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OVERVIEW OF THE EXTERNAL SITE REVIEW

The External Review ERC (ERC) for the College of Health Sciences (CHS) convened February 20-21, 2017 at the Charles T. Wethington, Jr. Building. The site team is appreciative of the Office of the Provost and the CHS for their thoughtful planning and conduct of the review, and to Dean Scott Lephart, who was available throughout the review. The site visit team was treated in a gracious and highly professional manner. The entire ERC, and in some instances, sub-groups of the ERC, met with representatives of the University and UK Healthcare. The ERC met with faculty and staff members of the CHS of Health Sciences in small groups, councils, and in a CHS whole school meeting (without administrators). A sub-group of the ERC toured CHS’s facilities (i.e., office, teaching, research and clinical space) in the Charles T. Wethington, Jr. Building. Due to time constraints there were no scheduled visits to off-site external clinical, didactic, or research facilities. A sub-group visited the Center for Rural Health. The visit concluded with a verbal report to Provost Tim Tracy, PhD, and an exit meeting with Dean Scott Lephart.

The ERC met with the following:

University Officers and Directors
Tim Tracy, PhD, UK Provost
Annie Davis Weber, EdD, UK Assistant Provost for Faculty Advancement
Mia Alexander-Snow, PhD, UK Director of Planning and Institutional Advancement
Francis J. Feltner, DNP, Director of the Center for Excellence in Rural Health
Brent Pieper, MPA, EdD, UK Senior Executive Director of Philanthropy
Brian Jackson, PhD, Interim Dean, UK Graduate School
Lisa Cassis, PhD, UK Vice President for Research

UK Healthcare
Michael Karpf, MD, Healthcare Executive Vice President for Health Affairs

College of Health Sciences
Scott Lephart, PhD, Dean
Sharon Stewart, PhD, Associate Dean for Special Projects
Pat Kitzman, PT, PhD, Associate Dean for Research
Janice Kuperstein, PT, PhD, MSEd, Associate Dean for Clinical Engagement and Department Chair, Rehabilitation Sciences
Carl Mattacola, PhD, ATC, FNATA Associate Dean for Academic and Faculty Affairs
Denise McCarthy, BS in Accounting, Assistant Dean for Operations
Randa Remer, PhD, Assistant Dean for Student Affairs
Loralyn Cecil, Director of Advancement
Melanie Sparks, BA, Director of Communication
Keturah Taylor, Director of Alumni & Community Relations
Brendan O’Farrell, Director of the Interprofessional Healthcare Residential College
Gilson Capilouto, PhD, CCC-SLP, Director, Undergraduate Research
Betsy Northrup, MPC, CRA Director of Extramural Funding
Becky Unites, PhD, Director of Assessment
Casey Shadix, MEd, CHS Recruiter and Academic Advisor
Christa Jenning, BA, HR and Faculty Administrator
Phyllis Nash, MSW, LCSW, EdD, Clinical Science Department Chair
CHS Faculty Council: Esther Dupont-Versteegden, PhD, Chair, Michelle Butina, Nate Johnson, PT, DPT, PhD, Karen Skaff, RDH, PhD
CHS Staff Council: Melissa Miller, Chair, Meaghan Beck, MPA, Tammy Jo Edge, Tracey Gdovka,
SUPPORTING MATERIALS

Prior to the site visit, the ERC received an extensive collection of self-study documents. These included reporting by the Dean; a 2015 Periodic Review of the CHS; strategic plans (varying time spans, 2013 through 2016) for the CHS as well as for divisions and operating units within the CHS. The ERC was supplied with copious assessments of student achievement. The ERC found these documents to be detailed and forthright (i.e., citing both weaknesses and successes). Upon request, the ERC was granted access to overviews of the CHS budget, and recent philanthropic achievements.

SCOPE OF THE REPORT

Successful colleges/schools) of health sciences and associated health professions typically house academic, research, and service programs with common core missions. When housed within a dynamic, agile, and empowering system, seemingly disparate programs harmonize to create and amplify the successes of the enterprise. Successful colleges of health and departments therein, are often referred to as “family-like” in that faculty (typically members of “helping professions”) are mutually supportive and celebratory of the successes of others. They share a strong commitment to training students who will serve their clients and patients with professionalism, excellence (i.e., evidence-based practice with inter-professional collaboration) and compassion. Such colleges operate within complex, dynamic, and sometimes fragile healthcare and educational environments. This Report will present observations of the leadership and current infrastructure of the University of Kentucky College of Health Sciences and discuss opportunities for future growth. It is the intent of the ERC to offer frank opinions concerning those areas considered to be most salient to the success of the CHS, but not to be overly prescriptive, since a two-day visit cannot reveal the nuances of the functioning and internal culture of such a college.

The following limitations in reporting are not mentioned to be critical of the choices made in constructing the site visit – just to explain lesser areas of comment. First, while the ERC was provided with a summary overview of the financial status of the CHS; there was no opportunity to engage with financial personnel in a more complete discussion concerning budget. The ERC cannot comment upon programmatic cost effectiveness without additional data concerning finances, space utilization, and clinical volumes. Second, the site visit agenda did not include conversations with students. Therefore, the ERC cannot comment upon students’ satisfaction with the curricula, clinical training, faculty, staff, technology, or facilities. Third, no visits with individual divisions were scheduled. Thus, it was not possible to fully evaluate the composition, performance, or space utilization of individual academic units, especially the divisions. Fourth, the brief physical tour of the CHS was solely scheduled within the Charles T. Wethington, Jr. Building, and was attended by only three site visitors. This did not enable a complete appreciation of the CHS onsite or offsite physical space.
EXECUTIVE SUMMARY

The College of Health Sciences (CHS) of the University of Kentucky recently celebrated its 50-year anniversary. Since its inception, the CHS continues to be a hallmark College for the University. On its website the CHS states its goals are education, research and service. The External Review Committee (ERC) appointed by the University Office of Academic Affairs noted that these three goals were paramount in the day-to-day activities of the CHS. Since the last review in 2010, CHS has undergone a major change reflected in the hiring of the new Dean, Dr. Scott Lephart. The Dean has committed to these goals and has also laid out an ambitious vision for the future, which includes rebranding the CHS for greater visibility, and realigning some aspects of the CHS’s organizational structure to achieve greater coherence and efficiency. This vision incorporates existing faculty and staff as well as expanding expertise and research opportunities through recruitment of key personnel. The ERC applauds the University and the CHS on its hire. It was obvious from the interviews conducted on February 20 and 21, 2017 with faculty and staff that the environment in the CHS is both positive and productive. It was clear that CHS members were poised to take on the challenges laid out by the Dean in order to improve the output of the CHS thus enhancing the overall mission of the University of Kentucky for the Commonwealth of Kentucky.

Education remains a major focus of the CHS which has an experienced faculty providing expertise for 7 undergraduate degree programs as well as 6 graduate and professional tracks of study. Success was noted in that the CHS has the highest student retention rate, up from 2014, compared to other programs in the University. In addition, a graduation rate noted in 2015 was 42.6% compared to an average of 40.4% University wide. This reflects a dedication to a steadily increasing student enrollment. Interestingly, recent statistics released by the US Department of Labor reinforce the impact that the CHS has in both the Commonwealth and nationwide. Disciplines within the purview of the CHS are listed near the top in anticipated employment growth, with athletic trainers and medical lab specialists topping the list. In addition, the CHS’s increase in undergraduate student enrollment is impressive. The wide range of undergraduate degree programs focused on preparing students for health science careers has the potential to capture the most qualified students for future enrollment in the University of Kentucky Medical Center. Professional and graduate schools including Medicine, Pharmacy, Dentistry and Graduate programs in the medical sciences will benefit from the undergraduate teaching programs in the CHS. It is noted in the current report, however, that success in education brings inherent challenges. Those challenges include faculty concerns about teaching and advising loads, as well as adequate large lecture hall availability. It is suggested that these concerns be addressed in the near future.

The CHS remains in the top 20 of NIH funded Health Science colleges nationally. The addition of Dr. Lephart and the faculty he recruited have added significantly to the extramural funds received from granting agencies and have broadened the areas of expertise in terms of both basic science and clinical translational research. These areas related to musculoskeletal systems, aging, and sports medicine not only provide financial resources but also aid in student recruitment and training, which advances the field of Health Science research. Translational research studies are enhanced through the availability of patient populations through the CHS supported health clinics making the research efforts all the more relevant. Research is also offered as an option for undergraduate students, thus exposing them to the research process and allowing students to utilize the experience in determining their eventual career choice. It was noted that with the appointment of a new Associate Dean for Research, strong resources are
now available within the CHS to help researchers write and submit grant applications as well as manage the resources when awards are made. In addition, Dr. Lephart has increased the availability of internal funds to help researchers obtain preliminary data as well as help in the interim while new grants are being formulated and submitted. A concern discussed by the ERC was that while 56% more research proposals were submitted in 2016 compared to 2013-14, most of the research activities are being done by a small percentage of faculty. As highlighted in the report, existing faculty are encouraged to increase their efforts in research including grant writing and submission. To facilitate that, it is suggested that the CHS make changes to expectations reflected in the faculty distribution of effort (DOE) allowing an increased emphasis on sponsored research compared to non-sponsored research and taking into account the increased teaching and clinical responsibilities noted. This is a challenge for any program but it is a challenge that the College openly admits is an ongoing issue. The CHS has implemented both short and long term plans to address the situation. It is important to mention that vacant laboratory facilities exist. Recommendations for faculty to increase sponsored DOE activities should not be hampered by any suggestions that research space is not available, though remodeling of some of the space could be necessary to accommodate different research agendas. In addition, because only a small percentage of faculty are bringing in the majority of external funds, it is recommended to recruit additional “research stars” to bolster the research effort as well as continue to encourage existing tenured faculty to pursue funding. This recommendation is made in light of the comment previously made about teaching load. This is not unique in the CHS but is a dilemma faced by many of the colleges across the University. Distribution of effort is a current concern and the Dean is aware of the issue; steps are being taken to alleviate the pressures. The opportunity for growth and success can only be achieved by consistent funds supplied by external funding agencies. All in all, however, research was considered a strength of the CHS but the pressures to obtain funding must be shared by a greater percentage of the faculty and not rest on a few.

Providing service to the Commonwealth of Kentucky was also considered a major strength of the CHS. Numerous clinics including physical therapy, speech-language pathology, sports medicine, as well as providing physician assistants to help offset the shortage of physicians in rural areas was impressive. The CHS has established clinics as well as distance learning centers in Hazard Kentucky (physical therapy and medical lab services) as well as access to a physician assistant program in Morehead, Kentucky. The success of the College of Medicine across the Commonwealth of Kentucky will only benefit by the continued contribution and expansion of those services provided by the CHS. Greater interaction of the College of Medicine and the CHS is also encouraged. Duplicity of efforts should be recognized and managed in order to better manage resources and increase the efficacy of health care efforts across the Commonwealth.

Overall, as reiterated in the current report, the ERC left the two-day review on a very positive note. The attitude of the staff and faculty who were met both in small groups and in a large town hall setting over the course of two days was very encouraging. The exit meeting with the Dean sent a very uplifting message that the CHS was on an upward trajectory and would meet the goals that were established and would uphold the standards that were set over the past 50 years in terms of education and providing service to the citizens of the Commonwealth of Kentucky. The College of Health Science is viewed as a strong component of the University of Kentucky system and has the potential to reach even greater heights in terms of national recognition in the coming years.
RECOMMENDATIONS

CHS INFRASTRUCTURE:
The ERC endorses Dean Lephart’s intent to create a “flatter,” more efficient organization and is confident that he will phase-in such change wisely and with transparency, in consultation with the CHS community. Infrastructure changes, along with expectations for research productivity are essential to elevate the CHS to national prominence. The “developmental dissonance” that invariably accompanies such transformation is expected and manageable and should not be unduly discouraging to leadership, faculty, or staff. Possibilities for transformation include:
a. An undergraduate department to oversee admissions standards, advising, policies and procedures, and curricula, and collaborate with the Office of Research on the undergraduate research certificate. It is crucial to insure that the influx of undergraduate students in Fall 2017 is met with sufficient staff and faculty resources so as to maintain the CHS’s high retention rates.
b. Strengthen the infrastructure and supervision of the Doctoral Program.
c. Convert some professionally oriented divisions (and perhaps other divisions) to departments, with a direct report to the Dean or his designee.
d. Re-evaluate the roles and domains of associate deans, assistant deans, and directors, to streamline the current structure.
e. Evaluate business office functions, including the administration of travel and reimbursement.
f. Continue the CHS-wide dialogues and events (with faculty, staff and students) to nurture the sense of “family” that characterizes CHS.

RESEARCH:
The CHS is experiencing an upward trajectory in research success. The ERC endorses the Dean’s vision, and suggests that CHS:
a. Be granted resources to hire two “star” researchers to build capacity and provide additional laboratory experiences and funding for doctoral students.
b. Continue to encourage tenure stream and tenured faculty to prepare fundable research proposals, and/or substitute other activities (e.g., teaching, clinical service, etc.).
c. Ensure that faculty in discipline specific leadership positions (i.e., division chairs) are poised to provide research mentorship, especially for junior faculty.
d. Increase multi-disciplinary research interactions.
e. Continue to develop a diversified funding portfolio.
f. Hire high-level statistical support.
g. Continue to develop of research collaborations across the university and health care systems, (including the Veterans Administration if that system shows receptivity).
h. Consider locating post-award grant support within the Office of Research.

DOCTORAL PROGRAM:
The Dean wisely engaged external consultants to assess the Doctoral (PhD) Program in Rehabilitation Science; the ERC endorses their recommendations. This program has drifted from preparing competitive researchers, to one that also awards PhD degrees to students who are more likely to seek “teaching” or “administrative” positions. PhD students should be supported by research funding, instead of providing clinical service. A more appropriate funding base will help the CHS attract the highest quality doctoral students and create synergies between faculty and doctoral student research. A centralized and more stringent doctoral admission process is recommended. The ERC recommends reduced doctoral admissions until these issues are resolved.
DIVERSITY AND INCLUSION:
a. The CHS would benefit from the appointment of a Diversity Officer with sufficient FTE and experience. This individual should relate to all segments of the CHS and UK communities (especially the Graduate School), and serve as a liaison to University diversity initiatives, offices and diversity officers in other UK Colleges.
b. The CHS should continue to infuse diversity into the curricula and into visible branding.
c. The CHS should continue to relate and engage with the disability community and incorporate disability studies and policy into the curricula.
d. The CHS should considering strengthening access to AAC equipment, expertise, and research.

UNDERGRADUATE ENROLLMENT:
Dean Lephart accurately grasps an immediate challenge facing the CHS (e.g., an increased influx of undergraduates). He has been briskly proactive in leading the CHS to identify needed resources to maintain a high level of student retention and request institutional resources.

SPACE UTILIZATION:
The need for large classroom spaces, laboratory space for future hires and their doctoral students, student lounge space, and more office space are valid concerns. The ERC recommends a CHS space utilization study within the Wethington Building (i.e., offices; classrooms; clinical; laboratory) that will also determine the potential for re-configuring space and establish criteria/metrics for space allocation and impacts on future growth.

TEACHING ASSISTANTS (TAs):
The CHS needs access to Teaching Assistants (TAs). Access to TAs will be crucial to manage the increase in undergraduate students.

GRADUATE SCHOOL:
The ERC perceives opportunities to collaborate further with the Dean of Graduate Studies, who observed that scholarships could help with the recruitment of top candidates. (The CHS awards tuition scholarships after students are accepted and intend to matriculate.) The Graduate School is currently being re-envisioned; the Dean expressed that CHS could play a role. The Graduate School could also help with recruitment to increase diversity. A point person at CHS is needed to foster collaboration with the Graduate School.

ATHLETIC TRAINING PROGRAM APPROVAL:
It is imperative that the proposal to elevate the undergraduate Athletic Training program to a Master’s degree be swiftly reviewed so that it can garner approval at the University level and become operational Fall, 2017. The program will provide a much needed, higher level of workforce expertise in the Commonwealth of Kentucky.

INFORMATION TECHNOLOGY:
The CHS is on an appropriate path to hire an IT director who can meet the specialized needs of a college of health sciences (i.e., research-based; instructional; clinical data bases, and specialized clinical programs, etc.) These needs are best satisfied by onsite experts who can leverage University resources and policies. The proposed FTE is consistent with other high-functioning colleges of its type, nationally.
CLINICAL CONTRACT MANAGEMENT:
The CHS’s clinical contracts are currently managed within each division. The ERC recommends that a more efficient and risk-averse model is for CHS to maintain one database that is populated and maintained by a staff contract administrator who relates to the programs’ clinical coordinators. Establishing one contract per facility, can fold in all appropriate disciplines, and create synergies between programs. A CHS centralized process will foster time efficiencies for both legal counsel (one designated attorney is ideal) and the clinical coordinators. A committee of clinical coordinators can be invaluable in establishing CHS-wide clinical policies and serve as a peer collaboration group for clinical education and training requirements.

FINDINGS OF THE EXTERNAL REVIEW COMMITTEE

THE DEAN:
Dean Scott Lephart is leading tangible and accelerated successes across multiple domains (i.e., research; programmatic; clinical service; branding, etc.) and has achieved greatly since his arrival in March, 2015. He is an active translational researcher, the first in the history of the CHS. His laboratory provides a model for operational success. Dean Lephart has brought to the CHS both external resources and a generous commitment of internal resources.

Dean Lephart’s efforts and aspirations are aligned with UK’s institutional goal to become a Top 20 Public University. He is similarly dedicated to meeting the unique challenges of healthcare in Kentucky. Dr. Michael Karpf noted, “His (Dean Lephart’s) vision is not bigger or broader than he can accomplish.” Dean Lephart is serving as a highly effective ambassador of the CHS. His efforts to partner with the UKHS, the School of Medicine, and the larger university have been successful, strategic, and are to the benefit to the CHS. They will also shine brightly on the University of Kentucky, the University of Kentucky Health System, and the state of Kentucky.

In addition to fostering internal partnerships, Dean Lephart is vigorously promoting the interests of the CHS and seeking new external opportunities. He regularly attends US Department of Defense (DOD) Research meetings and professional annual conventions. Dean Lephart attends the “by invitation only” Santa Fe Dean’s Group, a consortium of thirty elite deans of the leading schools of health and rehabilitation.

CLIMATE AND BRANDING:
The Dean communicates frequently with the CHS’s constituency, amplifying the positive “family-like” atmosphere that characterizes the CHS culture. There is a generally strong sense of collegiality among the CHS faculty and staff. However, the CHS is undergoing a cultural shift based on the priorities of the new Dean. This shift is creating varying degrees of concern particularly in the areas of time allocation and workloads. Concerns included workload demands and changing expectations, and salary structure relative to national competitors. There is a need for greater recognition of excellence by staff members and among faculty in areas other than sponsored research.

Dean Lephart has begun to facilitate a rebranding of the CHS. He is strategically and frequently celebrating the CHS’s successes across many communication platforms.

METRICS OF ACHIEVEMENT:
The ERC reviewed the recent metrics for the CHS garnered from a 2/20/2017 presentation supplied by Dean Lephart. The data indicate a positive and commendable upward trajectory.
Faculty and Staff Giving: Dollar amount up 126%; number giving up 150%

Retention/Graduation:
Retention/Graduation: 2015 Cohort Retention at nearly 18%; up 1.3% from 2014. This is the highest retention rate at UK.

4 Year Graduation Rate: CHS: 42.6%; UK: 40.4%; HS URM: 33.3%; UK URM: 27.9%

Application/Enrollment: 2017 Incoming Freshman: 535 undeclared/exploratory freshman applicants

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Graduate Program Selectivity: 1,660 applied; 358 accepted: 22% acceptance rate

2016 Research Enterprise: 71% growth (FY 16 - FY 15); FY16: $3,298,350; FY 15: $1,928,747; FY 14: $1,666,189

Research Distribution of Effort: 2016- 2017: 24%; 2015-2016: 21%

FY 16 Performance Budget Model: $554K recurring increase to the CHS base.
The CHS received $304K (recurring) Performance Funding based upon increased: academic and student success; research and scholarship, and diversity and inclusivity. The CHS received $250K pressure point funding to support growth.

FY 17 Performance Budget Model: $225 recurring to the CHS base
Academic and student success: enrollment, retention, degrees, URN success

Media and Branding:


Branding: New logos; redesigned website and signage; brand storytelling; Synergy newsletter and other publications; strategic communication plan; the CHS brand book and rollout)

Strategic Investments: 2015-current: 10.5 Staff FTE; 6 Faculty FTE; 7 faculty/ 2 staff FTE SMRI; 1.8 FTE CDCB

STRATEGIC COLLABORATIONS:
The University of Kentucky Sports Medicine Research Institute (SMRI)
Soon after his arrival two years ago, Dean Lephart founded the University of Kentucky Sports Medicine Research Institute (SMRI). SMRI is staffed by a renowned research team with over 25 years of experience in studying the prevention, treatment, and rehabilitation of musculoskeletal injuries. Over the years, this team has secured over $50M in funded research from sources which include: Department of Defense, National Institutes of Health, Centers for Disease Control and Prevention, NFL Charities Foundation, and several other foundations.

The SMRI is: “a multidisciplinary research center focused on injury prevention and performance optimization, musculoskeletal health and rehabilitation, metabolism, and neuro-cognition. SMRI is dedicated to excellence in research, community outreach, and collaboration — all leading to one outcome: optimal health. Focusing on tactical athletes and youth and collegiate-level athletes, SMRI explores ways to minimize injury, optimize performance and
maximize career longevity and quality of life. Test models include those specific to risk mitigation, nutrition, fatigue, endocrine health, sleep and stress, battlefield medicine, adaptive technology, concussion, orthopaedic-related injury prevention and rehabilitation interventions, healthy aging, and women’s health. SMRI will provide outreach opportunities incorporating applicable strategies on injury prevention, human performance, sports nutrition and overall wellness to recreational and competitive youth, high school, collegiate, professional, and senior athletes, coaches, parents, and other health care providers.”

The work of SMRI is poised to benefit every Kentuckian, via outreach that includes clinics, workshops and presentations.

**Equestrian Sports Research**

The CHS is partnering with the Jockey Club and Jockey’s Guild. The CHS is poised to become an international center of excellence for rider health and safety.

**Child Development Center of the Bluegrass (CDBC)**

Effective August 15, 2016, the CHS assumed management of pediatric therapy services provided at UK Pediatric Services of the CDBC and employs 14 therapists for a total of 11.8 FTE (OT, PT, SLP).

**Kentucky Care Coordination for Community Transitions (KC³T)**

KC³T provides support for community transitions for individuals with neurological conditions (stroke; brain injury; spinal cord injury, etc.) and their caregivers.

**RESEARCH:**

The Dean has articulated a vision for increased research funding; faculty have responded by generating more grant applications and increases in funding, even within a very brief time since the Dean’s hire. The faculty and the Dean are to be commended.

Within the CHS there is little sponsored research generated from the Department of Clinical Sciences. Rehabilitation Science generates much more sponsored research, although it is concentrated in relatively few individual investigators.

From an institutional perspective the CHS has a heavy emphasis on instruction in their distribution of effort (DOE). Research DOE is low. The Dean’s expectation that tenured research faculty will be highly engaged in sponsored research and/or proposal preparation is consistent with that a top flight college. He is appropriately engaging in a dialogue with faculty leaders concerning the percentage of their allocation of effort for non-sponsored research. Currently, the CHS has 17 assistant professors, 24 associate professors and 10 professors. Half of the faculty are special title series and full-time. Approximately 10% of the faculty (3 or 4 people) are responsible for 50% of the research funding. Retention and expansion of this too small pool of successful researchers is imperative. It is not realistic in the long-term, to expect Dean Lephart to personally serve as a high producer of research, plus fulfill the responsibilities of a Dean. The provision of resources to hire two “star researchers” is essential to the success of this very promising research enterprise.

1 https://www.uky.edu/chs/research/smri
Funding Portfolio: The CHS is building a healthy and diversified portfolio of funding sources, with the most funding derived from the US Department of Defense (DOD), followed by the US Department of Education (DoED); the Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services; US National Institutes of Health (NIH), and other sources. The CHS is in the top 25 in NIH funding for CHSs of Allied Health.

Scope of Research: The CHS is in the midst of an upward trajectory of research success, across multiple departments, with a range of ongoing and funded projects: effects of aerobic training on motor cortex cerebral blood flow and motor performance in older adults; early sucking behavior as a predictor of neurodevelopmental outcomes; improving function in patients with peripheral arterial disease; injury mitigation and performance optimization in the elite tactical athlete; improving resistance exercise outcomes in the elderly; effects of massage on skeletal muscle function; Vitamin D contribution to muscle metabolic function in the elderly; muscle stem cell function in response to injury, post exercise, and during aging; effects of biomechanics and muscle function on lower extremity orthopedic injuries; preparing occupational therapy, physical therapy, and speech-language pathology students to meet the therapy needs of infants, toddlers and children with disabilities for employment in rural areas (PREPaRE); vocal cord and laryngeal muscle function during aging; and, healthcare decision making of adults living in rural communities with acquired neurologic conditions.

The following diagram depicts the span of research across the CHS:
The CHS needs to focus on partnering more strategically with other entities on campus. The College of Medicine in particular is an entity with which the CHS should nurture collaborative opportunities. These might be present in Nutrition. Other possible opportunities for collaboration are within the College of Engineering (e.g., bioengineering, in the area of assistive technology). Community based participatory research (e.g., PICORI pipeline awards), practice based research, and the research of pedagogy are also areas of opportunity, as is collaborative research with the Center for Rural Health.

**The CHS Office of Research:** Recognizing the need to strengthen the CHS's research infrastructure and diversify funding sources, Dean Lephart appointed a new Associate Dean for Research. The Office of Research provides mentorship and support in proposal development; identifies extramural funding sources; participates in compliance consults; houses a Research Advisory ERC; provides grant management, tracking, and reporting; and supplies statistical support. Additional, advanced statistical expertise is now needed. The Office of Research, in collaboration with the Departments of Rehabilitation Sciences and Clinical Sciences offers an undergraduate **Certificate in Research in Human Health Sciences.** The Certificate uniquely provides any University of Kentucky undergraduate student with the opportunity to gain advanced knowledge in interdisciplinary clinical and translational research in the human health sciences fields.

**ADMINISTRATION:**
The site visitors met with dedicated and impressive CHS administrators. The service of the two department chairs, and the Associate Dean for Special Projects (formerly Interim Dean Sharon Stewart) are commendable.

The CHS appears to be fiscally sound. (However, the Review Team was not provided with a multi-year comparison, current and immediate past budget, and the opportunity to meet with the business director.)
Priorities such as mentoring and evaluation seem dispersed across several departments or offices. There may be opportunity for consolidation.

Post-award grant support should likely be located within the Office of Research.

**DIVERSITY:**
The CHS is making efforts to increase and foster diversity. Education about unconscious bias has been provided to the entire CHS. Student and staff diversity appears commensurate with peer colleges of this type. Faculty diversity in the health sciences continues to be a challenge, nationwide. The ERC endorses the Provost’s observation that the CHS might identify a “diversity officer” whose efforts leverage the University’s resources.

**SPACE AND FACILITIES:**
Three members of the review team toured the CHS’s assigned space in the Wethington building, (Tuesday, mid-afternoon). The albeit brief tour raised the need for a comprehensive evaluation of space utilization and possible reconfigurations of some of the space. The observed low utilization of some of the spaces (e.g., clinical and laboratory) was puzzling. There is a reported shortage of dry lab space and insufficient space for research in telepractice, voice, and pediatric speech and language.

**CLINICAL TRAINING:**
The medical center and the KY community of practitioners provide rich support for clinical training; this availability is a key determiner of graduate class sizes and the ability to train students to provide “top of their license” clinical practice. It is commendable that opportunities for on-site training within the medical center are growing, via a model that provides authentic clinical experiences and experience with inter-professional teams. That communication science and disorders is staffing speech-language pathology (including voice and swallowing) services within the UKHC is commendable. This provides excellent authentic training and service opportunities, as can the integration of doctoral level clinical supervisors and researchers. For over a decade, there has been valid concerns about external clinical preceptors requiring payment from universities. The provision of gratis clinical education hours by loyal alumni, and access to a future workforce seem to have forestalled this looming threat, at least in the rehabilitation professions within the CHS.

**CURRICULUM:**
The CHS has a strong legacy of excellence in academic teaching and professional training in associated health disciplines.

The Dean aptly identified assistive technologies and disability as potential areas of curricular and research growth. Clinical nutrition, nutritional research, and undergraduate nutrition education are administered separately; integration under CHS might be explored.

The University processes to approve a new course in an existing (approved) program, or a new program seem protracted, time consuming, and unnecessarily external to the CHS. This impedes the CHS’s agility and potentially has a negative financial impact. It is imperative that the proposal to elevate the Athletic Training program to a Master’s degree is swiftly reviewed so
that it can garner approval at the University level. (The program will provide a higher level of workforce expertise in the state of Kentucky).

The CHS is collaborating with the Center for Interprofessional Education to prepare students to work on interprofessional healthcare teams.

**UNDERGRADUATE EDUCATION:**
The CHS made a seismic shift in focus from primarily graduate and professional students a few years ago, to now being a major provider of UK undergraduate education. Though the Responsibility Centered Model (RCM) model did not materialize as expected and instead, undergraduate education follows an incremental budgeting model, the CHS remains committed to undergraduate success. However, this has created a few tensions: the CHS's undergraduate programs serve as “gateways” to graduate programs in the health professions. The size of admitted undergraduate classes must be balanced with two limiting factors: difficulty securing large classrooms (which creates the need for more instructors and increased costs); and limitations in graduate school class sizes due to the availability of clinical training placements. On the other hand, the percentage of anticipated employment growth in the associated health professions is encouraging, with average growth across the health sciences more than triple the average growth projected across all occupations.

The influx of more undergraduate students will likely have a dramatic impact on the CHS in terms of admissions, advising, courses, and the adequacy of the facility. This will undoubtedly require additional resources. If not managed wisely (e.g., programming, advisor: student ratio; additional resources), the expansion could frustrate faculty and staff, impede the research growth of the CHS, and negatively affect student retention.

The undergraduate research initiatives and certificate (the only UK undergraduate research certificate) are extremely commendable.

**GRADUATE EDUCATION:**
The Graduate School is tasked with recruitment and application processing for graduate programs in the CHS. Admission requirements for professional programs in the CHS and institutional requirements create confusion for students and inefficiencies from redundant processes.

The Graduate School has programs related to outreach and recruitment of under-represented minorities. It appears the CHS may not be optimally capitalizing on Graduate School resources in their own efforts to enhance diversity within the CHS.

**PHILANTHROPY AND ALUMNI:**
The CHS’s entrepreneurial and engaging Dean has an affinity for philanthropy (i.e., major giving). His research efforts have garnered high profile media at his previous institution, and the current marketing materials for the Sports Medicine Research Institute are sophisticated. The ERC recommends a highly judicious allocation of this Dean’s time so that he exclusively relates to the most promising and profitable donor prospects, because while positively oriented toward philanthropy, the Dean is also contributing to the CHS’s income producing research capacity and reshaping aspects of the CHS’s infrastructure. The perspectives of the UK Senior
Director of Philanthropy were supportive of and in concert with the potential of the CHS. These include funded professorships as a worthy goal. There are approximately 8,000 CHS alumni. Many provide gratis clinical supervision. Most identify with their profession’s specific training programs.

**INFORMATION TECHNOLOGY:**
The CHS is on an appropriate path to hire an IT director who can meet the specialized needs of a College of this type, (i.e., research-based; instructional; clinical data bases, specialized clinical programs, etc.) The IT requirements of a college of this type are best satisfied by onsite experts who can leverage University resources and policy. The proposed FTE is appropriate and consistent with other high-functioning colleges of its type.

**RURAL HEALTH:**
The CHS enjoys an excellent relationship with the Center for Rural Health. The facility is impressive. The technology for distance learning can be improved, but needs an update on the UK side. The association with the Center Rural Health presents opportunities for research.

**SUMMARY**

In summary, the College of Health Sciences (CHS) of the University of Kentucky recently celebrated its 50-year anniversary. With its goals of education, research, and service, the CHS continues to be a hallmark College for the University. Since the last review in 2010, the CHS has undergone a major change reflected in the hiring of the new Dean, Dr. Scott Lephart. The Dean has committed to these goals and has also laid out an ambitious vision for the future, which includes rebranding the CHS for greater visibility and realigning some aspects of the CHS’s organizational structure to achieve greater coherence and efficiency.

The addition of Dr. Lephart and the faculty he recruited have added significantly to the extramural funds received from granting agencies and have broadened the areas of expertise in terms of both basic science and clinical translational research. These areas related to musculoskeletal systems, aging, and sports medicine not only provide financial resources but also aid in student recruitment and training, which advances the field of Health Science research. Translational research studies are enhanced through the availability of patient populations through the CHS supported health clinics making the research effort all the more relevant. Research is also offered as an option for undergraduate students, thus exposing them to the research process and allowing students to utilize the experience in determining their eventual career choice.

Education remains a major focus of the CHS which has an experienced faculty providing expertise for 7 undergraduate degree programs as well as 6 graduate and professional tracks of study. The wide range of undergraduate degree programs focused on preparing students for health science careers has the potential to capture the most qualified students for future enrollment in the University of Kentucky Medical Center. Professional and graduate schools including Medicine, Pharmacy, Dentistry and Graduate programs in the medical sciences will benefit from the undergraduate teaching programs in the CHS. Success was noted in that the CHS has the highest student retention rate compared to other programs in the University. Disciplines within the purview of the CHS are listed near the top in anticipated employment growth by the US Department of Labor. In addition, the CHS’s increase in undergraduate student enrollment is impressive.
Providing service to the Commonwealth of Kentucky is also a major strength of the CHS. Numerous clinics including physical therapy, speech-language pathology, sports medicine, as well as providing physician assistants to help offset the shortage of physicians in rural areas is impressive. The CHS has established clinics as well as distance learning centers in Hazard Kentucky (physical therapy and medical lab services) as well as access to a physician assistant program in Morehead Kentucky.

The exit meeting with the Dean sent a very uplifting message that the CHS is on an upward trajectory to meet the goals that were established and will uphold the standards that were set over the past 50 years in terms of education and providing service to the citizens of the Commonwealth of Kentucky. CHS is viewed as a strong component of the University of Kentucky system and has the potential to reach even greater heights in terms of national recognition in the coming years.