In fall 2014, the Carolina Value (CV) three-year initiative was launched to transition UNC Health Care System (UNC HCS) and UNC’s School of Medicine (SOM) toward becoming more unified. Comprised of UNC HCS- and SOM-wide clinical and administrative leadership, a CV executive governance was established, counting amongst its membership Department Chair Dr. Matt Mauro as the January 2015, newly named UNC Faculty Physicians CEO. From CV’s earliest stage, Mauro’s experience in integrating clinical services and bringing physician groups together gave the Department an influential role in advancing CV’s goals over the years ahead.

During the selection of key leadership, CV Senior VP and UNC Professor of Anesthesiology Dr. Cam Enarson saw Mauro’s understanding of SOM department clinical services culture and advocacy of faculty physicians as critical to the initiative’s success.

Enarson noted: “We were seeking an individual who could provide key insights into the clinical departments, as well as guide and foster sustainable change in improving patient care. Dr. Mauro’s proactive engagement of multiple [CV] implementation areas … enabled him to positively influence [operational area] activities from initial planning through implementation.”

A six-month assessment period kicked off CV’s Phase 1 in early 2015. The 1,500+ interviews conducted across UNC HCS and the SOM generated system-wide stakeholder feedback that became the basis for CV governance to establish 13 operational areas of focus (“Solutions”). SOM departments would be invited to develop and implement well-informed, strategic steps for studying solutions that would contribute to overall operational improvement.

When CV shifted to Phase 2 in early 2016, SOM departments began examining their chosen Solutions through an intensive, eight-week review and strategy implementation period (entitled “Deep Dive”). Driven by extensive data collection, each Deep Dive established an operating hypothesis, strategies supporting the hypothesized outcomes and defined steps for implementing tactical plans directed at short-term gains and longer-term advancements.

The Department of Radiology chose three Solutions areas – Physician Services, Care Access and Labor – to examine in separate, specialty-specific Deep Dives, first for Diagnostic Radiology (February-late March 2016) and then for Interventional Radiology (April-June 2016). Derived from the Department’s 2015 structural overhaul of clinical services, the back-to-back Deep Dives reviewed both specialty-specific and traditional hospital-based service areas.

The chosen areas of focus served patient care in imaging services delivery and administration goals. Physician Services aimed at identifying steps supporting higher performance amongst private and faculty physician groups. This Solution also applied to finding ways to further integrate UNC HCS imaging services, leveraged by the Department’s fall 2014 launch of the UNC Imaging Consortium system-wide. Care Access aimed at strengthening appointment and personnel quality, reinforcing quality and productivity standards, and building capacity to monitor and improve operations. Labor examined ways to standardize its UNC HCS-wide approach to productivity management.
The Department’s Deep Dive team - Chairman Dr. Matt Mauro; Associate Chair for Administration Bob Collichio; and UNC Hospitals’ Senior VP of Operations Marlene Rifkin - examined over eight weeks how non-clinical hours were built into schedules of the Department’s 40+ clinically appointed faculty. Accounting for clinical hours was critical given the protected academic time to conduct research, administrative and teaching duties needed for faculty physicians to fulfill their SOM responsibilities. The team approached the task using a Medicare physician reimbursement tool entitled Relative Value Unit (RVU)s.

For each of the 9,000+ services and procedures assigned to current procedural terminology (CPT) codes and covered under its Physician Fee Schedule, Medicare uses RVUs to calculate physician reimbursement. From February through April 2016, interviews with 40+ clinical faculty allowed the team in its Diagnostic Radiology Deep Dive to determine UNC Hospitals faculty radiologist productivity in FYs 2015 and 2016 (to date) in terms of RVUs. Such data supported Physician Services aims and allowed for comparing departmental RVUs with those recommended by the Association of Administrators in Academic Radiology. The Department’s RVU data also provided CV governance with a solid measure of productivity applicable to the longer-term goal of setting data-driven clinical performance standards within a unified UNC HCS-SOM system.

The Department’s Diagnostic Radiology Deep Dive produced four outcomes all related to longer-term strategies. Some are already being implemented: 1) To expand imaging outreach sites across North Carolina; 2) To further develop UNC Hospitals-based teleradiology services; 3) To upgrade and enlarge reading rooms; and 4) To establish protocols with UNC HCS’ Information Services Division (IT support) to boost workflow efficiency.

Post-review, Collichio noted: “These four outcomes didn’t translate easily to short-term gains. Instead, they reinforced some of the main priorities tied to infrastructure, faculty and clinical care within our [2015-2018] strategic plan already. Calculating RVUs revealed how our clinical faculty productivity supports system-wide patient care delivery. The Department is most significantly contributing to [CV]’s three-year operational mission by applying knowledge of increased productivity to our own longer-term goals.”

UNC HCS’s imaging services presence at UNC REX Healthcare in Raleigh, NC, has built a strong imaging services alliance between UNC Hospitals and UNC REX. To better examine ease of access between UNC HCS’s flagship and an affiliate in one region’s healthcare market, CV governance designated the Department’s review of Care Access as a prototype.

As Care Access Team Sponsor, UNC Van Weatherspoon Jr., Eminent Distinguished Professor and Department of Neurosurgery Chair Dr. Matt Ewend noted: “As imaging services go across the Triangle, the Care Access team saw UNC Department of Radiology’s partnership with [UNC REX] as an obvious choice to prototype. The combined importance of the two groups working to provide patient access at a high level can’t be overstated. The strong internal managers within UNC Department of Radiology were perceived as not afraid to tackle difficult projects. We knew the [imaging services] lessons learned at both UNC REX and UNC would be of immediate importance system-wide as the Care Access initiative is expanded.”

Enarson emphasized how invaluable Mauro’s insights have been in guiding the Physician Services team through decision-making during CV’s first 18 months, noting: “Dr. Mauro has been critical to the success of this Solutions workgroup, as well as pivotal in removing barriers to successful initiative implementation as the clinical departments strive towards improving patient access, patient care and quality.”

Ewend has worked closely with Mauro on both the Physician Solutions and Care Access Teams. He noted: “Dr. Mauro has tackled the difficult task of being the first UNC Faculty Physicians CEO with a combination of discipline and enthusiasm that has helped us rapidly advance the cause of building a more integrated faculty practice and expanding the role of the Faculty Physicians across [UNC HCS]. His guidance on the Physician Solutions team has helped bring standard measures, expectations and support to physicians across [UNC HCS].”
The Department would like to recognize Dr. Pew-Thian Yap for receiving National Institutes of Health (NIH) R01 funding in February 2016 for his project entitled, “Robust White Matter Morphometry with Small Databases.”

Over the next three years, Yap and his investigation team will tackle a common challenge in neuroimaging research – producing reliable outcomes when study subject databases of limited size are statistically compared. Through developing a novel set of statistical computational tools, Yap’s team seeks to advance the neuroscience research community’s ability to detect meaningful differences when analyzing diffusion magnetic resonance imaging (MRI) data associated with smaller and moderately sized databases. One of the tools to be developed aims to better estimate diffusion MRI statistics and their variability through significantly increasing samples via identifying and assembling repetitive local information throughout an image. An additional comparative method to be developed will improve upon those used for limited-size databases through correcting for registration errors that cause structural variability in diffusion MRI data in smaller sample sizes.

In meeting its aims, Yap’s study will remove critical technological hurdles linked to poor statistical power amongst limited sample studies that have hindered investigation of brain development, aging, and disease pathologies linked to abnormalities driving neurodegenerative disorders.

As applied to his scope of research, Yap notes: “This funding will allow me to develop cutting-edge statistical tools for making full use of diffusion MRI data when sample size is small and when image quality is low. This project is part of my effort to improve the utility of diffusion MRI in both research and clinical settings, with the hope of ultimately arriving at greater insights into how the human brain works.”

The Department would like to recognize Dr. Mauricio Castillo for his appointment as its 2nd James H. Scatliff, M.D. Distinguished Professor of Radiology in December 2015. Castillo succeeds Immediate Past Chair Dr. Joseph K.T. Lee (2007-2015) in his naming to this professorship.

As Lee notes: “For many decades, Dr. Scatliff has been an outstanding teacher. Likewise, any holder of this position should also be a devoted teacher. Dr. Castillo is eminently qualified to occupy this position not only as an internationally renowned neuroradiologist, but also as a two-time winner of the [Charles A. Bream Teaching Award]. This professorship is not only prestigious for the holder. It also provides funds for the individual to use for individual academic pursuit.”

Since Castillo arrived in 1992 as UNC’s newly appointed Neuroradiology Section Chief, he has established himself as a scholar and leader within the Department, his field and his subspecialty. Diagnostic Radiology residents have selected him twice (1997, 2007) as the Charles A. Bream Teaching Award recipient, and in his 20+ years at UNC, Castillo has trained over 125 fellows. His broad scholarly reach has also included: 43 visiting professorships; 18 editorial positions; 28 journal review posts; 25 books; 158 book chapters; 359 peer-reviewed articles; and nearly 1000 invited lectures.

In his field and subspecialty, Castillo has been named to multiple leadership posts, including: 1) American Journal of Neuroradiology Editor-in-Chief (2007-2015); 2) American Society of Neuroradiology President (2013-2014); 3) American Roentgen Ray Society President (2016-2017); and 4) Symposium Neuroradiologicum President (2022). In 2003, Castillo was named a Fellow of the American College of Radiology.

Castillo noted: “It is an honor to receive a distinguished professorship named for a world-renowned neuroradiologist from UNC. In succeeding Dr. Lee in this position, I’m following an internationally known radiologist and a former Department of Radiology Chair, and I’m also assuming a position held previously by a close mentor and friend of many years at UNC.”

The Department would like to recognize Dr. Zibo Li for receiving a one-year Tier 1 Developmental Research Grant from UNC Lineberger Comprehensive Cancer Center (LCCC) in January 2016, for his project entitled, “Development of 18F-PET Probes to Image the IDO Pathway for Immuno-Oncology Clinical Research.”

For this collaborative project amongst UNC researchers, Zibo and co-investigators examine the benefit of developing an alternative for cancer patients with solid tumor malignancies who do not respond to recently FDA-approved PD-1/PD-L1 pathway inhibitors. Over the coming months, Li’s team aims to synthesize and evaluate novel 18F-labeled PET agents with high IDO affinity and specificity, which could be used as a non-invasive predictive method to select responsive (or resistant) patient to anti-PD-1 mAb-based therapies.

As Li notes regarding this award’s relation to his larger realm of BRIC-related research, “Our radiochemistry laboratory has been fortunate to collaborate with investigators from UNC’s Department of Chemistry [Wei You], Small Animal Imaging Facility [Hong Yuan] and Division of Oncology [Stergios Moschos] on this project. Together, we’re aiming to generate novel IDO PET probes that could play an important role on cancer patient stratification, especially given PD-1/PD-L1 pathway inhibitors are expensive, lifelong treatments. The goal of our project aligns well with our large scope of work at BRIC.”
AWARDS AND RECOGNITION

The Department would like to congratulate Professor of Radiology Dr. Joseph (“Joe”) M. Stavas on the significant honor of being named Creighton University’s Department of Radiology Chairman, effective May 2016. Stavas returns to Nebraska as a Creighton School of Medicine alumnus (’82), as well as a seven-year private practitioner (1987-2004) in Lincoln.

After its academic medical center merged with a regional healthcare system in 2012, Creighton sought Stavas’ input on how to bring together community- and academic-based radiologists within one system. Stavas’ experience at UNC in academic radiology, and in private practice were a perfect combination for what Creighton’s Department of Radiology was seeking in a new Chair.

Stavas notes of his return to Creighton: “I’ll be guiding two types of radiology practitioner within [the newly formed] Creighton University Medical Center toward reaching common ground in patient care delivery. A newly privatized teaching hospital has to ensure that trainees delivering much of the patient care have technical abilities, communication skills, human understanding and a grasp of the big picture.

I want to encourage at Creighton the same spirit that’s boosted UNC Health Care System (UNC HCS)’s success as a network. I watched hospital-wide clinical divisions at UNC collaboratively form multi-disciplinary conferences and new clinical units, and at Creighton, it’s promising already that plans are underway to create a Children’s Hospital vascular malformation center.”

Arriving at UNC in fall 2005, Stavas served as Vascular-Interventional Radiology (VIR) Division Chief and Fellowship Program Director. Over the past decade+, he has earned recognition at the national, subspecialty and institutional levels, including: US News & World Report’s 2012 “Best Doctors” (Top 150 Vascular Interventional Radiologists), as well as the Department’s 2009 Dr. Charles A. Bream Teaching Award.

Over 10+ years, Stavas’ work across the disciplines involved him in several UNC HCS clinical service start-ups and expansions. During the formation of UNC’s Center for Heart and Vascular Care, he represented his division’s interests in planning UNC’s consolidation of Cardiothoracic Surgery, Cardiology, Vascular Surgery and VIR services with counterpart SOM leadership. Thereafter, he collaboratively developed other Center programs such as UNC’s Malformations Clinic and expanded a range of VIR-related treatment programs.

“I’m grateful for the latitude [Immediate Past Chair Dr. Joseph KT Lee and current Chair Matt Mauro] allowed me during my UNC years to pursue initiatives within the medical community and around campus. Having time to obtain my MPH through UNC’s world-renowned Master of Public Health program also changed my approach to teaching radiology and healthcare delivery.

I will miss much about my years at UNC … departmental and division colleagues who’ve made me a better academic radiologist … residents and fellows who light up when they hit a discovery (or just get lucky!), and the countless others have made UNC and UNC Hospitals so much more than a workplace to me. I have so much to look back on as I begin my next chapter at Creighton.”

The Department would like to recognize Ernest H. Wood Distinguished Professor of Radiology and Chairman Dr. Matthew A. Mauro for being elected to a six-year term as the newest member of the Radiological Society of North America (RSNA)’s Board of Directors in December 2015. Joining seven other Directors, Mauro assumed the position of Board Liaison for Information Technology and Annual Meeting.

Mauro has previously served the RSNA in multiple capacities, including: 1) Education Council member (2010-2013); 2) Scientific Program Committee Chair (2009-2013); 3) Corporate Giving Subcommittee of Fund Development Committee member (2007-present); 4) Vascular-Interventional Radiology Scientific Program Sub-Committee Chair (2005-2007); 5) Public Relations Committee member (2003-present); 6) Public Information Advisors Network member (2002-2011); 7) Associate Editor - Radiology (2002-2007); and 8) Research & Education (R&E) Foundation Grant Reviewer (1999-present), amongst other roles.

Regarding his election, Mauro noted: "The RSNA is the world’s largest and most influential society that represents diagnostic radiology, interventional radiology, radiation oncology and medical physics. Appointment to the RSNA’s Board of Directors is a distinct honor, and I am privileged to have this opportunity to serve our specialty in this capacity.”

The Department would like to recognize Drs. Dinggang Shen and Keith Smith for their appointments as Faculty Development Director for Basic Science and Faculty Development Director for Clinical Service, respectively, in November 2015. Both roles were created as part of a 2015 departmental leadership overhaul that condensed clinical service and basic science governance into three vice chairmanships and four new directorships.

Over the past six months, monthly individual meetings with the Department’s newly formed Chairman’s Advisory Committee (CAC) have enabled Shen and Smith to step into their new roles. Advised by top departmental leadership comprising the CAC, Shen and Smith have drawn on direction from these meetings in helping basic and clinical science faculty navigate how to effectively function within UNC Health Care System and UNC School of Medicine from an operations standpoint.

In his new role, Shen’s primary duties are to guide the Department’s junior basic science faculty in career development, securing federal funding and contributing to the Department’s ongoing efforts to improve its overall National Institutes of Health (NIH) funding rank. Drawing on his concurrent role as the Department’s Vice Chair of Diagnostic Service, Smith’s new directorship duties invaluable combine top-down imaging care perspective with individualized support, direction and intentional academic guidance to clinical services faculty.
Almost a decade ago, UNC Health Sciences Library (HSL) librarians began helping School of Medicine departments with transitioning their teaching collections from print to digital. Together, Assistant Department Head for User Services Kate McGraw, Collection Development librarian Diane McKenzie and Web Development librarian Lynne Eades created “virtual libraries” of select, subject-specific electronic databases, journals and books that provided streamlined access to the growing number of online resources that HSL was purchasing. For all members of participating departments, these new online libraries improved access to relevant resources. Their specific intent, however, was to serve the education and research needs of residents and fellows.

Along with Anesthesiology and Pathology, Radiology became one of the earliest departments to digitally convert teaching resources deemed most useful to its trainees. After watching Diagnostic Radiology residents increasingly obtain their learning resources from the Internet, former Residency Program Director (2007-2011) Dr. Keith Smith enlisted HSL librarian assistance to develop a Department of Radiology online teaching library for trainees.

As Smith recalls: “Immediate online access to almost any journal article and many textbooks is taken for granted these days, especially in the age of mobile devices. That wasn’t the case when we began our conversion project. Residents needed a ‘jumping off place’ where all the current electronic books, journals, search tools, and databases at the time were consolidated, and working with Kate McGraw helped our program and the Department provide a solution.

Nowadays, the available online content is so vast that program leadership has to focus more on constant updates and curation of the pages we initially developed. We are fortunate that the [HSL] pays for electronic access to most major journals to allow this seamless, ‘free’ access.”

Named Department GME Program Director in late-July 2015, Dr. Sheri Jordan turned first to her Diagnostic Radiology residents in building her immediate tasks list. Guided by their feedback, Jordan made curriculum development prime among the countless educational initiatives she has championed in her first year. Via the assistance of dedicated faculty department-wide, Jordan has worked to ensure per-subspecialty curriculum development and key resource title availability in print, PDF and electronic formats.

Reports Dr. Jordan: "Varied curriculum resources assure each resident has the opportunity to learn in his or her most effective manner. The positive impact of the lightning-quick collaboration with Kate McGraw and her colleagues to retool and update the HSL resources cannot be overstated. Subjectively, the easy access to free online e-anatomy, Neuroradiology curriculum titles, new Physics titles, and general and subspecialty reference titles has been extremely successful. Objectively, quality metrics for resident performance and satisfaction have soared. In June 2016, we’ll add our pre-call lecture curriculum, followed by July 2016’s ‘Fundamentals of Radiology’ curriculum. A huge thanks to Kate as well as HSL Collection Development librarian Susan Swogger for their hard work on our custom-built resource center [http://guides.lib.unc.edu/radiology/books]. It’s such a key driver in these multi-part initiatives.”

The UNC Department of Radiology is on Facebook! Just search for "UNC Department of Radiology" and be sure to "like" us!
In late May 2016, three UNC Department of Radiology faculty members (Drs. Lynn Fordham, Sheri Jordan and Dan Nissman) and our FIRST Diagnostic Radiology resident (1st-year resident Dr. Clayton Commander) were inducted into UNC School of Medicine (SOM)’s Academy of Educators (AoE). These four individuals comprise the LARGEST group from the Department ever to be chosen for AoE membership in one year. They are amongst 39 SOM faculty members and 43 house staff residents who were inducted at the AoE’s Evening of Scholarship in May 2016.

Academy of Educators membership is awarded to SOM faculty members who demonstrate educator excellence through direct teaching and mentoring, instructional development and curriculum design, educational administration and leadership, educational research and incorporating continuing medical education resources into their teaching. House staff residents have been added to AoE membership in recent years to promote peer-to-peer leadership and teaching.

UNC Department of Radiology is proud of ALL Department members who’ve been selected for AoE membership. Our four new inductees join five Department faculty (Drs. Paul Molina, Keith Smith, Bob Dixon, Katherine Birchard and Ben Huang) who’ve been inducted over the past decade.

In Spring 2016, UNC School of Medicine (SOM) advanced its first Translational Education at Carolina (TEC) class into the TEC curriculum’s 12-month Application Phase (AP). Replacing traditional clerkships, the AP integrates foundational learning into non-traditional clinical experiences. AP students choose from one of four community programs across North Carolina (“tracks”) – Central/UNC-Chapel, Asheville, Charlotte and Wilmington – receiving core instruction built into clinical experiences unique to healthcare delivery in each of these settings. In this inaugural AP, we are currently seeking ways to build Radiology exposure and instruction into the new integrated clerkships.

Over the past academic year, we’ve watched a greater number of UNC and external medical students enroll in our electives and rotate through our reading rooms. This increase is in part owed to our growing presence in early medical school courses, and we’ll next offer our RAD 401 course in August 2016. We’re also pleased that our base of clinical teaching faculty is the Department’s largest ever. Across all nine clinical divisions, we’ve added 11 teaching faculty members alone in the past two academic years. We appreciate the efforts of these faculty members along with those of our enthusiastic residents in giving lectures to bigger-sized classes. On the note of enthusiasm, some medical students have expressed interest in getting involved in departmental research.

I encourage both clinical and basic science faculty members who would like to get students involved in their research to contact me – katherine_birchard@med.unc.edu.
Diagnostic Radiology alumnus (’77) and former faculty member (1977-1978) Dr. Gary Fischer was confident cardiology was his future in medicine. During his internship at the University of Missouri-Columbia, however, separating physical disease from anxiety and depression became increasingly frustrating, to the extent Fischer began to consider changing specialties.

Watching a radiologist construct a “brilliant differential diagnosis” on an abnormal chest X-ray while on rounds, Fischer made the career-changing decision to pursue diagnostic radiology. UNC had the best small radiology program in the country, he’d heard, giving Fischer and his wife Ellen reason enough to uproot from the Midwest with their four-month-old daughter Jeanne. Towing their loaded 1966 VW bug as they drove down Old NC Highway 86 and onto Franklin Street, Fischer recalls: “The sky was Carolina Blue.”

“Beginning my radiology residency at UNC was a breath of fresh air. That’s not to say it was easy. Switching fields was quite challenging. In the mid-1970s, there were only four residents per class, and only three classes, with around 10 to 12 faculty members. UNC Radiology had the feeling of family, and I loved it there from day one.”

Daily noon conference was the “heart and soul” of the department’s teaching. Although being called upon to analyze cases in front of faculty and fellow residents could produce anxiety, Fischer valued this style of didactics for learning how to perform under pressure beyond conference. After he sweated through his first direct carotid artery needle puncture under [Chairman Emeritus] Dr. James (“Jim”) Scatliff’s encouraging tutelage, Scatliff later presented him with the needle in a corked test tube. Fischer still has it.

“Dr. Scatliff is an extraordinary teacher and human being - one in a million. He set the tone for how positive my years at UNC turned out.”

Of the familiar honors named for esteemed Department faculty of the 1970s (eg. The James H. Scatliff, MD, Distinguished Professorship and Charles A. and Kathryn R. Bream Residency Fund), the George Himadi Teaching File is particularly meaningful to Fischer given their close faculty mentor/resident relationship during his training years. At the George Himadi Teaching File dedication, Fischer served as speaker after heading up the fundraising campaign for this first-of-its-kind, comprehensive teaching resource.

“Dr. Himadi was a phenomenal teacher and individual, as well as a major influence in my career and in my life. Our son, Scott, was born shortly after his untimely death. We gave him the Hebrew name Gavriel, in honor of George.”

After joining the Department faculty directly post-residency, Fischer put his training to work keeping up with the angiography and general radiology caseload at North Carolina Memorial Hospital. As radiology advanced in the 1970s, he had been amongst the early radiologists statewide trained on a number of emerging imaging modalities established at UNC. When UNC alumnus and Moses Cone Hospital (Greensboro, NC) Chief of Radiology Dr. Otis Fisher recruited him to start his hospital’s new CT program, Fischer signed on with his career employer. He began working with Greensboro Radiology in 1978, spending his entire years in practice there until his 2012 retirement.

After a highly satisfying, 34-year career, Fischer jokingly notes of retirement: “the first 15 minutes was hell.” Fortunately, post-profession enrichment didn’t elude him for long. In the mid-1990s, he learned the art of kiln-fired glass. What started as a hobby became a passion for Fischer. He now has his own studio, showcases his art at shows and festivals and has an online Etsy.com shop.

As Fischer puts it: “This art form combines science, design, colorful glass, and using my hands -- a slam dunk for an interventional radiologist and wannabe artist!”

For a retiree in a close-knit family, pride in the humanities and social sciences pursuits of one’s grown children is unsurprising. The four-month-old (Jeanne) on the Midwest-to-Chapel Hill trek in the mid-1970s now heads the voice division at UNC’s Department of Music. Fischer’s second daughter Liz is an acupuncturist, artist, published poet and author. His son Scott is a holistic psychologist.

Beyond fatherly pride, however, Fischer’s description of each child’s work -- recognized for her outstanding teaching ... her passion is art ... absolutely loves what he’s doing ... -- reveals something a little closer to his own experience. Just as his family’s next generation is following its professional passions, the once disheartened intern never looked back after he simply pursued his real calling in medicine.
In early 2014, the Department of Radiology took first steps toward developing a 2015-2018 strategic plan. We enlisted a Chapel Hill-based consulting firm specializing in strategic planning to facilitate generating strategic priorities over this three-year period.

Assessment surveys and SWOT (Strengths, Weaknesses, Opportunities, Threats)-focused interviews first informed us how major organizational realms (eg, clinical, education, research, faculty) stacked up favorably and unfavorably. Back-to-back retreats of key Department stakeholders and School of Medicine (SOM) leadership then contributed collective organizational knowledge to devise data-driven goals and develop our strategic priorities by ranked initiatives and action steps. Over six months, this process produced a strategic plan directed at five strategic priorities -- clinical care, education, faculty, infrastructure and research – that we began pursuing in early 2015.

Maintaining workflow efficiency and quality has been vital to clinical care delivery in the decade+ that UNC Health Care System (UNC HCS) has become a fast-growing affiliate and outpatient network. When the Department launched its imaging outreach program five+ years ago, preserving efficiency and quality came at a time that can now be extended to our strategy-driven clinical care initiatives. The Department’s Clinical Support and Outreach Division facilitates our outreach program, and since its inception, this division has worked with clinical faculty to incorporate these imaging studies from sites statewide into UNC Hospitals’ caseload. In spring 2016, this division hired its Reading Room Assistant to monitor a dashboard of incoming urgent (STAT) studies and physician consults, amongst other duties supporting workflow efficiency. Since UNC HCS extended weekly mammography services to the North Carolina Correctional Institution for Women (NCCIW) in September 2015, this division has ensured quality UNC HCS imaging care is provided at a State of North Carolina-run facility.

Moving onto education, we’ve added six clinical faculty to our Musculoskeletal, Nuclear Medicine, Neuroradiology, Cardiothoracic, Abdominal and Interventional Radiology (IR) divisions in academic year 2015-2016 alone. This growth is invaluable to our strategic aims of giving Diagnostic Radiology residents an ever-improving, teaching faculty-to-resident ratio that currently stands at 1:1.3. Additional IR and Cardiothoracic faculty will be added in the 2016-2017 academic year.

We’re also shifting our teaching mindset toward balancing a boards-driven curriculum with maximizing the resident experience from day one. This year’s incoming residents will be the first class to experience a 28-lecture “Fundamentals of Diagnostic Radiology” series during 2016-2017 academic year orientation. They join a program e-converting and adding remaining essential print texts to our online teaching library. Residents are also being introduced to new teaching platforms in such programming as noon conference, Grand Rounds and boards-focused physics.

For faculty, mentorship and development opportunities are critical in supporting their clinical, teaching and research duties. In November 2015, we named Faculty Development Directors in both Basic Science (Dr. Dinggang Shen) and Clinical Service (Dr. Keith Smith). Both Directors consult monthly with our Chairman’s Advisory Committee and are helping the Department roll out a small-scale mentoring program to individually guide all basic science and clinical faculty through navigating the system’s operational big picture.

In research, we are reinforcing our current resources and acquiring new ones to support our clinical and basic science investigational interests. The Department’s basic science divisions have a campus presence in their own right. Nonetheless, we’ve made basic science exposure more integral to the residency training experience this past year, in part through having residents attend a monthly conference at UNC’s Biomedical Research Imaging Center (BRIC). We now make BRIC tours a standard part of residency recruitment days to expose candidates to our strength in applied imaging research. In our Grand Rounds programming, we’re also scheduling basic science faculty as regulars, as opposed to periodic presenters, in this series.

Our three-year research strategy also includes investing in software providing clinical trials-affiliated investigators needed tools to identify research subjects for sufficient study enrollment. Such investment will boost the Department’s ability to produce statistically significant data supporting our plan to collaborate with the Carolina Data Warehouse for Health (CDW-H), a central data repository containing UNC HCS-sourced clinical, research and administrative data.

Our three-year approach to improving infrastructure involves establishing a new organizational mindset that garners department-wide buy-in. Our 2014 SWOT analysis identified our Department’s vulnerability to operating as isolated divisions (“silos”), instead of as an all-hands-in, working unit. We’ve responded to this challenge in clinical care through identifying where our divisions can integrate their independent services focused on patient-centered care. Where separate units (faculty/administrative) work toward common goals, in the past year we’ve added personnel to support our clinical service and basic science divisions. We’ve rounded out our grants management team through hiring pre- and post-award personnel to better support our basic scientists and clinical researchers. Our Business Office has also addressed clinical faculty needs for adequate support of their UNC HCS and SOM duties through adding an Administrative Support Supervisor.

The 84-page report that produced our 2015-2018 Strategic Plan in late 2014 serves as a three-year guide for navigating our five strategic priorities, and it exhaustively outlines many more initiatives and steps. As we approach the mid-point, we are confident our department is already stronger because we were willing at the outset to address organizational weaknesses alongside affirming our strengths.
NEW FACULTY AND EMPLOYEES

The Department was pleased to appoint **Dr. Vishal Khiatani** as Clinical Assistant Professor of Radiology in January, 2016. Khiatani works under the direction of Division Chief Dr. Charles Burke in Vascular-Interventional Radiology (VIR) and returns to the Department after previously completing his VIR fellowship in 2013 at UNC.

Prior to joining faculty, Dr. Khiatani worked for three years as an interventional radiologist with Coastal Radiology Associates in New Bern, NC. He completed both his Diagnostic Radiology residency and his General Surgery internship at the University of Illinois-Chicago between 2007 and 2012, and he obtained his MD from Medical College of Virginia in 2007. While Dr. Khiatani practices the whole spectrum of Interventional Radiology, he has particular interest in interventional treatment of deep venous thrombosis and pulmonary embolism, spinal augmentation and peripheral vascular disease.

“I was excited to have the opportunity to return to the Department of Radiology at UNC because my year of fellowship training was one of the most valuable, exciting and fun times in my life. Not just because of the diverse patients seen here, but mainly because of the mentors and friendships fostered amongst the faculty, nursing and technical staff. I am excited to take an active role in resident and medical student education, ongoing clinical research projects in the department and providing excellent patient care to the citizens of North Carolina.”

The Department was pleased to appoint **Dr. Jeff Neitlich** in April 2016 as Clinical Associate Professor and Abdominal Imaging Division Chief. In this role, Neitlich will oversee seven division faculty members handling a large volume of clinical cases spanning all imaging modalities: plain films, fluoroscopy, ultrasound, CT and MRI.

Yale New Haven Hospital served as Neitlich’s training grounds during his formative years in radiology -- Diagnostic Radiology residency and CT/US/MRI one-year fellowship – as well as his institutional home for his earliest years in academic medicine. Post-training, Neitlich joined Yale Department of Radiology faculty (1994-2007) as Assistant Professor and was dually appointed Body Imaging Section Chief at Yale/Hospital of St. Raphael. He served as Yale’s Diagnostic Radiology Associate Residency Program Director and as its Abdominal Imaging Fellowship Program Co-Director until 1998, and then as the Residency Program Director at Yale/Hospital of St. Raphael from 1998 to 2007.

From 2007 to 2012, Neitlich continued serving as a leader in academic radiology, concurrently as Chairman of Mt. Sinai Medical Center’s Department of Radiology and as Director of Imaging at Mt. Sinai Comprehensive Cancer Center (Miami Beach, FL). He also was the Residency and Fellowship Director during that time. In his most recent years, Neitlich split his time between overseeing Northwest MRI in Portland, OR, as Medical Director (2011-2016) and working as a remote Diagnostic Radiology consultant at Moffitt Cancer Center in Tampa, FL (2012-2016).

As Neitlich takes on both division oversight and teaching faculty responsibilities, he has been most focused in his early months on promoting the Abdominal Imaging fellowship program, improving both resident and fellow teaching on Abdominal Imaging Services, and developing collaborative research initiatives. His primary research interests are in biliary and genitourinary imaging, and in reducing radiation exposure from diagnostic procedures. He is pleased to return to his academic roots and looks forward to a long and successful career at the University of North Carolina.
NEW EMPLOYEES

The Department welcomed Paula Angelico in November 2015 as the new Graduate Medical Education Coordinator. In her new role, Paula works primarily under the direction of Diagnostic Radiology Program Director Dr. Sheri Jordan, but her scope of oversight also includes Department subspecialties Neuroradiology, Nuclear Radiology, and Vascular-Interventional Radiology. Through handling the many interview season details involved in resident recruitment, Paula helped guide the Diagnostic Radiology program toward a successful match of eight strong candidates in March 2016. She has more recently been involved in the extensive preparatory steps that precede residency and subspecialty program re-accreditation site visit. Additionally, she has been working with Division Chief Dr. Terry Wong on an upcoming ACGME site visit for the Nuclear Radiology subspecialty.

Prior to UNC, Paula worked as a student advisor at Graduate School of Computer and Information Sciences at Nova Southeastern University in Ft. Lauderdale, FL. She was a student at Nova Southeastern as well, receiving both her undergraduate (BS - Psychology) and graduate (MS - Human Resource Management) degrees between 2003 and 2010.

Paula notes: “My previous professional experience in a university environment, along with all of the support I received here, help prepare me for this role and hit the ground running. I have enjoyed becoming a part of the Radiology team immensely!”

The Department welcomed Emily English in April 2016 as the Clinical Support and Outreach Division’s new Reading Room Assistant. In this new role, Emily joins the Outreach team’s support of Department radiologists by monitoring incoming urgent (STAT) studies, contacting physicians ordering studies and monitoring incoming phone lines. In her early months, Emily is supporting only the Abdominal Imaging division, but her role will gradually incorporate other reading rooms she can support from nearby in the North Carolina Women’s Hospital Radiology Adult Registration area.

Emily relocated to Chapel Hill from Illinois in April 2016 after obtaining her Master of Social Work from Aurora University (Aurora, Ill). She completed college in 2012 at University of Illinois-Chicago (BA-Psychology), and her professional experience prior to enrolling in graduate school included three years in ER and outpatient registration at Delnor Hospital (Geneva, Ill).

As Emily notes: “This new position draws on my previous experience in hospital customer service working in patient registration. At UNC, I will be utilizing my customer service skills on the back end of patient care to help the radiologist treat the patient more efficiently. My knowledge and use of EPIC in a prior job also benefits my new role because I’m already familiar with utilizing EPIC to find orders, physicals and other patient-related items.”

The Department welcomed Erin Moore in April 2016 as Administrative Support Associate for both the Abdominal Imaging and Pediatric Imaging divisions. Erin joins our staff already familiar with the Department following an initial six months working in administrative support for UNC’s Biomedical Research Imaging Center (BRIC). A 2013 Panther Creek High School graduate from Cary, NC, Erin is pleased to balance her time in her new job with off-hour creative pursuits, including photography and cooking.

As Erin notes: “I am extremely grateful to have been given the opportunity to work here at UNC, especially as younger and less experienced than the majority of those around me. I am learning from my peers and am able to show how eager I am to do well and continue growing. I find, however, that shorter experience in the workplace needs to be paired with a dedicated mind. I plan to stay here for a very long time, and am open to any new lessons that come my way.”
In February 2016, the North Carolina Department of Public Safety (NC DPS) monthly newsletter (On the Scene) highlighted the positive impact of onsite mammography services at the North Carolina Correctional Institution for Women (NCCIW) in Raleigh, NC, established by UNC Department of Radiology and facilitated by UNC Health Care System mammography technologists.

When the NCCIW’s new healthcare facility opened in 2011, it was equipped with a digital mammography machine. Unfortunately, NCCIW did not have qualified medical professionals arranged to operate the equipment and interpret the images. Four years later, NC DPS partnered with UNC’s Department of Radiology to establish mammography services at NCCIW’s medical center. In September 2015, start-up of mammography services at NCCIW eliminated the facility’s costly off-site trips to local radiology practices that had for years been the only means for female inmates to receive these needed preventive health services.

Since UNC Health Care began sending a mammography technologist weekly to conduct mammograms for scheduled inmates, around 75 percent of those eligible have taken advantage of the onsite services.

Wui Chong, MD, was named Associate Editor for Ultrasound of Abdominal Imaging in August 2015.

Wui Chong, MD, presented, “Scrotal Ultrasound” at the North Carolina Ultrasound Society Fall Symposium in October 2015.

Wui Chong, MD, presented, “Contrast-Enhanced Ultrasound” as the invited Grand Rounds speaker at the Miami Cardiac & Vascular Institute’s (Baptist Health South Florida) Department of Radiology in December 2015.

Wui Chong, MD, was named as Distinguished Reviewer, Abdominal Imaging in fall 2015.

Wui Chong, MD, served as moderator of the “Evaluation and Follow-up of the Chronic Kidney Disease Patient with a Renal Mass” session at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY. At this session, he presented, “Conventional Grayscale Ultrasound of Renal Masses.”

Wui Chong, MD, presented, “Contrast-Enhanced Ultrasound Cases: All the Rest” at the Clinical Applications of Contrast-Enhanced Ultrasound: Case-Based Approach session at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY.

Wui Chong, MD, presented, “The Acute Scrotum” at the “Ultrasound After 5:00 PM” session at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY.

Wui Chong, MD, served as a hands-on instructor at the “Hands-on How to Do the Biopsy: From Simple to Sophisticated” session at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY.


Lynn Fordham, MD, served as moderator and presenter at the “Challenging Pediatric Ultrasound Cases” session at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY.


Sheri Jordan, MD, and Cherie M. Kuzmiak, DO, served as “Ask the Experts” Faculty Co-Panelists at the 22nd Annual Breast Imaging Weekend Review Course (sponsored by North Carolina Radiological Society) in Charlotte, NC, in January 2016.

Sheri Jordan, MD, presented, “Identifying Criteria to Follow Rather than Excise Benign Papilloma on Breast Core Needle Biopsy: A 10-year Single Institution Study and Literature Review” at the United States and Canadian Academy of Pathology (USCAP) 2016 Seattle, WA. (Authors: Bookhout C, Jordan S, Lawton T)


Sheri Jordan, MD, served as Co-Director of the 22nd Annual Breast Imaging Weekend Review Course (sponsored by North Carolina Radiological Society) held in Charlotte, NC, in January 2016.

Amir Khandani, MD, presented, “Preparation and Interpretation of FDG PET Studies: What Matters (and What Doesn’t)” at the 4th Annual American College of Radiology (ACR) Review Course, hosted as part of the Nuclear Medicine and Molecular Imaging Update in March 2016 in Durham, NC.

Amir Khandani, MD, served as Program Director of the 4th Annual American College of Radiology (ACR) Review Course, hosted as part of the Nuclear Medicine and Molecular Imaging Update in March 2016 in Durham, NC.
Cherie M. Kuzmiak, DO, presented, “Imaging Findings: Breast Masses” as an invited speaker at the Society of Breast Imaging/American College of Radiology Breast Imaging Symposium in Austin, TX, in April 2016.

Cherie M. Kuzmiak, DO, was appointed to the North Carolina Breast and Cervical Cancer Control Program (BCCCP) Medical Advisory Committee (MAC) in November 2015.

Yueh Z. Lee, MD, PhD, gave two lectures -- “Update: Clinical Applications of Carbon Nanotube X-ray Source” and “F19 MRI Imaging: Ventilation and Beyond” -- at the "Evolving Technology" conference hosted by the NC Society of Radiology Technologists in January 2016.

Zibo Li, PhD, received a one-year Tier 1 Developmental Research Grant from UNC Lineberger Comprehensive Cancer Center (LCCC) for a collaborative project entitled, “Development of 18F-PET Probes to Image the IDO Pathway for Immuno-Oncology Clinical Research” in January 2016.

Former Abdominal Imaging Division Chief and Professor of Radiology Carol Mittelstaedt, MD, was memorialized at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY (Deceased Spring 2015).

Sarah Nyante, PhD, received a one-year North Carolina Translational and Clinical Sciences Institute (NC TraCS) Pilot Award ($34,972) in January 2016 for her proposed project, “Expression of breast extracellular matrix proteins in lobular carcinoma in situ: a pilot study.” Co-investigators for this pilot study are Drs. Thomas Lawton and Xianming Tan (UNC Departments of Pathology & Laboratory Medicine and Biostatistics, respectively).

Daniel Nissman, MD, served as a hands-on instructor in “Hands-on Shoulder Ultrasound” at the 2016 American Institute of Ultrasound in Medicine (AIUM) Convention in March 2016 in New York City, NY.


Terry Wong, MD, PhD, presented, “Molecular imaging of head and neck malignancies” at the American Roentgen Ray Society (ARRS) Annual Meeting in Los Angeles, CA, in April 2016.

Terry Wong, MD, PhD, presented four lectures -- “Head and neck PET/CT”; “Optimized protocols for PET/CT oncology imaging”; “PET/CT artifacts and pitfalls”; and “Non-oncologic applications for PET/CT” -- at the 14th Annual PET/CT Imaging 2016 symposium in Orlando, FL, in April 2016.

Terry Wong, MD, PhD, presented two lectures -- “PET/CT: How Much CT Do You Need?”; “PET/CT in Head and Neck Cancer” – at the 2016 Nuclear Medicine and Molecular Imaging Update (4th Annual Weekend Review Course), hosted by the North Carolina Radiological Society in Durham, NC, in March 2016.

Terry Wong, MD, PhD, presented four lectures -- “Present and Future Radiotracers in Oncology”; “Optimized Protocols for PET/CT Oncology Imaging”; “Functional Imaging and Response to Therapy”; “Head and Neck PET/CT” – at Advances in Oncologic Imaging 2016, a symposium hosted by Duke Department of Radiology in Grand Cayman, Cayman Islands, in February 2016.

Drs. Terence Wong, Eric Smith, and Zibo Li, received an UNC School of Medicine infrastructure award ($71,570) in December 2015 with additional UNC Department of Radiology funding to initiate a Ga-68 PET program. This generator-produced radionuclide enables new families of PET radiotracers to be synthesized, and early applications include imaging of neuroendocrine tumors and prostate cancer using PET/CT and PET/MRI.

Carlos Zamora, MD, presented, “Neuroimaging of Common Phakomatoses” as a Continuing Medical Education invited lecturer for The Johns Hopkins Neuroradiology Review Course in October 2015 in Baltimore, MD.

Carlos Zamora, MD, presented, “Dementia early diagnosis: Where are we?” at a joint session with the Inter American College of Radiology at the 101st Radiological Society of North America (RSNA) Annual Meeting in November 2015 in Chicago, Ill.

Carlos Zamora, MD, was named amongst 43 American Journal of Neuroradiology manuscript reviewers in December 2015 recognized for reviewing the largest number of manuscripts and for receiving the highest review scores in 2015.

Carlos Zamora, MD, presented, “HIV-associated central nervous system infections” at the “Advances in Medicine: Great Challenges in Infectious Diseases” 18th International Congress at Guadalajara University and Civil Hospital in February 2016 in Guadalajara, Mexico.

Carlos Zamora, MD, presented three topics -- Neuroimaging of epilepsy syndromes (part of a pre-congress course on epilepsy); Neuroimaging of intracranial infections; and T2/FLAIR white matter hyperintensities – at the 1st Nicaraguan Congress of Neurology, co-facilitated by Universidad Autónoma de Nicaragua, Vivian Pellas Metropolitan Hospital and the International League Against Epilepsy (ILAE) in March 2016.

Carlos Zamora, MD, presented, “Use of susceptibility-weighted imaging (SWI)” at 18th Anniversary Teleresonancia de Jalisco conference in February 2016 in Guadalajara, Mexico.


In Memory: Paul F. Jaques, MD
UNC Department of Radiology: 1976 – 2002

“It’s hard to know where to begin to describe his importance in my education … Paul Jaques taught me so many valuable lessons. The value of creativity and problem-solving when faced with challenging procedures was probably the one most important thing he taught me about successfully practicing [Vascular] Interventional Radiology.”

Dr. Charles Burke trained under Jaques in the early 2000s as a Department Diagnostic Radiology resident and Vascular-Interventional Radiology (VIR) fellow. As seen in his words, Burke’s mentor and Division Chief was a master at adapting to available tools and overcoming obstacles during procedures. Now both the Department’s VIR Division Chief and Director of Interventional Services, Burke credits Jaques for a fearlessness in trying new approaches, many of which have influenced VIR practice and instruction in the Department over decades.

The Department of Radiology joins Jaques' family and community in mourning his December 2015 passing after a long illness. A medical school graduate of the University of London and Middlesex Hospital Medical School in 1971, Jaques began practicing in London and headed to the U.S. in 1975 for a sabbatical in the Department. Meant only to be 18 months, the sabbatical became a permanent relocation when Jaques was asked to stay and establish North Carolina Memorial Hospital’s Interventional Radiology program.

Department Chair Dr. Matt Mauro came to UNC in the late 1970s, training as a Diagnostic Radiology resident and as a VIR fellow. As Mauro remembers Jaques: “He was innovative and demanding. Dr. Jaques was totally dedicated to the growth of this new subspecialty at UNC. In the era of more liberal practice guidelines, Paul would create new techniques and tools on the fly to best treat the patient's problem.”

A life-honoring, online page created by Jaques' family notes: “Paul was known for his celebratory character and willingness to step in whenever help was needed. He was truly the life of every party and loved his family and friends as much as he loved life itself. Paul loved a good round of golf and had a passion for sailing and later, for flying. A true Brit through and through, he remained loyal to the Queen of England all his life as a British citizen.”