On April 1, 2010, the *Post & Courier* announced that MUSC President Raymond Greenberg had selected Dr. Etta Pisano of the University of North Carolina-Chapel Hill to be the new Dean of the College of Medicine, pending final approval of the Board of Trustees. The article states Dr. Pisano was selected from a pool of 70 applicants, and that her spouse, Dr. Jan Kylstra, will join MUSC's Department of Ophthalmology.
http://www.postandcourier.com/news/2010/apr/01/musc-names-dean-of-medicine/

On July 9, 2010, MUSC's newspaper, *The Catalyst*, said this about Dr. Pisano:
"She's bringing some of her [UNC] staff with her to MUSC, including Jennifer Nall, assistant dean for academic affairs, Elodia Cole, a clinical researcher and laboratory manager, and D.J. O'Connor [sic], Ph.D., a research assistant professor." http://www.musc.edu/catalyst/archive/2010/co7-9newdean.html

Dr. Pisano is the co-owner of NextRay, a biotechnology company headquartered in Chapel Hill, NC. NextRay is developing digital imaging machines that are superior to film x-ray machines. By using Diffraction-Enhanced Imaging (DEI) technology, NextRay creates images through the diffraction –instead of the absorption- of x-ray beams. This imaging technique produces better resolution than traditional x-rays with much less radiation.

NextRay is a University of North Carolina start-up company. UNC granted NextRay its commercial licensing agreement, which means UNC will share the global profits with Dr. Pisano and her co-inventors when NextRay obtains FDA approval and is finally commercialized.

The UNC colleagues Dr. Pisano "brought" to MUSC, **Dean Connor** and **Elodia Cole**, both have a financial interest or association with NextRay and now they both have faculty positions at MUSC.

Dean Connor is identified as a co-inventor of NextRay's patented technology, and Connor, Dr. Pisano, NextRay, and UNC are listed as co-applicants. (1) http://www.wipo.int/pctdb/en/wo.jsp?WO=2010065532

In this journal article, Connor discloses his financial relationship with NextRay:
"Dr. Connor…serves as a paid consultant to or is an employee of NextRay, has received research or institutional support from NextRay, and has stock or stock options in NextRay…" http://www.jaaos.org/cgi/content/full/17/7/473

Elodia Cole was Dr. Pisano's lab manager at UNC and she is also associated with NextRay.
"...Cole manages the Breast Imaging Research Lab at UNC, and works with NextRay, UNC radiology researcher Etta Pisano's venture to commercialize an innovative new medical imaging technology developed at UNC..."
http://www.kenaninstitute.unc.edu/centers/cei/index.asp?y=news.20090511&t=News

On November 17, 2010 the South Carolina State Ethics Commission charged Dr. Pisano with violating SC State Ethics Law 8-13-700 and 8-13-750. (2) According to the Commission, Dr. Pisano "needed" and "required" MUSC to hire her husband and three University of North Carolina research colleagues in order for Dr. Pisano to accept the Deanship. Acting on behalf of MUSC, President Greenberg agreed to Dr. Pisano's demands "as conditions of her employment."

The Commission's investigation and Findings of Fact seem to support the material allegations against Dr. Pisano (that she had used her influence to secure MUSC jobs for her husband and business associates). However, the Commission ultimately dismissed their own complaint because the alleged misconduct occurred when Dr. Pisano was *in the process of becoming* a SC state employee –she was not yet a SC state employee- and therefore South Carolina law has no jurisdiction.

"Clearly, the Respondent [Dr. Pisano] did participate in negotiations that resulted in the eventual employment of three members of her research staff from the University of North Carolina, at least one of whom is associated with her in a business identified as NextRay, Inc., as well as her husband, Dr. Jan Kylstra. However, these negotiations occurred prior to her becoming a public employee within the jurisdiction of the State Ethics Commission."

Did MUSC violate South Carolina employment law?

Although the State Ethics Commission determined Dr. Pisano did not violate 8-13-700 and 8-13-750, their investigation indicates that President Greenberg agreed to appropriate state jobs to Dr. Pisano's husband and three NextRay/UNC associates as "conditions of her employment."

South Carolina courts have ruled that MUSC employees are "government actors." MUSC jobs are state jobs and President Greenberg is both a state employee and the head of a state agency. Did President Greenberg have statutory authority to **lawfully** appropriate state jobs to Dr. Pisano's spouse and three NextRay/UNC associates, before such vacancies existed, and as an inducement for her to accept the MUSC Deanship?

If a state agency head may **lawfully** appropriate bonus state jobs during pre-employment negotiations, where is the statute authorizing this prerogative, and is there a limit? By that I mean what if Dr. Pisano had insisted President Greenberg award state jobs to her brother and daughter -in addition to her husband- as well as to six or ten or twenty additional NextRay/UNC colleagues -instead of three? Would that arrangement be permitted, as long as President Greenberg agreed? These are not sarcastic or rhetorical questions; I'm only trying to follow the logic and the economic consequences of this presumed authority.

I'm unaware of any South Carolina statute that authorizes a state agency head to appropriate bonus state jobs to the relatives and business associates of one potential state employee during pre-employment negotiations. I've searched the SC Code of Laws and the only authorized pre-employment "perk" I can find for public employees is related to the reimbursement of their moving expenses (8-11-130), and the restrictions for that reimbursement are further specified in 8-11-135.

MUSC is a public institution, not a private corporation, and the open application process for state jobs is regulated to ensure that everyone has equal employment opportunity. My understanding is a state agency head cannot appropriate state jobs as part of a "hiring package" any more than he can give away a fleet of state-owned vehicles. But according to Dr. Pisano's own testimony to the State Ethics Commission, South Carolina state jobs were essentially used as bargaining chips by her and President Greenberg.

I realize President Greenberg may recruit out-of-state researchers if that is in the best interests of MUSC. But according to Dr. Pisano's testimony, these colleagues were not openly and independently recruited; her husband and business associates were simply given state jobs because Dr. Pisano "needed" and "required" it in order for her to accept the MUSC Deanship. MUSC's Human Resources Department then posted the pre-appropriated jobs several weeks *after* the deal between Dr. Pisano and President Greenberg was finalized.

Did MUSC violate federal employment law?

MUSC annually receives $300+ million in federal contracts and grants, and therefore must adhere to federal Equal Employment Opportunity/Affirmative Action principles. Is the awarding of faculty positions in this manner consistent with federal EEO/AA policy?

In 1996, MUSC was cited and penalized for racial and sex discrimination by the U.S. Department of Labor. Since then, MUSC has tried to rectify the harm caused by past discrimination by enacting policies which promote diversity and equal employment opportunity. Here are two sentences from President Greenberg's policy statement on MUSC's Commitment to Equal Employment Opportunity:

"…All employment and promotional decisions are based upon job-related requirements, and must comply with the principles of equal employment opportunity…. As a major employer in the area, MUSC recognizes its responsibility to ensure that everyone has access to employment opportunities."
http://academicdepartments.musc.edu/eeo/policies/non_discrimination.html

An organization cannot promote itself as an EEO/AA institution and then selectively practice EEO/AA. Does President Greenberg's decision to appropriate MUSC jobs to Dr. Pisano's husband and NextRay/UNC colleagues "as conditions of her employment" expose MUSC to federal civil rights litigation from potential

applicants who were shut out of the hiring process, or from federal agencies responsible for enforcing institutional EEO/AA compliance?

MUSC claims to be an EEO/AA employer, and relies on the financial incentives this distinction confers. Does President Greenberg's decision undermine MUSC's status as an EEO/AA institution?

Did any of these individuals and MUSC engage in conspiracy?

South Carolina Code - SECTION 16-17-410 Conspiracy
The common law crime known as "conspiracy" is defined as a combination between two or more persons for the purpose of accomplishing an unlawful object or lawful object by unlawful means.

To my knowledge, no statute exists which authorizes a state agency head to appropriate state jobs to pre-selected individuals who have yet to apply for those jobs. And the fact that Jan Kylstra, Dean Connor, Eldoia Cole, and Jennifer Nall ultimately applied for their jobs through MUSC's HR Department, as all applicants must, reinforces that President Greenberg did not have the **lawful** authority to *executively* award said jobs.

The subsequent actions of MUSC's HR Department suggest a scheme was devised to deny equal employment opportunity to other potential job applicants, thereby ensuring Dr. Pisano's spouse and colleagues would be installed at MUSC. This pre-determined outcome is consistent with the pre-employment agreement between Dr. Pisano and President Greenberg, as described by the State Ethics Commission.

MUSC's HR Director, Susan Carullo, was asked to provide the dates that the four job postings for Dr. Pisano's spouse and NextRay/UNC associates appeared on the MUSC website. As permitted by the Freedom of Information Act, she was also asked to provide the number of applicants who applied for each position and a copy of the postings as they appeared on the job board. The manner in which Ms. Carullo responded to this request is suspicious and it suggests these individuals received preferential treatment in the hiring process.

Instead of providing the job postings as they appeared on the MUSC website, Ms. Carullo attached an Excel spreadsheet (3). Excel was designed for data sets; it's an awkward format to use for sentences. You can tell this is a created document because if HR stored job posting records in Excel, there would be sequential gaps between the lines because these particular job postings appeared on different days during different months.

Why was information copied from another source document and then pasted into each individual cell on this Excel spreadsheet? Was someone trying to conceal the Requisition ID numbers for these positions, which identifies the person or department who authorized the vacancies? MUSC jobs are not posted in Excel format and they always display the Requisition ID number.
https://www.jobs.musc.edu/applicants/jsp/shared/frameset/Frameset.jsp?time=1298829390231

Ms. Carullo did not answer any questions about the posting for Dr. Kylstra's job. Was Dr. Kylstra's position created *after* the *Post & Courier* announced he had been hired? Why were faculty positions for Connor and Cole advertised for only one day? Are these practices consistent with MUSC's HR Policies & Procedures? Ms. Carullo also declined to provide the number of applicants who applied for each position. Why?

The interstate relocation of five professionals from four households requires planning and coordination. How did Dr. Pisano know that her husband and three NextRay/UNC colleagues would be receptive to moving to South Carolina and working at MUSC? I think it's reasonable to assume she discussed the prospect with them in order to establish their salary demands, starting dates, etc. so that they could discuss the job opportunity with their families, give adequate resignation notice in North Carolina, and make new housing arrangements.

Then someone must have informed Kylstra, Connor, Cole, and Nall that President Greenberg had, in fact, awarded them state/MUSC jobs. Someone must have directed them to apply for their awarded jobs through MUSC's HR Department. Someone must have created the four vacancies with the Office of Human Resources and the SC Employment Security Commission.

How did Dean Connor know that “his” job would be posted on 5-3-2010 and removed on 5-4-2010? How did Elodia Cole know that “her” job would be posted on 4-27-2010 and removed on 4-28-2010? How did Jennifer Nall know that “her” job would be posted on 5-13-2010 and removed on 5-20-2010? I’m assuming someone must have communicated these important details to each of them.

Besides Dr. Pisano, did any of them travel from Chapel Hill, NC to Charleston, SC for conventional job interviews? If no interviews occurred, why not? And who informed Kylstra, Connor, Cole, and Nall that each of them had - despite the statistical odds- collectively prevailed in the MUSC hiring process? And so on.

The term “conspiracy” may seem hyperbolic, but if Raymond Greenberg and/or Susan Carullo and/or Etta Pisano and/or Jan Kylstra and/or Dean Connor and/or Elodia Cole and/or Jennifer Nall communicated with one another about how to rig, manipulate, or otherwise circumvent MUSC’s democratic hiring process “for the purpose of accomplishing an unlawful object” (that is, unlawfully? appropriated state jobs), then the charge of conspiracy may indeed apply.

In pursuit of their awarded MUSC jobs, if the actions of any of these individuals subverted federal Equal Employment Opportunity/Affirmative Action hiring mechanisms, then the federal government may also have a problem with that activity.

Did any of these individuals engage in bribery?

As the State Ethics Commission noted, Dr. Pisano co-owns NextRay and shares the NextRay patent with Dean Connor. Connor’s MUSC employee profile states he is currently working on the DEI technology which is unique to NextRay. As the Commission noted, Dr. Pisano admits that she used her influence during pre-employment negotiations with President Greenberg to employ Connor at MUSC as a Radiology professor. Since Dr. Pisano “needed” and “required” MUSC to hire Connor and, in fact, stipulated her acceptance of the MUSC Deanship on this demand, is Connor expected to do anything in return for Dr. Pisano?

As the Commission noted, Elodia Cole also has an association with NextRay. Cole was Dr. Pisano’s UNC lab manager and now she will manage clinical trials at MUSC so NextRay can achieve FDA approval. Cole’s MUSC employee profile confirms she is currently working on Dr. Pisano’s research endeavors, which is the development of NextRay. And as the Commission noted, Dr. Pisano admits that she used her influence during pre-employment negotiations with President Greenberg to employ Cole at MUSC as faculty Instructor in the Radiology Department. These negotiations occurred when Cole was Dr. Pisano’s subordinate at UNC, and the MUSC job Dr. Pisano secured for Cole resulted in both a promotion in salary and rank.

Since both Connor and Dr. Pisano are co-inventors of NextRay, they both have a personal and financial interest in commercializing NextRay. And since NextRay cannot be commercialized until clinical trials are completed, lab manager Elodia Cole’s promotion to MUSC faculty member seems mutually opportunistic.

Does the reciprocity between Pisano and Connor and Pisano and Cole suggest bribery, or even the appearance of bribery? I realize that even if the scenario of criminal bribery is applicable, North Carolina would probably have jurisdiction because the hypothetical bribery would have occurred when Pisano, Connor, and Cole, were all UNC employees. Nevertheless, this is how South Carolina defines bribery:

South Carolina Code - SECTION 16-17-540
(1) Any person who corruptly gives, offers or promises to an agent, employee or servant any gift or gratuity whatever, with intent to influence his action in relation to his principal's, employer's or master's business;

(2) Any agent, employee or servant who corruptly requests or accepts a gift or gratuity or a promise to make a gift or to do an act beneficial to himself under an agreement or with an understanding that he shall act in any particular manner in relation to his principal's, employer's or master's business;

It's unusual for the presumptive Dean of a medical school to stipulate that the same medical school hire her research team –who happen to be associated with her business - as a "condition of her employment." I also think it's unusual for subordinates to disrupt their personal and professional lives by relocating to another state on their mentor's request, notwithstanding compelling financial incentives.

If criminal bribery does not apply, the possible conflict-of-interest created by NextRay's financial connection to UNC, and MUSC's hiring of NextRay associates at the request of the UNC researcher who founded NextRay (Dr. Pisano) as conditions for Dr. Pisano accepting the MUSC Deanship, merits investigation.

Why is MUSC/South Carolina financing a UNC/North Carolina start-up company?

NextRay is a UNC start-up company. UNC also shares the patent for NextRay's (DEI) technology (4). DEI technology has potential medical imaging applications beyond breast screening; it may be ideal for lungs and other soft tissues as well. Because it emits low radiation, this technology can even be applied to security screening systems in airports around the world, so the financial stakes are significant for Dr. Pisano, NextRay stockholders, and UNC. According to UNC's Office of Technology, a typical profit split for UNC start-up companies is 40% UNC / 40% inventors / 20% North Carolina state treasury.

South Carolina taxpayers have now provided Dr. Pisano, her spouse, and her three NextRay/UNC associates with state jobs at MUSC. MUSC's Breast Imaging Research Faculty in the Division of Radiology lists only three individuals: Pisano, Connor, and Cole -all of whom are associated with NextRay. Their MUSC webpage states, *"We are in the process of expanding our research and development activities of new breast imaging technologies…"* http://clinicaldepartments.musc.edu/radiology/divisions/breastresearch.htm

Since NextRay is the only "new breast imaging technology" that Dr. Pisano is promoting in media interviews and since Dr. Pisano is an experienced Principal Investigator (PI), I'm assuming that in addition to paying their salaries, MUSC will also support NextRay's clinical trials.

- But in return, UNC –not MUSC-will profit from NextRay because NextRay is a UNC start-up company.
- In return, North Carolina -not South Carolina- will benefit from NextRay's business taxes because NextRay was incorporated in Chapel Hill, NC and maintains headquarters there.
- In return, California -not South Carolina- will benefit from the engineering jobs NextRay will create because Dr. Pisano has hired a Silicon Valley firm to manufacture the NextRay machines.

Why are South Carolinians financing NextRay when California, North Carolina, and NextRay stockholders will profit from NextRay? Why is MUSC paying the salaries and providing the lab facilities to researchers whose documented objective is the commercialization of a UNC biotechnology company?

At this critical stage in NextRay's development, why did Dr. Pisano leave UNC for MUSC?

The process of commercializing a biomedical device is long and arduous. But during Dr. Pisano's career at UNC, she and her research team had already achieved the following milestones:

- UNC helped create the DEI technology intrinsic to NextRay;
- NextRay's patent had been registered;
- NextRay had been incorporated in NC with initial stock sold;
- Dr. Pisano had hired a venture capitalist to raise money and develop NextRay's business plan
- Dr. Pisano had contracted with a Silicon Valley engineering firm to produce the NextRay machines
- NextRay had won many awards sponsored by government organizations and private industry
- NextRay had attracted positive reviews from the scientific and business communities

Clinical trials are the next step, and as the Director of UNC's state-of-the-art Biomedical Research Imaging Center, Dr. Pisano had all the resources she needed to conduct NextRay's clinical trials on the UNC campus. http://www.bizjournals.com/triangle/stories/2008/04/14/story3.html

Since NextRay is a UNC start-up company and since the NextRay team was already employed by UNC, and since Chapel Hill is the location of NextRay's incorporation and headquarters, why would Dr. Pisano relocate her NextRay team to MUSC?

Dr. Pisano has implied she accepted the Deanship because few women in U.S. medical schools have achieved that rank. But in recent articles and contemporaneous media interviews, Dr. Pisano's self-expressed ambition is not rising through the ranks of whichever medical school administration –it's launching NextRay.

In addition to private industry funds and awards, NextRay received $69,255 in 2009 and $175,224 in 2010 from the state of North Carolina. http://www.irs.gov/businesses/small/article/0,,id=229005,00.html

But major financing is still needed to commercialize NextRay. The following articles suggest that the only remaining hurdle for NextRay's commercialization is "acquiring funding" and "raising seed money". And Dr. Pisano's strategy to acquire that funding and raise that seed money coincides with the NextRay team's relocation from UNC to MUSC.

From an April 2009 *CNN Money* article (12 months before Dr. Pisano accepted the MUSC Deanship):
"The company plans to acquire funding and a manufacturing partner within the next two years, hold clinical trials in year three, and launch full-scale production and distribution in year four. It hopes for an acquisition soon after…"
http://money.cnn.com/galleries/2009/smallbusiness/0904/gallery.startup_showdown_2009.smb/3.html (5)

From a Summer 2009 UNC newsletter (10 months before Dr. Pisano accepted the MUSC Deanship):
"The next step for NextRay is to secure funding," says Pisano. She aims to raise $4.5 million through private investors and grants." http://www.kenaninstitute.unc.edu/news/print/Summer_2009.pdf (6)

From her November 2009 alumni newsletter (5 months before Dr. Pisano accepted the MUSC Deanship):
"…I have started a company, NextRay, Inc, which is commercializing an imaging device that I invented with several physicists and engineers as part of my faculty job here at UNC Chapel Hill. The new device provides high quality x-ray images at a fraction of the dose of conventional images. We are raising seed financing now…The engineering work for the company will be taking place in Silicon Valley, though the company is based in Chapel Hill."
http://dartmouth.org/classes/79/newsletters/Dartmouth_1979_Class_Newsletter_-_2009_November.pdf (7)

From *TechJournal South* in February 2010 (2 months before Dr. Pisano accepted the MUSC Deanship):
"…Pisano said last year that the company is seeking to raise a $4.5 million round of funding."
http://www.techjournalsouth.com/2010/02/nextray-scans-in-536k-in-debt-funding-for-x-ray-tech/ (8)

And here is NextRay's long-term business plan, as described by Dr. Pisano herself, in the April 2010 *Wake County Physician*. (April 2010 is the same month Dr. Pisano accepted the MUSC Deanship):
"…University of North Carolina and the other institutions have licensed the technology to a company all of us inventors cofounded – NextRay, Inc. We have hired a contract-engineering firm in Newark, California, Triple Ring Technologies (TRT), to help us develop the prototype into a full-fledged commercial product…We have hired a CEO, Menahim Nassi, PhD, a successful serial entrepreneur. Finally, we have recently secured $500,000 in seed financing (from Idea Fund Partners, of RTP, and Eagle Green Investors, of Arlington, Virginia). These moneys will help us do some of the early engineering work to move this product to market. We will be seeking $6 million of Series A financing from venture capitalists in the next six months. Once DEI is developed and commercially available, expected in the next 5 years, we believe, our product will compete very well with conventional machines available through the x-ray medical imaging device market. Our CEO has developed a business strategy beyond breast imaging. Indeed, we aim to replace all medical imaging tests that use x-rays with DEI." http://www.wakedocs.org/pdfs/WCPApril/WCPApril10FINAL.pdf (9)

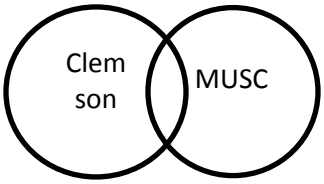
With NextRay on the cusp of commercialization and seeking millions of dollars in “seed financing”, why would Dr. Pisano relocate the NextRay team to another university in another state, from a wealthier donor base to a poorer one? And why would she accept a personal salary reduction of $289,000?
http://www.collegiatetimes.com/databases/salaries/university-of-north-carolina-chapel-hill-2010?name=pisano

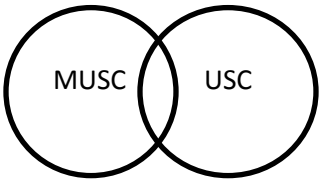
Will Dr. Pisano secure SC CoEE funds for NextRay via an MUSC/UNC Affiliation Agreement?

Many of you are familiar with the South Carolina Centers of Economic Excellence (SC CoEE) program, an entrepreneurial partnership between state government and private industry. http://www.sccoee.org/
SC CoEE legislation authorizes the state's three public research institutions (Medical University of South Carolina, Clemson University, and the University of South Carolina) to use state funds to create Centers of Economic Excellence in research areas that will advance South Carolina's economy.

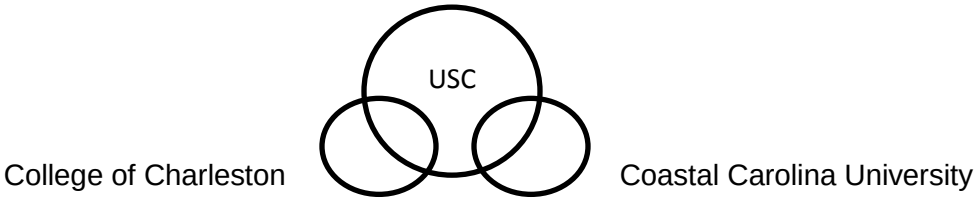
Each CoEE is awarded between $2 million and $5 million of South Carolina education lottery money, which must be matched on a dollar-for-dollar basis with non-state funds. Under the aegis of our public research universities, a product or technology is then developed, which results in the creation of a South Carolina start-up company. Ideally, when collaboration between higher education, industry, and government is successful, everyone benefits –taxpayers, public education, our state economy, and entrepreneurial scientists.

It’s important to note that SC law authorizes **only** our three public research universities- Clemson, MUSC, and USC- to receive $2-$5 million for each CoEE. Sometimes researches at these universities affiliate with each other and so they share the CoEE and its state funding. For example, the overlapping shaded areas below represent a Clemson/MUSC Affiliated CoEE (*Cancer Stem Cell Biology & Therapy*) and an MUSC/USC Affiliated CoEE (*Medication Safety & Efficacy*):





Other South Carolina schools such as the College of Charleston, Coastal Carolina University, and SC State are NOT eligible to independently receive SC CoEE funding. However, they may form satellite affiliations with Clemson, MUSC, or USC, as long as Clemson, MUSC, or USC is the lead institution. The shaded areas below represent a USC/College of Charleston Affiliated CoEE (*Marine Genomics*) and a USC/Coastal Carolina University Affiliated CoEE (*Tourism and Economic Development*).



Since NextRay is a UNC start-up company, NextRay is **ineligible** to receive SC CoEE funds. However, I suspect Dr. Pisano may try to circumvent that restriction by establishing a loophole: an MUSC/UNC Affiliation Agreement. With MUSC as the lead institution and UNC as the affiliated institution, NextRay might qualify for another infusion of taxpayer money –this time South Carolina’s.

One of the first initiatives Dr. Pisano spearheaded since assuming the MUSC Deanship is the creation of an Affiliations Committee for the ostensible purpose of preparing MUSC for the clinical ramifications of national healthcare reform. http://academicdepartments.musc.edu/com1/news_events/headlines/DeanPisano_08Oct_2010.htm

The following objective from page 2 of the Affiliation Committee Recommendations is interesting when compared to the stated mission of the SC CoEE program:
http://dl.dropbox.com/u/11318946/AffiliationCommitteeRecommendations.pdf

"Leverage relationships related to existing Centers of Economic Excellence (COEE) program affiliates, see *Attachment C*."

First, here is the SC CoEE Program Overview, verbatim, from their website:

The S.C. Centers of Economic Excellence Program was established by the South Carolina General Assembly in 2002, funded through South Carolina Education Lottery proceeds. The legislation authorizes the state's three public research institutions, Medical University of South Carolina, Clemson University and the University of South Carolina, to use state funds to create Centers of Economic Excellence in research areas that will advance South Carolina's economy. Each Center of Economic Excellence is awarded from $2 million to $5 million in state funds, which must be matched on a dollar-for-dollar basis with non-state funds. The program also supports CoEE endowed chairs, world-renowned scientists who lead the Centers of Economic Excellence. By investing in talent and technology, the CoEE Program is designed to fuel the state's knowledge-based economy, resulting in high-paying jobs and an improved standard of living in South Carolina.

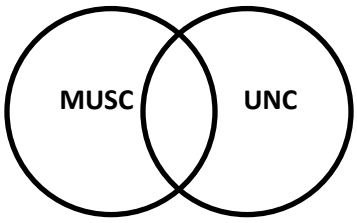
Now please note the Affiliations Committee's/Dr. Pisano's introduction to *Attachment C:* (10)

"The Centers of Economic Excellence (CoEE) program is a statewide initiative which authorizes state and public research institutions ***such as*** the Medical University of South Carolina, Clemson University and the University of South Carolina, to use state funds to create areas in research will advance South Carolina's economy. Briefly, each CoEE is awarded from 2 to 5 million in state funds, which must be matched on a dollar-for-dollar basis with non-state funds. The program also supports the development of endowed chairs consisting of, ***and hence requiring recruitment*** of, renowned scientists who lead aspects of each CoEE. Hence, by investing in the juxtaposition of talent and technology, elite programs develop which fuel the state's knowledge-based economy, resulting in high-paying jobs and an improved standard of living in South Carolina."

Why has the phrase ***"such as"*** been inserted into *Attachment C's* introduction? The South Carolina legislature explicitly authorized SC CoEEs to award matching state funds to MUSC, USC, and Clemson ONLY, as these are South Carolina's three research universities. Why did the Committee/Dr. Pisano qualify the specific institutions eligible to receive up to $5 million in SC CoEE funding with ***"such as"***? Also, SC CoEE legislation *allows* the recruitment of renowned scientists for the development of endowed chairs, but it does not ***"require"*** it. I wonder if the insertion of this phrase is a retroactive justification for Dr. Pisano's efforts to install her NextRay colleagues at MUSC, as described by the State Ethics Commission.

Since UNC owns NextRay's commercial licensing rights and shares the patent for NextRay's DEI technology, and since the NextRay team is now employed at MUSC and plans to conduct NextRay's clinical trials at MUSC, is Dr. Pisano trying to "leverage" an *interstate* SC CoEE Affiliation between MUSC and UNC? If so, this could be the solution for NextRay's "seed financing" problem, as a SC CoEE matching allocation of $2-$5 million would be enough to commercialize NextRay, based on Dr. Pisano's documented projections.

NextRay?



The creation of Dr. Pisano's "Statement of Policy and Procedures for Affiliations Related to Centers of Economic Excellence" is interesting in light of the exciting bioimaging developments underway on the MUSC campus. This January 14, 2011 *Catalyst* article states:

"In fall 2010, the MUSC board of trustees approved a university center designation for the new Center for Biomedical Imaging (CBI). The CBI will be headed by Joseph A. Helpern, Ph.D., one of the South Carolina Centers of Economic Excellence Endowed chairs in brain imaging recruited to MUSC in late 2010…. To help establish a critical mass of experts on campus, both Helpern and Brown have been busy recruiting imaging scientists while enriching the Department of Radiology's NIH research grant portfolio. Already, the program has recruited eight imaging research faculty who have brought along more than $3 million in research funding.

As director of the CBI, Helpern will report directly to Etta Pisano, M.D., dean of the College of Medicine and vice president of medical affairs." http://www.musc.edu/catalyst/archive/2011/co1-28biomedical.html

Since Dr. Helpern is the director of MUSC's newly-created Center for Biomedical Imaging and is the endowed chair of MUSC's CoEE in Radiology and since Dr. Helpern "reports directly to Dr. Pisano", will that relationship facilitate a transfer of federal NIH and/or state CoEE funds into NextRay's commercialization budget?

If Dr. Pisano is attempting to affiliate UNC with MUSC in order to claim SC CoEE funds for NextRay, that is wrong. And if Dr. Pisano intends to allocate MUSC's Radiology Department SC CoEE funds to finance NextRay, that is also wrong.

Our SC CoEE program was designed to sponsor South Carolina start-up companies, not to finance the commercialization of an existing out-of-state invention. I don't think South Carolina lawmakers intended for research institutions such as MUSC to affiliate with out-of-state institutions such as UNC in order for South Carolina taxpayers to subsidize a North Carolina start-up company.

Did Dr. Pisano decline a recent MUSC opportunity due to SC CoEE issues?

When MUSC announced Dr. Pisano had been selected as Dean, her predecessor in the Dean's Office, Dr. Jerry Reves, released this greeting. A sentence from the last paragraph reads:

"Previously, we had Dr. Pisano on our short list of candidates for chair of the radiology department, but she withdrew from that search." http://academicdepartments.musc.edu/com1/comumaexcellence/Excellograms/Excellogram38.pdf

Dr. Philip Costello has been MUSC's Radiology Chairman from 2004-present and I can find nothing to indicate that he planned to resign. So I wonder if Dr. Reves meant MUSC recently had Dr. Pisano on the short list of candidates vying for an *endowed chair* in the Radiology Department. Endowed chairs are sponsored by the SC CoEE program, and their business ventures are eligible for $2-$5 million in matching state funds.

Was Dr. Pisano's "previous" MUSC recruitment -from which she withdrew her name- the same recruitment that resulted in Dr. Helpern achieving the MUSC Endowed Chair in Radiology? Did she initially compete for this Endowed Chair opportunity with the plan to bring NextRay to MUSC as a SC CoEE? If so, did she withdraw from that recruitment because she realized MUSC lacked the necessary "infrastructure" to affiliate with UNC, which meant NextRay had to remain affiliated with UNC only and therefore wouldn't be eligible for millions in matching SC CoEE funds?

As a mere Professor/Endowed Chair, Dr. Pisano would have no authority to unilaterally expand MUSC's Affiliation Agreements to include out-of-state institutions. But now in the more powerful position as Dean, she has the authority to create an Affiliations Office, hire a Director of Affiliations, and expand MUSC Affiliations

Agreements to include *interstate* institutional affiliations, which may be her strategy for "acquiring funds" and securing "seed financing" for NextRay.

If there is any truth to this speculation, if Dr. Pisano's accepted the MUSC Deanship and insisted MUSC hire the NextRay team in order to divert millions of South Carolina dollars to finance her North Carolina start-up company, I think there is a problem. And if she intends to allocate MUSC's Radiology Department SC CoEE funds to finance NextRay, that is also wrong because NextRay remains a UNC start-up company, despite NextRay's move from UNC to MUSC.

If any improprieties have occurred at MUSC, how responsible is the Board of Trustees?

The MUSC Board of Trustees is the final authority and the governing body for the entire University. I believe each Trustee swears an oath to uphold South Carolina law, to protect the integrity of MUSC, and to practice prudent stewardship of the University's finances. Although the Board is responsible for MUSC, it's conceivable they are unaware of this entire situation because information has been withheld from them in two major ways:

1. Inadequate and inaccurate local media coverage; and
2. Efforts by Dr. Pisano, Connor, and Cole to conceal their connection to NextRay, NextRay's connection to UNC, and the circumstances by which MUSC hired them.

I've submitted articles which document the interest UNC, Dr. Pisano, Connor, and Cole have in NextRay. These associations have been freely disclosed in the national, UNC, and North Carolina press, but local newspapers and MUSC publications have yet to connect the Pisano-Connor-Cole-NextRay-UNC-MUSC dots.

According to the *Post & Courier* article cited on the first page, President Greenberg stated in April 2010 that he expected the Board to approve his decision to hire Dr. Pisano. But the article did not disclose that President Greenberg had also agreed to hire Dr. Pisano's husband and her three NextRay/UNC associates "as conditions of her employment." This detail was only revealed when the State Ethics Commission released their report in November 2010.

Furthermore, the Board may not know about the Commission's investigation because the 'Resolved Complaints' section of their website has been under construction for several months. Local newspapers have not reported on the Commission's dismissal or the conflict-of-interest inherent in the Commission's complaint. This is unusual because newspapers routinely publish stories about dismissed State Ethics Commission complaints involving far less public money (and far less influential public figures) as a matter of public record.

In the July 2010 *Catalyst* article, Dr. Pisano mentions NextRay and the NextRay patent, and she says she's "bringing" two of her UNC researchers to MUSC. But she doesn't share that Connor is a co-inventor of NextRay and a co-creator of the NextRay patent, and that Cole also helped develop NextRay at UNC. Dr. Pisano does not share with the MUSC community that NextRay is a UNC start-up company.

Additionally, this statement from the January 14, 2011 *Catalyst* contains a factual misrepresentation of how Connor and Cole came to be employed by MUSC.
"Among MUSC's new imaging faculty recruited in 2010 include Dr. Fatima Falagola, Dr. Ali Tabesh, Dr. Saeid Tajeri, Dr. Etta Pisano, Elodia Cole, Dr. Joseph Helpern, Dr. Truman Brown and Dr. Jane Joseph. Not pictured are Drs. D.J. Connor and Colleen Hanlon." http://www.musc.edu/catalyst/archive/2011/co1-28biomedical.html

The statement that Connor and Cole were "recruited" is deceptive because according to Dr. Pisano's testimony to the State Ethics Commission, Connor and Cole were appropriated state/MUSC jobs by President Greenberg "as conditions of her employment." MUSC was recruiting a Dean for the College of Medicine, not a Radiology team. And according to Ms. Carullo, MUSC's HR Director, the faculty positions appropriated for Connor and

Cole were each posted for only one day and weeks *after* the deal between Dr. Pisano and President Greenberg was finalized. These circumstances suggest an installation, not an open and fair recruitment.

The CVs and MUSC employee profiles for Pisano, Connor, and Cole also reflect a selective and restrictive transparency about their NextRay connections. Because material details about NextRay have not been disclosed, the Board may be unaware of possible conflicts of interest between MUSC and UNC.

The CV for NextRay co-inventor Dean Connor has been removed from the MUSC website, but enclosed is the first page of his CV which clearly documents his connection to NextRay. (11)

Connor's MUSC faculty profile states:
"Dr. Connor has spent his research career developing a new medical imaging technique called Diffraction Enhanced Imaging…Dr. Connor also co-invented an x-ray tube-based DEI system. The prototype he developed is helping to pave the way to a clinical DEI system." http://clinicaldepartments.musc.edu/radiology/faculty/connor.htm

In fact, Connor's contribution to this DEI technology resulted in his NextRay patent and yet he doesn't mention the existence of NextRay. And "clinical DEI system" IS NextRay, so why omit the name of the company?

Unlike Connor's, Cole's CV is posted, but it omits her work experience with NextRay. Cole's CV also omits the following two academic articles in which she is credited with co-authorship and which document her collaboration on the development of NextRay's unique DEI technology.

L. S. Faulconer, Parham C. A., Connor D. M., Kuzmiak C., Koomen M., Lee Y., Cho K. R., Rafoth J., Livasy C. A., Kim E., Zeng D., Cole E., Zhong Z., Pisano E. D., "Effect of Breast Compression on Lesion Characteristic Visibility with Diffraction-Enhanced Imaging," Academic Radiology, Epub ahead of print (December 24, 2009).

L. S. Faulconer, C. Parham, D. M. Connor, Z. Zhong, E. Kim, D. Zeng, C. Livasy, E. Cole, C. Kuzmiak, M. Koomen, D. Pavic and Etta Pisano, "Radiologist Evaluation of an X-ray Tube-Based Diffraction-Enhanced Imaging Prototype Using Full-Thickness Breast Specimens," Academic Radiology, 16(11), 1329-1337 (November 2009).

The academic journals cited above are present on Connor's CV (12) (which has been removed from the MUSC website), but they are absent on Cole's CV (which *is* posted on the MUSC website).
http://clinicaldepartments.musc.edu/radiology/faculty/cvs/EColeCURRICULUM%20VITAE.pdf

Both Cole and Connor contributed to this NextRay research -otherwise they wouldn't be listed as co-authors. Why would Cole omit her participation in this innovative 2009 research on her 2010 CV?

Finally, Dr. Pisano's MUSC faculty profile states http://clinicaldepartments.musc.edu/radiology/faculty/pisano.htm

"Recently Dr. Pisano co-founded her own company, NextRay, Inc., which will commercialize a device she and the other cofounders invented, a technology which creates medical images using x-rays through diffraction enhanced imaging…"

Once again, NextRay's "co-founders" are not identified, nor is NextRay identified as a UNC start-up company. It is customary and ethical for researchers to credit the universities that share their patents or maintain any proprietary interest in their inventions –often the university requires this. But to my knowledge, Dr. Pisano has never disclosed NextRay's connection to UNC in any local newspaper or MUSC publication.

NextRay is the creation of Dr. Pisano, her co-inventors, and UNC. When NextRay is commercialized, which state –North Carolina or South Carolina- and which institution –UNC or MUSC – will benefit from South Carolina's and MUSC's investment?