Before the Board

Cleveland Clinic is a Leader in Fetal and Women’s Healthcare

Beri Ridgeway, MD
Chair, Obstetrics and Gynecology and
Women’s Health Institute

Darrell Cass, MD, FACS, FAAP
Director, Fetal Surgery

Fetal surgery advancements at Cleveland Clinic are saving lives, and improving the quality of life, for unborn children who otherwise might die or experience disability and disfigurement.

Darrell Cass, MD, FACS, FAAP (STAFF’17), Director of Fetal Surgery, and Beri Ridgeway, MD(UG/PS’09), Chair, Obstetrics and Gynecology and Women’s Health Institute, updated the Alumni Association Board of Directors on recent procedures performed at Cleveland Clinic and the promise that this emerging field of medicine brings to pregnant women and their families.

The Fetal Surgery department is under the auspices of the Fetal Care Center within the Women’s Health Institute, the Digestive Disease & Surgery Institute, and Children’s. The program, which began in January 2018, is the first in Northern Ohio. The first fetal surgery at Cleveland Clinic was performed on Feb. 27, 2019, Dr. Cass said.

Fetal surgery is performed “to improve outcomes for infants with congenital malformations, prevent fetal deaths, postnatal deaths and prevent long-term morbidity,” he said.

Because there are two patients in fetal surgery, each case is carefully considered with regard to risks for the mother and benefits for the unborn child, he said.

Women’s Health Institute

Fetal surgery is one reason that Cleveland Clinic continues to lead in women’s healthcare locally and globally, Dr. Ridgeway said. She provided an overview of why the institute is a leader: It serves patients at eight hospitals and 28 office sites in seven counties. There are 140 physicians on staff, 35 APPs and 24 CNMs who handle 405,000 visits, 8,000 surgeries and more than 10,000 deliveries per year. The institute had $3.1 million in research funding as of 2018.

“The health of women is a predictor of societal health,” Dr. Ridgeway said, noting that maternal illnesses such as gestational diabetes are a strong predictor of future health. “Gestational diabetes causes increased risk for diabetes and cardiovascular disease in the mother and an increased risk of a child developing Type II diabetes later in life.”

“The care we provide affects the generations to come,” she said.

Among important women’s health initiatives is Cleveland Clinic’s founding partnership with First Year Cleveland, on which it has board of directors representation. Cleveland Clinic “is actively aligning infant mortality-related work with the FYC focus areas of racial disparities, prematurity, and safe sleep,” she said.

In addition to fetal surgery, the Women’s Health Institute is conducting research in uterine transplantation, maternal fetal medicine, transgender surgery, gynecologic care, global health, cardiac care and gynecologic cancers, including uterine cancer. It also is building a collaborative network for a comprehensive research program to promote translation of basic science into clinical practice, she said.

“The care we provide affects the generations to come.”
Giving Women Hope Through Uterine Transplantation

Cristiano Quintini, MD
Director, Liver Transplantation
PI, Uterus Transplantation Program

“One of the most ethically and emotionally charged” procedures is uterine transplantation, said Cristiano Quintini, MD (MOAT’07), Director of Liver Transplantation and PI of the Uterus Transplantation Program. The Cleveland Clinic team in 2016 performed the first uterus transplant in the United States. That transplant failed when the patient developed a fungal infection. The team refined the protocol extensively for the second transplant, the process for which began in 2017, he said. This time, the procedure was successful, resulting in a live birth by C-section in June 2019.

“It went exceptionally well,” he said. “The live birth was one of the most beautiful moments of my career.”

Transplantation is “the only cure” for uterine factor infertility, which, since 2009, has been recognized as a disease by the World Health Organization. Without it, “the only choice is to seek adoption or IVF with a gestational carrier,” he said. For many women, these are not good options. Having a gestational carrier is “banned or illegal in the vast majority of the world,” and in some countries, adoption isn’t feasible, either.

Uterine factor infertility is surprisingly common, he said, occurring in 10 to 15 percent of couples in the U.S. Worldwide, the problem occurs in 1 in 500 reproductive-aged women. He estimates that 2,000 women per year could be candidates for uterine transplantation.

The procedure is controversial because it isn’t lifesaving surgery, he said. However, uterine factor infertility can be devastating to women who want to bear children, Dr. Quintini said. “The consequences are mental health issues, impaired relationships, and it affects their careers.”

A uterus may not be a lifesaving organ, he said, but “it’s life-enhancing. It’s a life-affirming event to have a uterine transplant.”

Uterus transplants differ from other organ transplants because once a woman decides she does not want to have any more children, the uterus is removed. “So, patients are not on immunosuppressants for the rest of their lives,” Dr. Quintini said.

His team has found that using uteruses from deceased donors rather than living ones limits risk because a living donor can develop complications or sustain injury. In addition, living donors might feel pressured to donate. None of these are factors when using deceased donor uteruses, he said.

His team continues to investigate the best approaches to the procedure. For instance, “We still don’t know what a good donor is — young with no children, or older with several children?” Also, vascular complications have been challenging. “We need more research,” he said.

Staying a Step Ahead in Gynecological Cancer

Roberto Vargas, MD
Staff, Division of Gynecologic Oncology

Five-year survival rates for patients with cervical and uterine cancer are worse now than they were 30-40 years ago. “This is a sad truth, that particularly in my field, we have gone backwards,” said Roberto Vargas, MD (GYN/ONC ‘18), a staff member of the Division of Gynecologic Oncology and K12 Scholar in the Case Comprehensive Cancer Center.

“Great strides have been made in ovarian cancer care over the last decade, but we cannot say the same in endometrial cancer, which is far more common,” he noted. From 2014 to 2018, there was a 20 percent increase in the number of new cases of endometrial cancer diagnosed every year, with over 62,000 women diagnosed in 2018. “Endometrial cancer is the fourth most common cancer in women, right under colon cancer,” he said. “If the current trend continues, I expect that...”
endometrial cancer will overtake colon cancer in the next three or four years.”

Dr. Vargas and the Women’s Health Institute, have begun exploring using patient-derived xenografts as “avatar models” to push the boundaries of gynecologic cancer care, he said. “The concept of taking a tumor from a patient and inserting it into an animal model and studying it has been around for a while. Despite this, we haven’t really been able to use these models to actively drive and inform care in real-time.”

The team followed a patient using a mouse model. Dr. Vargas observed “an incredible degree” of correlation between the patient’s original tumor and the sample grown in the mouse model. “Not only do they look alike, but they’re behaving alike” in terms of gene expression, he said. Using the mouse model, they were able to test conventional therapies against new biologic targets alongside the patient.

They noted that the standard, “mainstay” chemotherapy drug, compared with the drugs they tested, “was the worst performer.” When they saw the tumors in the mice becoming resistant, they moved on to a different class of drugs. The study allowed the researchers to inject, engraft and test therapies, show tumor progression, test second-line therapies and show response, before the patient even experienced progression from the first-line therapy. “We actually managed to get ahead of the patient’s tumor,” Dr. Vargas said.

“I think that this setup serves as a good scaffolding to learn about these tumors and try new, exciting therapies in rare and aggressive cases, for which we don’t have good options,” he said. “It also highlights that we are in need of smarter ways to decide which patients get what therapies, truly personalizing cancer care.”

Historic Gavel Connects Alumni with Founders

A wooden gavel with silver trim, on loan from Cleveland Clinic Archives, brought together Cleveland Clinic’s past and present in a unique way for guests at the Alumni Association Awards Reception on Sept. 20. Founder George W. Crile, MD, presented the gavel to the Cleveland Clinic Foundation at its opening on Feb. 26, 1921. It was included in items donated to Cleveland Clinic after the death of George Crile Jr., MD, in 1992 by his widow, Helga Sandburg Crile.

At the reception, Dale Shepard, MD, PhD (IM’06, H/O’09) Alumni Association Board President, said that the gavel is doubly symbolic because it is believed to be made of wood from the flagpole of Base Hospital No. 4 in Rouen France, “where our founders ‘acted as a unit’ as they served, which inspired their vision for today’s Cleveland Clinic.” The gavel is said to have been used to open the first Trustee meeting.

Clinical problems drive technology development

Technology in Service of Health

Jay Alberts, PhD
Vice Chair of Innovations, Neurological Institute

Citing examples of a $1,500 umbrella drone that follows people in the rain and a Bluetooth toaster that uses an app to depress the lever but still requires dropping the bread in by hand, Jay Alberts, PhD (STAFF’05) made his point: Technology should be viewed as a way to solve clinical gaps or problems.

In his area, clinical problems drive development and innovation, he said. One is repetitive head injury, which can have lifelong consequences. Dr. Alberts and his team have...
developed software applications and devices now used by athletic programs around the country for improving the detection and management of concussion. Innovations to address the problem include an intelligent mouth guard, now on the market, and transitioning mobile devices from electronic notebooks to biomechanical data collection systems.

Taking advantage of existing technology in mobile devices makes sense because the devices already are widespread, portable and affordable, and they:

- Use accelerometer and gyroscopic data to objectively quantify postural stability
- Interface with affordable third-party measurement systems
- Allow users to touch a screen to capture a patient’s movement
- Permit audio/video capture and transmission
- Allow data to be integrated into the electronic health record

In the past, “rest and pray” was the model of care for high school athletes with head injuries, he said, and “there was no way to connect the providers.” Documentation was on paper.

“I thought, ‘How can we use technology in service of health, to facilitate standardized methods of assessment and provide an easy method of documenting the injury and return-to-play process following concussion,’” he said.

The use of biomechanics to understand and manage acute and long-term effects of concussion has transformed clinical practice in Northeast Ohio and elsewhere, he said. As of 2019, the NFL is using Cleveland Clinic’s software in its concussion management program, and athletes in Northeast Ohio have been managed with this software since 2012. To date, 1,978 teams are using Cleveland Clinic’s C3 app to evaluate and monitor and more than 350,000 athletes across the US have baseline C3 assessments. Between 15,000 and 20,000 patients in the Cleveland area have benefited from the app and the new Integrated Concussion Management Model that helps patients and providers make better and more collaborative decisions.

“It’s getting providers, athletes, coaches and patients on the same page by using data to drive decision-making,” Dr. Alberts said.

Using Social Media to Promote Your Practice
Jonathan Kaplan, MD

“Social media gets a bad rap,” said Jonathan Kaplan, MD, MPH (PL/RS’07). He described some best practices in using social media to educate the public, engage an audience, and, in doing so, attract patients. He based his advice on his own success in promoting his San Francisco plastic surgery practice (pacificheightsplasticsurgery.com).

Dr. Kaplan has drawn a wide following on Instagram. “Social media is an amazing approach to providing an unprecedented level of education,” he said, explaining how he generates interest through posting Instagram Stories. In addition to introducing himself to viewers as both an individual and a surgeon, which makes him appear “more approachable,” he explains and shows his procedures and consultations. “Think of it as an extension of my website or YouTube channel.”

Viewers can direct message questions for him to answer. And when they check pricing through the automated Price Estimator on his website, he’s not only educating them, but he also captures their contact information (name, email address and phone number) in the process. In this way, he has built a database of nearly 10,000 email addresses, reducing the need for digital marketing, he said. In addition, when patients give him a “shout-out” on their own social media, “they do the marketing for me.” A high percentage of patient referrals are now generated in this way, he said.

Unlike some social media platforms, “with Instagram Stories, you’re not streaming live,” he said. “It’s recorded, and you can choose what to post.” In addition, he can create content once on social media and then repurpose on all other platforms including YouTube, Snapchat, Facebook, Twitter and the twice-weekly blog he writes.

Social media has transformed his practice, Dr. Kaplan said, helping him build greater rapport with patients. “The patient gets to know me and my office staff after seeing me on Instagram, and then they come in for a consult. Video suggests you’re competent, transparent and have nothing to hide. It’s much more effective than those websites that grade physicians.”
HEC Campus Embodies Dr. Crile’s Vision of Teamwork

James Young, MD
Chief Academic Officer

James Young, MD (STAFF’95) introduced the Alumni Relations Board to the new Health Education Campus (HEC). Providing a historical perspective, Dr. Young, Chief Academic Officer, noted that Cleveland Clinic considers itself a “patient-oriented academic, international healthcare system and not a degree-granting institution.” That is why it partners with Case Western Reserve University and their School of Medicine.

The HEC provides next-generation technology, with clinical simulation centers and a library containing few books but providing access to distance learning and online content. The new building, designed by the London-based architectural and engineering firm Foster+Partners, helps promote the founders’ “team of teams” concept with open spaces that “get rid of silos,” says James Young, MD.

“Social media is an amazing approach to providing an unprecedented level of education.”

from a two-year medical school and started working with a Cleveland medical practitioner, which led to his lifelong interest in research. Dr. Crile was possessed of “an indomitable spirit,” Dr. Young said. After founding Cleveland Clinic with three other physicians in 1921, Dr. Crile ensured that it arose phoenix-like from the devastating flames of a tragic fire on May 15, 1929. The fire claimed the lives of nearly 130 people, including 10 physicians, one of whom was Cleveland Clinic founder John Phillips, MD.

“Dr. Crile with the other founders and Staff saw to it that families of the victims were paid a full year’s salary, and half-salaries for several years after that,” Dr. Young said.

Among Dr. Crile’s numerous accomplishments were pioneering thyroidectomy approaches, developing pressure suits to prevent and treat surgical shock, and blood transfusion, including what many say was the first successful human-to-human transfusion. In 1914, three years before the United States entered World War I, he was called on to assemble an interdisciplinary medical team, “unheard of in 1914,” Dr. Young said, which he took to France. There, he put together an American ambulance unit where the terms “Act as a Unit” and “One for All and All for One” were the mantra.

In 1917, Dr. Crile formed the Lakeside BEF Unit, a “team of teams” including doctors, nurses, and nurse anesthetists and other healthcare providers. “Dr. Crile was the first to train nurses as anesthetists, and his concepts led to creation of the first nurse anesthetist school,” Dr. Young said.

Cleveland Clinic founders Dr. William Lower, Dr. Frank E. Bunts, Dr. Crile and Dr. Phillips established a mission of “better care of the sick, further study of their problems, more teaching of those who serve.” Today, “Cleveland Clinic is the largest provider of continuing medical education, over 100 graduate medical education programs and more community-based education and healthcare programs in Ohio, while it is the number one employer in the state,” Dr. Young said. •
Dr. Wiedemann Highlights Growth and Change

Herbert Wiedemann, MD, MBA
Chief of Staff

Cleveland Clinic has had “an amazing 35 years,” said Herbert Wiedemann, MD, MBA (STAFF'84), Chief of Staff, who joined the organization in 1984.

When he started, “Cleveland Clinic was a small place, within a few city blocks,” he said. “And there were about 250 staff.”

Within the past year, Cleveland Clinic officially became the largest employer in Ohio. The health system now has 18 hospitals, 210 outpatient locations and 5,895 beds, he said. In the last three decades, the number of professional staff rose from 589 to 4,200, and “most of our specialties are actively recruiting.”

Cleveland Clinic’s recent growth includes Cleveland Clinic Martin Health and Cleveland Clinic Indian River Hospital in Florida. He showed a map of locations including one in London, set to open in 2021 — Cleveland Clinic’s centennial year.

“Just hang on,” he said, “because Cleveland Clinic will become even more global in the next 10 to 15 years.”

Also changing are professional staff demographics: The staff now is 37.5% female overall (and among staff under 35 years of age, there is a female majority); 15% are underrepresented minority (e.g., Hispanic or Latino, African American, American Indian); 15% part-time. There about 400 new hires per year. Overall, turnover is low, at 6.3% in 2018 and 5.2% thus far in 2019, he said.

Discussing the 2019 U.S. News & World Report rankings, Dr. Wiedemann emphasized Cleveland Clinic’s “observed to expected mortality rate” had dropped significantly, to 0.65, from 0.76 in 2018. “This is among the best of any major academic health center.”

Another significant change is in patient access. Now, the “appointment-when-wanted” patient survey scores are in the top quartile, he said, adding that a new goal is to double the number of patients served in the next five years.

Physicians Carefully Selected, Developed, for Leadership Roles

Gina Cronin
Chief Talent Development Officer

Gina Cronin’s priority as Chief Talent Development Officer is helping to cultivate physician leaders who have “clinical expertise, academic renown, business acumen and leadership ability.”

She and her team also seek out emerging leaders who can step into a job when needed. Adhering to Cleveland Clinic’s vision of becoming “the best place to receive care anywhere and the best place to work in healthcare,” she said her team partners with Case Western Reserve University in programs that help develop emotional intelligence. Also important for new leaders are taking classes to enhance their financial acumen and working with performance coaches. Cleveland Clinic provides LeadForward Programs taught by Cleveland Clinic physicians.

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“We have set our direction, goals and strategies,” she said. “Now, we need to align this group of leaders to these goals, ignite them to the change, and instill the tools to drive forward,” she said.

She defined “leader behaviors” as “leading change, driving results, inspiring and coaching, and connecting teams.” Expectations are built around annual education covering performance coaching, unconscious bias, leading healthy teams, leading through change and leading with empathy.

Cleveland Clinic offers an Assessment Resource Center, coaching services, online social collaboration and continuous performance management. Special programs include the Morton L. Mandel Executive Leadership Pathway, which prepares physicians for the highest executive roles.

Business Meeting Covers Membership, Engagement, Philanthropic Support

At the Alumni Association Board meeting Sept. 20, outgoing Board President Conrad Simpfendorfer, MD, FACS, (S’04, MIS’05, S/HEP’06), passed the gavel to incoming Board President Dale Shepard, MD, PhD (IM’06, H/O’09).

Dr. Shepard started the meeting by thanking Dr. Simpfendorfer and the Board members whose terms had just ended and welcoming new board members. He also outlined his primary goals for his term as: outreach to alumni outside of Cleveland Clinic and engagement.

Membership numbers

Alumni membership also was the topic of a presentation on Sept. 21 by Christine Booth, MD (ACLPTH’02), Vice President of Membership, and Leo Pozuelo, MD (P/P’97), Vice President of Communications. They noted that their role is to unite Alumni, of whom there now are 22,330 members in 50 states and 80 countries. Alumni includes physicians and scientists.
who trained at Cleveland Clinic for a year or more; those who graduated from the Lerner College of Medicine; and staff who have worked at Cleveland Clinic for five years or longer.

Value of Engagement

Melinda Stroh, Senior Director of Alumni Relations, explained her team’s role in connecting with and engaging Alumni.

“There is great value in our Alumni Association from an enterprise perspective,” she said, noting that members refer thousands of patients each year, “resulting in an estimated minimum of $20 million annually towards the contribution margin.”

Board-certified Alumni are eligible to participate in the Doximity survey relied on by U.S. News & World Report for its annual national hospital rankings. Further, “18% of our living alumni community have given back philanthropically to Cleveland Clinic, for a combined total of over $32 million,” she said.

Katie Eurich, Alumni Relations Development Associate, said her team engages alumni through print and email communications, annual receptions at medical meetings and online sources. Alumni awards and grants are presented at these receptions, she said. In addition, the Alumni Association supports both the house staff and the Lerner Research Institute with $10,000 in grants annually.

Tara Samstag, Alumni Relations Associate Director, encouraged Alumni to respond to the annual Doximity survey. “The Doximity network serves as the exclusive provider of the online physician survey for board-certified U.S. physicians that is used alongside structural, process, and outcomes metrics in the U.S. News Best Hospitals and Best Children’s Hospitals methodologies,” she said.

Alumni can find information about the survey, as well as Alumni programs, benefits and services, on the website: alumni.clevelandclinic.org.

Centennial Legacy Society

Philanthropy Committee Chair Gary Dworkin, MD (CATS’92) gave an update on support for the Centennial Legacy Society. The Society was launched in 2016, and, to date, 119 Alumni members, both individuals and couples, have contributed a total of $970,000. There now are 77 members giving $5,000 (Member), 30 members giving $10,000 (Founder) and 12 members giving $20,000 or greater (Visionary). The fundraising goal is set at $5 million by the centennial in 2021.

U.S. News Rankings Show Strengths, Room for Improvement

Anthony Warmuth, MPA, FACHE, CPHQ, CPPS Enterprise Quality Administrator

“Cleveland Clinic earned a spot on the honor roll of U.S. News & World Report’s 2019 “Best Hospital” rankings,” said Anthony Warmuth, MPA, FACHE, CPHQ, CPPS. “There’s a lot of good news here;” he said, including Cleveland Clinic’s ranking as No. 1 in heart care for 25 consecutive years and earning “high-performing” status in all nine conditions and procedures rated by the magazine. It was rated the No. 4 hospital in the country, with national rankings in 15 of 16 adult specialties and 9 of 10 pediatric specialties. Cleveland Clinic’s regional hospitals and Florida hospitals did well, too, with three regional hospitals ranking in the Top 5 in the state, he said.

With regard to Cleveland Clinic’s sliding slightly from No. 2 in 2018 to No. 4 in 2019, he said, “Cleveland Clinic is performing better than ever in quality, safety and patient experience. However, a significant change in methodology this year removing patient safety from the ratings and shifting points to a new ‘discharge to home’ measure resulted in a decline in several specialties, which impacted the overall hospital ranking.” The magazine regularly makes adjustments

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— MELINDA STROH

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to their methodology, but this year’s changes were the most transformational in many years. Cleveland Clinic is pressing U.S. News to reintroduce patient safety in their methodology and questioning the increased focus on discharge to home as a valid outcome measure without adequate risk adjustment, he said.

Rankings are influenced by the opinions of board-certified physicians who are asked by the publication about which specialists they would recommend to their patients, Mr. Warmuth said. Cleveland Clinic alumni are encouraged to claim their profiles on doximity.com so that they can vote for Cleveland Clinic when U.S. News voting opens up in the first quarter of 2020.

“There are valuable measures to tell us whether we are looking at the right things,” he said. “We’re not letting them set the agenda, but many patients look at U.S. News’ rankings to inform their care decisions.”

“100 years is a celebration, but we’re celebrating a work that’s continually in progress. If we are to create something, whether physically or digitally, we want it to be of relevance beyond the centenary. It should continue to be of functional use to people – after all, people are what Cleveland Clinic is all about.”

One possible approach under consideration is to create a dedicated space, central to the main campus, where people can learn more about the institution’s history, current events and future plans:

“For example, the space inside the entrance to the Miller Pavilion is already a popular meeting point, where Red Coats can be found, new patients given directions, musical performances given and art tours begun. For many, it’s their first point of contact with the Clinic and it sets the tone. It’s also right next to our original 1921 building – so if you want to create an animated place where our past and future intersect, you could do far worse than to pick a spot like this.”

Plans are at an early stage, but Connell would like to see any built element reduce the physical barriers between patients and caregivers - such as large, heavy reception desks – and create more intuitive way-finding. “A balance always needs to be struck between these large spaces, where people can flow freely, and smaller elements that bring human scale, tactile materials and offer an opportunity to pause, to draw breath,” he adds.

“We may include a more private space, providing a focused experience for certain visitors - but the primary focus should be something that is accessible and of use to everyone.”

He referenced the Ar+ app, which allows Cleveland Clinic patients and visitors to hold up their iPhones or iPads to artworks and receive more information about them virtually. The app also gives patients a way of exploring the Clinic’s art and architecture remotely from their hospital beds or homes. Elements of this technology might even be used for a centennial exhibit, extending its accessibility beyond any one venue, he noted.

To learn more and to support The Centennial Legacy Project, please visit clevelandclinic.org/alumnigiving.

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### Centennial Project Update

**Christopher Connell**
Chief Design Officer
Centennial Experience

The Centennial Legacy Project was established to create a permanent space to celebrate Cleveland Clinic’s rich history. Cleveland Clinic’s Chief Design Officer, Chris Connell, commented that this could not only demonstrate the importance of the organization’s original philosophy, but also its evolution to shape what lies ahead.

Several discussions have been held with Executive Leadership to explore ideas.

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### Ranked Hospitals

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**Anthony Warmuth**

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