IT's Strategic Role

**An Interview with Jamie Nelson,
Senior Vice President and Chief Information Officer,
Hospital for Special Surgery**

Jamie Nelson

EDITORS' NOTE *Jamie Nelson has held her current post since January of 2015. Prior to this, she was Vice President and Chief Information Officer for HSS. She has also held roles as Vice President and Chief Information Officer for Norwalk Hospital; Vice President, Customer Care for Innovatix; Vice President for First Consulting Group, Inc.; Vice President, IT for New York Presbyterian; Senior Manager at Ernst & Young; and Assistant to Director, Patient Accounts at Memorial Sloan-Kettering Cancer Center.*

Has your role changed or evolved over the years, and how critical is it that the CIO is involved in business strategy today?

It certainly has changed. It has gone from a role where the CIO was focused on technical leadership to that of being a contributor to the organization's strategic decisions.

Today's CIO has to be proficient in things such as leadership, change management and, very importantly, communication, and taking complex ideas and putting them into terms the CEO, the Board physicians, and staff can understand.

I am fortunate enough to be a part of the HSS senior executive team. I am included in our strategy discussions and must envision how IT can help enable and accelerate those strategies. IT is not an end unto itself, but it can really help drive the organization towards its goals.

Is it important that the physicians speak the same language and that you take the time to communicate with them around your efforts?

They have to know why we're doing things because our doctors are very innovative, and many of them understand technology quite well here. They also have very high expectations. Knowing just how much to communicate and in a way that is meaningful and addresses their concerns is key.

How hard is it to stay on top of the fast pace of change in technology today and would you touch on your efforts in that regard?

Staying on top of technology change is not that hard. The hard part is understanding when technologies are mature enough for us. Although HSS is very cutting edge in many ways, there has to be some caution when we are dealing with technology that could impact patient safety.

Over the past few years at HSS we have had the opportunity to revamp our entire technical infrastructure and our electronic medical records, so we are very current with technology. This has also given us in IT an opportunity to look at how we deliver services to our clinical and administrative end users, and we've become more customer-service focused. It's also about partnering with our colleagues around the organization as technology changes.

At the size and scale of HSS, how critical is it that the innovative culture not be lost and what has been the secret to maintaining it?

We have significant growth goals – so we have to be innovative and willing to do things differently in order to achieve them. But this is just an extension of the innovative culture that is firmly established already. From an IT perspective, our goal is to provide tools and services to support a more accelerated pace of innovation. We are up to the challenge. ●

Leading Research

**An Interview with Mary B. Goldring,
Senior Scientist, Hospital for Special Surgery**

Mary B. Goldring

EDITORS' NOTE *Mary Goldring, Ph.D. is also Co-Director, Tissue Engineering, Regeneration and Repair Program and Professor of Cell & Developmental Biology with Weill Cornell Medical College and Weill Cornell Graduate School of Medical Sciences.*

Would you provide an overview of the areas of focus for your research?

My research during the past 30-plus years has focused on the molecules that are produced in the cells of cartilage and other joint tissues, how they are related at the gene and protein level, and how they influence tissue breakdown and repair. My initial approaches early in my career involved studying cells in culture and analyzing the expression of genes and their encoded proteins in cells from joint tissues, skin, and bone (particularly chondrocytes isolated from the cartilage of patients) after treatment with particular disease-associated factors. I decided to create immortal cell lines of human chondrocytes that are used widely in the field and that have permitted us to do detailed analyses of gene regulation and epigenetic status.

Upon joining the research faculty at HSS almost 10 years ago, I was able to take advantage of the outstanding facility for performing in vivo studies using murine models of osteoarthritis applied to genetically modified strains. These enable us to follow the time course of the initiation and progression of osteoarthritis and the impact of modifying specific molecular pathways in ways that cannot be done in humans. We are currently doing extensive genomic profiling of these models over the time course of osteoarthritis. We expect that interrogating our genomic (RNAseq) data against datasets obtained from humans will enable us to understand the impact of the genetic modifications we have made in ways that may lead to targeted therapies for early disease.

Would you highlight the Tissue Engineering, Regeneration and Repair Program at HSS?

The TERR program consists of a multidisciplinary team of investigators with expertise in biomechanics and biomaterials, orthopaedic surgery, and cell, molecular, and developmental biology. Each laboratory within the program consists of a multidisciplinary team of investigators, who carry out basic, applied, and translational research related to joint injury, repair, and reconstruction. In addition to investigating basic cellular and molecular mechanisms of degeneration and healing of orthopedic soft tissues, the TERR program has a strong translational focus with the aim of developing personalized strategies that may be used ultimately by our clinicians to promote tissue repair and reconstruction, and restore joint mobility in their patients.

Would you discuss HSS' commitment to supporting its scientists and investing in research?

HSS has a long history of supporting musculoskeletal research and has developed a unique research environment that encourages interactions among basic and clinical investigators in both Rheumatology and Orthopaedics. In addition to maintaining a core of senior scientists who are doing cutting-edge research and have long-standing credibility in their respective fields, HSS has created an environment that is attractive for junior and mid-career scientists to develop independence and flourish. There are several examples where this support was critical for getting new recruits or existing young scientists "over the hump" in obtaining grant funding. Evidence of the commitment of HSS in investing in research is also provided by the move of our research labs to the newly renovated HSS Research Institute. This has further encouraged the close interactions among the scientists in the different research programs, as we now have our dedicated conference room for holding cross-program group meetings on Molecular Biology of Bone and Cartilage and Immunology Research-in Progress, in addition to encouraging social interactions. ●