



Date: Monday, March 11, 2024

To: Charles Taylor, PharmD
Provost & Executive Vice President for Academic Affairs

Christopher Ray, PhD
Deputy Provost

From: Robert C. Haight, PhD, MPA
Vice Provost for University Assessment and Accreditation

Re: Executive Summary – Provost Listening Sessions on Graduate Education Survey Results

Of the 103 respondents to the survey, 62% attended one of the ten listening sessions. The results indicate that the research areas to invest in immediately or in the next 1-2 years are Clinical and Translational Aging Research, Clinical and Translational General Research, Public Health and Policy, and Data Science and Informatics; the focus on investing in specialized fields falls further out into the future. Of the four research areas to invest in immediately or in the next 1-2 years, Clinical and Translational Aging Research, Clinical and Translational “General” Research, and Public Health and Policy were identified as a current strength of HSC, while Data Science and Informatics were identified as future or no strength for HSC.

When asked to list additional research areas not listed that should be created or expanded to train students and enhance HSC research, 19 individuals responded. A few common themes were to invest money in current and future faculty and the current Ph.D. program to strengthen existing research and training; and that separating aging out into a distinct Clinical and Translational Aging category may be too redundant. There were a few statements on improving collaboration between the School of Biomedical Sciences and the College of Pharmacy; to develop offerings in Biomedical Engineering and Pharmaceutical Manufacturing; and to develop novel ophthalmic drug delivery systems. Other areas identified were anatomy, forensics, genetics, pharmaceutical sciences, several topics around health disparities, cancer research, biomedical informatics, M.S. Neuroscience, and Health Economics / Health Policy Research.

Of the 103 respondents, 38 individuals responded to what would be different to how we train students and conduct research in the next five years. One theme that emerged was focused on students and how we train them. Several comments described increasing the institution's focus on graduate (PhD/MS) students to provide more significant financial support to students, centralized access to training resources, increase the clinical cross-training of graduate students, and provide additional courses in the social and administrative sciences. Several responses focused on how we train students, the need for more evidence-based teaching, and increasing the amount of the Scholarship of Teaching and Learning (SoTL).

The second theme that emerged was focused on HSC's research enterprise. Discussions included the research structure, increasing investigators' individual funding, creating integrated support systems, and reducing the duplication of effort around research administration. Further discussion also included increasing team-based approaches to problem-solving and increasing the use of AI/ML/Data Analytics in research. A final component mentioned when asked where HSC will be in five years revolves around increasing the institution's focus on translational, clinical, and applied research.

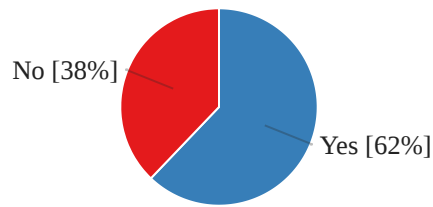
The final question of the survey asked respondents to identify to what extent they agree that a series of items should be the top priority to enhance the training of research graduate students. Of the 63 respondents, the top three areas were: "Create shared courses across colleges/schools to enhance education offerings" (82% Agree/Strongly Agree), "Develop interdisciplinary laboratories dedicated to fostering cross-cutting themes designed to catalyze team science and harness HSC's core strengths" (74% Agree/Strongly Agree), and "Create discipline-specific MS and PhD degrees" (59% Agree/Strongly Agree).



Provost Listening Sessions on Graduate Education Survey - Results

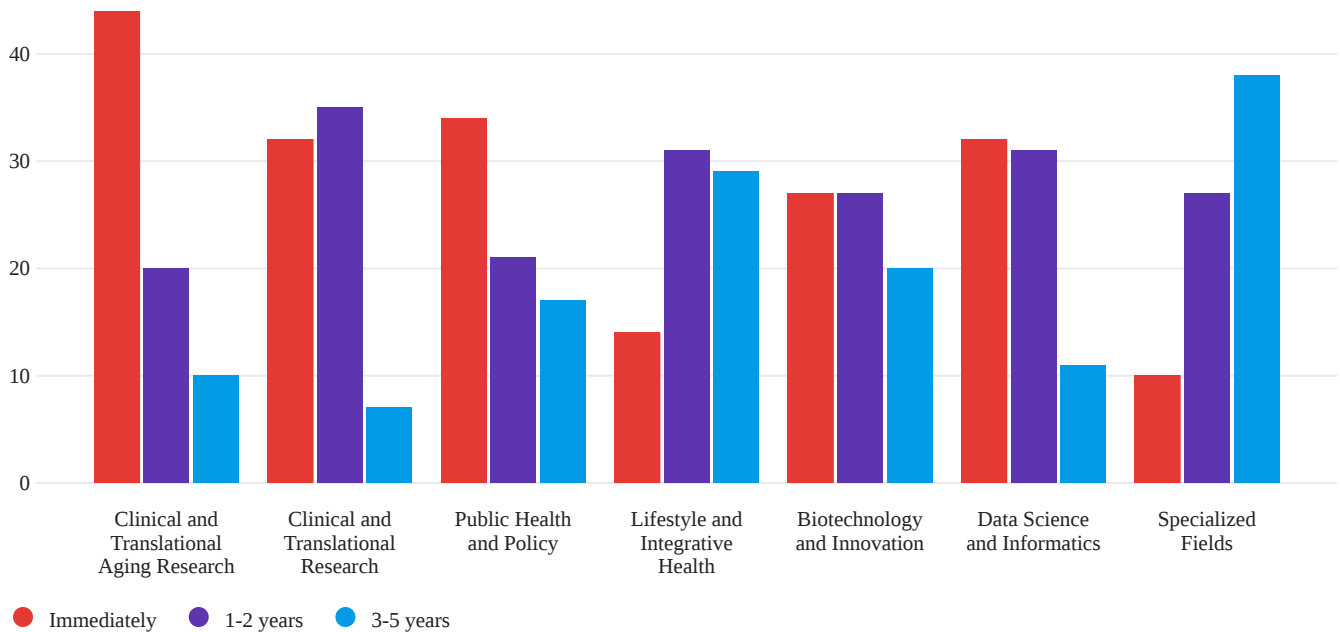
Q1 - Did you attend one of the ten Provost Listening Sessions on Graduate Education

103 Responses



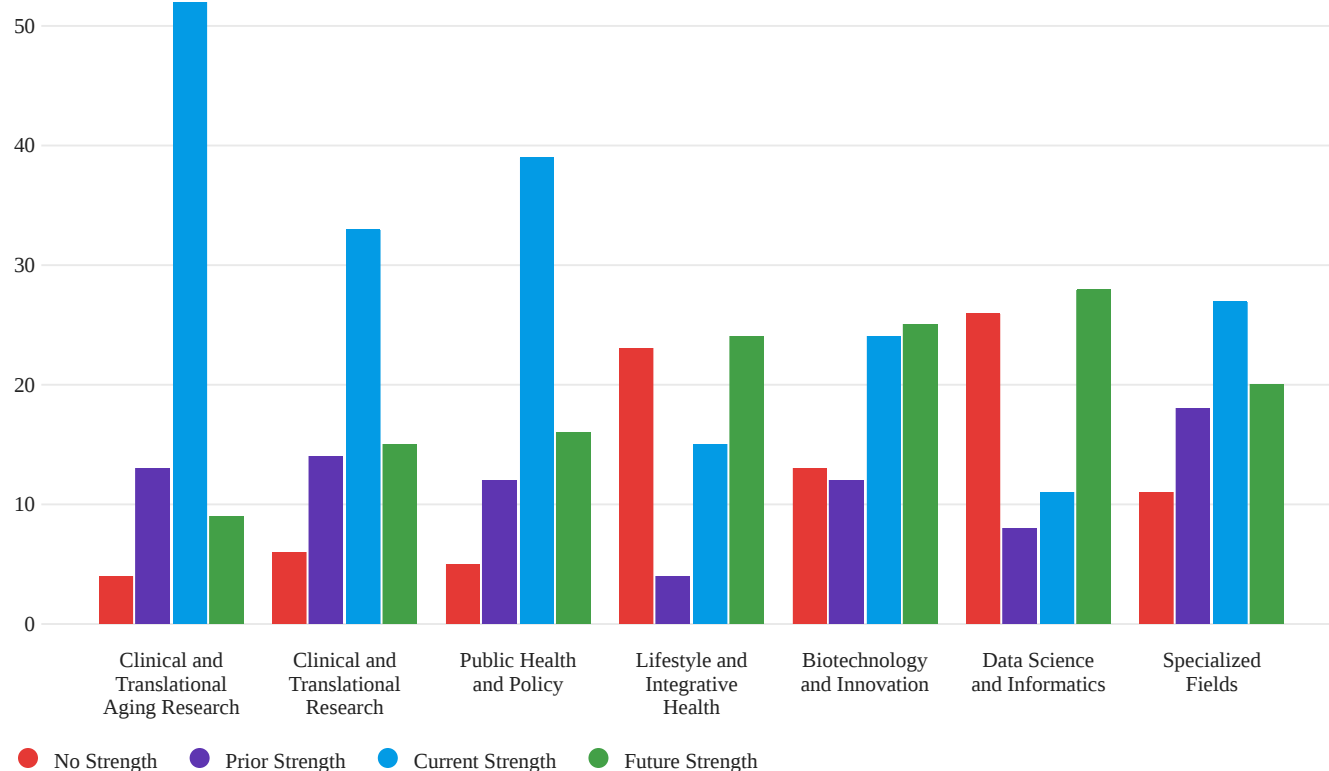
Q2 - If HSC were to invest in the following scientific research areas to train students and enhance research, in what timeframe should this occur?

75 Responses



Q3 - Please estimate HSC's strength in the following areas related to training students and scientific research

65 Responses



Q4 - Please list any additional research areas not listed that should be created or expanded to train students and enhance our research.

19 Responses

I believe it is imperative that we continue to support and expand existing areas of active research. SBS has a long and rich history of effectively training MS and PhD students who have graduated and entered the workforce in diverse careers related to biomedical science. Investing additional money into current and future faculty that strengthen existing research areas would quickly result in the matriculation and ultimately the graduation of more research focused graduate students. I do believe that investing in additional/new research areas would lead to enhanced productivity of faculty in existing research areas, resulting in synergism across the campus. A combination of expansion into new areas, while simultaneously supporting existing areas would likely be supported by all faculty across campus and would certainly enhance student outcomes and success.

Basic sciences under several of these topics should be added.

Aspects of aging that focus on psychosocial aspects such as loneliness, isolation, person-centered care, etc. All the aging aspects mentioned in this survey focused only on the biological aspects of aging which while important, does not complete the picture of aging.

Further build and support eye research. Implement clinical and community outreach arms to NTERI.

We have an existing PhD program that has been underfunded for an extensive period. Re-investments in this area should be our top priority lest we lose the expertise we have struggled to maintain.

Degrees based on anatomy, forensic genetics, and pharmaceutical sciences seems the most cost-effective area for growth.

STEM Education

The areas of emphasis shown for clinical and translational research topics are very specific and seems to ignore current research strengths (i.e., cardiovascular).

Virology in connection with underrepresented populations in Fort Worth, Texas.

Clinical and Translational Research +/- aging is a bit too redundant in my opinion

Cardiovascular/brain research more logical fit under clinical and translational research (as opposed to "aging")

Research for autoimmune diseases like Lyme disease.

We need a PhD in Pharmaceutical Sciences to capture the high demand for the Pharma field that we are currently missing.

non-urban medicine, under-resourced communities, minority health inequities and inequalities

Collaboration with the School of Pharmacy in developing novel ophthalmic drug delivery systems.

Biomedical Engineering

Pharmaceutical Manufacturing

Both of these would be completely new ventures in terms of academic offerings/research domains, but connect to strengths in existing programs (in biomedical sciences and in pharmacy). They are synergistic fields, but would require startup investment.

An area that has been overlooked in the past is to develop the Cancer research programs and tap into the research opportunities offered by the State through CPRIT grants.

public health
cancer screening

Health Informatics and research projects that will serve the patients, community and populations.

biomedical informatics
M.S. degree in Neuroscience

Health Economics and Health Policy Research

Q5 - Imagine HSC in 5 years, what would be different about how we train students and conduct research?

38 Responses

Integration of AI, bioinformatics, data analytics, "big data" science, and machine learning approaches to enhance existing research areas seems imperative. It also seems likely that using more of a team-based approach to solving problems and integrating clinical aspects into our existing basic science would be useful.

More clinical trials opportunities (possibly collaborative opportunities with JPS, THR and Medical City)

HSC needs to bring back Women's Health Services to include mammography, bone density, etc. HSC has this service line years ago and it was absorbed with Acclaim.

Expand avenue of training (career path) requiring full monetary support from schools to explore options and do internships, teach more, etc.. if they choose to do so.

Far more faculty, far more financial support for students and faculty, less micromanagement by administration, adoption of evidence-based teaching practices rather than what's currently popular.

We would have significantly increased our individual funding of investigators.

More faculty mentorship and community-level research.

There will be less duplication of effort across graduate teaching. There will be greater support of students by the administration (less of the financial burden of training will fall on faculty). For example, faculty responsible for the stipend and tuition of a PhD student pay ~\$40K per year. Other schools waive tuition and pay 25-50% of the student's stipend. We are training these students which means that they are not often contributing in a meaningful way to the research that gets done by labs-- they are learning, not doing. The financial burdens of training are in the wrong place.

10X to 25X change in opportunities for involvement in applied research research projects.

More clinical cross-training for our graduate students

Provide more integrated support systems for conducting research: including centralized and standardized administrative services and support services for research students, postdocs, and faculty; centralized documentation of research student and postdoc data and integration of that data into EIS to provide consistency of reporting. Include training in grant proposal writing, navigating the internal and external grant submission process, submitting internal data requests for grant submissions and reporting, and grant management expectations.

I think we should consider some additional courses to make well-rounded scientists and leaders. Items such as management or budgets would have been worthy things to add to my grad school experience.

Clear academic procedures and processes, evidence-based teaching, advances in educational research

Providing students with financial support that is not dependent on the PI is key.

Including the use of AI and having a focus on building communication skills

Better prepared students for future jobs (workforce-ready)

High quality research, by funded and motivated investigators - aligned with HSC values and goals

1) PhD students will be treated as essential UNTHSC employees. Currently, PhD students are generally treated as equivalents of medical or pharmacy students (i.e., consumers) rather than essential contributors to the research enterprise. PhD students are the "entry-level" employees of academic research, as evidenced by the fact that they are actually PAID. In the absence of PhD students, faculty investigators must hire research assistants/technicians usually at higher salaries but with lower development potential. PhD student stipends need to be accounted for in the university's (i.e., Graduate College's) operating budget rather than precariously dependent on grant funds that may not last a student's entire time on our campus. The current funding model also places an undue financial burden on investigators to support graduate training and greatly limits the number of PhD students that can be supported at UNTHSC and thus the potential for expansion.

2) PhD student stipends will be based on realistic living expenses for the DFW area. It is not appropriate/ethical to justify paying UNTHSC PhD students low stipends by comparing the absolute dollar amounts to institutions in areas with lower costs of living. DFW is an increasingly expensive metropolitan area (4th largest in the USA) and stipends should be based on institutions located in cities with comparable costs of living (e.g., Chicago, Houston, Washington DC).

3) With appropriate funding in place, I would like to see a greater variety of PhD and MS programs on our campus. In my opinion, financial constraints represent the greatest barrier to colleges/departments/institutes introducing new programs. Some initial investment into starting such programs at the university level would likely pay for themselves after a few years. In particular, such programs require sufficient faculty FTE to effectively operate. Starting new programs or expanding current programs will likely require the hiring of additional faculty to support these students.

Establish an authentic Translational Research Enterprise

Students would still be able to study their individual degree programs but would have more centralized access to different training resources. And funding levels for students would be provided through the University across programs.

Artificial intelligence won't be as prevalent in research as many predicted. However, virtual learning and virtual reality will be more common place for training researchers.

More co-mentorship and cross disciplinary opportunities for training. Lower threshold for entry of faculty to mentor students (stipend/tuition/benefits mean a PhD student costs >\$100,000 over 5 years).

Q6 - To what extent do you agree that HSC should make the following a top priority to enhance training of research graduate students

63 Responses

