

INOVA

MAGAZINE

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OF HEALTH



◀ SPRING
2015

AHEAD OF THE CURVE

*New Inova Melanoma
and Skin Cancer
Center combines
immunotherapy,
genomics and
targeted therapies*



PLUS SPECIAL 4-PAGE SECTION → A CELEBRATION OF THE RECORD-SETTING INOVA SUMMIT

Ahead of the Curve
New Inova Melanoma and Skin Cancer Center uses targeted therapies.



Merging of the Minds
Inova's genomics department has partnered with a data firm to predict preterm births.



HEADLINES

GETTING PERSONAL



ExxonMobil campus chosen for Inova's personalized medicine initiative

Inova Center for Personalized Health, which will be a hub for genomic science and personalized medicine, will take root on the 117-acre site where ExxonMobil currently sits. ExxonMobil will hand over the land to Inova, which acquired the site, later this year.

"In addition to driving Inova's vision for a preventive and personalized approach to health, the new campus will attract internationally renowned clinicians and researchers, as well as business people, thereby fostering future economic growth in the region," said Inova CEO Knox Singleton, who made the announcement in February.

Anchoring the site, which is a wooded area across the street from Inova Fairfax Hospital, will be Inova Translational Medicine Institute and Inova Comprehensive Cancer and Research Institute. They will provide a platform for the development and application of advances in personalized medicine through genomics.

"Growing these advanced sciences is a key part of building a new Virginia, enhancing not only our economic development but partnerships including government, private and academia as well as life sciences commercialization," said Virginia Gov. Terry McAuliffe (D), who also spoke at the February announcement.

New Frontier
ExxonMobil has sold its 117-acre site, shown above, to Inova, which will use it as a campus devoted to personalized medicine. The land transfer will take place later in 2015.



Vision of Excellence *Heart program appoints new leader*

Inova Heart and Vascular Institute welcomes **Christopher O'Connor, MD**, as the new CEO. Formerly Chief of Cardiology at Duke University Medical Center and Director of the Duke Heart Center,

Dr. O'Connor began overseeing cardiovascular services for Inova in April.

"My goal over the next five years is to build Inova Heart and Vascular Institute to be recognized as one of the top 10 heart centers in the country by achieving the highest level of quality of care, patient satisfaction, innovation and clinical research, such that we can improve the lives of the patients that we care for in the best way possible," says

Dr. O'Connor, a native of Takoma Park, MD.

Inova Heart and Vascular Center was the first hospital in Virginia to offer the CoreValve trial, a minimally invasive treatment for a heart valve disease known as aortic stenosis.

Dr. O'Connor currently serves as editor-in-chief for the *Journal of the American College of Cardiology: Heart Failure*. He has published more than 400 manuscripts and has served as the principal investigator for more than 20 clinical trials.

EDITOR'S NOTE

Inova is a pioneer in the field of medicine, exploring the science of genomics and leading the way in the new era of predictive medicine. Through a network of wellness services, Inova Medical Group physicians, healthcare facilities and hospitals located throughout Northern Virginia, Inova is the largest healthcare provider in the Washington, DC, area. *U.S. News & World Report* has once again named Inova Fairfax Hospital the No. 1 hospital in the DC area, and has ranked it No. 33 in the nation for gynecology and No. 42 in the nation for neonatology. With all five of its hospitals ranked among the region's top 15, Inova is leading the future of health. With the area's only Level 1 Trauma Center and Level 4 Neonatal Intensive Care Unit, Inova is home to the nationally and internationally recognized Inova Heart and Vascular Institute (IHVI), Inova Translational Medicine Institute (ITMI) on genomics, Inova Neuroscience Institute, Inova Cancer Institute and Inova Children's Hospital. Inova's mission is to improve the health of the diverse community it serves through excellence in patient care, education and research.

5 Minutes With...

Ben Solomon, MD, of Inova Translational Medicine Institute



Moving the Needle

The Petersons have gifted \$10 million to Inova to find new ways to beat cancer.



Improving Outcomes

Education and prevention are part of the effort to manage diabetic patients.



Aiming High

New tower springs from donation

When the Mark and Brenda Moore Patient Tower opened last November at Inova Mount Vernon Hospital, every detail was designed with the patient in mind. The new structure provides added amenities for Inova Rehabilitation Center and Inova Joint Replacement Center, including 40 new all-private patient rooms, a dedicated gymnasium on each floor, new therapy suites and upgraded technology.

"The new tower is light, airy and open, and these elements assist in healing," says Deborah Addo, Inova Mount Vernon Hospital's Chief Executive Officer. "The colors are earth tones with blues and greens that give you a sense of peace and serenity, while the flooring and counter materials have a clean, slick, modern look."

Each private patient room features ample space and accommodations for family members to stay. There is also a spacious living area equipped with comfortable furniture and a large-screen TV.

"It was Mark and Brenda Moore's generous donation that served as the kickoff for the new facility, in addition to contributions from many other people," says Addo.



Local Leaders

Mark and Brenda Moore are the namesakes of the new patient tower at Inova Mount Vernon Hospital, which offers more space and amenities for physical rehabilitation.

COMMITMENT TO COMMUNITY

New hospital devoted to women and children to open next year

Inova Women's Hospital and Inova Children's Hospital will soon open their doors in a brand-new location, becoming the largest hospital on the East Coast exclusively dedicated to the care of women and children. Scheduled to open in January 2016, the 660,000-square-foot facility will offer patients a technologically advanced, family-friendly setting featuring all-private patient rooms.

Inova Women's Hospital will expand its award-winning services to accommodate over 10,000 births annually, up from 8,000 at the current location. Already a leader in specialized care for high-risk pregnancies, the facility will provide an enhanced antenatal testing center and a high-risk perinatal unit. Infants requiring additional care at birth will receive specialized

care in the expanded 108-bassinet, Level IV Neonatal Intensive Care Unit (NICU) featuring all-private rooms.

For women seeking gynecologic care, the new facility will provide a dedicated women's surgery center featuring state-of-the-art minimally invasive technology.

The new Inova Children's Hospital will feature 116 private patient rooms equipped with video-game consoles, dedicated operating rooms and access to the Inova Child Life program.



GONE MOBILE

Inova Magazine is available as a free app for your iPhone, iPad or iPod Touch. Go to iTunes and search "Inova Magazine," or click on the link at inova.org/magazine.



HELP THE HOSPITAL

To support the Inova Women's Hospital and Inova Children's Hospital philanthropic priorities in research, clinical care, continuing medical education and community outreach, please contact Jennifer McGihon at **703.776.3422** or jennifer.mcghon@inova.org.

PEDIATRIC CONFERENCE

Coinciding with the opening of the new hospital, the 8th Annual Mohsen Ziai Pediatric Conference will be held in November 2015. "The mission of the conference is to educate physicians on new information and technology in pediatrics, and to recognize the opening of the Inova Children's Hospital," says Marchelle Albertson, Senior Meeting Planner at the Office of Continuing Medical Education. To register for the event, call **703.204.6348** or visit inova.org/pedscme.





AHEAD of the CURVE

PHOTOS BY
JASON HORNICK

New Inova Melanoma and Skin Cancer Center combines immunotherapy, genomics and targeted therapies

When John Moretti found a lump under his right arm one morning last November, the 85-year-old father and grandfather had no reason to suspect it was a recurrence of the melanoma he had had surgically removed from his back while in his fifties. But a biopsy of the lesion revealed the Alexandria resident's skin cancer had in fact returned in his lymph nodes after a quarter-century of dormancy.

Despite the seriousness of the diagnosis, physicians at Inova Comprehensive Cancer and Research Institute (ICCRI) were able to offer treatment options to the retired CIA security officer unheard of only a few years ago. Based on an analysis of Moretti's new tumor, ICCRI doctors discovered a mutation in a gene known as BRAF — present in about half of all melanomas — that triggers an overactive protein fueling melanoma tumor growth.

Moretti quickly began taking two new targeted drugs that inhibit overactive BRAF proteins, eradicating all clinical signs of his tumor after only two months. Called dabrafenib (brand name Tafenlar) and trametinib (Mekinist), the U.S. Food and Drug Administration (FDA) approved the oral medications for advanced melanoma in 2013 and 2014.

The Skin Experts

Jennifer DeSimone, MD, Suraj Venna, MD, and Sekwon Jang, MD, make up the new Inova Melanoma and Skin Cancer Center, which is part of Inova Comprehensive Cancer and Research Institute. The center is devoted to finding and using advanced treatments for skin cancers.

PERSONALIZED MEDICINE

Find out what advances Inova Translational Medicine Institute is making for you at inova.org/itmi.

“I thought taking two pills was terrific instead of going through [conventional] chemotherapy,” says Moretti, who coped with bothersome side effects from the drugs but nevertheless is pleased at how rapidly they reined in his cancer. He underwent surgery in March to remove lymph nodes from the area and any residual tumor cells. “I’m very happy,” he adds.

PRECISION MEDICINE INITIATIVE

Inova was already ahead of the curve when President Obama announced in January a national Precision Medicine Initiative to individualize disease prevention and treatment based on differences in people’s genes, environments and lifestyles. ICCRI is one of the country’s cancer centers devoted to applying genomic science to individualize lifesaving therapies and prevention strategies for patients and their families. ICCRI’s use of targeted therapies such as the one benefiting Moretti — quickly becoming the standard of care nationwide — is only one way Inova’s comprehensive approach to melanoma treatment aligns with the president’s plan.



The Other Donald
Donald Trump, MD, is planning to build on the goal of developing Inova Comprehensive Cancer and Research Institute into a destination cancer center.

“Clinical care alone is not enough of a contribution; building a research component around this base is the key to helping in the advancement of the field.”

— SURAJ VENNA, MD

Complementing those efforts are several Inova initiatives poised to optimize patient care, including participation in pivotal research on immunotherapy treatments that unleash patients’ own immune systems to destroy malignant cells. Additionally, Inova Translational Medicine Institute (ITMI), established in 2010 to explore the connection between genomics and future health, is developing a personalized genomics test that will analyze 50 genes encompassing 3,000 mutations for every melanoma patient. The new test — slated to be available within months — will determine the genetic drivers of each patient’s melanoma and steer doctors toward using drugs believed more likely to be effective, sparing normal cells.

“This fits in exactly with the Precision Medicine Initiative,” says Suraj Venna, MD, head of ICCRI’s Melanoma and Skin Cancer Center, established in November 2014. “Instead of using

PLAYING THE TRUMP CARD

Donald Trump, MD, has been called “Skip” since he was a small boy to avoid confusion with his father, who bore the same name. But decades later, there’s no confusing this Donald Trump from the (perhaps) more famous one, since Dr. Trump has built an esteemed legacy of cancer research and patient care he’s now bringing to Inova.

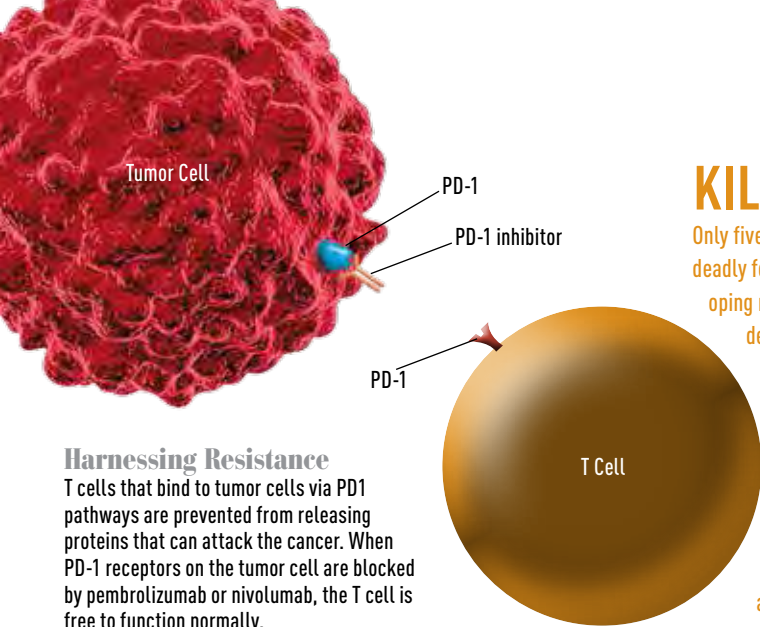
Appointed head of the Inova Comprehensive Cancer and Research Institute (ICCRI) in January, Dr. Trump had previously spent 13 years at Roswell Park Cancer Institute in Buffalo, NY, first as Senior Vice President for Clinical Research and Chair of Medicine and for the past seven years as President and CEO. There, he led key initiatives to enhance collaborative relationships with local and regional health care partners and successfully renewed its National Cancer Institute Cancer Center Support Grant, the national designation denoting a comprehensive cancer center.

Coming to Inova was a highly attractive prospect for Dr. Trump, 69.

“I was very impressed with the vision of the leadership here and intention to develop a destination cancer center,” he says, “along with the fact that significant resources have been invested in attracting top-flight individuals and investing in clinical, translational and genomic research.”

Dr. Trump intends to recruit additional specialized expert practitioners, clinical investigators, population scientists and prevention experts to ICCRI from near and far. “With the establishment of ICCRI and the development of effective collaborations with the outstanding practitioners in our region, we have the opportunity to enhance the care of cancer patients in the community and increase our understanding of cancer,” he says.

“It’s easy to detect my excitement about this opportunity,” he adds. “There’s a great deal to do here and no question there’s a commitment to getting it done.”



Harnessing Resistance

T cells that bind to tumor cells via PD1 pathways are prevented from releasing proteins that can attack the cancer. When PD-1 receptors on the tumor cell are blocked by pembrolizumab or nivolumab, the T cell is free to function normally.

a blind effort trying to treat a patient's melanoma with conventional chemotherapy and other treatments, we're trying to decipher the drivers of that melanoma and develop a personalized treatment profile."

TEAM MELANOMA

The creation of ICCRI's Melanoma and Skin Care Center, located on Arlington Boulevard, drew Dr. Venna to Inova from his prior post as Director of the Melanoma Center in Washington, DC.

"This is an opportunity to not just grow a robust clinical program but also to complement the clinical care with the latest research tools and optimize quality and outcomes for the patients and community we serve," Dr. Venna says. "In 2015, in melanoma, clinical care alone is not enough of a contribution; building a research component around this base is the key to helping in the advancement of the field."

The multidisciplinary approach in melanoma care is what sets the Inova program apart from other programs in the region. Every Wednesday Dr. Venna meets with Center staff members — including dermatologists, oncologists, pathologists, surgeons, nurses and others — to review all new patient cases for the week. Of

KILLER CELLS ON THE LOOSE

Only five years ago, few therapies could effectively treat metastatic melanoma, the most deadly form of skin cancer. But an Inova physician-scientist has had a prominent role in developing revolutionary new drugs that harness the power of patients' own immune systems to destroy malignant cells, producing striking results in late-stage melanoma patients and significantly prolonging their lives.

Medical oncologist Sekwon Jang, MD, Director of Melanoma and Cutaneous Oncology Therapeutics and Research at Inova Comprehensive Cancer and Research Institute, was involved in clinical trials for two drugs, pembrolizumab (brand name Keytruda) and nivolumab (brand name Opdivo), both approved in late 2014 by the Food and Drug Administration (FDA).

The drugs inhibit the PD-1 protein, a molecule on the surface of immune cells that acts as a brake to hinder the immune system from demolishing tumors. Blocking PD-1 removes the brakes, enabling patients' own immune cells to attack the cancer. Since 2011, the FDA has approved seven new drugs for metastatic melanoma — three of them this type of so-called "immune checkpoint inhibitor." The PD-1 inhibitors have shown activity in other cancers, and nivolumab has been recently approved for lung cancer, Dr. Jang says.

"These treatments are basically transforming the care of melanoma," Dr. Jang explains. "Melanoma, once it spreads to distant organs, used to mean a death sentence. But now with these drugs, we have long-term survivors, even with stage 4 melanoma."

the several thousand patients expected to walk through the Center's doors this year, between 250 and 300 will be diagnosed with melanoma, the deadliest form of skin cancer. The bulk of the Center's cases consists of people seeking screening for all types of skin cancer, which also includes basal cell and squamous cell carcinomas.

About three-quarters of newly diagnosed melanomas are early-stage, while the remaining quarter are patients presenting with advanced cases.

"Most patients diagnosed with melanoma are seen first by a dermatologist, then an oncologist, and then come back for surgery. So the time from diagnosis to surgery can be protracted," Dr. Venna explains. "Patients don't want to hear their surgery is in three weeks; they want it done yesterday. We really strive to offer top-notch care and be cognizant that this is a scary experience to have. We make it easier by enabling the patient to be seen by everyone, all in one morning." ■



SAVING OUR SKIN

Learn about the new Inova Melanoma and Skin Cancer Center at inova.org/skin.

CHERRY BLOSSOM CHAMPION



The Cherry Blossom Breast Cancer Foundation, a local breast cancer prevention and education organization, has selected **John Deeken, MD**, Associate Director of Clinical Research and Medical Oncology at Inova Comprehensive Cancer and Research Institute, as one of

its four Cherry Blossom Champions for 2014.

The award is given to individuals and organizations with significant contributions to the local fight against breast cancer and to the Foundation's mission of detection, treatment, education and elimination of breast cancer. The Foundation

cited Dr. Deeken's collaborative research into the effects of chemotherapy on the human brain as the reason he was recognized.

Other 2014 winners are Behzad Parva, MD, of Parva Plastic Surgery, Leesburg, VA; and Jamie Pearson, Middleburg Bank, Leesburg, VA.



GNS INOVA

Meeting Opportunity

Colin Hill, of GNS Healthcare, and Ben Solomon, MD, of Inova Translational Medicine Institute, aim to accurately predict a woman's preterm birth risk.

MERGING OF THE MINDS

Partnership between ITMI and GNS Healthcare seeks to predict preterm births

PHOTOS BY
TRACY POWELL
& MIKE MORGAN

A newly pregnant woman walks into her obstetrician's office, takes a simple blood or urine test and — combined with other personal health data — quickly receives an

accurate prediction of her risk for prematurely delivering her baby. With 1 of every 9 infants in the United States born preterm, or before 37 weeks of gestation, this unprecedented scenario will result from an ongoing collaboration between Inova and a Massachusetts big data firm that should begin to bear fruit within a couple of years. (Big data refers to large and diverse data sets and the use of predictive analytics and other advanced methods to extract value from them.)

Inova Translational Medicine Institute (ITMI), established in 2010 to explore the connection between genomics and future health, has teamed up with GNS Healthcare to develop and commercialize computer models capable of predicting the risk of preterm birth, a problem leading to about 10,000

deaths and \$28 billion in healthcare costs annually.

Marrying genomic data mined by ITMI's acclaimed Preterm Birth Study with electronic medical records (EMRs) and environmental and behavioral factors, GNS' analytics platform has begun to tease out the causes of preterm birth — currently unknown in about half of cases — by characterizing the complex relationships among these variables. The resulting computer models will enable an individualized approach to diagnosing, preventing and treating premature delivery.

"This effort started from what is really the largest and richest data set of this kind to attach to this problem," says Colin Hill, CEO and co-founder of GNS Healthcare, which is based in Cambridge, Massachusetts. "The mixture of EMR data, next-generation sequencing and patient surveys really forms the basis to find the needle in the haystack that supersedes previous attempts to solve the problem of preterm birth."

PERSONALIZED MEDICINE INITIATIVE

President Obama, during his State of the Union address in January, announced the Precision Medicine Initiative. This would use the human genome to produce more personalized medical treatments. "I want the country that eliminated polio and mapped the human genome to lead a new era of medicine — one that delivers the right treatment at the right time," he stated. The initiative builds on the work of Inova Translational Medicine Institute, which uses genomic research to understand and prevent conditions and develop treatments.

TEST COULD OFFER 'PREDICTIVE SIGNATURE' OF PRETERM BIRTH

The partnership, announced in August 2013, is a practical extension of ITMI's Preterm Birth Study, initiated in 2011 to create a genomic characterization of 570 babies born full-term at Inova Fairfax

THE HUMAN SIDE OF GENOMICS

Watch a 30-minute special, "Genomics: The Power to Predict," at inova.org/powertopredict. The program, which aired on WUSA9 in January, features three patients who were affected by the work of Inova Translational Medicine Institute.





LOCKING UP THE DATA

With a series of high-profile cyber hackings in the news over recent months, Inova Translational Medicine Institute (ITMI) has only strengthened its commitment to safeguard patients' genomic and other health data.

Partnering with GNS Healthcare to develop computer models to predict individual women's chances of preterm birth, the collaboration entails multiple encryption methods and a rigid set of rules governing exactly who can access data — which will help clinicians determine how genes influence a woman's risk of preterm birth — as well as how it's stored and tracked.

"Even I can't get access to the data, because I'm not a data scientist anymore," notes Colin Hill, who as CEO of GNS

Healthcare leads the project with ITMI. "It's on a need-to-know, need-to-crunch basis. Every step of the way, we minimize risk."

Just five or 10 years ago, the type of "big data" being used in this type of effort didn't yet exist, says Ben Solomon, MD, Chief of the Division of Medical Genomics at ITMI. Generating and safeguarding that data go intrinsically hand in hand.

"For our informatics experts, the main question is how we protect our patients and still get very fast answers to practice personalized medicine," he says. "We are really setting the standard in the world for this. Certainly there are folks who would like to take shortcuts, but it's up to us to lead the field."

Hospital, 305 babies delivered prematurely and admitted to the hospital's Neonatal Intensive Care Unit (NICU) and each baby's mother or father. A whole genome sequence includes the complete DNA sequence of genetic material present in each participant.

The combined 2,400-plus genomes sequenced in that research are being mined to yield clues to the underlying genetic causes of preterm birth, which affects more than 500,000 babies in the United States each year. Until this partnership, no individual genetic changes have been identified to explain preterm birth, though it's been understood that genetic influences are part of the picture.

One of the ultimate goals of the partnership is to facilitate the development of a "predictive signature," a blood or urine test that, using biomarkers, can forecast with great certainty the percentage chance any expectant mother faces of delivering prematurely.

"If you take a dozen people who deliver early, there may be a dozen reasons," explains Ben Solomon, MD, Chief of Inova's Division of Medical Genomics. "The underlying causes and biological underpinnings may be related, but different, so these are very complex questions. Simply being able to merge all these types of data together will lead to meaningful results we can apply to people who are going to be pregnant in the future so we can take better care of both mothers and babies."

'INTERVENING TO CHANGE THE FUTURE'

It may be several years before a test offering a "predictive signature" of preterm birth becomes widely available. But Hill hopes that within a year or two, some Inova patients might have access to the first such test, emphasizing that "it's not a once-and-done thing. It's going to take refining."

Currently, a pregnant woman considered at higher risk of premature delivery — due to previous preterm births or other identifiable risk factors — would be managed by high-risk perinatal physicians, Dr. Solomon notes. Other ways to optimize outcomes include delivering the infant at a hospital with a high-level NICU or prescribing steroids to expectant mothers to help hasten development of the baby's lungs.

But accurately predicting a woman's preterm birth risk at the start of pregnancy "can lead to future new treatments to tackle the problem in an even bigger way," Dr. Solomon says. "We also may be able to get rid of unneeded interventions and do more personalized interventions," thereby saving healthcare dollars.

Similar partnerships may evolve to tackle complex genomic diseases such as autism, diabetes and obesity using ITMI's massive whole-genome sequence databases generated from thousands of participants in several recent ITMI studies. The appeal to scientists is huge, says Dr. Solomon, who presents ITMI data at genetics conferences worldwide.

"People are staggered by what we're able to do," he says. "We're really the epicenter for genomics."

Hill says the ITMI-GNS partnership tackling preterm birth seizes an opportunity to "bring together the best of the best from different pools of expertise . . . and in doing so, we have a recipe to change the world."

"Imagine having a device that could anticipate a car crash," he adds. "That's what, in a way, this will represent — a tool for predicting the future in this very specific context and then intervening to change the future." ■



PREDICTING PREMIES

Learning more about Inova Translational Medicine Institute at inova.org/itmi.



an Affair to Remember

2014 Inova Summit supports Inova's hospitals, services and research



Set against the backdrop of the luxurious Salamander Resort & Spa in Middleburg, the 2014 Inova Summit: A Thought Leadership Weekend paired high intellectual pursuits with relaxation and entertainment. During the three-day event, held Nov. 7-9, brilliant minds engaged in stimulating conversation; presentations recognized healthcare breakthroughs; children's giggles punctuated family activities; and the "Empress of Soul" herself, Gladys Knight, headlined a magnificent black-tie gala.

It was by all accounts a grand weekend — made grander still by the record-breaking charitable gifts raised to subsidize Inova Health Foundation, which assists Inova's not-for-profit hospital system to provide a higher level of care for the region, establish destination services, and create a new standard of care through genomics and personalized medicine.

"For the first time in history, we broke the \$2 million mark," proclaimed Mark Moore, who co-chaired the 2014 Inova Summit with his wife, Brenda.

STRONG SHOWINGS

This was the Moores' second year co-chairing the Inova Summit. The philanthropists accepted the challenge in 2013 with a plan to send the annual one-night Gala in a fresh direction. That year, the duo, along with their planning committee, introduced "Building Our Legacy," bookending the Gala with thought-provoking sessions where philanthropists,

Upper left: Inova CEO Knox Singleton, CNN correspondent Dr. Sanjay Gupta, and Atlantic Media's Steve Clemons meet following Saturday's keynote address by Dr. Gupta. Upper right: Legendary entertainer Gladys Knight meets Brenda and Mark Moore prior to her special performance on Saturday evening. Lower right: WJLA-TV meteorologist Jacqui Jeras and Mike Ellis take in the festivities. Jeras served as mistress of ceremonies during Saturday's Inova Honors Dinner.



Left: Robin West, MD, and Mark West delight in the VIP Reception during the Inova Honors Dinner, the crowning event of the Inova Summit. Upper right: Eric and Doreen Spiegel pose with Tina and Dr. Gary Mather prior to the Inova Honors Dinner. Lower right: Sonya Younossi, Betty Beatty and Gincy Carosi prepare to hear Dr. Sanjay Gupta speak on living a longer, more fulfilling life.

physicians, healthcare experts and community leaders could explore emerging developments in healthcare.

Devoted parents and grandparents themselves, the Moores also wanted to transform the event into a family-friendly experience, which led them to host the three-day function at the Salamander Resort & Spa.

The new direction was declared a smashing success, which set the bar high for the 2014 Summit. And the Moores did not disappoint. Soon after releasing the 2014 event

“This format is a phenomenal way to share with our community and its leaders all the cutting-edge clinical care and innovative training that’s occurring throughout the Inova healthcare system.”

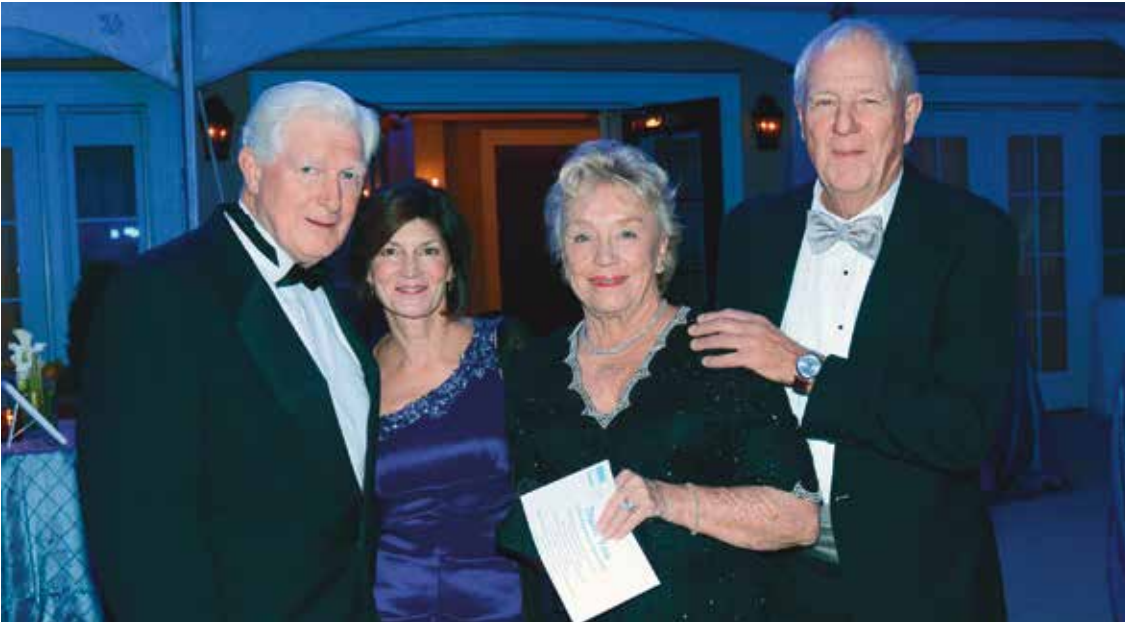
—CRAIG CHEIFETZ, MD, FACP

schedule, Inova supporters booked every room in the Salamander Resort & Spa.

Sell-out status gave the Moores space to roll out additional educational sessions, which included presentations and roundtable

discussions about the Affordable Care Act; emerging benefits of personalized and predictive medicine; and the importance of simulation training in order to improve patients’ quality of care.

THE 2014 INOVA HEALTH FOUNDATION SUMMIT



Top: Former U.S. Representative Jim Moran (D-VA) and Deborah Warren visit with Carolyn and Milton Peterson during the reception preceding the Inova Honors Dinner. The Peterson Family Foundation recently announced a \$10 million gift to Inova Comprehensive Cancer and Research Institute. Bottom: Inova Patient Experience Advisory Committee member Natalie Bush and Erin Martin enjoy the Inova Honors Dinner.



SHOP TALK

“This format is a phenomenal way to share with our community and its leaders all the cutting-edge clinical care and innovative training that’s occurring throughout Inova,” says Craig Cheifetz, MD, FACP, Medical Director of Inova’s VIP 360° Program.

Just as important, the sessions gave Summit attendees an opportunity to get up close and personal with Inova thought leaders, says Robin Baker, MD, neonatologist at Inova Children’s Hospital, President of

Fairfax Neonatal Associates and 2014 Inova Summit executive committee member. “Many hospitals talk in the abstract about what they’re doing,” Dr. Baker said. “The Summit weekend gave community leaders an opportunity to learn firsthand about the quality of care Inova delivers.”

The extended weekend format also allowed for special presentations. During Saturday’s keynote luncheon, Dr. Sanjay Gupta, CNN chief medical correspondent and *New York Times* best-selling author, shared

RECOGNIZING EXCELLENCE

As part of the 2014 Inova Summit Friday evening Welcome Reception and Tribute Dinner, Inova honored its 40-year association with Fairfax Neonatal Associates (FNA) — a celebration that culminated in FNA receiving a special award for its commitment to excellence.

From the start, FNA has managed and staffed Inova’s Neonatal Intensive Care Unit (NICU) programs, which are today thriving at Inova Children’s Hospital, Inova Fair Oaks Hospital and Inova Loudoun Hospital. Among the three locations, FNA is responsible for the critical care needs of nearly 20,000 newborns annually.

Over the years, Inova and FNA’s partnership has not only produced Northern Virginia’s gold standard program for infants born prematurely but also earned international recognition in neonatal care research and development.

“The fact that Inova recognizes us as a leader in neonatal care is an honor,” says Robin Baker, MD, neonatologist at Inova Children’s Hospital and President of Fairfax Neonatal Associates. “I also see it as a challenge to raise the bar even higher. We will always strive to better the care available for every newborn.”

During the Tribute Dinner, Inova also recognized the legacies of individuals who have made a lasting impact on the health system. Mike and Teresa Wheeler received the Building our Legacy Award to honor their generosity, including their most recent gift to build Inova Wheeler Family Emergency Care Center in downtown Leesburg. Patricia Seifert was honored with the Legacy of Service Award for providing heart wellness education in the community to patients and to her Inova peers.



Top: Tess Wheeler and her mother Teresa attend the Inova Honors Dinner. Bottom: Alan and Ashley Dabbieri prepare to hear Dr. Sanjay Gupta's keynote address during the 2014 Inova Summit.

“Our odyssey with Inova began in 2007 when I developed a blood deficiency that led to two strokes. We got such wonderful care at Inova. Brenda and I wanted to do something to give back — to help ensure that everyone in our community can receive the same level of care we did.”

—MARK MOORE

his insights on living a longer and more fulfilling life. There were also two live appeals, one to raise money for breast milk for babies in the Neonatal Intensive Care Unit and the other to support women in the Inova community who cannot afford mammograms. “We raised \$106,000, which covers more than 500 mammograms,” explains Dr. Cheifetz, who led Saturday night’s appeal.

A ‘KNIGHT’ TO REMEMBER

Between family activities and scholarly sessions came the Summit weekend’s climax — Inova Health Foundation’s 2014 black-tie Inova Honors Dinner, held on Saturday night. The Honors Dinner’s gourmet banquet, elegant silver-themed décor and veritable “who’s who” guest list of nearly 500 Inova supporters came together for a seriously impressive event.

In addition to mix-and-mingle time, Honors Dinner guests enjoyed both silent and live auctions, which included everything from a thrilling Tesla test drive to a luxurious holiday on Singer Island.

The evening’s high note came as Gladys Knight took center stage, bringing her audience to

their feet as they danced and sang along with the legendary recording artist.

GIVING BACK AND ‘MOORE’

When looking back over their two years as Inova Summit Co-Chairs, Mark and Brenda Moore describe the experience as “challenging, but also part of a natural evolution. “Our odyssey with Inova began in 2007 when I developed a blood deficiency that led to two strokes,” Mark says. “We got such wonderful care at Inova. Brenda and I wanted to do something to give back — to help ensure that everyone in our community can receive the same level of care we did.”

And while the Moores are proud of the recording-breaking funds that the 2014 Inova Summit pulled in, “the true beauty of this accomplishment is in what the money will be used for,” Brenda stresses. “That’s why it was so important for Mark and me to take on the role that we did.” ■



LOOKING AHEAD

Learn more about the 2015 Inova Summit at inova.org/summit.

JUST ONE QUESTION...



PHOTOS: MIKE MORGAN

BEN SOLOMON, MD

Chief of the Division of Medical Genomics at Inova Translational Medicine Institute

When Ben Solomon, MD, sees a baby in the Neonatal Intensive Care Unit (NICU) with a genetic abnormality, his mind automatically jumps to possible solutions. Board-certified in both pediatrics and clinical genetics, the Chief of the Division of Medical Genomics at Inova Translational Medicine Institute (ITMI) bridges the

technical aspects of genomics research and the practicalities of patient care. Using genomic sequencing that maps out patients' genetic information — including tens of thousands of genes — Dr. Solomon and his colleagues develop new ways of analyzing this data to make it directly helpful to patients.

HOW DOES YOUR WORK AT ITMI DIFFER FROM YOUR PREVIOUS WORK AT THE NATIONAL INSTITUTES OF HEALTH?

Here, we're trying to solve problems at the point of recognition instead of years down the road. When we see a baby in the NICU born with a congenital heart abnormality, for instance, we can use our genomic resources right away to get an answer for this baby, making a difference by practicing personalized medicine.

WHAT EXCITES YOU ABOUT YOUR WORK AT ITMI SINCE ARRIVING IN SEPTEMBER 2013?

Most thrilling to me has been the ability to practice genomic medicine in real time. Sometimes these are hard problems and real tough nuts to crack, but our ability to apply genomic knowledge right at the bedside is an astounding, wonderful thing.

WHAT IS ITMI'S LATEST GENOMICS INITIATIVE?

We're working on the Genetics Disorders Study, which is mostly in the NICU, and focuses on babies born with major conditions that might be due to genetic changes. Fortunately, most babies don't have these kinds of medical issues, making this a smaller study that has included about 135 families so far. But it's an incredibly important study in terms of taking care of the most medically fragile and complex kids we see. ■

WHAT'S YOUR DREAM PROJECT?

I'd love to figure out how we could get genomic information from a baby born this minute and have a personalized healthcare plan for the rest of their life ready for them by the time the baby is discharged from the hospital. The knowledge base and technology isn't ready for that yet, but it's my pie in the sky.



GENOMICS IN ACTION

Learn more about Inova Translational Medicine Institute at inova.org/itmi.

MOVING THE NEEDLE

ON CANCER RESEARCH



Inova Health Foundation recently received a major gift — \$10 million from the Fairfax-based Peterson Family Foundation to advance cancer care and genomic research at Inova under Inova Comprehensive Cancer and Research Institute (ICCRI). Founded in 2012, ICCRI is the largest and most comprehensive cancer program in Northern Virginia and the greater Washington, DC, metropolitan area.

Specifically, the Peterson Family Foundation Legacy Gift will bolster the partnership between ICCRI and Inova Translational Medicine Institute (ITMI).

The alliance is dedicated to

discovering unique, patient-targeted cancer therapies based on individualized, genomics-driven treatments. Donald Trump, MD, the new CEO and Executive Director of ICCRI, and John Niederhuber, MD, CEO of ITMI, will be

working closely with the Peterson family to earmark funds for specific genomic cancer research projects.

“The study of genetics and genomics play a vital role in medicine — as well as Inova’s path into the future,” according to Dr. Trump. “This gift from the Peterson family will amplify our ability to move forward into groundbreaking research and help define new therapies into cancer treatment.”

“The Peterson family gift to Inova Comprehensive Cancer and Research Institute empowers our commitment to build the world’s leading center focused on individualized therapies based on genomic science and cutting-edge translational cancer research,” adds Knox Singleton, Inova CEO. “It’s amazing when you think about how many lives may be saved as a direct result of this gift.”

A portion of the gift will also help fund Inova’s Life with Cancer® program, which provides free support and education to anyone affected by cancer.

AN INTELLECTUAL DECISION

Before presenting the legacy gift to ICCRI, the Peterson family did, in fact, think long and hard about how many lives their gift could affect. Milton Peterson, his wife Carolyn, and the couple’s four children view philanthropic gifts with a Wall Street mentality. “We have to ask, ‘Where will we get the best return on our investment?’ In other words, where can we put our money so we impact the most lives possible,” Milton stresses.

“We feel ICCRI has the finest team in place to deliver on its mission, its vision and its goal to eventually make a difference in every cancer patient’s life,” Milton adds. “This gift will move the needle on cancer research. It’s the best possible return on our investment.”

Milton also fervently hopes that the Peterson Family Foundation \$10 million legacy gift fuels additional philanthropic support. “There was a time when the family awarded gifts

“It’s amazing when you think about how many lives may be saved as a direct result of this gift.”

— KNOX SINGLETON,
INOVA CEO



Strong Ties
Lauren, Milton and Carolyn Peterson (shown at left) gave to Inova, in part, because they want to help fight cancer in their community. The whole Peterson clan below (from left): Steve, Lauren, Milton, Carolyn, Phoebe, Rick, Anne and Jon, who support the Foundation's goals.

anonymously. We weren't interested in honors; we only wanted to offer deserved support," Milton explains. "We realized that attaching our name — our reputation — to gifts of this nature raises the bar. It says that our position is strong and tells others capable of giving that it's time to think big. We have to do whatever we can to make ICCRI's vision a reality."

Milton's daughter, Lauren Peterson, Peterson Family Foundation President, introduces yet another impetus to invest in ICCRI: "We are committed to our community. This is where we were born and where we live. So it's important to the family that this gift translates into cancer services, research and therapies for patients and families who live right here in our own backyard. Of course, in time, funding this type of research could help cancer patients around the world. We find that very exciting — and worth our investment."

A GIFT WITH HISTORY

The Peterson family's association with Inova's dedication to unraveling the mysteries and management of cancer began 25 years ago, when Carolyn Peterson became involved with Inova's Life with Cancer. The program was established in 1986 to help cancer patients, survivors and family members face the challenges that accompany a cancer diagnosis.

Carolyn, a two-time cancer survivor, served as an early chairman on the Life with Cancer board. She remained in that role for 12 years and currently serves as a chair emeritus one of the board. Lauren heightened the family's commitment to Life with Cancer by first serving on its board for 18 years and currently as Life with Cancer's Vice-Chair.

With a portion of the Peterson Family Foundation Legacy Gift going to Life with Cancer, Sage Bolte, MSW, LCSW, OSW-C, Director of Life with Cancer, sees 2015 as a milestone year

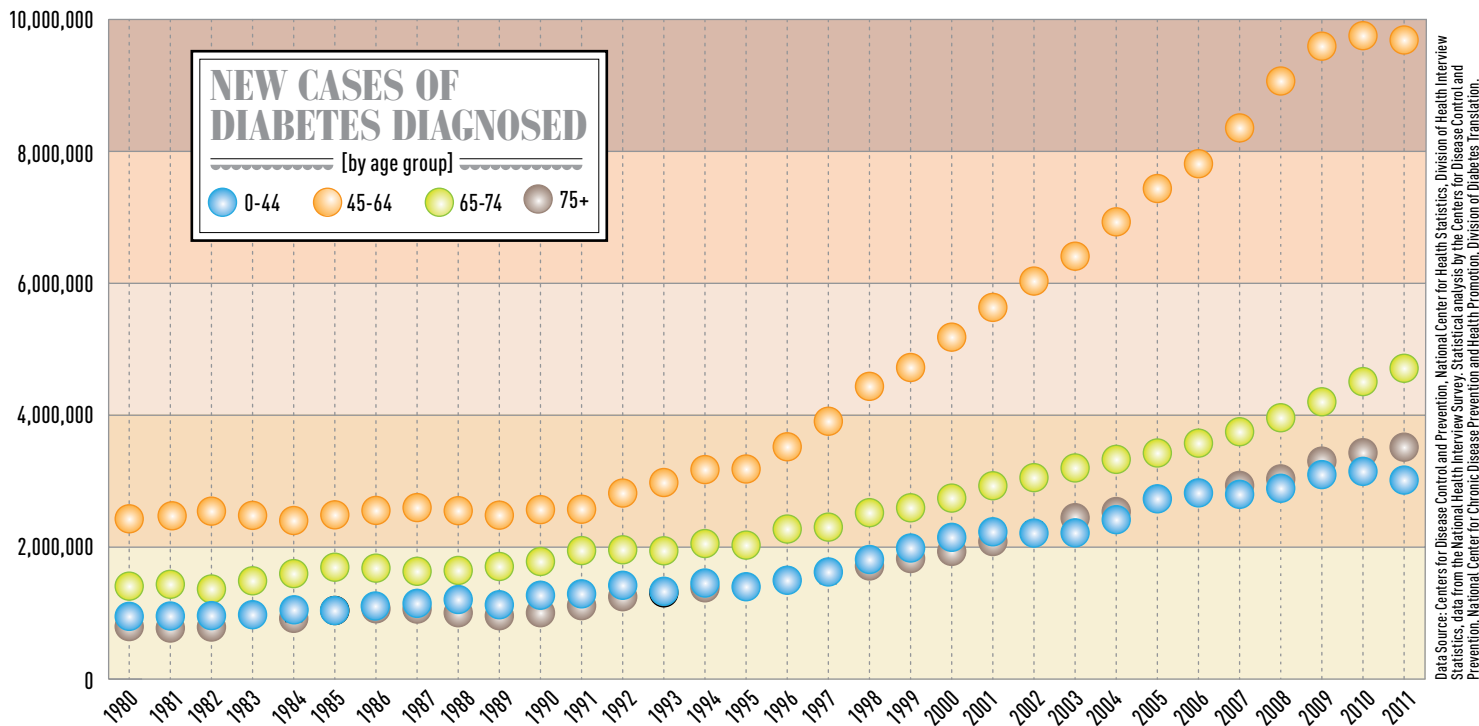


for the program. "In 2014 we established teams at all five Inova hospital sites. The Petersons' gift will help us grow into each community and provide a deeper level of support to patients and their families — right in their backyards," Bolte says. ■



BOLSTER RESEARCH

If you are interested in supporting cancer research or other initiatives at Inova, contact Inova Health Foundation at **703.289.2072**.



IMPROVING OUTCOMES

Center expands educational services to meet the needs of the community

chronic conditions to achieve healthy lifestyles, the newly expanded Inova Center for Wellness and Metabolic Health (formerly Inova Diabetes Center) is broadening its scope of educational services. While most people who visit the center are adults and children living with type 1 and type 2 diabetes, the center now also serves patients with prediabetes, gestational diabetes, obesity, heart failure, thyroid problems and peripheral neuropathy.

“To improve population health throughout northern Virginia, we are expanding our services, education and prevention at each of our Inova locations to meet the needs of the entire population, as opposed to the very finite group that we took care of before,” says Karen Berube, Assistant Vice President of Population Health at Inova Fairfax Hospital. (To learn more about population health, see top House Call story on the next page.)

Living with an endocrine disorder can be challenging and sometimes frustrating. There are symptoms to monitor, medications to manage and seemingly endless dietary considerations. To empower more people in the community with

PERSONALIZED APPROACH

Patients who visit Inova Center for Wellness and Metabolic Health gain access to a multidisciplinary team of certified diabetes educators, dietitians and dedicated nurses who provide personalized counseling, classes and support. In the near future, each center will welcome an endocrinologist and/or a nurse practitioner on board to accommodate a wide variety of endocrine-related conditions.

“Education is very important in managing diabetes and other endocrine diseases,” says Marc Bailey, Director of Disease Management at Inova Center for Wellness and Metabolic Health. “While having solid medical management of the disease process, individuals need to know what they can do to make healthy changes in their life.”

With the personalized guidance of an expert staff, patients learn powerful self-care strategies to play an active role in their care, including planning meals; monitoring blood sugar, cholesterol and blood pressure; using equipment properly; managing medication; and tracking daily progress.

“By individualizing care, we are hoping to have better outcomes and fewer readmissions for

EVENTS TO RAISE AWARENESS

Inova Center for Wellness and Metabolic Health is an active participant in events designed to improve community health by raising awareness about diabetes and supporting research programs.

“We really love reaching out to the community and Inova provides many ways for us to do that,” says Marc Bailey, Director of Disease Management at Inova Center for Wellness and Metabolic Health. Each year, the center participates in the following:

- ➔ **Step Out to Fight Diabetes** — an American Diabetes Association fundraising walk that

raises millions of dollars nationwide to find a cure for diabetes.

- ➔ **Tour de Cure** — a bike ride to raise money for the American Diabetes Association’s mission to prevent and cure diabetes.
- ➔ **Walk to Cure Diabetes** — a walk to support the Juvenile Diabetes Research Foundation’s mission to find a cure for type 1 diabetes and its complications.
- ➔ **Capital Area Type 1 Diabetes Support Group** — a membership-based Yahoo! Group offering support and resources to DC-area families.

people with chronic diseases and helping them live longer, healthier lives,” says Bailey.

Berube anticipates that providing patients with successful self-care strategies will boost patient engagement and the patient experience, two key components for improving population health.

“We are providing a whole new realm of care that is individualized for each particular patient,” says Berube. “We are looking at what each patient’s needs are and how we can best accommodate those needs and really tailor our services to that individual.”



A Fresh Look
Each Inova Center for Wellness and Metabolic Health location is being remodeled to provide a soothing, upbeat environment. This waiting room, above, reflects that.

SUPERIOR PATIENT EXPERIENCE

To provide each patient with a positive learning experience, each Inova Center for Wellness and Metabolic Health location is being remodeled with a fresh new look.

“We have beautiful counseling rooms with couches and pictures so patients can bring their family, plus bright cheerful classrooms and new exam rooms, which are nicely done,” says Berube. “It’s a soothing environment, which is important for patients so they feel comfortable where they get their care. It’s very warm and friendly.”

Patients and their families can also seek ongoing emotional support through the center’s many support groups. Each group, led by certified diabetes educators, provides a forum where individuals can share experiences, exchange ideas, learn more about self-care and feel connected. ■



SPECIALIZING IN DIABETES

To schedule an appointment or to learn about a class at Inova Center for Wellness and Metabolic Health, call **1.877.511.GOAL (4625)**.



ADVANCING POPULATION HEALTH

Population health is a well-known concept in healthcare today, one that Inova has fully embraced.

“To an organization like Inova, the term means promoting health within our communities, not only by providing excellent medical care to patients when they need it, but by promoting wellness and self-care, investing in education and training to provide a strong healthcare workforce, and stimulating economic development and stability within the communities,” explains Neeta Goel, MD, of Inova Medical Group – Ashburn, and Medical Director of Population Health Management at Inova.

Inova Medical Group, which has more than 50 primary care physicians, is a vehicle for advancing population health, she notes, as the physicians aim to promote wellness by addressing the preventive and chronic care needs of each and every patient. Inova Medical Group physicians strive to enhance the patient experience by making patients active partners in their healthcare decisions.

EpicCare, Inova’s electronic medical record, helps facilitate population health management by connecting the entire Inova health system, thus providing collaboration among various physicians regarding patient care. MyChart, a patient portal that connects patients to their physicians, is an important aspect of EpicCare. It allows physicians and patients to communicate with each other regarding patients’ health concerns, resulting in better physician-patient relationships and, in turn, better care and outcomes.

“The goal of population health management is to make our patient population healthier and happier!” exclaims Dr. Goel.

VISION 2015

Learn more about population health management and other innovative concepts at inovavision2015.org.

MAKE AN APPOINTMENT ONLINE

Now there is an even easier way for patients to schedule appointments with Inova physicians. Open scheduling at inova.org/img allows a patient to see the availability of a physician on a given day and book an appointment online.

“Healthcare is moving toward the digital aspect of things,” says Rob Birgfeld, AVP, Chief Digital Marketing Officer. “IMG is on track with that.”

He adds, “Some of the feedback from patients is that it’s almost too easy. They are expecting a follow-up appointment. They didn’t believe they could schedule it then and there.”

To schedule or find a doctor’s availability online, visit inova.org/img. Go to “Primary Care Physicians” in the navigation bar on the left. Then click on “Find a doctor and make an appointment” or search for a doctor by location on the right-hand side of the page.

ONLINE TOOLS

To find out about more offerings, including logging into MyChart, visit inova.org/img.

If you do not wish to receive future mailings from Inova, please contact us at **1.855.My.Inova (1.855.694.6682)** or **inova.org/unsubscribe**.



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The future of health has a new home.



Announcing the new Inova Center for Personalized Health.

The new Inova Center for Personalized Health is the latest example of our commitment to genomic research and personalized medicine. Located in Fairfax, Inova's new campus comprises 117 acres, four buildings, six towers, 1 million square feet of parking, and 1.3 million square feet of office space. It will be a one-of-a-kind, internationally prominent center for genomic research, personalized healthcare and associated life science commercial development.

We've set our sights on becoming the world's epicenter for translational cancer research and patient care based on genomic science, as well as a magnet for the world's best biotech researchers. The work we do at the new campus will help stimulate the collaboration of high technology life science companies with world-class researchers, leading to the expansion of the life science related economic sector in Virginia and the Greater Washington region.

