

AHN

**Autoimmunity Institute
2020 Annual Report**

AUTOIMMUNITY INSTITUTE

OUR MISSION

The Allegheny Health Network (AHN) Autoimmunity Institute is focused on advancing the diagnosis, treatment, prevention and cure of all autoimmune diseases through collaborative multi-specialty care, cutting-edge research, advocacy and education.

We strive to treat the disease and care for the patient.



CONTENTS

A Letter From Our Leadership...	4
Our Specialties.....	5
Current Research Focus.....	6
Expanding Our Footprint.....	7
Clinical Care Pathways.....	9
Embracing Telehealth.....	10
COVID-19 Response.....	11
Driving Research.....	14
Raising Awareness.....	16
Marketing Highlights.....	17
Supporting Our Foundation....	18
Champion Spotlight.....	19
Looking Ahead.....	24

COLLEAGUES, PATIENTS, FAMILIES, and FRIENDS:

Typically, our year in review is an opportunity to quantify and assess the successes we have achieved together over the past 12 months. But in 2020, the actions of our team have been immeasurable.

Our physicians and staff served on the front lines of COVID-19, showing their agility, resilience, and fortitude. In the face of massive operational and clinical challenges posed by the pandemic, they became models of change and endurance. And through it all, the Autoimmunity Institute was able to make strides on all fronts: patient care, research, advocacy, education and philanthropy, in a series of advances that would be impressive during any year.

The work has just begun. We have overcome the worst of this crisis together. But rather than return to business as usual, we strive to raise the bar. We remain laser-focused on changing the care paradigm for patients with autoimmune diseases, while discovering better tests for diagnosis, monitoring, prediction, and response to therapeutics. We are excited about our future as we evolve with our patients and accelerate the race to conquer autoimmunity.



Joseph Ahearn, MD
Chair



Paul Lebovitz, MD
Chief of Clinical Transformation



Linda Santelices, MS
Director of Research



Jennifer Ferri
Regional Director



OUR SPECIALTIES

INCLUDE

Asthma, Allergy &
Clinical Immunology

Cardiology

Dermatology

Endocrinology

Gastroenterology

Hepatology

Integrated Medicine:
Massage & Acupuncture

Nephrology

Neurology

Orthopedics

Psychiatry

Psychology

Rheumatology



CURRENT

RESEARCH FOCUS

ANCA Vasculitis

Ankylosing Spondylitis

Asthma

COPD

Crohn's Disease

Glomerulonephritis

Gout

IgA Nephropathy

Psoriatic Arthritis

Rheumatoid Arthritis

Sarcoidosis

Spondyloarthropathy

Systemic Lupus Erythematosus

Type I Diabetes

Type II Diabetes

Ulcerative Colitis



Paul Lebovitz, MD
Chief of Clinical Transformation

In May 2020, Dr. Paul Lebovitz stepped into a new role as the AHN Autoimmunity Institute inaugural Chief of Clinical Transformation. Dr. Lebovitz, Vice Chair of the Medicine Institute, cares for patients specifically within the Inflammatory Bowel Disease Center of Excellence. He has also led our efforts in recruiting and guiding the first Clinical Transformation Team of experts in Nursing, Pharmacy, Nutrition, Social Work and Behavioral Health.



Adam Dore, MD
Interim Chief of the Division of Rheumatology

With highest enthusiasm, the Autoimmunity Institute welcomed Dr. Adam Dore as Interim Chief of the Division of Rheumatology, charged with spearheading several critical initiatives in the coming year. These plans include integrating the entire Division of Rheumatology into the Autoimmunity Institute, optimizing the patient care provided by our Clinical Transformation Team, and expanding the AHN Autoimmunity Institute hub at West Penn Hospital to include satellites throughout the region.



Ellen Kraemer
Director of Operations for Endocrinology, Obesity Medicine, and Rheumatology

We also welcomed Ellen Kraemer, Director within the Medicine Institute, who will be working closely with Dr. Dore to optimize further integration of subspecialties within the Autoimmunity Institute.

Recognizing that too many patients with autoimmune diseases travel from doctor to doctor in different locations, the Autoimmunity Institute offers 17 specialties under one roof. Drawing on these wide-ranging areas of expertise, we proudly provide unparalleled autoimmune disease care for patients not just in western Pennsylvania, but throughout the nation.

This year marks another milestone in the evolution of out-of-state care: we have now welcomed patients from 34 states and counting.



**Allegheny
Health Network**
Autoimmunity Institute

The road to opportunity leads far beyond our flagship. By expanding our existing practice beyond West Penn Hospital, we will allow more patients with autoimmune diseases to benefit from more coordinated, more frequent care.

Pictured: Kyle Marcelli, race car driver and autoimmune disease patient advocate



Tarun Sharma, MD
RA Pathway Director



Heitham Abdul-Baki, MD
IBD Pathway Director



Michael Lucke, MD
PsA Pathway Director

At the Autoimmunity Institute, we utilize Clinical Care Pathways, designed for the type of coordinated, data-driven, and standards-based care called for by complex autoimmune diseases. After developing and testing new models through a comprehensive Quality Improvement initiative, we launched Clinical Care Pathways for Inflammatory Bowel Disease (IBD) and Rheumatoid Arthritis (RA) in February 2020, and Psoriatic Arthritis (PsA) in October 2020.

Care Pathways are based on national standards and attuned to individual patient needs. A physician and patient decide on a clinical target, usually remission, and agree to track progress using specific disease activity indices. Each Pathway pools the expertise of the provider, MA, nurse navigator, pharmacist, registered dietician, behavior health expert, and social worker. Most importantly, the patient remains at the heart of this model.

Together, this integrated team works to fundamentally redesign every aspect of care delivery: experience, access, outcomes, and cost. Disease activity is measured during every visit, and therapeutic adjustments are made every 1-3 months. By foregoing an ordinary, non-targeted approach, Care Pathways decrease variability of care, thereby improving clinical outcomes at lower costs.

In 2020, we launched 3 Clinical Care Pathways.

Embracing Telehealth



The Autoimmunity Institute is embracing a new reality in healthcare: it's no longer confined within the walls of a doctor's office.

The pandemic has accelerated our path towards care that is more digital, accessible, and responsive—goals established in the AHN Transformational Strategy. Telehealth has become a centerpiece of this progress. By expanding our clinical services to more and more zip codes, a growing number of patients will have access to our collaborative care right where they live.

This year's transition to telemedicine reaffirmed that virtual visits do not just facilitate social distancing and reduce disease transmission—they also align with our unique model of care. The benefits of

telehealth are especially tangible for people living with an autoimmune disease. Patients with chronic conditions spend much more time in waiting and exam rooms than most. Moreover, for individuals who live many miles away from their provider, managing their chronic disease adds up to many hours spent in transit. For many patients, Autoimmunity Institute virtual visits preclude travel, improve access and convenience, and ultimately reduce stress.

While nothing can replace a face-to-face interaction between a patient and one of our providers, telemedicine opens a virtual space for talking and listening—a key component of our work. Autoimmune diseases manifest differently from patient to patient, and each arrives at the Autoimmunity Institute with a unique story. With a dedication to personalized and innovative care, our providers and staff make every effort to integrate this history into each patient's plan. And when a virtual visit ends, the conversation continues. Our Care Transformation team uses the insights gleaned via videoconferencing to inform the next step in disease management.

The Autoimmunity Institute is now developing a long-term strategy for out-of-state virtual visits. We are working to bring as many of our clinicians as possible into this new model, allowing telehealth to not only continue playing a large role in follow-up care with established patients, but also provide expanded access for new patients.

COVID-19 *Response*



The Convalescent Plasma Project

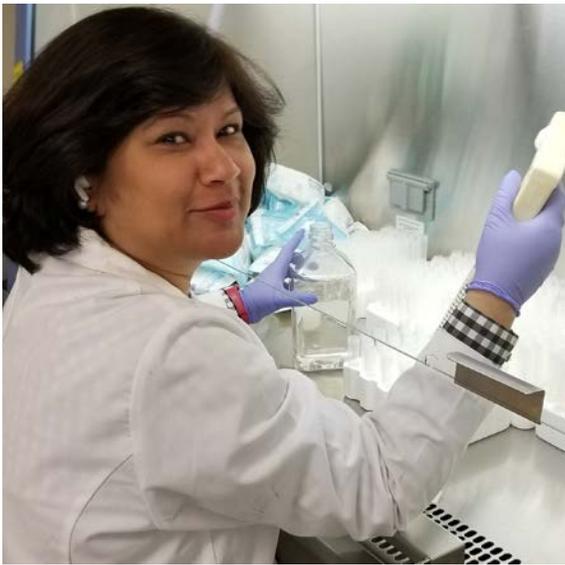
When the Food and Drug Administration granted emergency use authorization to give convalescent plasma (CP) therapy to patients hospitalized with COVID-19, our research team assembled. Starting in March 2020, in concert with Vitalant and UPMC, AHN stepped up to create what would become the third-largest regional inventory for convalescent plasma in the country. Safely collecting blood plasma from recovered COVID-19 patients is an intricate process, but one our robust research infrastructure and investigators were well equipped to handle under the direction of **Thomas Walsh, MD**, from the Division of Infectious Diseases.

We developed a comprehensive 5-step screening process to evaluate the eligibility of potential donors. This process was designed to prioritize the safety of both potential donors and our research team.

Since the beginning of the pandemic, AHN has treated hospitalized COVID-19 patients with more than 750 units of convalescent plasma thanks to the selflessness of our donors. As the regional leader in plasma donors and recipients, **AHN has screened over 2,350 individuals and collected over 1,350 units of plasma from more than 200 donors.** Fifty of these donors made multiple CP donations. Our colleagues conducted a total of over 2,000 visits, offering Pittsburgh patients with COVID-19 a potential new prognosis.

Test-Kit Task Force

In the course of normal operations, commercially-available specimen kits would arrive at the doors of our hospitals fully assembled and ready to administer to our patients. But as the national supply of nasopharyngeal swabs dwindled, and the threat of a local COVID-19 surge loomed large, AHN and Highmark went on the offensive against COVID-19. Bolstered by a team of volunteers, employees from AHN and Highmark Health poured hundreds of hours into assembling COVID test kits.



Vandana Rai
Research Associate

Our laboratory research team volunteered to join this Taskforce. **Rachael Kreft, Barbara Byers, Erin Faight, Mark Longwell, and Vandana Rai** pivoted from their regular research projects, revising their work targets to take over dispensing, batch reporting, and supply management of kit production, as well as liaising with AHN and Highmark quality and distribution.

A total of **130,000 kits** were prepared in-house for use at AHN hospitals and drive-up collection sites throughout the region, ensuring that the enterprise could safely test patients, health care workers, and the community. For this major effort, AHN honored all Taskforce members with a **Living Proof Award**.

A total of 130,000 COVID test kits were prepared in-house



Nicole Wilson
Associate Director, Bioinformatics

Diversity and Inclusion

The past year made clear the imperative of a renewed emphasis on diversity and inclusion in research and beyond. With this ongoing and profoundly important goal in mind, the Medicine Institute Research Program Diversity and Inclusion (D&I) Committee was formed. Chaired by Nicole Wilson, the Committee is a group of individuals from across the AHN Medicine Institute committed to developing and implementing ideas for clinical and research equity. Their mission is to define and achieve diversity in a broad sense, encompassing race, ethnicity, gender identity, religion, age, sexual orientation, disability, geographic backgrounds, skillsets, and life experiences. This year, the Committee has taken several steps towards promoting a more inclusive, equitable, and diverse environment, including: **breaking language barriers** for our research participants with the use of Language Assistance Services/ Interpreters; **acknowledging non-binary identities** by using he/she/they in patient-facing and staff materials; and connecting with the diverse community we serve by standardizing the availability of clinical trial **informed consent forms in both English and Spanish**.



Susan Manzi, MD, MPH
Chair, Medicine Institute

Sharing Best Practices

AHN played a crucial role in Pittsburgh's response to COVID-19, amplifying our best practices by sharing lessons learned with local businesses, universities, and school districts. AHN began offering consultative services through a new Physician Consultant for Business program. With guidance from **Susan Manzi, MD, MPH**, a select team of physician advisors partnered with clients in the Pittsburgh area to help manage mitigation efforts including cleaning protocols, screening and testing, contact tracing, and case management. We partnered with a broad range of organizations, including schools, universities, manufacturing companies, and performing arts groups including the Pittsburgh Symphony Orchestra. Our physician consultants drew upon their extensive expertise in infection prevention, laboratory medicine, and mental and behavioral health to keep the community healthy and safe.



Mary Chester Wasko, MD, MSc
Director, Rheumatoid Arthritis Center of Excellence

RA Therapy, Repurposed

The Autoimmunity Institute was also able to leverage our existing strengths in Rheumatology to continue to make important advances in COVID-19 research. **Mary Chester Wasko, MD, MSc** directed MARIPOSA, a clinical trial of tocilizumab, an IL-6 inhibitor, for COVID pneumonia. As the Director of the Autoimmunity Institute Rheumatoid Arthritis (RA) Center of Excellence, Dr. Wasko was able to call on her expertise with this RA drug as it was being evaluated for COVID-19. In partnership with **Tariq Cheema, MD**, and **Thomas Walsh, MD**, AHN was the fourth highest enroller nationally. **Obaid Ashraf, MD**, a CCM fellow, earned authorship for the upcoming publication of trial results from Roche.



Driving Research

In the rapidly-developing field of autoimmune diseases, the AHN Autoimmunity Institute is relentlessly pursuing research advances, helping to identify discoveries that will pioneer care and benefit patients worldwide. Our integrated model allows us to accelerate scientific breakthroughs by going from bedside to bench—then back to bedside—right on site. We are focused on discovering new therapies, identifying biomarkers for diagnosis, monitoring, and prognosis, and determining the “cost” of autoimmunity.

Watch our investigators explain why they do research.

2020 METRICS

Publications

50

New Biomarker Patents

5

Research Subject Visits

405

Pipeline Research Protocols

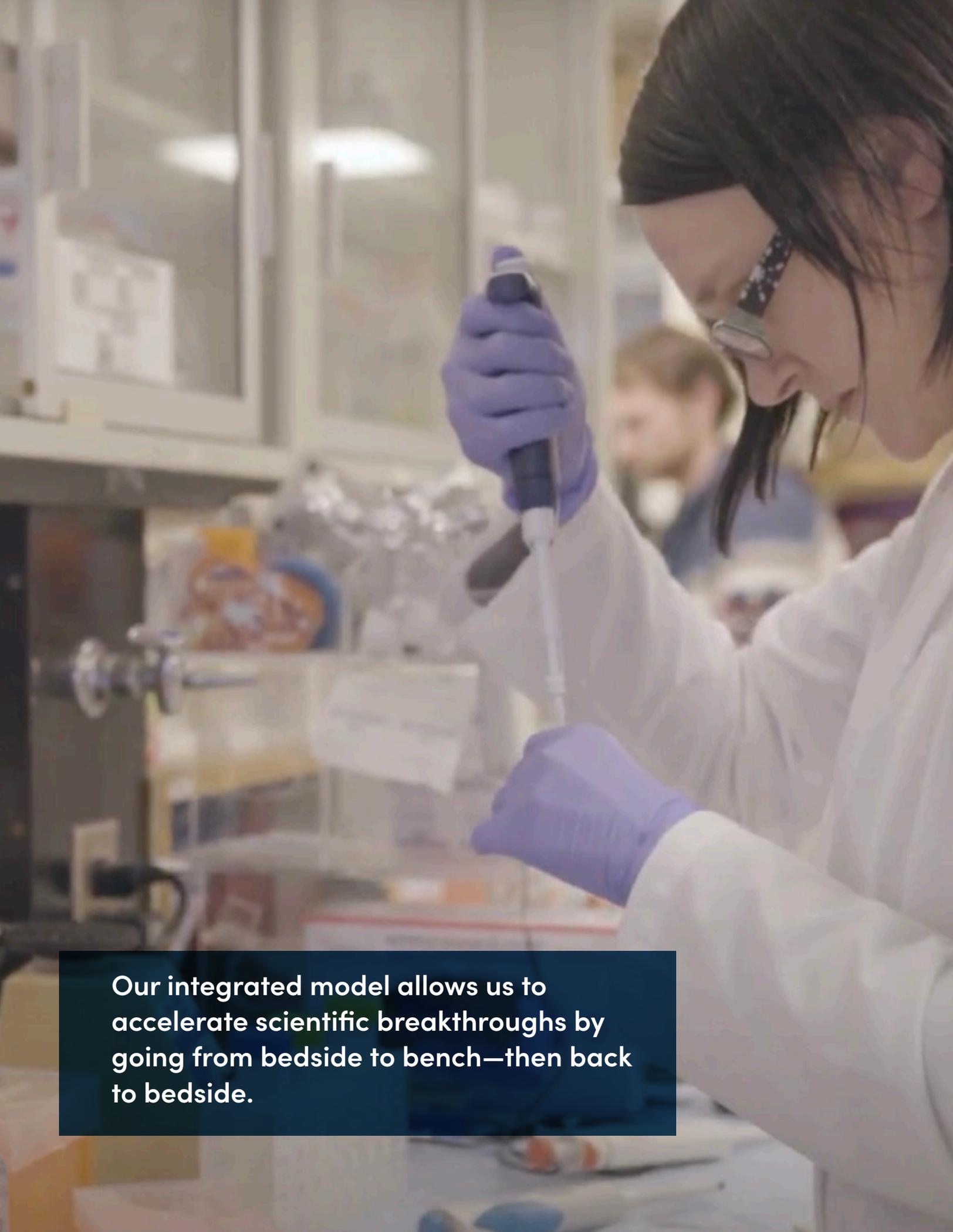
103

Active Research Protocols

40

QI Projects

24



Our integrated model allows us to accelerate scientific breakthroughs by going from bedside to bench—then back to bedside.



Raising *Awareness*

One of the roles we are proud to play is that of patient advocate. We are committed to increasing awareness not only of our unique model of care, but also of autoimmune conditions at large—amplifying the conversation to one day change the paradigm for 50 million Americans* living with autoimmune diseases, and many more undiagnosed around the world. These efforts include educating the public on risk factors and prevalence—knowing that early diagnosis and treatment initiation can make a significant difference—as well as paying tribute to our existing patients’ stories.

**American Autoimmune Related Diseases (AARDA)*

Social Media Campaign

March was **Autoimmune Disease Awareness Month**. We took this opportunity to launch a digital marketing campaign, sharing data and patient experiences across social media channels and on the Highmark blog. In just a few short weeks, we saw more than 4,000 views on our first blog post, and time spent on the site more than doubled from its average.

COVID News

Throughout the pandemic, our physicians have been featured in local news stories, contributing their insight to the public understanding of COVID-19.

Our physicians regularly spoke to local news outlets to deepen the public understanding of COVID-19.



No. 59 KohR Motorsports Race for RP Mustang GT4 with AHN Autoimmunity Institute livery

MARKETING HIGHLIGHTS

[AHN.org](#)

Vitalant, Allegheny Health Network and UPMC launch plasma donation program to help COVID-19 patients

[Pittsburgh Business Times](#)

Vitalant begins collecting plasma from recovered COVID-19 patients

[Pittsburgh Tribune-Review](#)

AHN, UPMC spearhead plasma program that could treat coronavirus
featuring Thomas Walsh, MD, infectious disease

[WPXI-TV](#)

New Vitalant plasma donation program could help people with COVID-19

[Pittsburgh Business Times](#)

Why convalescent plasma could treat most severe COVID-19 patients

[Pittsburgh Post-Gazette](#)

Blood plasma drawn from COVID-19 survivors to be tested on ill patients
featuring Thomas Walsh, MD

[KDKA-TV](#)

'An Emergency Need': Doctors issue call for help to fight shrinking supply of convalescent plasma
featuring Thomas Walsh, MD

[Observer-Reporter](#)

Vitalant collecting plasma from people who have had COVID-19
featuring Thomas Walsh, MD

[WICU-TV](#)

First donor steps up to donate COVID-19 convalescent plasma
featuring Nancy Weissbach, MD, infectious disease

[Pittsburgh Business Times](#)

Convalescent plasma still promising treatment, despite FDA hold on approval
featuring Thomas Walsh, MD and Molly Kosoglow, transfusion safety

[WPXI-TV](#)

AHN asking for plasma donations from people recovered from COVID-19
featuring Tariq Cheema, MD, pulmonary and critical care



Supporting Our Foundation

Philanthropic Efforts

This year, the Autoimmunity Institute has begun working closely with Tara Covelens, Director of Development at AHN, on major philanthropic efforts to support patient care, research, training, and outreach. In particular, as we expand the physical presence of AHN Autoimmunity Institute, we have brand-new naming opportunities. Making a gift at a named level not only drives research forward, but also provides a unique opportunity to honor our donors, patients, and their families.

Your Gift

The Autoimmunity Institute has a wide range of current needs and opportunities, and we appreciate support at any level. With critical funds, we can continue to pursue leading-edge research, create targeted therapies, and improve outcomes for people with autoimmune diseases worldwide.

For information on how you can support research and patient care at the Autoimmunity Institute, or to learn more about how philanthropy can make a difference at AHN, please contact [Tara Covelens](#), Director of Development at tara.covelens@ahn.org or 412-228-7192. You can also visit us at www.supportahn.org.

Since our inception, the Foundation for the Autoimmunity Institute has received remarkable generosity from patients, families and friends. The unparalleled collaboration of our specialists provides a truly unique opportunity to transform autoimmune disease care, as the transition from research to rapid application of this new knowledge happens right within our walls. We are extraordinarily grateful for our supporters, who through their efforts are helping us change the future for patients with autoimmune diseases.

The Autoimmunity Institute has a wide range of current needs and opportunities, and we appreciate support at any level.



Champion *Spotlight*

Michael Linn is the Vice Chair of the Relapsing Polychondritis (RP) Foundation, Co-Founder of Race for RP, and a dedicated philanthropist on a mission to make a difference for patients living with autoimmune diseases. He has stepped up to become one of the Autoimmunity Institute's greatest champions, from ribbon cutting to today.

“*The Autoimmunity Institute is wonderfully unique in how it provides collaborative multi-specialty care, and extraordinary in how it considers each patient's emotions and experience.*”

What was your first impression of the Autoimmunity Institute?

On my first visit to the Autoimmunity Institute, I realized its formation was a remarkable achievement. I was impressed by the functionality, the thoughtfulness, and the engineering that went into its formation and launch. Equally impressive was the extraordinary team—beginning with the folks at the reception desk who greeted everyone with the courtesy of a five-star hotel or a Disney property—people who make you smile. It was immediately apparent that, wow, the Autoimmunity Institute is wonderfully unique in how it provides collaborative multi-specialty care, and extraordinary in how it considers each patient's emotions and experience. To sit in the Huddle Hall and watch one specialist wheel in a device with medical images and consult with another specialist about a patient who was around the corner in a private room, and to know the patient was getting immediate multi-specialty care without having to make a return visit to pursue answers—that was exciting.



Michael Linn, Amy Marcelli, Mary Lisa Laches, Rosalie Linn, and Gary Schneider

What would you like people to know about the Autoimmunity Institute?

I would like people to know that the Autoimmunity Institute is uniquely centered on coordinated care and highly collaborative, with a major focus on research. When you are introduced to autoimmune diseases—often because a family member is a patient, which is the case with me—you don't think about its overall impact. You may know about certain diseases, like Lupus, Rheumatoid Arthritis, or Inflammatory Bowel Disease. You likely know people with these diseases. However, when you realize that there are tens of millions of people affected by one or more of over 100 autoimmune diseases, it's a revelation. Your deeply personal experience is too familiar: the long time to diagnosis, the frustration related to getting care, people not treating patients with respect, often signaling that it may all be in the patient's head, when the patients have material, and in many cases, life-threatening, diseases. To find a place that doesn't kick the can down the road regarding patient care but instead takes the umbrella and immediate approach to diagnosis and care—I want people to know about that. I want patients to be confident they will be helped here. I want donors to know it's an

incredibly worthwhile cause that is changing the world in important, positive ways. As a result, if you want to help patients and propel research, it's a great place to support. While it's going to take the world time to know about the great work being done here, the Autoimmunity Institute will become known as an important patient-focused research hub.

What are the initiatives that you're most excited about?

I'm most excited about the next research initiative because it will be another opportunity to collaborate with top-quality experts in autoimmune diseases. They're so personable here, and there is fantastic expertise and positive energy across the entire Autoimmunity Institute team. To work together and get tangible, timely results and do so seamlessly is a rarity, and it bodes well for incredible future success. I continue to be excited about supporting research because that's what drives overall progress. When I met **Linda Santelices, Mike Anderson**, and the heads of the Centers of Excellence, it felt like I had just graduated from awareness to research. Both are necessary—you need awareness to drive support for research—but it's research that will ultimately have the greatest, most tangible impact on many patients.

Champion Spotlight



Photo Credit: Kristi Jan Hoover

Richard Kelly is the photographer with the vision behind the portrait installation on the walls of the Autoimmunity Institute—the first sight to greet our patients when they walk through the doors. Richard has also become one of our greatest supporters, uniquely equipped to tell our story by looking at the Autoimmunity Institute through the lens.

“*Looking at the Autoimmunity Institute as a pure observer, a photographer watching, I think what they do is—to use a racing metaphor—the perfect pit stop.*”

How did you get connected with Drs. Ahearn and Manzi?

About 20 years ago, I met them on an assignment. In setting up photographs to tell their story, a lot of what I did early on was just hang out in the clinic and in the lab, watching how people work together—and just listening. One of the things I observed was that although the physicians in the clinic were scientists, they all had this creative part of their world. Even trying to solve a problem was creative in and of itself, very similar to the way a sculptor or a painter or a photographer tries to work through an artistic problem. And so that gave me this idea of a project that shows artists and scientists, because I believe there's a common thread with the creative process. Dr. Ahearn was the first portrait I made for the project.

That experience has helped me because I'm teaching. The clinicians in the lab didn't see roadblocks as failure; it was all just a part of the process. I encourage my students by telling them if they don't push themselves to try new things, they're not really living up to their potential. And that all came from time in the lab with Dr. Ahearn, and watching Dr. Manzi listening to patients. I learned about listening from them.

What is the vision behind the photography installation on the walls of the Autoimmunity Institute?

Dr. Manzi is so good at putting words to an idea, and she said, the diseases we interact with affect everyone. We don't want pictures of patients, but we want patients to be able to see themselves on the walls, to see somebody who looks like them.

I'm primarily a portrait photographer; in the installation, some portraits are of well-known people, like Dr. Burke, a sculptor who was part of the Harlem Renaissance, and some of them are not. But Dr. Manzi is a surprisingly great visual editor. She chose the portraits she liked, and when I started to look at her selections all together, I got what she was doing. It started to come together as a rainbow of faces. And it clicked.

Since then, I've sat in the waiting room to just observe. On one occasion, this gentleman walks through, a patient, and he's looking at every picture on his way to the exam room. And then he comes out of the exam room, and he says: **"This is the coolest doctor's office I've ever been to."** So it's not about hitting people over the head with why they're there. It's about a distraction while they're there to enjoy the space. It's about the patient experience.

What do you see in the Autoimmunity Institute?

Not to use a pun, but...I see it through a couple of different lenses. Early on in our collaborative relationship, Dr. Manzi talked about how few people knew about Lupus—again, this was 20 years ago. She explained how it often takes a number of years and many different doctors to reach a diagnosis,

and that patients are often told that their symptoms are all in their head. But Dr. Manzi said once you know about this disease, you're going to start to see it more often. And just to put a period at the end of that, at that time I was working on a brochure about Lupus, and I had an intern, a young woman in her twenties, who had been experiencing fatigue. She had suffered for many years. I sent her to see Dr. Manzi, and it turns out that she had Lupus. This woman who's helping me make the brochure actually ended up *in* the brochure! So I've seen it from the patient's experience: the agony, and the frustration of not knowing...and then finding a physician at the Autoimmunity Institute who's a godsend. They're not just your doctors; because it's a long-term illness, they become much more.

On the other hand, looking at the Autoimmunity Institute as a pure observer, a photographer watching, I think what they do is—to use a racing metaphor—the perfect pit stop. The patient comes in, they have an appointment with their dermatologist, their nephrologist, all the different "ologists." But the physicians they're meeting with care, and don't tell them that it's all in their head. They listen. One of the things I've always noticed in the waiting room, no matter how much of a struggle it is for people to get there for a visit, they leave with a smile. I've noticed that several times. I don't see conflict between the physicians consulting, or confusion for the patients. It seems that the patients get what they're looking for—and I've seen people come in with some big struggles. But people leave with a sense of satisfaction, and that they were heard.



[Above portraits, as well as select photos in this report, credited to Richard Kelly Photography](#)



Looking *Ahead*

It has been an extraordinary year of accomplishments, even in the midst of incomparable circumstances. And if we can build this much momentum in lockdown, imagine what we can achieve in the future.

We are actively recruiting leadership and specialists in Systemic Sclerosis, Lyme Disease, Sjogren's Syndrome, Vasculitis, Myositis, and Autoimmune Thyroid Disease. We are also expanding our research portfolio, with a new focus on Cutaneous Lupus, Giant Cell Arteritis, Psoriatic Arthritis, Ankylosing Spondylitis, Relapsing Polychondritis, Sjogren's Syndrome, Lupus Nephritis, Polymyalgia Rheumatica, and general autoimmunity.

2021 looks to be our best year ever. We will continue to harness our unique capabilities, driving research and patient care in a way that uncovers a better way forward for those living with autoimmune diseases, one patient at a time.