National Leader: OSU Sports Medicine

When someone says OSU Sports Medicine, most people think of a physician rushing onto the field or court to help an injured Buckeye. But that’s only one part of their game.

Yes, OSU Sports Medicine provides preventive, performance, health, injury and rehab care to 1,000 plus Ohio State athletes.

But Sports Medicine is also on the sidelines for us — offering that same level of expertise regardless of our age or athletic status.

When asked to define the role of OSU Sports Medicine, director Chris Kaeding, MD, replied succinctly: “By Sports Medicine, we mean helping people to stay physically active throughout their life span.”

And the stats bear this out: While 20 percent of OSU Sports Medicine patients and clients may be considered elite athletes, 80 percent are “the rest of us” — recreational and occasional athletes, performing artists or workers who benefit from what OSU Sports Medicine staff have learned from studying and caring for elite athletes.

Creating the Future Now

That’s why the Jameson Crane Sports Medicine Institute, made possible by a $10 million donation last month from the Crane family of Ohio, is more than just a gift to Buckeye athletics. It’s a gift to all who want to pursue those activities that add value and meaning to their lives.

The Jameson Crane Sports Medicine Institute will bring more than 15 interdisciplinary specialties under one roof in its multiple clinical/surgical suites and research labs. It will enable an already nationally recognized Sports Medicine program to push through the physical constraints of its Kenny Road location, giving additional space and resources to experts in athletic- and activity-related research and education as well as care.

The 140,000-square-foot facility, to be located at Ackerman Road and Fred Taylor Drive, will serve as the hub for satellite OSU Sports Medicine programs located in central Ohio. It is expected to be the largest and most comprehensive facility of its kind in the nation with:

- Surgical suites designed for observation and training
- Pools where individuals can train or rehab
- Physical therapy and rehabilitation areas
- Sophisticated imaging facilities
- Biodynamics laboratories equipped with technology that allows researchers to study the body in motion

An indoor turf field will act as a life-sized performance lab where clinicians, trainers and researchers will be able to work alongside athletes, evaluating and suggesting ways to maximize performance, prevent injuries and enhance rehabilitation programs.

Academic Medicine

As an academic program, OSU Sports Medicine focuses on research and education along with expert care. The Institute and its advanced research facilities will enhance growth in current areas of excellence and open pathways to new programs.

ACL Injuries — OSU Sports Medicine faculty have been nationally recognized for research that helps identify athletes who are at greater risk for anterior cruciate ligament (ACL) injuries and then develop training programs aimed at preventing this devastating knee injury.

Timothy Hewett, PhD, director of the Sports Health and Performance Institute and director of Research at OSU Sports Medicine, recently spoke at the 2013 National Basketball Association Physicians Meeting about ACL injury prevention among professional athletes. He was also recruited to the national media spotlight, with an appearance on Sanjay Gupta, MD, and commentary in the Wall Street Journal and the Los Angeles Times. Hewett and colleagues regularly share that same knowledge with local high school athletic trainers and strength coaches.

Concussions — Ohio State has an equally long and strong history of excellence in the treatment of traumatic brain injury.

Recently, Noah L. Weisleder, PhD, of Ohio State's Davis Heart and Lung Research Institute and of Physiology and Cell Biology, received a $100,000 grant from the National Football League (NFL) Charities Medical Research Grants. This is part of a national $1.5 million effort to study traumatic brain injuries and concussion prevention and treatment. Only 15 of the nation's leading research universities were selected to participate.

In late 2012, Russell R. Lonser, MD, joined the University as professor and chair of Neurological Surgery, bringing additional expertise to head-injury research at Ohio State. Lonser leads the NFL Research Subcommittee and is a member of the NFL's Head, Neck and Spine Medical Committee studying brain injuries in sports and high-impact activities. An 11-year veteran of the National Institutes of Health, he served as chief of the Surgical Neurology Branch of the National Institute of Neurological Disorders and Stroke.

Performing Arts Medicine — OSU Sports Medicine has a strong presence in the performing arts community providing onsite medical coverage for BalletMet and Ohio State’s School of Dance, as well as local and touring dance companies and Broadway shows.

Golf — Personalized swing mechanics and conditioning programs at OSU Sports Medicine are developed in one of the world’s most technologically advanced golf evaluation facilities. Participants receive the same training protocol as Tour professionals.

Sports Performance — The Sports Performance program at Ohio State combines performance improvement techniques with prevention education to help athletes of all abilities perform at their highest level and minimize their risk of injury.

Endurance Medicine — This multi-disciplinary team focuses on performance and injury issues of running, cycling and swimming athletes.

Prevention, Education

These and other programs provide resources for community athletes, workers, coaches and trainers. OSU Sports Medicine faculty and staff share their knowledge and skills through community education programs as well as through undergraduate, graduate, residency and fellowship training.

Learn more about OSU Sports Medicine at sportsmedicine.osu.edu.
Cell phone technology inspires stroke research

Marti Leitch | The Ohio State University Wexner Medical Center

While many of us take the technology packed into smart phones and tablets for granted, Ohio State researchers that specialize in rehabilitation are inspired by it — using the technology to evaluate the progress of stroke survivors who are learning to walk again.

"In our study, we're measuring how well people walk before and after intervention with a new system of wireless sensors that use the same technology found in cell phones and tablets. This is the first time this approach has been used," says Stephen Page, PhD, OTR/L, FAHA, an associate professor of Occupational Therapy at Ohio State's School of Health and Rehabilitation Sciences. Page was recently named to the American Occupational Therapy Foundation Academy of Research, an honor that recognizes individuals who have made significant contributions to the field.

The team is using wireless sensors that contain tiny accelerometers, which measure the force of acceleration and are used in smart phones and tablets to sense movement and help adjust the image on the screen. Six sensors are placed on the study participant's arms, legs and chest. As the person walks, or performs other functional activities, the sensors relate information to each other and back to a computer that charts how and where the person is moving.

"The nice thing about this technology is we can measure their balance and walking anywhere," explains Page. "We can have someone go up steps or perform household tasks, such as in a kitchen. Anywhere that walking or balance is important is a place we can capture how well the person is moving."

Page is using this technology to evaluate progress in a study that is testing a new type of rehabilitation intervention for stroke survivors. For the first time, Page's team is combining electrical muscle stimulation, which has been used to improve muscle function for decades, with active stepping motion on a recumbent bicycle. The goal of the study is to determine whether the combination of active motion and electrical stimulation provides added benefit for the patient through neuroplasticity, or retraining the brain.

"The stepping motion on a recumbent bike uses similar parts of the brain as when a person is actually walking," says Page. "We are trying to recruit new areas of the brain, around the stroke-damaged areas, which is called 'neuroplasticity,' and get those areas to hopefully control walking again."

The first part of this study will examine 10 people who experienced a stroke within a year to 18 months prior to study enrollment and have limited ability to walk. Over the course of 10 weeks, half of the study participants will receive electrical stimulation to their legs while biking, while the other half receives placebo treatment while biking.

Page says this study challenges the notion among many physicians and rehabilitation experts that stroke survivors reach a recovery plateau within a year after their stroke.

"We have shown in more than a decade of studies that this belief is not true, and we expect to show that with this intervention. Stroke survivors can continue to get better and see meaningful gains years after their stroke," adds Page.

For more information about this and other stroke rehabilitation studies, call 292-5490 or email Stephen.Page@osumc.edu. For a video clip of this research, visit Medicalcenter.osu.edu > News & Media Room > Media Gallery.
Worth Repeating

Accomplishments and advancements from Ohio State's Wexner Medical Center to share with family and friends:

Higgins to chair Department of Surgery
Robert S. D. Higgins, MD, MSHA, has been named chair of the Department of Surgery. He will remain director of our Comprehensive Transplant Center and director of the Division of Cardiac Surgery. Higgins, who joined Ohio State in July 2010, holds the John H. and Mildred C. Lumley Chair in Medicine. Higgins previously led the Department of Cardiovascular-Thoracic Surgery at Rush University in Chicago for seven years. He served as chair of Cardiothoracic Surgery at the Medical College of Virginia from 1999 to 2003. Prior to that, he founded and led a successful lung transplant program at Henry Ford Hospital in Detroit. Higgins earned his bachelor's degree from Dartmouth College, a master's in health administration from Virginia Commonwealth University and his medical degree from Yale University.

Rucker named COO of IDEA Studio
Donald Rucker, MD, has been named chief operating officer of the IDEA Studio. He will also serve as associate dean for Innovation, visiting clinical professor of Emergency Medicine and visiting clinical professor of Biomedical Informatics. Rucker is one of the nation's first formally trained medical informaticians and has extensive vendor-based healthcare policy experience. Rucker was co-developer of the first Microsoft Windows-based electronic medical record in the world. He designed a computerized physician order entry module that won the 2003 Healthcare Information and Management Systems Society Nicholas Davies Award as the nation's best hospital computer system. Rucker is board certified in Emergency Medicine and Internal Medicine.

Caligiuri, Croce recognized by AACR
Michael Caligiuri, MD, who leads the Ohio State's Comprehensive Cancer Center – James Cancer Hospital and Solove Research Institute, is one of five distinguished scientists elected by members to the American Association for Cancer Research (AACR) board of directors. With 34,000 members in 90 nations, the AACR is the world's largest professional organization dedicated to advancing cancer research and its mission to prevent and cure cancer. Carlo Croce, MD, chair of Molecular Virology, Immunology and Medical Genetics and also director of the Institute of Genetics, presented the seventh annual Princess Takamatsu Memorial Lectureship at the AACR annual meeting held in Washington, D.C., this month. Croce's lecture was titled: "Causes and Consequences of microRNA Dysregulation in Cancer."

Young physicians honored for leadership
Columbus Business First has chosen four from Ohio State's Wexner Medical Center for leadership honors in its Forty Under 40 awards program. The honorees are: Ronney Abaza, MD, Urology; Erin Olson, MD, Medical Oncology; Daniel Prevedello, MD, Neurological Surgery; and Pankaj Tiwari, MD, Plastic Surgery.

Medical Center Advisor Program information session
If you have been a patient at Ohio State's Wexner Medical Center or the primary caregiver for a patient, please consider joining our Patient and Family Advisor Program. Ohio State’s Wexner Medical Center is looking for people of all backgrounds to serve as volunteer advisors. You will be matched to a Medical Center area by your interests, skills and the amount of time you can commit. Learn more at an information session on Tuesday, May 14. For the time and location, call 293-0526 or contact patientadvisors@osumc.edu to RSVP.

Learn more good news about Ohio State's Wexner Medical Center so that you can share our advancements and accomplishments with friends and family in person or through social media by visiting the News and Media Room at medicalcenter.osu.edu.

UPCOMING EVENTS:

Dirty Duathlon
May 19 | Alum Creek State Park
Run + bike + run on muddy single-track trails.

The Gauntlet Presented by OSU Sports Medicine
June 15 – 16 | Alum Creek State Park
Two-day fitness challenge featuring an obstacle course.

Heart Champion Walk/Run
June 22 | Ohio State University
5K to raise awareness of heart disease prevention.

Visit go.osu.edu/series to register for these events and to learn more about the Ross Heart Hospital Wellness Series.
Stephen Thung, MD, MSCI, is a nationally recognized maternal fetal medicine specialist whose research at Ohio State has provided leading-edge care to women with high-risk pregnancies. Like Dr. Thung, THE WORLD’S BEST AND BRIGHTEST PHYSICIANS AND RESEARCHERS ARE COMING TO OHIO STATE to create the future of medicine.

What attracted me to Ohio State? Ohio State is the birthplace of some of the latest advancements in obstetrical care, and Ohio State is one of the country’s most influential thought leaders in the care of both the healthy and the sick. When it comes to high-risk pregnancy, my colleagues at The Ohio State University Wexner Medical Center are revolutionizing the quality of care in this field.

How am I advancing personalized health care at Ohio State? Every single pregnancy is different. Our maternal fetal medicine team applies a tailored approach that focuses on the health of each mother and her baby. We offer individualized counseling to women on nutrition or breastfeeding, and handle some of the most medically and obstetrically complicated pregnancies in the state of Ohio.

But for Ohio State...I would not have the opportunity to lead central Ohio’s premier obstetrical service to even greater eminence. This is a place where we bring the safest family-centered obstetrical care to healthy mothers. In my mind, there is no better place to practice obstetrics, or to have a baby.

Over the next decade, OHIO STATE PLANS TO ATTRACT 500 WORLD-CLASS FACULTY LEADERS WHO WILL PROPEL DISCOVERY in the fields of health and wellness, energy and environment and food production and security. Through this effort, Ohio State will truly lead the way in finding solutions to the technological, social and environmental stresses faced by our community and our world.

Stephen Thung, MD
Interim Director of Ohio State’s Maternal Fetal Medicine Program
Director of Ohio State’s Diabetes in Pregnancy Program
Associate Professor of Obstetrics and Gynecology
Came to Ohio State from Yale University

go.osu.edu/thung