iLEAD

Interprofessional Leadership for Excellence and Academic Development

Drawing from our roots to cultivate the next generation of leaders

unmc.edu/facdev
Reflections on the Leadership Journey

In 2000, Dr. Fred McCurdy proposed a new kind of leadership development program for UNMC. He believed you could change an organization by growing its people. Dr. McCurdy also felt strongly that any such program needed to be systematically studied to assess its curriculum and outcomes in order to remain relevant to the participant and the organization. He likened the experience of a participant to peeling an onion; using a quote from the American Poet Carl Sandburg “Life is like an onion. You peel it off one layer at a time; and sometimes you weep.”

So, too, is the process to develop yourself into a leader.

The curriculum of iLEAD takes the participant through a leadership journey, an excursion of personal and professional assessment and skill building while fostering individual accountability for leading. iLEAD believes leaders must have:

- Firm understanding of the values that anchor their decisions and actions
- Vision that lies above a common horizon
- Keen understanding of their talents and abilities, and how to actuate them for the organization
- Willingness to confront and manage their weaknesses, and to act on their strengths
- Courage when facing conflict and skill in negotiation

Since its inaugural class of 2000, UNMC’s leadership program has graduate over 200 individuals. Over 560 hours of program content have been delivered to the 10 cohorts by local, regional and national experts of curriculum specific content. Thousands of hours have been spent by graduates in personal application. As a result, iLEAD graduates have risen to the ranks of deans, department chairs, directors and section chiefs.

iLEAD remains as one of UNMC’s longest running development programs encouraging exceedingly bright and energetic faculty to be exemplars of leadership, consummate team players and followers of extraordinary caliber. That is quite an onion.

Timothy M. Durham, DDS, MPA
iLEAD Planning Committee Chair
# Table of Contents

A Legacy of Leadership: Previous Graduates ......................................................... 5

New Faculty Mentoring Program: Shannon Boerner, MD ............................................. 7

Bridging the Bench to Bedside Gap: Shilpa Buch, PhD & Kim Haynes-Henson, MD ............... 8

Evaluation and Selection of Expanded DNA Identification Kits: Joe Choquette, MFS ................. 9

Assessment of Quality of Care in the Era of the EMR: Amy L. Duhachek-Stapelman, MD ............. 10

Establishing a Non-Operating Room Anesthesia Service: Greta Duncan Wiebe, MD .................. 11

Developing a Student Success Program: Michelle E. Ellermeier, RN, MSN .......................... 12

Establishing a Sister-Institution Relationship with Tianjin: Kai Fu, MD, PhD ........................ 13

Addressing the Limitations of a Paper-Based System: Catherine Gebhart, PhD, D(ABHI) .............. 14

Master of Medical Nutrition Degree at UNMC: Corrine Hanson, PhD, RD, LMNT ....................... 15

Strategies for Enhancing the Profession of Nuclear Medicine: Marcia Hess Smith, BS, CNMT ............ 16

Leadership in Critical Care for Ebola Virus Disease: Daniel W. Johnson, MD ......................... 17

“Know Falls”: Katherine J. Jones, PT, PhD ........................................................................ 18

Study Techniques and Course Resources that Lead to Success: Sarah Keim Janssen, PhD .................. 19

Leading Through Motivation for Learning: Suhasini Kotcherlakota, PhD ................................. 20

Building a Network of Mentors: Jessica A. Kozel, MD .................................................... 21

Patient Photos in an EMR: A Picture Retrieves a Thousand Memories: Matthew Lunning, DO ......... 22

Replacing Paper Forms with iPads in the Rheumatology Clinic: Kaleb Michaud, PhD ...................... 23

Migrating to Paperless Office: Ashok Mudgapalli, PhD & Bethany DeCarolis, BA ....................... 24

Comparison of Electronic Programs for International Educated Nurses: Audrey E. Nelson, PhD, RN ............ 25

Developing a Cost-Effective Approach to Reaching an Underserved Population in Need of Autism Services: Nicole M. Rodriguez, PhD, BCBA-D ......................................................... 26

Building a Multidisciplinary Osteogenesis Imperfecta Clinic for Adults: Eric Rush, MD, FAAP, FACMG ................................................................. 27

Development of an Integrative Clinical Skills Instruction Program: Cody Sasek, MPAS, PA-C .............. 28

Ebola Preparedness for Pediatric Patients: Kari A. Simonsen, MD, FAAP, FIDSA, FPIDS .................. 29

Rethinking Admission Criteria to a BSN Program: Jennifer Swantek, MSN, APRN, FNP-BC ............. 30

Creation of an Easily Accessible Paraffin Tissue Bank: Geoffrey A. Talmor, MD ....................... 31

Rapid Access Bronchoscopy in a Slo-Mo World: Austin Thompson, MD & Amol Patil, MD ............. 32

Road Map for Research: Leading a Multidisciplinary Team: Toby Warden, PhD ......................... 33

Increase In-Office Procedures in OB/GYN Department: Sylvia Ziegenbein, MD ......................... 34

Interprofessional Planning Committee: Committee Members ................................................. 35
“Before you are a leader, success is all about growing yourself. When you become a leader, success is all about growing others.”

- Jack Welch
  former GE chairman and CEO
### A Legacy of Leadership: Previous Graduates

#### Class of 2000

<table>
<thead>
<tr>
<th>Ivan Abdouch</th>
<th>Lynne Buchanan</th>
<th>Mary Helms</th>
<th>James Somers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Aita</td>
<td>Deborah Circo</td>
<td>Aurelio Matamoros</td>
<td>Henry St. Germain</td>
</tr>
<tr>
<td>Jan Atwood</td>
<td>David Crouse</td>
<td>Barbara McCabe</td>
<td>Paula Termuhlen</td>
</tr>
<tr>
<td>Joel Bessmer</td>
<td>Melissa Diers</td>
<td>Kyle Meyer</td>
<td>Roseann Vorce</td>
</tr>
<tr>
<td>Thomas Birk</td>
<td>Timothy Durham</td>
<td>Marie Reidelbach</td>
<td>Gary Yee</td>
</tr>
<tr>
<td>Diane Brage Hudson</td>
<td>Cynthia Ellis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Class of 2001

<table>
<thead>
<tr>
<th>Roxanne Alter</th>
<th>Sheila Ellis</th>
<th>James Harper</th>
<th>Jose Romero</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samuel Augustine</td>
<td>Linda Fell</td>
<td>Carol Lacroix</td>
<td>Paul Sammut</td>
</tr>
<tr>
<td>Jeffrey Baldwin</td>
<td>Kathryn Fiandt</td>
<td>Pascale Lane</td>
<td>Rose Schinker</td>
</tr>
<tr>
<td>J. Bruce Bavitz</td>
<td>Katherine Finkelstein</td>
<td>Audrey Nelson</td>
<td>Randall Toothaker</td>
</tr>
<tr>
<td>Joyce Black</td>
<td>Gerald Groggel</td>
<td>Audrey Paulman</td>
<td>James Turpen</td>
</tr>
</tbody>
</table>

#### Class of 2002

<table>
<thead>
<tr>
<th>Leslie Bruch</th>
<th>Jeffrey Harrison</th>
<th>Ulrich Klein</th>
<th>Keith Mueller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lissa Clark</td>
<td>Barbara Heywood</td>
<td>Udaya Kompella</td>
<td>Rosaline Olade</td>
</tr>
<tr>
<td>Ellen Davis-Hall</td>
<td>Polly Hulme</td>
<td>Naomi Lacy</td>
<td>William Roccaforte</td>
</tr>
<tr>
<td>Brian Finley</td>
<td>Andrew Jameton</td>
<td>Richard MacDonald</td>
<td>Marsha Sullivan</td>
</tr>
<tr>
<td>Howard Gendelman</td>
<td>Joanne Johnson</td>
<td>Dennis McNeilly</td>
<td>Gordon Todd</td>
</tr>
</tbody>
</table>

#### Class of 2003

<table>
<thead>
<tr>
<th>Leonard Agneta</th>
<th>Peter Gwilt</th>
<th>James Lynch</th>
<th>Samuel Pirruccello</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Froeschle</td>
<td>Simon Horslen</td>
<td>Julie Moreno</td>
<td>Toby Schonfeld</td>
</tr>
<tr>
<td>Thomas Grothe</td>
<td>Sreenivas Koka</td>
<td>Karen Nichols</td>
<td>Richard Walker</td>
</tr>
</tbody>
</table>

#### Class of 2005

<table>
<thead>
<tr>
<th>Ronald Attanasio</th>
<th>Diana Curran-Galejs</th>
<th>Edward O’Leary</th>
<th>Thai Tran</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Benson</td>
<td>Dominick Dimaio</td>
<td>Prasad Padala</td>
<td>Shinobu Watanabe-Galloway</td>
</tr>
<tr>
<td>Liliana Bronner</td>
<td>Karen Grigsby</td>
<td>U Rao</td>
<td></td>
</tr>
<tr>
<td>William Chaney</td>
<td>Alfred Grovas</td>
<td>Sanjay Singh</td>
<td></td>
</tr>
<tr>
<td>Mary Cramer</td>
<td>Kathryn Nickel</td>
<td>Wallace Thoreson</td>
<td>Nizar Wehbi</td>
</tr>
</tbody>
</table>
Previous Graduates (continued)

Class of 2007
Thomas Attard
Pamela Bataillon
Kerry Bernal
Norman Cook
John Davis
Shingairai Feresu
Sharon Hammer
Ruth Margalit
James McClay
Nagamani Narayana
Keith Olsen
Jean Simonson
Debra Sudan
Janice Tompkins
Susan Wilhelm

Class of 2009
Ann Berger
Mark Christiansen
Jose Fernandes Filho
Patti Fries
David Hald
Pamela Jones
Gregory Karst
Rebecca Keating-Lefler
Lina Lander
Audrey Lazenby
Kimberly McFarland
Kathy Morris
John Ohnoutka
Mary Petersen
Ellen Roberts
R. Brian Stevens
Alvin Wee
Rebecca Wester
Matthew White

Class of 2011
Nancy Basham
Susan Boust
Tara Brakke
Matthew DeVries
Amber Donnelly
Edward Fehringer
Janice Flegle
Toby Free
Shawn Gibbs
Teresa Hartman
Curtis Hartman
Teresa Hultquist
Jeremy King
Maria Michaelis
Connie Miller
Kalpana Padala
Babu Padanilam
Linda Sather
Russell Smith
Chad Vokoun
Rana Zabad

Class of 2013
Michele R. Aizenberg
Jeffrey S. Cooper
Christopher C. Erickson
Dee M. Ernesti
Jenenne A. Geske
Maurice Godfrey
Channabasavaiah B. Gurumurthy
Marnie A. Imhoff
James F. Jenkins
Heidi J. Keeler
Brent D. Khan
Chad A. LaGrange
Subodh M. Lele
Howard Y. Liu
Kevin C. Luczynski
Oleg N. Militsakh
Mohan R. Mysore
Thomas E. Schulte
Asia E. Sikora
Laurey Steinke
Jim P. Stimpson
Thomas R. Strawmier
Jayesh C. Thakker
Carol B. Toris
Michel R. Wagner
Shirley A. Wiggins
Ying Yan
Su-Min Zhou
New Faculty Mentoring Program

Shannon Boerner, MD
Department of Internal Medicine, College of Medicine

Mentoring has been proven to positively impact academic faculty in regards to engagement, academic productivity, promotion, and retention, among many other benefits. However, many institutions struggle to provide adequate, timely, and effective mentoring, particularly for some subgroups of faculty members.

I facilitated a group of peers in the Division of General Internal Medicine for bimonthly mentoring meetings for nearly three years and so am uniquely suited to build a department-wide mentoring program. In preparation for developing this program, I met with several campus leaders in an effort to establish a sense of institutional readiness for change. Through reading the work of organizational change leaders, such as Kotter, I developed a strong base to support this substantial new program and see it through to completion.

I utilized Kotter’s change model to guide my initial efforts, including developing a sense of urgency by engaging colleagues in discussions about mentoring opportunities. Next, I worked to build a guiding coalition; I have benefited from highly receptive leadership in my division and department, and have worked hard to uphold their initial trust. I am currently working on developing and communicating a strategic vision and objective goals for this new program, which will lead to an ability to celebrate successes in the future. Realizing short-term gains is an important aspect of building and maintaining momentum.

I am preparing to guide the first cohort of mentor-mentee pairs through their first academic year on campus starting in July 2015, which is certainly an exciting step, particularly coming only six months after I initially conceived this program. I look forward to watching the power of mentoring grow in the Department of Internal Medicine and ultimately across the institution and beyond.

“To handle yourself, use your head; to handle others, use your heart.”
~ Eleanor Roosevelt
Bridging the Bench to Bedside Gap

Shilpa Buch, PhD
Dept. of Pharmacology & Experimental Neuroscience
College of Medicine

Kim Haynes-Henson, MD
Dept. of Anesthesiology
College of Medicine

Traditionally, while basic research lies at the crux of drug discovery, the burden of translating scientific discoveries into new drugs for improving patient care is left entirely in the hands of pharmaceutical companies. Pharma approach is both cost ineffective and time consuming, considering the vital partners of this bench-to-bedside gap — basic and clinical scientists (the former tackling molecular mechanisms of disease pathogenesis and the latter dealing with patients) — both reside in close proximity in one institute. The caveat is each partner is isolated in a horizontal silo.

We thus hypothesize a co-operative partnership of both entities is of synergistic value for drug discovery. Our goal is to create a collaborative enterprise to integrate clinical and basic science researchers into a cohesive team that will enhance translational research and broaden our reputation as a leader in health care innovation.

Our first step was to approach clinicians (UNMC and VA), who would spread the word about mentoring and basic research opportunities. Lab of SB would be made available for this venture. To set an example, the clinical partner (KH), decided to get acquainted with the basic research and visits the lab regularly and attends journal clubs. We met with Drs. Romberger, Lisco and Wengel. An email was formulated that Dr. Romberger sent to Program Directors to disseminate information about research to interested fellows. We presented at a medical student forum and have an MD/PhD student interested in participating. We started leading the Women’s Mentoring Program, as well. We know this is a long process, but at least the dialogue has been initiated to reduce the chasm among the basic and clinical researchers.
Evaluation and Selection of Expanded DNA Identification Kits

Joe Choquette, MFS
Department of Pathology and Microbiology, College of Medicine

Motivation and Purpose
The FBI will be requiring human DNA identification laboratories to expand to 20 DNA loci tested for human identification by 2017. As a global society, there is a need to share information across borders. The expansion of loci in the United States will include loci used in other countries and allow for the exchange of data. The UNMC Human DNA Identification (HDI) laboratory must decide on one of two new kits available in the United States.

Approach
As a private laboratory, the selection of a new testing format must take into consideration the needs of our clients, such as law enforcement agencies and attorneys, our collaborations with government agencies, such as the Nebraska State Patrol crime laboratory, and provide the most comprehensive data while maintaining a budget.

Clients value the UNMC HDI laboratory as a small private laboratory because of the rapid turnaround time, quality data, and personal interaction, but desire access to the Combined DNA Index System (CODIS) that is only available to government laboratories. CODIS is the United States DNA database that helps link crimes together through DNA. The UNMC HDI laboratory must have a memorandum of understanding (MOU) with the Nebraska State Patrol crime laboratory in order for our laboratory’s DNA profiles to be entered into CODIS. Therefore, a good working relationship with the Nebraska State Patrol crime laboratory must be maintained.

Ease of implementation, which includes funding, validation, and training of technical staff, is another important factor in the selection process. With our present configuration, sharing equipment with the Molecular Diagnostics laboratory for clinical applications is a benefit to both laboratories and thus UNMC. The current instrumentation is nearing the end of its life for company support. Trade in credit is likely to be offered when purchasing a new design. Price negotiations, training and validation should proceed quicker due to our established relationships with the current company.

Resolution
The best option for our laboratory is using the Globalfiler kit by Life Technologies. It provides law enforcement and attorneys more information and meets the FBI’s expanded loci requirements. The Nebraska State Patrol has also selected the Globalfiler kit. Therefore their familiarity with the data generated will simplify the uploading of the UNMC HDI laboratory generated DNA profiles into CODIS. The instrumentation required to use the Globalfiler kit can also be used for clinical applications within our laboratory and department. This multipurpose use makes it more cost effective.

Results/Conclusion
This evaluation and subsequent selection of the Globalfiler kit is specific to this project, but the process and contacts made will be used to guide other changes made in the UNMC HDI laboratory as we are here to provide a service while adhering to the highest industry standards.

“Act as if what you do makes a difference. It does.”
~ William James
Assessment of Quality of Care in the Era of the Electronic Medical Record (EMR)

Amy L. Duhachek-Stampel, MD
Department of Anesthesiology, College of Medicine

Motivation and Purpose
Anesthesiology is a specialty long recognized for its focus on patient safety and improving patient care. However, the incidence of many perioperative complications is difficult to assess due to the fact the majority of quality data in anesthesiology is obtained via self-reporting. An additional confounder is that delayed complications occurring two to three days post-operatively may not be captured by our current mechanisms. These factors make benchmarking of adverse events difficult, as the true incidence is challenging to ascertain. It is imperative to know how outcomes compare with other institutions in order to focus quality improvement efforts in a targeted manner. This is essential to improve patient care and clinical outcomes, as well as from a reimbursement standpoint with the advent of “pay for performance.”

Specifics
Historically, adverse event data was documented by a paper record that was collected with the anesthesia record. In 2012, an Electronic Medical Record (EMR) was instituted for anesthesia care documentation, which negated the need for paper charting. This led to a significant decrease in the return rate for the adverse event sheets. In 2013, we began the process to participate in the Anesthesia Quality Institute National Anesthesia Clinical Outcomes Registry (NACOR). NACOR compiles anesthetic care data automatically and allows practices to compare their outcomes and clinical data with other institutions. In late 2014, we successfully joined NACOR with an anticipated interface date in summer 2015.

In addition to the capture of data through NACOR for tracking and benchmarking purposes, it is imperative to have a mechanism through which to report adverse clinical events for quality improvement purposes. By consulting with leaders in quality improvement at other institutions, including Stanford and Massachusetts General, it became clear an automated means of electronically capturing data would be ideal. We reached out to the Executive Director of the Anesthesia Quality Institute, and were selected as a site for the soft launch of a new “Quality Capture” application in EPIC. This will be available in May 2015 and will allow us to create an electronic outcomes capture mechanism that will be housed outside of the medical record.

Implications and Outcomes
The advent of the EMR has led to necessary changes in the way adverse events are reported. Through participation in NACOR, we will be able to compare our adverse event rates with other institutions and target our quality improvement efforts. Additionally, the Quality Capture application in EPIC will help us examine practices that led to an adverse outcome with the goal of prevention of recurrences. These processes will be essential in identifying clinical areas where quality of care can be enhanced, allowing us to provide optimal care to all patients.
Establishing a Non-Operating Room Anesthesia Service at Children’s Hospital & Medical Center

Greta Duncan Wiebe, MD
Department of Anesthesiology, College of Medicine

Motivation and Purpose
Children aged <6 years usually require a state of “pharmacologic coma” (i.e., deep sedation) to successfully complete procedures without major psychological trauma to the child, parent, and provider. Prior to October 2014, these services were provided by a wide variety of clinicians: pediatric hospitalists, ED physicians, and surgeons. Joint Commission standards dictate the anesthesiology department is in charge of all sedations done in the hospital. It was determined anesthesiologist administration of moderate and deep sedation and analgesia for the pediatric patients requiring diagnostic and therapeutic procedures outside the operating room at Children’s Hospital would provide the skill set and experience recommended by the AAP, the ASA and the Joint Commission. The purpose of this project is to outline the development of this service and the future goals of the NORA service at Children’s Hospital & Medical Center.

Specifics
A proposal was submitted in January 2014 to hospital administration that identified a need for anesthesiologist-administered moderate and deep sedation and analgesia for pediatric patients requiring procedures outside the operating room.

Methods
Approval was obtained from the hospital administration for the commencement of said services. Workflows for the provision of sedation in a treatment room on the fourth floor were developed. Pharmacy, supplies, and EPIC documentation for both anesthesia and nursing were put in place. Our initial cases were sedations for PICC lines. Our second phase of growth was nitrous oxide for VCUG and MAG-3 studies. Once again, we worked with EPIC and nursing for the integration of documentation. Most recently, we have begun providing sedations for fracture reductions and other procedures in the emergency department.

Results
We have successfully sedated over 130 patients for PICC lines, VCUG, and fracture reductions in the ED. The providers and families are pleased with our services. Through this project, we have learned:

- An EPIC work project addressing the IT issues related to this new service should have been initiated at the beginning (it is currently ongoing and was started six months into the service).
- Planning for growth is critical.
- Communication is critical, especially when pushing people beyond their usual area of comfort.

Conclusion/Outcomes
This program has provided much needed sedation services for children throughout Children’s Hospital & Medical Center. The model we have used could be applied in other children’s hospitals around the country. We will continue to improve the workflow and add services as the need arises.

“I suppose leadership at one time meant muscles; but today it means getting along with people.”

~ Mohandas Karamchand Gandhi
Developing a Student Success Program

Michelle E. Ellermeier, RN, MSN
College of Nursing, Kearney Division

Motivation and Purpose
In order to practice as professional nurses, graduates of a nursing program must successfully pass the National Council Licensure Exam (NCLEX); further, NCLEX pass rates are often used as a measure of the quality of an individual educational program. The NCLEX pass rates for the Kearney Division of UNMC College of Nursing (CON) have declined in the past three years from a long-term average in the mid to upper 90% range to a first-time pass rate of 78% in 2012, 83% in 2013, and 83% in 2014. We need to find a way to better prepare our students to succeed on the NCLEX exam.

Background
In the fall of 2010, the CON implemented a concept-based curriculum, doubled the number of students admitted, transitioned from twice to once-per-year admissions, and moved from a five to a four-semester program. Referent colleges who made similar transitions warned us to expect an initial significant drop in NCLEX pass rates. We saw this dramatic dip in the first cohort to graduate from the concept-based curriculum in 2012; unfortunately, in 2013, the National Council of State Boards of Nursing increased the passing standard from minus 0.16 to 0.00 logits; predictably our pass rate did not surpass the 2012 National first-time pass rate for baccalaureate programs of 85%. The entire CON saw a drop in NCLEX pass rates in 2013 and 2014, and all of us worked tirelessly to find correlations and make program improvements. The Kearney Division instituted all the recommended changes; however, on a smaller campus we have the added ability to look at individual students and discuss commonalities and concerns. We identified that with few exceptions, each student who has failed the NCLEX exam over the past two years had struggled with either test taking or studying skills throughout their tenure in our program.

Specifics
We formed a Student Success Committee (SSC) at the Kearney Division consisting of faculty and staff interested in developing programming to increase student academic performance. The Committee reviewed evidence-based practice in improving student success and chose to implement a program directed at all current semester two students. This program consisted of teaching mindfulness, the Survey, Question, Read, Recite and Review (SQ3R) study method, and nursing-specific test taking strategies. Additionally, students identified as at risk of failing were given individual coaching by committee members.

Results
At midterm of this semester, 12 of 48 students were failing their primary medical-surgical nursing course. By the 14th week of the semester, only three students were failing the course, and one had withdrawn. However, these numbers are not strikingly dissimilar to the previous year’s statistics.

Conclusions
Students may have benefited from the interventions; however, more rigorous research methods are needed to definitively demonstrate a correlation. The SSC believes students need this teaching and coaching beginning in their first semester of the nursing program and recommends development of a one-credit hour mandatory course in studying and test-taking strategies.

“You must, absolutely must, love the people you lead. You don’t have to always like them all of the time, but you must love them.”
~ Jean Watson
Establishing a Sister-Institution Relationship with Tianjin Medical University Cancer Institute and Hospital

Kai Fu, MD, PhD
Department of Pathology and Microbiology, College of Medicine

With the increased demands for globalization, UNMC must leverage its role as a global leader in health care education and scientific research, especially in China. During the past decade, the Asia Pacific Rim Development Program (APRDP) at UNMC has been working toward building relationships with leading medical institutions in the Asia-Pacific region. As an associate director of APRDP, my focus is on establishing a strong relationship with Tianjin Medical University Cancer Institution and Hospital (TMUCIH), the largest cancer hospital in China. What I have learned during the iLEAD program has helped me tremendously in achieving this goal.

TMUCIH is the birthplace of Chinese oncology and one of the leading cancer research institutions in China. In 2007, former President of TMUCIH, Dr. Xishan Hao, who is an academician and also the president of Chinese Anti-Cancer Association, led a delegation to visit UNMC. Shortly after, Vice Chancellor Don Leuenberger and I visited TMUCIH and discussed further collaborations in detail. In 2009, after intensive discussion between the two institutions, a Sino-US Lymphoma Center, the first of this kind in China, was established in TMUCIH. I was appointed as a U.S. director for the Lymphoma Center. Over the last five/six years, the Center has seen significant advancement and achievement in education exchanges, scientific collaborations, and patient care.

To date, four hematopathologists, two medical oncologists, and one basic researcher from TMUCIH have been trained at UNMC. Many physicians and scientists at UNMC have also visited TMUCIH. Jointly, many peer-reviewed manuscripts have been published and several research grants were founded from the Chinese National Scientific Foundation. More than 50 pathology consultation cases have been reviewed at the Department of Pathology of UNMC, and several Chinese patients came to UNMC for clinical care.

More recently, Chancellor Gold and a UNMC delegation visited TMUCIH where Dr. Gold signed an agreement to establish a sister-institution relationship with TMUCIH. This is one of the first sister-institutions UNMC has established with a Chinese institution. Chancellor Gold said, “Our vision here at UNMC is that our collaborations in the next 10 years will be spectacular. Now our hopes and expectations are seeing that relationship growing and striving in the areas of education, scientific discovery and delivery of high-quality, world-class clinical care.”
Addressing the Limitations of a Paper-Based System for Maintenance of Patient Data for Histocompatibility Testing

Catherine Gebhart, PhD, D(ABHI)
Department of Pathology and Microbiology, College of Medicine

Motivation and Purpose
The data generated by the Histocompatibility laboratory has become increasingly complex. The lack of interfaces between laboratory equipment and the laboratory information systems (LIS) contributes to unnecessary inefficiency and transcription errors. Maintenance of the paper data has gradually become an overwhelming challenge. Individual patient reports contain discrete data elements that must be compiled and then reviewed by the clinical staff. These practices have been criticized by our accrediting organization, ASHI, and by the transplant teams at Nebraska Medicine, as a patient safety concern. Thus, the laboratory creates manual Word document reports for the transplant teams; however, these summary reports are not a part of the patient medical record.

Specifics
To create an efficient electronic workflow for HLA Solid Organ and Bone Marrow Transplant information, we decided it was appropriate to adopt a comprehensive laboratory information system specifically designed for the specialty of Histocompatibility. Two systems with the ability to interface with Epic, were identified, 1) HistoTrac (SystemLink), and 2) mTilda (Outland Enterprises). Both systems provide interfaces with our current equipment vendors and include modules to automate many functions necessary for regulatory compliance. The softwares both allow for data tracking, improved workflow efficiency, queries, reagent tracking, and reporting to clinicians. They are audited, security level controlled, HIPAA compliant systems. A review of both software technologies was undertaken to evaluate the most appropriate software for the NM Histocompatibility lab.

Results
After a thorough review of both systems by laboratory directors and staff, hospital administration and information technology, mTilda was chosen as the best solution to meet the needs of the laboratory and the transplant services. Request for funding was proposed to the Shared Services Committee in November 2014. Performance indicators included (1) ASHI Accreditation compliance regarding availability of clinical data for transplant decision making and (2) the length of time for a new patient work up to be completed.

Conclusions and Implications
Through efforts of the University and the Hospital, this project is now in the early stages of the implementation process. It is expected that this project will improve both patient safety and physician satisfaction. It is also anticipated that this will improve Medicare reimbursement rates for kidney transplant.
Master of Medical Nutrition Degree at UNMC: A Proposal

Corrine Hanson, PhD, RD, LMNT
Division of Medical Nutrition Education, School of Allied Health Professions

Motivation and Purpose
Effective 2024, a graduate degree will be the minimum entry-level practice requirement for Registered Dietitians/Nutritionists, as determined by the Commission on Dietetic Registration (CDR). The University Of Nebraska Medical Center School of Allied Health Professions Medical Nutrition Education Division seeks to expand the current post-baccalaureate UNMC Dietetic Internship Program to offer a Master of Medical Nutrition (MMN) degree.

Specifics
The mission of the UNMC Dietetic Internship Program is to prepare highly skilled registered dietitians within a premier educational environment and instill the values of excellence in patient care and lifelong learning. The current post-baccalaureate program, accredited for six students per year, includes both didactic and clinical coursework. The program provides a competency-based curriculum that meets all requirements for accreditation through the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy for Nutrition and Dietetics. The proposed MMN program builds on the structure of the current post-baccalaureate program, increasing the total semester credit hours of coursework from 22 to 50 for the MMN program. It expands the breadth and depth of knowledge and experience to address anticipated needs for clinical practice in an increasingly complex health care environment. With the inclusion of distance learning, it will allow expansion to the UNK campus and accommodate two additional students yearly.

Results
The proposed MMN degree program provides students a cost-effective pathway to complete dietetic internship program requirements and achieve a graduate degree tailored to clinical practice in medical nutrition. The master’s degree option effectively and efficiently builds on the current post-baccalaureate program attributes and addresses the need for both deeper and wider expertise that has affected medical nutrition practice in the last decade. This program will enhance preparation for practice, leading to better critical thinking and a higher quality of care and protection of patients and the public.

Implications and Outcome
It is recommended the Board of Regents approve the administration of a Master of Medical Nutrition degree from the Division of Medical Nutrition Education in the College of Allied Health Professions, University of Nebraska Medical Center.

“If you want to build a ship, don’t drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea.”

~ Antoine de Saint-Exupéry
Strategies for Enhancing the Profession of Nuclear Medicine at UNMC and with Professional Stakeholder Organizations

Marcia Hess Smith, BS, CNMT
Nuclear Medicine Program, School of Allied Health Professions

Background
The profession of nuclear medicine has undergone major changes in the past 15 years with advances in technology and new developments in radiopharmaceuticals. Hybrid technologies have brought overlaps of scopes of practice from various radiological fields into nuclear medicine and have developed a more comprehensive imaging experience for the patient, but at the same time, blurred the delineation of who will perform these multimodality exams. This has also added additional complications with educating professionals in these areas to be multicrofentialled. As CT and MRI have been added to PET imaging modalities, there has been some pushback from those departments to allow the incorporation of that training and credentialing into the nuclear medicine profession. It is essential to meet the needs of changing and evolving medical fields to accommodate adequate personnel demands and evolving technology and scopes of practice to allow the best practice of medicine.

Specifics
As the chair of the credentialing organization for the profession of nuclear medicine technologists (the Nuclear Medicine Technology Certification Board, or NMTCB), I had the opportunity to set up a series of meetings with several organizations to discuss and negotiate the position of nuclear medicine professionals using CT in our profession. Several of the meetings were with the Joint Commission regarding a change in the practice standards that will affect how credentialing is handled for those performing CT. The first draft of the standards were not favorable to the profession.

Working with the executive committee of the NMTCB, I requested a series of strategic planning meetings with our professional society to come together with a united message, as a profession, so we would have a stronger and unified approach. A joint letter was drafted to the Joint Commission from our organizations and the next conference call was held jointly. I also presented similar information to our administration at UNMC, applying principles learned in iLEAD in my presentation, to request a major change in curriculum regarding the education program.

Results
The most recent draft of standards from the Joint Commission are much more favorable to the profession of nuclear medicine and the partnership between the credentialing organization and the professional society in nuclear medicine has grown stronger with an agreement to continue to work together in this manner.

Conclusions
A strategic approach to communication and relationship building can be more effective for affecting change.
Leadership in Critical Care for Ebola Virus Disease

Daniel W. Johnson, MD
Department of Anesthesiology, College of Medicine

In the fall of 2014, UNMC was faced with the unique challenge of providing care for three patients with Ebola virus disease (EVD). A multidisciplinary team of clinicians, scientists and administrators came together to overcome tremendous logistical challenges to ensure optimal treatment for a poorly understood and highly lethal infectious disease.

I used leadership skills honed in iLEAD throughout the last seven months, first in helping to develop clinical protocols for the treatment of EVD and subsequently in the dissemination of knowledge to other health care professionals. Below is a list of the projects in which I contributed significant leadership as UNMC worked to ensure excellent care for patients with EVD in resource-rich environments within the United States and around the world:

- Worked with BCU leaders to prepare personnel and equipment prior to the arrival of the first patient with EVD
- Participated on campus-wide task force to establish norms for laboratory testing
- Was the first admitting ICU physician for a BCU patient with EVD
- Developed protocols for the safe performance of invasive procedures, including endotracheal intubation and the placement of central venous and arterial catheters
- Developed protocol for the safe performance of point-of-care echocardiography and ultrasonography
- Performed and interpreted the first echocardiogram on a patient with EVD in the United States
- Collaborated with Dr. Austin Thompson to create a robust intensivist coverage model for the BCU
- Was first author on a manuscript published in a leading peer-reviewed journal, Critical Care Medicine – “Lessons Learned: Critical Care Management of Patients With Ebola in the United States”
- Was second author on a multi-center manuscript submitted to Critical Care Medicine on the care of multi-organ failure secondary to EVD
- Was a contributing author on manuscripts accepted for publication to Clinical Infectious Disease and to Annals of Emergency Medicine
- Was a faculty member at UNMC’s first on-campus course on the care of EVD
- Participated in multiple conference calls with the WHO, CDC, NIH, and multiple leading academic medical centers to discuss optimal care for EVD
- Assisted in the creation of the iTunes app, “The Nebraska Ebola Method”
- Currently writing an Ebola chapter for the MGH Critical Care Handbook
- Received, along with the entire BCU team, “Midlanders of the Year” recognition from the Omaha World-Herald
- Represented UNMC at the Nebraska Capitol, where Governor Ricketts introduced us as examples of the capabilities of Nebraskans
“Know Falls” — Developing an Online Information System to Support Collaboration and Organizational Learning in Critical Access Hospitals

Katherine J. Jones, PT, PhD
Division of Physical Therapy Education, School of Allied Health Professions

Motivation and Purpose
In 2011, there were no valid benchmarks for fall rates in the nation’s 1,326 Critical Access Hospitals (CAHs), which are licensed for 25 beds or less and receive cost-based reimbursement for services provided to Medicare beneficiaries. Consequently, we assessed the quality of fall risk reduction in Nebraska’s 83 general community hospitals, 78% of which are CAHs. We found the risk of falls and injury from falls was significantly greater in Nebraska’s 65 CAHs than in its 18 non-CAHs. CAHs collected fewer of the data elements needed to learn from fall-related data than did non-CAHs. However, having an interprofessional team that learned from fall event data was significantly associated with lower fall rates regardless of hospital type. The purpose of this project is to develop an online information system — “Know Falls” — that supports collaborative learning and implementation of evidence-based fall risk reduction practices among the nation’s 1,326 CAHs. In contrast to non-CAHs, CAHs continue to receive payment for hospital acquired conditions (HACs) such as injury from falls. However, rural policymakers expect this exemption to end in the near future.

Methodology
In 2012, we received a grant from the Agency for Healthcare Research and Quality (AHRQ) to implement Collaboration and Proactive Teamwork Used to Reduce (CAPTURE) Falls. We addressed barriers to learning from fall event data by standardizing 78 data elements using a paper form, which allowed valid data aggregation, feedback, and benchmarking of fall rates. In fall 2014, we submitted an application to the Nebraska Research Initiative to develop “Know Falls” using the Research Electronic Data Capture (REDCap) web application — a free open-source clinical research management tool. We propose to build an online reporting form, import over 400 existing fall event records to develop and validate user reports, and recruit five Nebraska CAHs to pilot test the system. Based on this pilot test, we will collaborate with UNeMed and the National Rural Health Resource Center to develop a business plan to offer “Know Falls” on a subscription basis to the nation’s CAHs for purposes of benchmarking fall rates, collaborative learning to decrease falls, and conducting comparative effectiveness of innovative fall risk interventions.

Results
Despite increased emphasis on reporting, total fall rates decreased 44% and injurious fall rates decreased 50% for the 16 CAHs during the CAPTURE Falls project.

Conclusions
CAPTURE Falls established the first database to benchmark and learn from preventable adverse events in CAHs. By developing “Know Falls,” UNMC can lead in conducting patient safety research in CAHs and supporting them in the transition to non-payment for HACs (value-based purchasing).

Framework for Leadership Development
I used the principles of reciprocity (“Know Falls” can help prepare CAHs for value-based purchasing) and scarcity (UNMC has developed the only valid reporting system for CAH fall events in the country) to interest the National Rural Health Resource Center in the potential of “Know Falls.”
Study Techniques and Course Resources that Lead to Success in a First-Year Medical Anatomy Course

Sarah Keim Janssen, PhD
Department of Genetics, Cell Biology and Anatomy, College of Medicine

Motivation and Purpose
Educational theories have examined how students learn, and aim to explain how students learn best. Students, in general, learn course content by a variety of methods and with varying degrees of success. Some of the techniques available to students to aid in learning material are not conducive to learning, such as rereading or highlighting text. Conversely, some highly efficient techniques, such as practice retrieval or distributed practice, may not be employed by students to create a more successful learning environment. The aim of this study is to determine which study techniques and/or course resources led to successful completion of a first-year anatomy course for medical students. This information will enable faculty to develop more effective resources and to better advise first-year students.

Specifics
First-year medical students completed four surveys on what resources and study techniques they employed for each of the four anatomy exams. The surveys also asked about demographic factors such as gender, age, college major and minor, and MCAT scores. Surveys were given after all the course content had been completed, but before the exam was administered. Survey results were correlated with the written anatomy exam score. A score of 80% or above on the written exam was defined as success in the anatomy course.

Results
Depending on the exam, techniques that led to success in anatomy were discussing the objectives, writing out answers to the objectives, and searching Wikipedia for information. Not significant, but closely correlated with success was reading the textbook, studying with peers, and asking faculty members questions about content. Inversely correlated with success was re-listening to lecture recordings. Students who were successful on each of the four exams used more resources and techniques than unsuccessful students.

Conclusions
Study techniques that employed active learning strategies by students correlated with success on written anatomy exams. Students who used more resources and techniques were more successful in the anatomy course.
Leading Through Motivation for Learning

Suhasini Kotcherlakota, PhD
College of Nursing, Omaha Division

Motivation and Purpose
The changing nature of teaching, learning and scholarship in today’s education requires faculty and supporting personnel to engage in on-going professional growth and skill development. The prime purpose of this project is to drive the change by motivating and engaging College of Nursing (CON) faculty and staff members in advancing their technology skills and creative educational use. To achieve this, successful leadership and proactive intervention is needed for facilitating learning without exhausting valuable time and resources.

Specifics
An innovative series of learning workshop sessions were implemented primarily focused on providing hands-on experience. The leading motto is to “Learn by Doing.” Crucial conversations were conducted with the Assistant Dean of Academic Programs, Assistant Deans of all CON divisions, CON technology members and UNMC IT members to gain their buy-in, involvement and support to implement this new project.

Results
Two successful learning sessions focused on technology topics were offered so far. Both sessions were well attended by faculty (~ 60) and supporting staff personnel (~ 20). Each session was offered twice to maximize attendance. Attendees were able to gain experience and skill for utilizing technology which is evident from their workshop end products. Learning engagement and satisfaction was also evident from the comments — of particular mention are the opportunities for immediate clarification of questions, peer/team collaboration and learning together in a guided manner.

Conclusions and Outcomes
Advancing the best instructional practices to meet the educational mission and vision of our college is a key outcome of this project. In view of the positive response and interest, continuation of efforts will be made to boost motivation and participation. Future hands-on learning sessions will be offered every semester.

“Leadership and learning are indispensable to each other.”
~ John F. Kennedy
Building a Network of Mentors

Jessica A. Kozel, MD
Department of Pathology/Microbiology, College of Medicine

During the iLEAD program, there were many changes in my outlook and personal life that led me to seek balance and focus in my career. Through the courses and learning, a trustworthy, balanced network of mentors became evident as a key source of strength in the process. Mentors must be people who can visualize and aid the mentee on all from different points of view and aspects of leadership and goal development. As such, it is necessary to seek individuals with experiences and common goals across the spectrum of duties for academic faculty. Planning a mentor network must be a deliberate process — with a joint contribution from both the mentor and the mentee.

For my project, I am developing a structured network of mentors to help in advancing my work and projects at Nebraska Medicine. This network includes “structured” mentors with whom I have met and developed career goals. The mentors have strengths in the areas of research, teaching, clinical service, work-life balance, and administration/leadership. Each mentor and I have a set agenda for our meetings — covering a realm in career development. The network is set up as a series of reciprocal relationships with an end goal of advancing my own career and projects as well as those of my mentors. My presentation highlights the development process, the mentors chosen and topics of discussion for mentorship meetings.

“Lean in.”
~ Sheryl Sandberg
Patient Photos in an EMR: 
A Picture Retrieves a Thousand Memories

Matthew Lunning, DO
Department of Internal Medicine, College of Medicine

Upon my departure from my chief resident role in Internal Medicine at UNMC in 2010, we were considering undergoing a major transition in care and investment in the future. That event was a transition to a new electronic medical records (EMR) system. At that time, I felt EPIC would be an excellent EMR if the full capabilities were unleashed and a complete package was purchased. I then left for three years to fellowship, only to experience the pain of multiple EMR systems to support the ER, outpatient clinics, and inpatient units. Each did not communicate well with the other, and physicians were dissatisfied. Gladly, I returned to UNMC as a journal faculty in Internal Medicine and subsequently found many physicians embracing certain aspects of EPIC but still apprehensive of utilizing its full capacity.

Early on, I identified the capability of patient photos to be uploaded into the demographics section and that this would be added to the initial patient screen once uploaded. I saw this three years ago at the demo session with EPIC came to our campus. For 15 months, I had requested through our EPIC staff the opportunity to personally trial this function. I hoped to provide evidence that would unlock this function to the whole EPIC user community. No better place was this necessary than Oncology, as it was purely a safety issue when administering chemotherapy or blood products to the wrong patient is a life-threatening mistake. I kept saying a picture is worth a 1,000 words but could easily save one life. Probably a more common situation would be that a picture will queue memories of patients that a name or date of birth will not when the phone rings or a patient messages a care provider.

Initially, as I had previously struggled with for over a year, I was met with multiple levels of resistance until I felt this would be a good iLEAD project. With a few emails to the EPIC leadership, including Dr. McBride, I was later informed the committee had decided to open the patient picture function. It is even being consider an option of uploading straight from Haiku from your iPhone.

It is likely that this function was already being developed and discussed. I think my email had just the correct timing rather than set the wheels in motion. However, slowly patient pictures are showing up in EPIC and, I think, providing a safer patient care environment and more meaningful phone calls or emails when sent from patient portals. I will not take an iota of credit as I am sure there are many UNMC/NM staff who, if offered, would see this as a logical safety issue, but a relatively simple example of how unlocking the potential of EPIC can better serve our community and patients.
Replacing Paper Forms with iPads in the Rheumatology Clinic

Kaleb Michaud, PhD
Department of Internal Medicine, College of Medicine

In order to provide the best patient care and to meet pseudo-mandatory national quality standards, UNMC’s rheumatology clinics have collected patient-reported and physician-reported outcome measures on paper forms at every patient visit for over a decade. Weeks later these forms are scanned into the RAIN database and made available to physicians and researchers. This data is also required in the new national RISE registry championed by the American College of Rheumatology as the signal source of rheumatology quality improvement and practice trends.

It is my aim to develop and implement an electronic mobile health tool in rheumatology clinics that measures and displays longitudinal disease activity. I will test whether use of this tool improves clinical care of patients compared to use of the paper forms. I hypothesize the new electronic tool will improve patient outcomes versus prior paper forms by providing a) more reliable measurement by reduced human error, b) increased patient and physician satisfaction, and c) increased rate of adoption and change of treatments for patients with greater disease activity.

I started this project shortly before iLEAD and encountered numerous hurdles throughout the past year. Issues faced included technical (software and hardware), legal/regulatory, business contractual, personnel management and training, workflow analysis, and communication. This project evolved alongside my iLEAD participation, and while my initial aims were straightforward, the process for its implementation has been anything but. Early results have brought parts of my hypothesis into question, but there has been overall improved satisfaction by physicians and patients with the new tools. It is my intention that my experience with this project can be used to facilitate additional electronic data capture in other clinics, and to highlight areas within the enterprise that can continue to be improved upon as we strive to be leaders in clinical research at the national level.

“I have three precious things which I hold fast and prize. The first is gentleness; the second is frugality; the third is humility, which keeps me from putting myself before others. Be gentle and you can be bold; be frugal and you can be liberal; avoid putting yourself before others and you can become a leader among men.”

~ Lao Tzu
Migrating to Paperless Office

Ashok Mudgapalli, PhD
Research Information Technology Office

Bethany DeCarolis, BA
Sponsored Programs Administration

Purpose
In fiscal year 2014, the Sponsored Programs Administration (SPAdmin) handled 750 grant applications, 230 grant awards, and 300 contracts. For each project, a paper file was created and maintained. As a paper-based office, SPAdmin was inefficient. Most proposals and agreements would be submitted and negotiated electronically and then printed and placed in the file; after the project ended, the documents would be converted back to an electronic form (scanned) and placed in an electronic repository ("OnBase"). When UNMC’s vendor stopped supporting “OnBase,” a backlog of closed files, which need to be retained for seven years, accumulated on limited shelf space. Also, time was spent looking for “missing files,” as well as making copies of requested information by other units. In addition to addressing the inefficiencies described above, a paperless office would assist SPAdmin locate projects and documents with certain characteristics that are not tracked in SPAdmin’s database, as well as share information within SPAdmin and with other units.

Specifics
After evaluating a handful of commercial document storage and retrieval products, UNMC decided to purchase Laserfiche, a Document Management System. A cost/benefit analysis was done to compare Laserfiche start-up costs, licenses, and maintenance fees with the cost of paper, file folders, labels, and software for printing labels. Multiple meetings were held with campus stakeholders and the local reseller. Technical specifications were considered. Prototype trials were done. Financial resources were secured.

Results
Research IT Office (RITO) was actively involved in building necessary hardware and software infrastructure, data storage design (for documents and metadata), database install, vendor contract negotiations, and installing the servers behind the UNMC firewalls. Finally, in December 2014, Laserfiche was installed on established infrastructure. UNMC personnel were trained and became certified in administrator and client roles. A work-study student was hired to scan the existing paper documents and file them in the electronic repository. RITO is providing technical advice, first level of technical support, and a lead technical person from RITO is certified as a Laserfiche campus admin. Recently, SPA purchased a high-speed scanner for scanning documents in place loaner from Vendor. We have expanded this paperless office model to UNeMed, and UNEHealth on UNMC campus. Thus we have SPA, UNeMed, and UNEHealth as active users. The goal of this project is to make a good number of Vice Chancellor for Research Office sub-entities paperless and possibly expand this model to other paper intensive departments. A file structure was created for ease in finding projects and documents. Also, document templates were developed for ease in searching for projects and documents using metadata and optical character recognition. Some delays resulted from out-of-date workstations.

Conclusions
The paperless office continues to be a work in progress. We consider it currently in the “bronze age” — we have essentially replaced the paper system with an electronic system. Over the next six months, we expect to move into the “silver age” and begin to utilize Laserfiche workflow functionality to increase efficiencies in grant and contract processing. In the next fiscal year, we would like to begin to move into a “golden age,” in which PIs, departmental administrators, and Sponsored Programs Accounting could access our documents directly. Additional usage is needed to quantify any gains in efficiencies.
Comparison of Electronic Programs for International Educated Nurses to Use When Preparing for Nurse Licensure Exam

Audrey E. Nelson, PhD, RN
College of Nursing, Omaha Division

Purpose and Significance
The UNMC College of Nursing will offer a Certificate in Nursing in the U.S. Context program for international nurses who were educated outside of the U.S. These nurses will prepare to take the nurse licensure examination (NCLEX) in order to actively seek employment and/or pursue advanced education opportunities. NCLEX examination assesses basic health care knowledge of a safe practitioner within the context of U.S. health care system.

International nurses as well as other English second language speaking students are faced with a challenge to pass the NCLEX exam. The main challenge comes from learning U.S. health care vocabulary because sometimes translating words back to their native language there are words to match the U.S. medical words. Also, nurses from other countries have to learn new leadership roles, acceptable communication between patients and nurses, and nurses’ roles as a member of the U.S. health team.

Methods
The study was to compare two electronic online products available for NCLEX preparation. Currently, College of Nursing traditional baccalaureate nursing students use the Assessment Technologies Institute (ATI) product to prepare for NCLEX examination. Another electronic product available is the Elsever Online Review for NCLEX-RN Examination. The following question was posed: Which product will be a better fit for international nurses preparing for NCLEX examination, ATI or Elsever product? Through networking with the product representatives these variables were examined:

- Availability of an electronic version of program
- Organization of the product information
- Practice questions
- Cost of the product per student
- Use by internationally prepared nurses or English second language students
- Other textbook needs for the course

Results
Both electronic products will require orientation to the product and enrollment in the product to utilize the practice tests. The test topics appear to be similar and would provide adequate exposure to NCLEX-like questions. The ATI product could cost three times more than the Elsever product. Neither product had any information about use by international nurses or English second language students. The course textbook references might be selected from Elsever and could be bundled to reduce course costs, whereas ATI has no additional references.

Conclusion
This information will be shared with College of Nursing administration responsible for the Certificate in Nursing in the U.S. Context program to negotiate and decide which product is the best fit for the international students who will enroll in the course and prepare for NCLEX examination.
Developing a Cost-Effective Approach to Reaching an Underserved Population in Need of Autism Services

Nicole M. Rodriguez, PhD, BCBA-D
Center for Autism Spectrum Disorders, Munroe-Meyer Institute

Parents of children with autism spectrum disorders who speak Spanish as their primary language often have limited access to behavioral services in the state of Nebraska, in part due to the limited insurance coverage for autism services, as well as the fact that there are few qualified service providers who can provide the necessary parent training in the families’ native language. In addition, the repeated and frequent nature of the parent training needed to adequately teach parents how to address their child’s problem behavior and skill deficits makes using an interpreter cost prohibitive.

The current project was designed to evaluate a cost-effective model of providing parent training to this largely underserved population by incorporating blended learning (Lim, Morris, & Kupritz, 2007) and group formats (Brightman, Baker, Clark, & Ambrose, 1982).

We have recently started testing the training model with a small group of parents at the One World Community Center. In addition to initial data collected on the efficacy of our training model, we are conducting within-session analyses of the types of errors emitted by parents that will inform modifications to the training procedures in hopes of increasing their efficacy and efficiency for future participants.

This project is in line with the University’s outreach objectives and has provided an opportunity to use many of the skills that have been learned during this leadership training, including:

- Identifying mutually beneficial relationships with community partners
- Interpersonal skills to develop and maintain relationships
- Assembling and motivating a team to meet the project’s objectives

“The most progress is made when you can identify mutual reinforcers.”

~ Leader Interview
Building a Multidisciplinary Osteogenesis Imperfecta Clinic for Adults

Eric Rush, MD, FAAP, FACMG
Genetic Medicine, Munroe-Meyer Institute
Departments of Pediatrics and Internal Medicine, College of Medicine

Osteogenesis imperfecta (OI) is a rare genetic skeletal disease that affects approximately 25,000 Americans, and results in brittle bones, short stature, and a variety of other health problems which affect every organ system. It is a lifelong genetic condition, which begs for coordinated and multidisciplinary care. However, such care is difficult to find as few providers specialize in the care of this condition and much of the care is focused on children. Truly multidisciplinary clinics that specialize in the care of adults with OI do not exist at the present time.

UNMC has a unique opportunity to provide innovative care to this group of patients. Presently, over 200 patients with OI are followed in Omaha between the Children’s OI and metabolic bone clinic and the UNMC adult genetics clinic. Patients are slowly graduating from the Children’s multidisciplinary clinic, and the present framework of the adult genetics clinic does not provide the desired level of care for these patients. Patients themselves have been very vocal about the need for a place to provide specialty care, and it is clear the time for action is now.

As the intent of the project is not question, the project itself becomes about the execution of the novel project. With skills learned through iLEAD, I decided to pursue this in several stages.

• **Stage 1: Identifying Needs**
  I took my proposal to the patients through contacts with the OI Foundation and with patient advocacy groups through social media. The players that needed to be present were made very clear through this series of discussion.

• **Stage 2: Dialogue with Key Stakeholders at UNMC**
  This clinic will be housed within the Department of Internal Medicine, and getting it started involved convincing the leadership of that department of my vision.

• **Stage 3: Assembling a “Dream Team”**
  Additional providers have been identified who are key specialists, such as cardiology, pulmonology, nephrology, orthopaedics, ophthalmology, and rehabilitation.

• **Stage 4: Financial and Logistical Planning**
  Presently, the project is in this planning stage. I am working with administrators within Internal Medicine to explore the logistics of a clinic of this type including space, time constraints, other personnel requirements (nursing, coordination), and the financial impact of the clinic on the overall Enterprise.

• **Stage 5: Finalization and Communication**
  As the logistics of the clinic are finalized, we will include local patients with OI as a dry run to ensure accessibility. The clinic will then be opened to the community through the OI Foundation and UNMC Public Relations.
Development of an Integrative Clinical Skills Instruction Program

Cody Sasek, MPAS, PA-C
Division of Physician Assistant Education, School of Allied Health Professions

Background
The campus-wide iEXCEL initiative has created unique opportunities for integration of simulation and instructional technology into the academic experience. These technologies offer possibilities for improvement in the experience and outcomes of health science education across the academic and clinical curricula.

Motivation and Purpose
This project aims to develop a framework for integration of didactic knowledge with interactive and experiential activities into the Physician Assistant Education Program curriculum, specifically, the further development of clinical skills training modules utilizing simulation and other technologies. The overarching goals of this project include:

- Add value to the educational experience of students by providing closer to real life practice situations
- Provide unique opportunities for integration and application of didactic knowledge in clinical skills training
- Pilot a program that further fosters self-directed experiential learning with feedback and evaluation by faculty

In evaluating the current delivery of clinical skills training, three modes of instruction are utilized: traditional lecture, skills workshops, and the assigning of readings and videos. A new hybrid delivery model offers an opportunity to increase the breadth of skills instructed while also increasing the students’ active participation through a course redesign with increased use of instructional technology, such as those offered by the Sorrell Center Clinical Skills Laboratory.

Specifics
A literature review and analysis of the current curriculum was done to select procedural clinical skills that would be of highest value in a primary care setting. This knowledge was used to create a course structure that could incorporate modules based on traditional modes of instruction as well as new opportunities with simulation and other instructional technologies.

Results
The new clinical skills education framework will be deployed in the fall semester of 2015 with full integration in the fall of 2016. Resulting data will include documentation of level of basic procedural skill application and performance.

Conclusion
The framework developed in this project is intended to deliver content as well as provide opportunity for practice of skills along with feedback, application, and assessment. This should provide the opportunity to further add to this framework as greater technologies, simulation and otherwise, become available.
Ebola Preparedness for Pediatric Patients: Coordinated Response of UNMC and Children’s Hospital and Medical Center, Omaha, NE

Kari A. Simonsen, MD, FAAP, FIDSA, FPIDS
Department of Pediatrics, College of Medicine

Background
The 2014 West Africa Ebola epidemic led to an unprecedented global response to treat patients, protect workers and prepare facilities to identify and manage cases. UNMC led the world in caring for Ebola patients through the expertise of our Nebraska Biocontainment Unit (NBU). Pediatric biocontainment expertise was not emphasized historically, and our purpose was to advance local Ebola preparedness efforts to safely manage children.

Methods
UNMC Department of Pediatrics and Children’s Hospital and Medical Center (CHMC) created an Ebola Task Force. Members of this interdisciplinary team, led by the CHMC Medical Director of Hospital Epidemiology and Chief Nursing Officer, coordinated with NBU leadership and the Douglas County Health Department to prepare for the identification, transport, and management of pediatric Ebola patients. Retrospective survey responses were collected from the UNMC-CHMC Ebola Task Force members regarding work efforts dedicated to Ebola preparedness between October 1, 2014 and February 28, 2015.

Results
The UNMC-CHMC Ebola Task Force members self-reported a total of 1,474 CHMC employees who participated in some form of Ebola education or training during the evaluation period. New resources developed included: nine educational courses provided through live, web-based, written, and video formats; 17 institutional policies; eight formal staff newsletter communications; and one EPIC physician order set. External collaborations were developed with 15 local, regional, and national agencies; four regional and national presentations were delivered. Physician, nursing, and transport teams formalized local processes to safely manage a person under investigation at CHMC and subsequently transport a confirmed Ebola case and provide ongoing pediatric care in the NBU. The task force team logged a total of 2,880 hours of direct effort for training and preparations, at an estimated personnel cost of $100,800 in wages to CHMC. Direct supply purchases at CHMC for Ebola preparedness totaled $249,727.

Conclusions
The efforts of the UNMC and CHMC interdisciplinary teams resulted in partnerships dedicated to the care of a child under investigation or requiring treatment for Ebola. These ongoing efforts place UNMC and Omaha, NE at the forefront of pediatric Ebola preparedness in the U.S. and globally. Additionally, this partnership can be translated to preparedness for other emerging pathogens or disasters and creates pathways for sustained collaboration in caring for children.

“If you aren’t at the table, you’re on the menu.”
~ Dr. Rod Markin (and others)
Rethinking Admission Criteria to a Bachelor of Science in Nursing (BSN) Program

Jennifer Swantek, MSN, APRN, FNP-BC
College of Nursing, Northern Division

Purpose
The purpose of this project was to critically analyze current admission practices within the traditional BSN program for the College of Nursing and develop innovative admission practices that support competency and diversity in the student body.

Nursing programs across the country are seeking individuals who will not only be successful academically, but also excel in professional practice. Current admission guidelines focus heavily on cumulative grade point average (GPA) on prerequisite courses as a key component for being selected into a nursing program of study. Emerging research suggests these traditional strategies may not be effective at predicting who will be successful in clinical practice and, in fact, screen out those individuals who pose social intelligence attributes that are essential for success in the nursing profession.

Significance
Chancellor Gold has encouraged the College of Nursing to thoughtfully appraise the current admission practices and consider adopting a holistic admissions process. GPA alone does not fully represent an individual’s academic success, nor give specifics on personal attributes desirable of the nursing profession.

Results/Methods
A literature review was completed that looked at current nursing program admission practices across the nation. Based on the review and direction given by Chancellor Gold, an ad hoc committee, including the Director of the Baccalaureate Program, Director of Student Services, Student Service staff, and CON faculty, was created.

The aim of the committee will be to look at admission criteria to ensure it is congruent with UNMC’s mission while promoting diversity within the student body. Proposed committee work will begin in the summer 2015.

Conclusion/Implications
Admission criteria into a traditional BSN program needs to adapt to reflect current practices throughout the nation in the areas of nursing and other health-related disciplines. Proposed criteria should be evidence-based, statistically valid and reliable in order to admit students who are academically prepared and socially adept for their professional role.
Creation of an Easily Accessible Paraffin Tissue Bank for Use by the UNMC Research Community

Geoffrey A. Talmon, MD
Department of Pathology and Microbiology, College of Medicine

Motivation and Purpose
A recurrent concern of researchers is lack of access to human tissue. Although multiple tissue banks exist across campus, there are issues related to their widespread use. Many are attached to, administered, or funded by individual researchers. They often have narrow disease focus and owners occasionally express reticence in extensively sharing tissue accrued for their own projects. Additionally, the degree of clinical information and/or outcome data associated with these clusters of specimens is variable. UNMC does have an extensive frozen tissue bank, but the inventory of tissue from certain conditions is limited and investigators must pay to make requests. Pathologists have long had access to abundant clinical material (the Department of Pathology and Microbiology has >500,000 paraffin blocks archived from past clinical material) and the ability to easily acquire clinical information. Further, the clinical laboratory has the capability to acquire tissue prospectively from that which would ordinarily be discarded. In spite of this, regulations governing HIPAA and stewardship of patient material for laboratory accreditation purposes have served as obstacles for access to this material.

Specifics
The bank will be administered by the Tissue Science Facility (TSF) with material housed within the Eppley Cancer Center (ECC). All specimens in the bank will consist of paraffin embedded blocks of human tissue including archived clinical blocks and prospectively acquired tissue. Regarding archived clinical material, laboratory accreditation standards require all patient material be kept for 10 years, after which it can be discarded. Currently, all of this older material is kept in an off-site location, which incurs significant cost. For this bank, all paraffin blocks older than 10 years will be reclaimed from outside storage on a rolling basis and relocated to campus for ease of access and made available to researchers. Tissue accrued prospectively will be collected from excess material before incineration. Key to the success of this bank is a new information system. It will have the ability to track blocks, order status, and report on usage, and its database will interface with the anatomic pathology information system to link each case with pertinent clinical data. An investigator will be able to query the database via an online tool to search inventory free of charge with access to de-identified clinical information on all specimens. Other needs include the hiring of one FTE to collect tissue and manage the inventory/information system, IRB approval for the creation of a new tissue bank, and alteration of tissue donation consent forms to include this material.

Results
All stakeholders, including the Dean of the College of Medicine, TSF Advisory Board, Basic Science Chairs, and administration of the Eppley/Buffett Cancer Centers, agree this bank would be a vital resource for the UNMC research community. Alterations to patient tissue bank consent forms were made under the IRB’s guidance and forwarded to the Forms Committee. The IRB application process is underway. Programming for the information system is near completion. Space has been claimed within the ECC for block storage following certain possible minor improvements. Search for partners to fund the salary/benefits of the FTE ($70,000 annually) is ongoing.

Conclusions
The structure of the paraffin tissue bank will help to better address the needs of many UNMC researchers. While much of the infrastructural work is nearing completion, securing support for the additional employee (central to the bank’s operation) has been challenging in the Nebraska Medicine administrative structure. It may be possible to utilize the money spent on off-site material storage to fund at least a portion of this individual.
Rapid Access Bronchoscopy in a Slo-Mo World

Austin Thompson, MD  
Dept. of Internal Medicine, College of Medicine

Amol Patil, MD  
Dept. of Internal Medicine, College of Medicine

The Problem
Flexible fiberoptic bronchoscopy is a procedure which involves inspection of the lower respiratory tract airways, diagnostic sampling for infection and malignancy, and therapeutic clearing of obstructing secretions or objects. Acutely sick patients in the hospital often need urgent bronchoscopies and outpatients faced with the possible diagnosis of lung cancer need their procedures done in a timely fashion. The ideal location for bronchoscopy, in terms of patient comfort, efficiency for physicians, and expense is the endoscopy suite. The Division of Pulmonary and Critical Care Medicine has been faced with difficulties with scheduling bronchoscopies, including the following:

- Scheduling required nine different interactions and at least that many phone calls.
- The time spent by the attending physicians, trainees and PFT technicians coordinating these bronchoscopies often amounted up to one hour and interfered with the workflows of all involved.
- As a work around, the operating room was scheduled for bronchoscopies, increasing cost and risk to the patient.
- The difficulty of scheduling inevitably lead to strife and poor moral.

The Ideal Solution
A 24-hour, 7 days a week Bronchoscopy Suite, manned with techs who need one phone call to activate the process would be ideal. Unfortunately, this cannot be supported by the number of bronchoscopies performed.

Steps Toward a Practical Solution
Since multiple meetings were needed, two blocks of times (Monday and Tuesday) were negotiated to be dedicated to bronchoscopy. The meetings included:

- Pulmonary leadership
- Pulmonary physicians
- Endoscopy suite management
- Acute care product line management
- Pulmonary function laboratory management
- Gastroenterology colleagues who act the medical manager of the endoscopy suite

Immediate Benefits
- Shorter patient waits and less uncertainty
- Improved physician and pulmonary function lab calendar management due to predictability of times and days for procedures
- Fewer phone calls
- Less disruption of pulmonary function laboratory workflow
- Fewer physician complaints
- Decreased use of the operating rooms, a substantial cost savings

Anticipated Problems
Remaining difficulties include anticipated increases in bronchoscopy associated with our nascent lung transplant program and coverage of the Buffett Cancer Center. Additionally, the physical distance of the Cancer Center from the existing support services will present challenges for bringing together patients and their providers for procedures.
Road Map for Research: Leading a Multidisciplinary Team

Toby Warden, PhD
Department of Neurological Sciences, College of Medicine

The parallel advancement of clinical care, research, and education is a prominent objective of academic medical centers. Recently, a changing health care landscape and a decline in federal funding have had discouraging implications for the research mission. As such, institutions need to be collaborative, creative, nimble, and responsive in order to remain places where important research is performed and innovations are created.

The proper organization of research interest groups requires sound strategies to build and sustain collaboration, maximize existing resources, and ensure these institutions remain competitive at the national level providing important societal value through cutting-edge inquiry and discovery. The management of such teams requires a style of leadership that is overwhelmingly facilitative and nurturing, while at times diplomatic and decisive so projects move forward in a collaborative, timely and productive fashion.

A research road map, a well laid out plan for research collaboration and concrete deliverables, at the outset of the project, can become an essential leadership tool, which, by its very design, serves to foster the outcomes so desired.

This project is the design of a research road map for a University of Nebraska multidisciplinary team on social neuroscience. This group was awarded a grant from the University of Nebraska-Lincoln’s Big Ideas Planning Grants Program. The multicampus team has representation from the University of Nebraska-Lincoln and UNMC, representing the disciplines of economics, agricultural economics, psychology, public health and neuroscience.

The road map outlines a detailed 12-month plan including four meetings, a workshop with national experts, and a final deliverable to aggressively pursue external funding opportunities. The design draws from participant expertise on team building, lessons from the 2014 – 2015 iLEAD program, and the academic literature on conducting multidisciplinary research.

This research road map has direct application to other fields as the overall design and guiding principles are process based, rather than topic relevant, drawing from the science of collaboration.

“Train people well enough so they can leave; treat them well enough so they don’t want to.”
~ Richard Branson
Increase In-Office Procedures in Nebraska Medicine OB/GYN Department

Sylvia Ziegenbein, MD
Department of Obstetrics and Gynecology, College of Medicine

Objective
To present the potential benefits and cost of providing more in-office procedures in the Nebraska Medicine department of Obstetrics and Gynecology. There are many potential procedures that can be done comfortably and safely in the office. Procedures such as sonohysterography, Essure tubal sterilization, diagnostic and operative hysteroscopy and Novasure ablations, can all be done safely in the office with a high degree of patient satisfaction. Sonohysterography is not even being performed currently in our institution. This is a very important procedure to diagnose intrauterine pathology in cases of abnormal uterine bleeding (AUB). This would only add revenue to our cost analysis.

Study Design
To estimate the potential revenue of adding a single day procedural clinic. Estimate the number of procedures multiplied by said procedures payment schedule minus supplies and salaries.

Results
Our group has 10 general OB/GYNs seeing both obstetric and gynecologic patients. Being conservative, I estimate there would be 20 diagnostic and operative hysteroscopies, one Essure tubal occlusion, four intrauterine device removals and six Novasure endometrial ablations per month, being performed in a weekly all-day clinic. Using the CMS.gov site and physician fee schedule search, this would generate $15,160 per month, or $181,920 per year. Subtracting supplies ($20,000 per year) and 20% of a registered nurse’s salary ($12,000, since procedures are one day a week), this procedural clinic would net about $150,000 per year. Now, finally, subtracting some of the revenue a physician would have generated in a partial all-day clinic is estimated at $36,000 per year, for a net of $114,000 per year, over and above what we would be bringing in normally.

Conclusions
There is a definite benefit, financially, to in-office gynecologic procedures. Having a single, full-day procedural clinic would net about $114,000 per year and this would likely expand and become more efficient, providing more revenue. Physicians appreciate the efficiency of in-office procedures, and the ability to continue to see patients in between procedures. Physicians also appreciate the ease and control of scheduling patients in the office. Patients appreciate the continuity of care in a familiar office setting and the ease and efficiency of getting in and out of said office. In conclusion, in-office gynecologic procedures are safe, lucrative, efficient and have a high overall patient satisfaction.

Sources:
3. www.acog.org, “Understanding Practice Costs is Key to Participation in Evolving Reimbursement Plans.” Under Practice Management and Managed Care, March 2013, by L. Michael Fleischman.
Interprofessional Planning Committee

A Special Thanks ...

I want to personally thank each member of our planning committee for your dedication to this yearlong project. Your tireless efforts, hours of hard work, and superior guidance skills are the epitome of what it means to be a leader at UNMC. Thank you for all you do!

Howard Liu, MD
Director
Office of Faculty Development
Director
Behavioral Health Education Center of Nebraska (BHECN)

Timothy M. Durham, DDS, MPA
Committee Chair
Assistant Dean for Patient Services and Quality Officer
Professor
Department of Growth & Development
College of Dentistry

Teresa Hartman, MLS
Associate Professor
Education & Research Services Librarian
McGoogan Library of Medicine

Sheila Ellis, MD
Associate Professor
Vice Chair of Clinical Affairs
Department of Anesthesiology
College of Medicine

Linda M. Love, MA, CPP
Coordinator
Office of Faculty Development

Karen Grigsby, RN, PhD
Associate Professor
Coordinator LEAD Specialty
College of Nursing

Nizar Wehbi, MD, MPH, MBA
Assistant Professor
Department of Health Services Research and Administration
College of Public Health
The iLEAD program is offered through the Office of Faculty Development.

iLEAD’s mission is the intentional cultivation of leaders on campus. Held every two years, the program uses self-reflection and assessment, hands-on learning, and mentorship to cultivate leadership skills that enable participants to impact the formal and informal culture at UNMC.