toward the goals and initiatives of the research strategic plan. Having such a process will facilitate the continuation of broad buy-in to the goals of the plan, allow for the plan to change/evolve over time, and to hold the entire research community accountable for progress in a transparent process.



For the full text of the Research Strategic Plan see
[https://www.upstateresearch.org/
about/research-strategic-plan/](https://www.upstateresearch.org/about/research-strategic-plan/)

UPSTATE

MEDICAL UNIVERSITY
State University of New York

UPSTATE RESEARCH; CREATING THE KNOWLEDGE FOR A BETTER TOMORROW