Which has sharper elbows, today or tomorrow? That’s the dilemma some healthcare facilities face when they undertake a major building project to meet future needs while continuing to serve current patients.

But if the process is managed well, past and present need not collide. At the West Orange, N.J., site of Kessler Institute for Rehabilitation, construction is under way on a three-story, 100,000-square-foot addition. Patients and visitors line up daily at the large windows in the second-floor lounge to watch the progress of construction. Happily, that’s almost the only sign they’ll see of the vast changes under way.

The reasons for the improvement go far beyond the goal of creating more space for patients and new technologies, important as that is. The construction also allows Kessler to bring together and expand its core programs, enhance patient amenities and improve the research environment. Planners and physicians worked closely together to ensure that the clinical functions of the hospital would be served not only while the changes are being made but also long after they are completed. The effort will create a 138-bed, state-of-the-art rehabilitation facility that is home to several world-renowned clinical programs.

Bringing programs together

A key objective for the new construction is to bring Kessler’s spe-
If you take a glance at the table of contents of any leading U.S. rehabilitation journal—the Archives of Physical Medicine and Rehabilitation, say, or the American Journal of Physical Medicine & Rehabilitation—you’ll notice a startling fact: Much of the cutting-edge research now being published is produced by our international colleagues, not by investigators here in the United States.

This is a clear sign that the field of rehabilitation is really a global enterprise and that we can learn a lot from rehabilitation efforts worldwide. I recently toured a factory that drove that point home. Owned by Össur, the world’s second-largest manufacturer of prosthetics components, it’s now beta-testing a sophisticated, computerized, self-powered artificial knee joint. That factory is in Reykjavik, Iceland.

Here at the Kessler Institute, we get frequent reminders that our field is an international community. It is not unusual, for example, for us to treat patients from foreign countries, while we receive almost daily e-mails from foreign physicians hoping to train at our facilities. We stay in contact with colleagues worldwide and host visits from experts from as far away as Australia and Japan. Physicians from Kessler travel to other countries to learn about therapeutic techniques and research. And I have had the good fortune to work with the World Health Organization in Geneva and to represent Kessler in Oslo at the most recent gathering of Rehabilitation International, an organization that advocates for civil rights for disabled people worldwide, particularly in developing countries.

Yet even with constant reminders, it is easy to turn a blind eye to the international community. Why? Because most of us are so busy day-to-day improving our delivery of care and juggling the financial pressures of practice. We have convinced ourselves that we don’t have the time or the need to make international rehabilitation efforts a priority. That, I think, is a mistake. In years to come, medicine will be still more of a global village, with more foreign patients seeking our care and more clinical advances coming from international colleagues.

It is imperative for us to think about how we can more successfully integrate ourselves into the global rehabilitation community. On an individual level, we should make a conscious effort to cultivate relationships with colleagues abroad and keep abreast of international developments that can enhance patient care here at home.

As a field, we need to urge our leaders to more aggressively develop international ties. A good place to start—with thanks to physiatrist Kristjan Ragnarsson, M.D., for this idea—would be to hold a high-level summit meeting of the various national and international rehabilitation organizations, bringing together thought leaders to develop a global rehabilitation strategy. An isolationist stance certainly won’t succeed in today’s political or economic realms, and such a view is equally shortsighted in rehabilitation. We need to deliberately foster the international interdependence and dialogue that will allow us to offer our patients continually improving care.

Rehabilitation is a field of many flags

*Bruce M. Gans, M.D.*
The field of outpatient rehabilitation is exploding with exciting new therapies and technologies. Wheelchairs are designed for optimal ease of use with ultralight wheels, titanium frames and power-assist options. Innovative switch technologies allow almost any mechanical or electrical device to respond to the slightest of body movements. And developments in physical, speech and occupational therapy give clinicians potent tools for improving outcomes.

At Kessler Institute for Rehabilitation, for example, physicians and therapists work continually to identify, study, develop and implement new technologies for rehabilitation patients. These interventions generally focus on maximizing functional mobility and independence for patients with neurological deficits, including those with spinal cord injury, brain injury and stroke, as well as orthopedic conditions. Similarly, Kessler’s 19 outpatient centers and its more than 35 sister NovaCare-Hudson P.T. clinics, located throughout northern New Jersey, target orthopedic conditions such as joint replacement and injuries from sports, work or auto-related accidents, as well as pain management.

Ongoing research efforts assure that Kessler patients receive state-of-the-art, clinically effective outpatient treatments and interventions. Committee teams consisting of physiatrists and therapists review journals, attend association meetings and seminars, meet with vendors and participate in continuing education programs to identify and evaluate promising new treatments and technologies. If advanced certification is required to use a new modality, a senior staff member will undergo the necessary training. The intervention is then tested at one or more sites. If the findings are favorable, protocols are written and staff members at all sites are trained to use the new technology.

A recent example involved implementation of a new upper extremity training brace, Saeboflex®, for patients with hemiparesis following stroke or brain injury. After learning about this device, a therapist received certification and conducted a controlled study at one Kessler site. The successful outcomes led to the training of additional staff and the use of this device with appropriate post-stroke patients as well as individuals with brain injury and other neurological impairments.

Beth Sarfaty, B.S., P.T., is vice president of clinical operations at NovaCare-Hudson Physical Therapy and Kessler Rehabilitation Centers. Readers may contact her at bsarfaty@selectmedicalcorp.com. Patricia Judd, M.S., P.T., is director of operations, outpatient services, at Kessler Institute for Rehabilitation. She can be reached at pjudd@kessler-rehab.com.

The iBOT mobility system available at Kessler lets patients climb stairs, reach high shelves and negotiate rough terrain.
The past five years have brought remarkable advances in rehabilitation techniques and therapies—as well as major hurdles in reimbursement and patient advocacy.

Given the pace of change in the field, Focus on Rehabilitation asked several clinicians who recently joined Kessler to look into the future. Here are their predictions for what the biggest changes in rehabilitation will be over the next five years:

Jeffrey L. Cole, M.D., director of electrodiagnostic medicine and musculoskeletal rehabilitation, Kessler Institute, West Orange: The most important development may be the ability to implant genes into muscle to stave off muscular and neurological degeneration.

Gene implantation would be only a temporary fix, but it could buy us time to benefit from another major development on the horizon: long-term therapies developed from seriological assays. These will give us better immunologic or enzymatic control within muscles and nerves.

These new therapies may allow us to stop disease progression. However, how significantly we can actually improve function with these new tools will still depend on how well we work as a team to stimulate and motivate patients.

Monifia Brooks, M.D., staff physiatrist specializing in spinal cord injury rehabilitation, Kessler Institute, West Orange: Over the next five years, we will be increasingly involved in the acute care of patients being transferred from hospitals to rehabilitation facilities—a trend we are already seeing. We may have to partner more closely with other specialists, or supply more acute medical management ourselves.

We may also be providing more chronic care to patients with disabilities. As these patients are now living longer into middle age or even geriatric years, they may have problems accessing primary care.

As physiatrists, we will play a bigger role in managing those patients’ hypertension, cardiac disease and other chronic conditions, becoming in effect primary care physicians for people with disabilities.

Heidi Klingbeil, M.D., chief of geriatric rehabilitation, Kessler Institute, East Orange: The next five years will bring continued and, no doubt, accelerated advances in technology that will help people maintain safe and independent living.

Examples of such advances include computers with environmental control systems that can monitor household functions, such as burners and lights left on and ambient temperatures. With new technologies, we will be able to get patients home sooner and reduce the need for 24-hour caregiving, which will help keep our frailest patients from having to go to nursing homes.

Ultimately, advances may also change the direction of geriatric rehabilitation. If patients could better manage basic safety at home, their rehabilitation could be focused on more advanced activities of daily living, such as shopping. That would give geriatric patients even more independence—and more fun.

Jeffry R. Beer, M.D., outpatient physiatrist specializing in spine, sports and musculoskeletal medicine, Kessler Institute, West Orange: New technology will help us better evaluate and treat athletes, as well as average individuals, who have pain from injury or degeneration.

Advances in radiology and imaging will allow more sophisticated evaluation of bone and soft tissue injuries, while biomechanical advances will enable us to more precisely assess and improve athletes’ performance. And new invasive procedures will help us alleviate spinal pain. One promising new technology is the use of gene therapy to regrow degenerated spinal discs.
We’ll also have to fund research to validate the use of new technologies and corroborate the effectiveness of existing procedures to secure reimbursement from third-party payers.

Shariq M. Ali, M.D., staff physiatrist, Kessler Institute, Chester

With advances in pharmacogenomics within the next five years, we will begin to predict patients’ response to different medications. By tailoring medications to individual patients, we can improve efficacy and reduce side effects—which are major advantages when it comes to pain medications.

Other genomic advances will allow us to identify patients predisposed to the early development of conditions, such as degenerative lumbar spinal stenosis or degenerative disc disease. By targeting these patients early on and beginning preventive therapies, we may delay the onset of symptoms.

Thomas Kay, Ph.D., director, Cognitive Remediation Program, Kessler Institute, East Orange

Advances in harnessing brain trophic factors will bring new tools for regeneration after brain injury. At the same time, genetic advances will help determine which psychoactive drugs would be most effective for individual patients, while computer chip technology will bring practical instrumentation to a growing number of persons with disabilities.

Within Kessler Institute, we will see a coalition of factors producing seamless continuity of care, from the moment of injury and acute inpatient rehabilitation through outpatient programs aimed at returning the individual to the community.

Because this tested model provides greater control, it also affords greater flexibility.

Robin Hedeman, M.H.A., O.T.R., is assistant vice president for clinical service line management at Kessler Institute for Rehabilitation. Contact her at rhedeman@kessler-rehab.com.
Earlier this year, a diverse group of leaders from rehabilitation held a summit, which brought together clinical experts and research organization and agency officials, as well as representatives from consumer groups. The goal was to take a creative look at a critical component of our field: the rehabilitation research enterprise.

Those of us attending the summit, which was convened by the Foundation for Physical Medicine and Rehabilitation, agreed that rehabilitation research is in jeopardy. Research funds are becoming scarce, while competition for that money is rapidly accelerating.

Fewer dollars mean that the infrastructure needed to sustain research—the space, trained staff and technology—is being increasingly eroded, a very serious threat. As infrastructure becomes more unstable, facilities and research teams cannot maintain current capacity or allow for growth.

The pressure for researchers to pay their own way through grants or clinical revenue generation is getting harder to meet, with many professionals finding that their ability to focus on research is increasingly threatened. As more and more research programs are not able to weather gaps in funding, we are seeing a decline in our most valuable resource: researchers who have the time to identify the key challenges facing our field and the skill to develop needed solutions.

The factors converging to curtail the capacity for rehabilitation research could not come at a worse time. Insurers increasingly demand an evidence base to justify what they pay for our services, and only research can provide the needed data. Insurers increasingly demand an evidence base to justify what they pay for our services, and only research can provide the needed data.

Help safeguard their quality of life? Just as the Baby Boomers are poised to demand all the fruits of rehabilitation research, the research capacity needed to provide those advances is at risk of crumbling. As the economic engine driving our field stalls, rehabilitation researchers are becoming an endangered species.

Many excellent suggestions came out of this year’s summit. Let me summarize two of the best and most far-reaching.

First, it was decided to launch a coalition of leading professional organizations and consumer groups to advance and support rehabilitation research. That coalition is already being organized to spur advocacy for better funding, shore up sagging research infrastructure and identify long-term organizational changes that can strengthen the research endeavor. I am pleased to report that this much-needed coalition is off to a good start.

The second major idea that emerged from the summit has a very specific objective: to help the National Center for Medical Rehabilitation Research (NCMRR) grow from adolescence to adulthood.

Formed in 1990, the NCMRR has been housed in the National Institute for Child Health and Human Development. We believe it is time that rehabilitation receive its own freestanding institute, a move that we hope will give our field more presence, stature and funding within the National Institutes of Health.

Three organizations—the American Academy of Physical Medicine and Rehabilitation, the Association of Academic Physiatrists and the American Congress of Rehabilitation Medicine—agreed to work together on this initiative and to engage many other professional and consumer groups in the effort. They are now working to promote support for drafting legislation that would create such a freestanding institute.

We do not know if we can achieve this ambitious goal in just a year or two. What we do know is that both these initiatives deserve the support of rehabilitation facilities and providers nationwide. By rallying together, we will maintain the energy and enthusiasm we need to pursue the best cost-effective care, based on sound therapeutic evidence and knowledge. That evidence and knowledge are our best hope for improving the lives of people with disabilities.

Bruce M. Gans, M.D., is chief medical officer of Kessler Institute for Rehabilitation. Readers may reach him by e-mail at bgans@kessler-rehab.com.
Focus on
Rehabilitation

Expanding a facility while top-quality patient care continues

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specialty programs to one campus. The brain injury center will be transferred from East Orange to the expanded West Orange location, now the home of Kessler’s Center for Spinal Cord Injury and other specialized rehabilitation programs.

The core programs will continue to operate independently, but in the new facility they will greatly enhance each other. For one thing, clinicians will have the benefit of close proximity, which will facilitate cross-specialty communications. This is especially important because up to 40 percent of spinal cord injury patients have a second diagnosis of brain injury. Clinicians from these specialties will therefore be able to enhance the continuity of patient care by drawing on each other’s expertise. In addition, because of the neurological impairments that are common to brain and spinal cord injury patients, the treatments, services and equipment that support their programs will more easily be shared.

Better comfort tomorrow

Enhancing patient services and amenities is another high priority for the changes. The expansion and renovation provide the opportunity to optimize the care and comfort of Kessler rehabilitation patients. Patient rooms—to be converted to private and semi-private configurations—will be completely upgraded and renovated, with new lighting, air and heating systems and better bathroom amenities to accommodate today’s larger equipment and wheelchairs. The newly renovated, more spacious rooms also will give patients easier access to sinks, tables and other furniture and equipment.

Most important, these rooms will be part of dedicated units for stroke, amputee and general rehabilitation patients. Common areas will allow for patient and family training, including the opportunity for families to stay overnight to ease patients’ transition to home.

The new addition to the West Orange facility will house the dedicated units for spinal cord injury and brain injury patients. Notably, the 38-bed Center for Brain Injury Rehabilitation will have built-in enhanced security to meet this population’s needs for safety and dignity. Similarly, the Center for Spinal Cord Injury Rehabilitation, also with 38 beds, will be designed to accommodate the full spectrum of electronic aids to daily living and ventilator management equipment. Patients will have new dining options, and nursing stations will provide for the use of state-of-the-art medication administration and dispensing systems. And because equipment used in clinical research will be available on site, research and medical teams will be better prepared to collaborate, to the benefit of both.

State-of-the-art care today

Keeping the tremendous construction effort almost invisible to staff and patients was a crucial challenge. To make sure the transition remained seamless, an interdisciplinary expansion team was formed, comprising staffers from the East Orange and West Orange facilities.

This team was charged, first of all, with maintaining the absolute safety of patients, staff and visitors at all times and avoiding any disruption of patient care or services. They also addressed the necessary environmental issues and provided up-to-date information on the project’s status to patients, staff members, referral sources, the community and the industry as a whole.

Construction of the new building is scheduled to be completed at the end of 2006, with additional renovations to the existing building in early 2007. The 20-month project will create a state-of-the-art facility that will help to define rehabilitation care in the years to come.

Bonnie A. Evans, P.T., M.H.A., senior vice president of administration at Kessler Institute for Rehabilitation, can be reached at bevans@kessler-rehab.com. Readers may contact Steven Kirshblum, M.D., associate medical director and director of spinal cord injury services, at skirshblum@kessler-rehab.com.

Kessler’s new, 100,000-square-foot West Orange facility will bring four renowned rehabilitation programs under one roof, creating synergies to improve patient care.
Meeting the ob-gyn needs of women with disabilities

Catherine F. Sladowski, M.D.

For women with disabilities, routine obstetric and gynecologic care can be almost impossible to obtain. While many private physicians’ offices have a ramp for wheelchairs, disabled patients are still likely to encounter serious barriers in bathrooms and doorways and with examination rooms and equipment. In addition, few physicians can spare the extra time required to see a disabled patient. Helping a patient transfer to the exam table, for instance, can take considerable time and effort. Also, women with disabilities may have special clinical needs that require a physician who is knowledgeable about how disability pertains to his or her specialty.

To help overcome these barriers to ob-gyn care, Kessler Rehabilitation provides a monthly ob-gyn clinic for women with disabilities. The clinic is located in the rehabilitation hospital, eliminating accessibility and equipment issues. Examination rooms, bathrooms, doorways and hallways are all wheelchair-accessible. Special lifts are available and staff members are trained to assist patients as needed. These accommodations help patients maintain dignity and comfort during their visit. And the extra time required is built into the schedule, so each patient receives the attention she requires.

About seven women are seen in the clinic each month. Generally, visits consist of routine care and yearly examinations, mammography referrals and Pap tests. For wheelchair patients, referrals must be to mammography centers that can perform the tests while the patient is seated. The clinic also provides contraception, breast care and pregnancy counseling. Disabled women have the same ob-gyn conditions and needs as other women, such as vaginal infections and other common conditions, but even routine gynecological care may require special tools or approaches. A woman with a spinal cord injury who requires a pelvic ultrasound study, for example, may be unable to consume the amounts of water required for the test due to the risk of bladder infection. A urinary catheter may therefore be needed. Because each disability is different and every patient has a different degree of flexibility and comfort, improvisation is often necessary.

Protocols and counseling at the clinic are also tailored to women with disabilities. If a determination of pregnancy is made, all spinal cord injury patients are routinely referred to a high-risk maternity program. While pregnancy is certainly an option for patients with spinal cord injuries and other conditions, special accommodations may be needed; if the patient normally walks with crutches, she may need to switch to a wheelchair during the pregnancy. And although vaginal delivery is possible, a woman with a spinal cord injury may not be able to feel when labor begins; induction and C-section could thus be required.

Choosing the right contraception also demands an individual approach. Oral contraception can be a problem in sedentary women, due to the increased risk of blood clots. On the other hand, diaphragms may be impossible for some disabled women to use.

Counseling on these critical health issues gives women with disabilities options and important health information, as well as access to critical ob-gyn care. The clinic also helps patients maintain their dignity while receiving that care.

Catherine F. Sladowski, M.D., a consulting obstetrician-gynecologist at Kessler Institute for Rehabilitation, may be reached at cslad2002@yahoo.com.