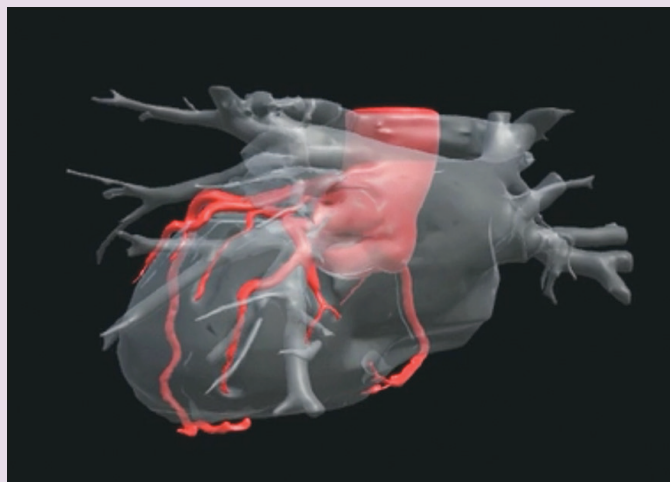


(Editor's note: The following are condensed versions of some of the presentations made before the Alumni Association's Board of Directors at its meeting April 15–16, 2016.)

Before the Board



HoloLens in action.



This is a CT Coronary Angiogram as replicated by a hologram.

Technology in Medicine

Neil Mehta, MBBS, MS (Ophth), FACP (IM'95)
Assistant Dean, Education Informatics and Technology
Associate Professor of Medicine
Director, Technology-enhanced Knowledge and Instruction

Technology continues to revolutionize medicine. Two of the most recent developments at Cleveland Clinic include IBM's "Watson" computer and Microsoft's HoloLens. With

a projected shortage of physicians, leveraging the power of information technology becomes ever more important. Watson is learning to use critical reasoning based on medical knowledge to explore the patient's condition and suggest treatment options. The result could save time in establishing the correct medical path, decrease errors and visualize associations – all leading to value-based care. Also, Microsoft's HoloLens could transform medical education by producing multidimensional, holographic imagery of the human body.

Stem Cell Biology

Jeremy N. Rich, MD, MHSc
Chair, Department of Stem Cell Biology and Regenerative Medicine Cleveland Clinic Lerner College of Medicine

Jeremy N. Rich, MD, MHSc, plays an important role in efforts to establish a research framework for the discovery of novel paradigms in cell lineage. One goal is to repair damaged and diseased tissues by providing replacement cells or factors that can restore tissue function. The department contributes to

a greater understanding of the fundamental biology of adult stem cells, the development of preclinical models of stem cell therapeutics, "first in nation" clinical trials, and efficient clinical application. Research helps provide basic information on the mechanism of stem cell biology. Some disease areas targeted for adult stem cell therapeutics that are, or will be, studied include musculoskeletal disorders, cardiovascular diseases, leukemias, neurodegenerative diseases, and diabetes. The department, part of Cleveland Clinic's Lerner Research Institute, is located within the Center for Genomics Research, a 155,000-square-foot facility.

Telemedicine – Express Care®

Peter A. Rasmussen, MD (CNR'00)
Neurological Institute
Director, Cerebrovascular Center

Peter Rasmussen, MD, is an expert in using technology to provide speedy delivery of healthcare services, a rapidly evolving medical advancement. He is particularly pleased with Cleveland Clinic's Express Care service, which marketing messages describe this way:

“When you need to find care, let us bring a healthcare provider to you. From your phone, tablet or computer, at home or work, now it's never been easier for patients to access the expertise of Express Care Online. Connect within minutes. Get a diagnosis or a prescription from a healthcare provider, when appropriate. All in one 10-minute session. And you don't need an appointment. Just a connection”

The program is for adults and children ages 6 years and up, although young patients up through age 17 must be accompanied by a parent or guardian during the e-visit, accomplished through laptop or desktop applications. “The amazing thing is that you can log into this service, be received by a Cleveland Clinic physician, be diagnosed and have treatment prescribed in as little as two to three minutes. I find that incredible,” Dr. Rasmussen says.

Adult patients can use Express Care for conditions including:

- Asthma
- Bronchitis
- Cough and cold symptoms
- Earaches
- Minor back and shoulder pain
- Minor medical concerns
- Minor trauma, burns or lacerations
- Seasonal allergies
- Sinus infections
- Skin rashes
- Urinary tract infections
- Yeast infections

Pediatric Patients (ages 6 to 17) can use the service for such conditions as:

- Bronchitis
- Conjunctivitis
- Cough and cold symptoms
- Minor medical concerns
- Seasonal allergies



An architect's rendering of the new cancer building under construction on Main Campus, just one project of many now underway throughout the enterprise.

Technology and Growth

Marc Petre, PhD
Executive Director, Clinical Engineering

Frank Aucremanne, PE
Executive Director, Buildings and Properties

Marc Petre, Executive Director, Clinical Engineering, discussed how technology is harnessed to assist caregivers. His office is moving to integrate personalized, directed patient education through monitors in hospital rooms. A portal for video communication can include invitation-based family conferencing, remote caregiver consultation and, someday, one-way video monitoring. .

Cleveland Clinic's story is one of growth and innovation, including new buildings and medical technology. Frank Aucremanne, Executive Director, Buildings and Properties, highlighted many new building projects and refurbishments now occurring or on the way. They include: The Health Education Campus (HEC), the HEC Dental Clinic, the Cancer Building, The proposed Neuro Institute, the E. 105th Street Parking Garage, the Lakewood Family Health Center, a rehabilitation center in Bath, Ohio, and other projects in Lodi and Twinsburg, Ohio. Also in progress are Phase 2 of the Weston, Florida, expansion, and renovations to newly acquired space in London. Many other projects were introduced, both on and off the main campus.

Before the Board

In other presentations, the Alumni Board heard about:

Legacy Project Update

Leonard H. Calabrese, DO (IM'78, RH'80)
Director, History Project Vice Chair,
Department of Rheumatic and Immunologic Diseases

Efforts continue to advance the The Legacy Project, sponsored by the Alumni Association, which is designed to establish a permanent space in which to highlight Cleveland Clinic's heritage and history of medical innovation. Plans include interactive stations, a theater space and a passive information wall. Resources are beginning to be applied to the project for architectural analysis and site selection.

CCLCM Update

William S. Tierney, MD
2016 Class Representative
Cleveland Clinic Lerner College of Medicine

William S. Tierney, MD, and 2016 Class Representative at Cleveland Clinic's Lerner College of Medicine, told the Alumni Association Board of Directors that its innovative education style is drawing increasing praise from those who evaluate graduates for positions. At first, it may have taken traditionalists aback when Lerner College established a policy of fully paid tuition[for all its students and of no grades, tests or class rankings. Instead, the curriculum is centered on team-based, interactive learning, reinforced by what students learn in seminars and readings, Dr. Tierney explained. He showed what curriculum schedules look like and detailed his own experiences as a student there, where he used independent study time to conduct research projects, shadow physicians and develop a medical mission trip. He praised the feedback he received from faculty on a broad spectrum of traits, including professionalism, clinical skills and medical knowledge.



Functional Medicine

Mark Hyman, MD
Pritzker Foundation Chair in Functional Medicine,
Cleveland Clinic Lerner College of Medicine
Director, Cleveland Clinic Center for Functional Medicine
Chairman, Institute for Functional Medicine

Functional medicine is a personalized, systems-oriented model that empowers patients and practitioners to achieve the highest expression of health by working together to address underlying causes of disease. Cleveland Clinic's Center for Functional Medicine is a collaboration between Cleveland Clinic and the Institute for Functional Medicine (IFM), led by Mark Hyman, MD, Chairman of IFM, founder of The UltraWellness Center, and *New York Times* best-selling author. Cleveland Clinic Center for Functional Medicine physicians spend time with their patients, listening to their histories, mapping their personal timelines, and looking at the interactions among genetic, environmental, and lifestyle factors that can influence long-term health and complex chronic disease. Physicians at the Center for Functional Medicine apply a new model focusing on treating the body as a whole system. This emerging model of diagnosis and treatment can help improve chronic disease management and prevention. By taking a patient-centered approach rather than focusing on the disease, Functional Medicine approaches patient care by viewing health and illness as part of a cycle in which all components of the human biological system interact dynamically with the environment. This approach is intended to help identify genetic, lifestyle and environmental factors that may shift a person's health from illness to wellness.



Protective Services

Gordon Snow
Chief of Protective Services

“If it deals with guns, gates or guards on Cleveland Clinic property, anywhere around the globe, it falls under my job description,” says Gordon Snow, Chief of Protective Services. “Our job is to protect patients, visitors and caregivers.”

The department includes Police and Corporate Security; Parking, Transportation & Fleet Services; Regional Security; Protective Operations, and Emergency Management. Among its responsibilities are general policing, alarm monitoring, credentialing, intelligence gathering and sharing, threat assessment, and much more. Under his direction are the well-trained 140 officers of the Cleveland Clinic Police Department, making it the third largest police department in the Cleveland area. Many of its commanders are former chiefs of police, while some of its specialized units include former federal law enforcement agents. VIP protection, for example, employs some former Secret Service agents who were members of the U.S. President’s security detail. Mr. Snow was on the FBI’s elite Hostage Rescue Team and was an agent for 21 years before joining Cleveland Clinic. He outlined the training of his personnel and mentioned a few little-known facts about Cleveland Clinic’s emergency preparedness, such as its ability to scale up quickly in the event of a mass casualty situation and the use of specially protected “safe rooms,” if needed. The average response time on a call is three minutes, Mr. Snow said, while critical call response time is less than one minute.

Alumni Relations Update

Mindy Stroh
Director, Alumni Relations

Tara Fenner
Assistant Director, Alumni Relations

At the Board of Directors meeting, the following motions were passed:

- Divide the Secretary-Treasurer role into two positions, the Secretary of Alumni Membership and the Secretary of Alumni Communications. Each position is a two-year term with no succession.
- Change Vice-President to Vice-President / President Elect. The Vice-President is a two-year term that will succeed to the role of President.

The following candidates were voted on for the corresponding Executive Committee positions:

- President: Conrad Hans Simpfendorfer, MD, FACS (S’04, FIM’05, S/HEP’06)
- Vice-President/President-Elect: Dale Shepard MD, PhD (IM’06, HO’09)
- Secretary of Alumni Membership: Pauline Kwok, MD (TRS’95, DR’00, ABI’01)
- Secretary of Alumni Communications: Divya Singh-Behl, MD (D’02; DS ‘07)

A call for nominations has gone out to the following departments to choose a representative for the Alumni Association Board of Directors, with the following positions open as of September 2016:

- Cardiology
- Dermatology
- Internal Medicine
- Imaging/Radiology
- Nephrology/Hypertension
- Neurology
- Pathology & Laboratory Medicine
- Pediatrics
- CCLCM Alumni Representative

Numerous upgrades have been made to the Alumni Association website, through which you now can:

- Use The Alumni Finder, allowing the Alumni Association to link patients and alumni around the world
- Update your individual physician profile
- Nominate a physician for an alumni award through a simple, electronic form

Philanthropy Committee Update

Gary Dworkin, MD (CATS’92)
Alumni Philanthropy Committee Chair
Immediate Past President, Alumni Association

In anticipation of Cleveland Clinic’s 100th anniversary in 2021, the *Centennial Legacy Society* is recognizing alumni who continue the tradition of excellence by making a gift of \$5,000 or more to an alumni fund supporting The Power of Every One Centennial Campaign. The Alumni Association welcomes you to join the Society and encourages you to invite colleagues and friends of the Alumni Association. ■