The Kimberly and Eric J. Waldman Department of Dermatology



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Delivering superior, comprehensive care, fostering research and therapeutic development, and creating a better future for patients with dermatologic diseases



Read more about our latest research in alopecia areata on page 4

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The safety of our community is our highest priority; some images in this report were taken prior to February 2020.



MESSAGE FROM THE CHAIR Emma Guttman-Yassky, MD, PhD

Waldman Professor and System Chair The Kimberly and Eric J. Waldman Department of Dermatology Director, Center of Excellence in Eczema Director, Laboratory of Inflammatory Skin Diseases Icahn School of Medicine at Mount Sinai

I am pleased to share with you this new report on the many accomplishments at the Kimberly and Eric J. Waldman Department of Dermatology.

The year 2021 was a transformational year for the Department. The leadership transition created the opportunity to position the Department as the world's epicenter of research in inflammatory skin diseases and a driving force in therapeutic development for many skin diseases, including eczema/atopic dermatitis, alopecia areata, psoriasis, vitiligo, hidradenitis suppurativa, and many more.

With 95,600 patient visits and \$10 million in research funding, the Department had an amazing 2021, and we are looking forward to an even better future. Our mission to deliver superior, comprehensive dermatologic care, to foster research and therapeutic development, and to create a better, brighter future for patients with dermatologic diseases positions us for substantial progress in 2022. We are developing two new centers with the help of our generous donors, the **Mark Lebwohl Center for Neuroinflammation and Sensation** and the **Alopecia Areata Center of Excellence**, to enable development of novel therapeutic targets.

The recruitment of top talent in 2021, many of whom do innovative science, will facilitate additional groundbreaking research and help position the Department as a U.S. and world leader. Our recruits include:

Brian S. Kim, MD, MTR, a renowned neuroinflammation, itch, and inflammatory skin disease expert, was recruited as the Sol and Clara Kest Professor in Dermatology and Immunology. Bringing numerous National Institutes of Health (NIH) and other grants, as well as many international and national awards and recognition, Dr. Kim will help spearhead the Department's research efforts as Vice Chair of Research, and position the Department of Dermatology in the top tier for research in the United States. Dr. Kim will also function as Site Chair, Mount Sinai West and Mount Sinai Morningside. He will also be the Director of the Mark Lebwohl Center for Neuroinflammation and Sensation (effective January 2022), which was made possible through the generosity of our donors, including the Waldman family.

Benjamin Ungar, MD, a highly talented young recruit who graduated from our residency program and completed a T32 fellowship program, joined as Assistant Professor of Dermatology and Director, Rosacea and Seborrheic Dermatitis Clinic. Dr. Ungar has already received several grants for early career investigators to evaluate systemic inflammation in inflammatory skin diseases and assess noninvasive means to study inflammatory skin diseases. He also secured a novel clinical and mechanistic study to research a topical JAK inhibitor in a new indication, seborrheic dermatitis.

Nicholas Gulati, MD, PhD, Director, Early Detection of Skin Cancer and Oncodermatology Clinic, is a physician-scientist with many publications on skin cancers and melanoma who is trained in oncodermatology and in noninvasive diagnostic imaging techniques for early diagnosis and treatment of skin cancers.

Patrick Brunner, MD, MSc, a renowned physicianscientist, joined as Associate Professor and as Director of the Cutaneous Lymphoma Clinic. Dr. Brunner works on better diagnostic tools and novel therapeutic treatments with a focus on lymphomas of the skin but will also join the research efforts on inflammatory skin diseases.

Andrew Ji, MD, Director of the Laboratory for Dermatological Diseases, is a physician-scientist who has recently published several papers in the prestigious journal *Cell*, and has already obtained NIH funding for early career investigators. Dr. Ji studies skin cancers, with a focus on squamous cell carcinoma.

Jesse Lewin, MD, a top Mohs surgeon, joined as our new Chief of Mohs Micrographic and Dermatologic Surgery. He focuses on melanoma and nonmelanoma skin cancers, facial reconstructive surgery, quality improvement, and patient satisfaction. Dr. Lewin provides the best surgical care and cosmetic results for his patients and prides himself on his very high patient satisfaction rates.

Brian J. Abittan, MD, recently joined our faculty as Director of Skin and Hair Rejuvenation and Director of Hair Transplantation. Dr. Abittan pursued a dermatopharmacology fellowship and completed his dermatology residency in our Department. He has also received extensive training in hair-related procedures and cosmetic procedures and provides patients with the most natural results.

Our flagship **Skin of Color Center** is being enhanced by the addition of physician-scientist **Cula Svidzinski**, **MD**, **PhD**, who joined as Medical Director. Dr. Svidzinski has a deep understanding of the diverse patient population the Center seeks to serve and is building meaningful research to serve the specific needs of patients of color. The Skin of Color Center will bridge the dermatological gap in services and research that communities of color have experienced.

George (Chip) Niedt, MD, was recruited as Co-Director for our expanding Dermatopathology Services, which is transitioning to be exclusively under the Department of Dermatology. New construction of the Dermatopathology Services Lab is slated for completion in the fourth quarter of 2022 and will lead to better services for our clients. All cases are read by staff board certified dermatopathologists who have more than 40 years of combined experience. Projected growth in cases processed is estimated to surpass the cases performed before the pandemic. Belen Rubio Gonzalez, MD, has joined Dermatopathology Services as Assistant Professor of Dermatology. She is uniquely trained in both dermatology and pathology as well as dermatopathology.

The Kimberly and Eric J. Waldman Melanoma and Skin Cancer

Center, for which Jonathan Ungar, MD, functions as Medical Director, was enhanced by the addition of top faculty and state-of-the-art diagnostic tools only available under one roof at Mount Sinai. We aim to predict and prevent melanoma with cutting-edge diagnostics and noninvasive technologies, uniquely offering the VECTRA® WB180 system with 3D total body photography, optical coherence tomography (OCT), confocal microscopy, nevisense, and gene expression technologies, all at the same location. The Vectra captures the entire skin surface at high resolution within seconds via simultaneous capture with 46 cameras. The system then analyzes the photos to identify, tag, and map all the patient's moles and other lesions on a high-resolution 3D avatar.

Collaborations within the Mount Sinai Health System with the Precision Immunology Institute, the Friedman Brain Institute, and the Black Family Stem Cell Institute will continue to foster growth of the Department.

Together with the Black Family Stem Cell Institute, we were awarded one of only six NIH/NIAMS grants to establish the **Skin Biology and Diseases Resource-based Center** at Mount Sinai. I am honored to serve as Co-Director of this newly launched Center, which is funded by a \$4 million, five-year NIH and National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) grant. Partnering with the multidisciplinary team at the Black Family Stem Cell Institute at the Icahn School of Medicine at Mount Sinai, we look to accelerate and advance dermatology research and foster additional discoveries in skin diseases. The Skin Biology and Diseases Resource-based Center will serve as a hub for research in skin biology and skin diseases throughout the Health System.

We are partnering with the Precision Immunology Institute and the Friedman Brain Institute to develop the Mark Lebwohl Center for Neuroinflammation and Sensation and position it as the No. 1 center in the world under the leadership of Dr. Kim.

A partnership with the **Biologic Treatment Center** at The Mount Sinai Hospital gives comprehensive education to our patients in need of biologics and provides a dedicated team advocating for patients in negotiation with insurance approvals.

Philanthropic growth continues through the recruitment of more than 25 inaugural board members to our newly formed Dermatology Advisory Board. A list of board members is provided on page 12. The Board's generous support will help us push the boundaries of research and clinical care with innovative treatments in dermatology.

The **Alopecia Areata Center of Excellence** will be established in 2022 and funded by a generous grant of \$1 million each year for five years, thanks to the generosity of several advisory board trustees. It will be positioned as a stateof-the-art, comprehensive facility that concentrates on new approaches that would lead to better treatments for children and adults with hair loss disorders.

Setting our sights on continued excellence in patient care and growth in groundbreaking research will help us achieve the level of success required to save lives and cure dermatological diseases in 2022 and beyond.

Thank you for reading about our journey toward a prosperous 2022!

Upending Conventional Science, a Dermatology Lab Sets a New Direction

With the innovative approach to therapeutic discovery that upends scientific dogma, the Laboratory for Inflammatory Skin Diseases at the Icahn School of Medicine at Mount Sinai has become one of the leading dermatology research centers in the world, opening the door to the recent development of groundbreaking immune system treatments for major skin disorders like atopic dermatitis (eczema) and alopecia areata.

"Our unique approach has enabled us to identify which molecular or immune pathways are involved in a disease, even when it means diverging from conventional wisdom," says Emma Guttman-Yassky, MD, PhD, System Chair, the Kimberly and Eric J. Waldman Department of Dermatology and Waldman Professor of Dermatology at the Icahn School of Medicine. "We then follow up with clinical trials, starting with small and moving to larger scale, which can prove our hypothesis and pave the way for important new treatments for patients."

Some of the lab's most impressive breakthroughs have been in atopic dermatitis, a skin disease that affects more than 31 million adults in the United States, and 10 percent to 20 percent of all children. Through a better understanding of the key immune system mechanisms that drive atopic dermatitis, Dr. Guttman and her team have developed biologic treatments that target and modify the elevated immune response driving skin inflammation.



Scalp pictures of two patients receiving treatment for alopecia areata and continuing treatment after week 48. The images show the back and side of scalp hair at baseline, week 24, week 48, and week 72 visits.

Currently, more than 25 biologic drugs are being developed for the treatment of atopic dermatitis. Biological products are more complex medicines derived from living human, animal, or microorganism cells and tissues rather than a combination of chemical substances as with tablets. They are administered by injection or infusion.

Dr. Guttman and her team at Mount Sinai are further expanding the field by applying findings from its atopic dermatitis research to potential new therapies for alopecia areata, an autoimmune disease that causes hair loss—sometimes total loss—on the scalp, face and other body parts and that has common mechanisms to atopic dermatitis. Alopecia areata afflicts more than 7 million people in the United States.

For example, Dr. Guttman's team is

"Biologics are changing the treatment paradigm for people with moderate to severe eczema by allowing us to move beyond broadacting immune suppressants to introduce new agents that either block or modulate specific parts of the immune system, leaving other parts untouched," says Dr. Guttman, who is also Director of the Laboratory for Inflammatory Skin Diseases and the Center for Excellence in Eczema.

That pathway led to the discovery, for example, that the body's inflammatory response to atopic dermatitis was being triggered largely by T cells known as helper Th2 cells, part of the larger family of Th cells that produce chemical messengers called cytokines that drive disease onset and progression.

"The prevailing science was that Th1 cell activation, which is very high in atopic dermatitis, was the driver of the disease in chronic stage, and not the Th2," says Benjamin Ungar, MD, Assistant Professor of Dermatology, who recently joined the Laboratory after a three-year residency at Mount Sinai. "Dr. Guttman showed that Th2 was actually the trigger of the disease from the initiation to chronic disease, and this discovery not only bumped the conventional wisdom but led to FDA approval of the first biologic treatment (Dupixent) for moderate to severe atopic dermatitis." resetting drug development through its finding of very high Th2 activation levels in alopecia areata. A clinical trial of dupilumab (Dupixent), the Th2 targeting monoclonal antibody, showed that weekly dupilumab is effective for the treatment of alopecia areata, particularly for those with an allergic or atopic background (approximately half of alopecia patients), providing the first proof that treatments that target eczema, such as dupilumab, may also be effective in alopecia areata.

"The treatment takes some time to work, but we are seeing patients in the study with a full set of hair, and I think one day this will be an approved treatment," says Dr. Guttman. "It is so exciting to do bench-to-bedside science, identifying targets and going after them in a clinical trial. We are committed to identifying new targets and bringing additional new treatments for patients with alopecia areata and other inflammatory skin diseases."

Another highly promising investigative avenue is Janus kinase (JAK) inhibitors. These therapies work by blocking the action of the Janus kinases, which are enzymes that set in motion the inflammatory response of atopic dermatitis. Because they are broader acting agents than many biologics, they push the boundaries of treatment to new heights by targeting multiple immune pathways that characterize many skin disorders.



This graphical abstract illustrates how recent evidence supports a role for Th2-immune response in alopecia areata. To test these observations, patients with and without concomitant atopic dermatitis (eczema) were randomized to receive dupilumab or placebo. Patients with personal and/or family history of developing allergic diseases and high baseline Immunoglobulin E (IgE), antibodies produced by the immune system (>200 IU/ml), exhibited greater efficacy of dupilumab. This hypothesis-driven trial supports the pathogenic role of Th2 activation in alopecia areata.

There is perhaps no better example of the potential of Janus inhibitors than the oral medicine known as upadacitinib, based on research from Dr. Guttman's lab. Sold under the brand name Rinvoq for moderate to severe rheumatoid arthritis, the agent has also undergone extensive clinical trials for atopic dermatitis, with unprecedented results. Indeed, at week 16 of a recent Phase 3 trial led by Mount Sinai, most patients with moderate to severe eczema had reached either 90 percent clearance, or even 100 percent.

One of those beneficiaries was Kwame Baird, 38, a high school teacher in Harlem who had battled eczema since he was three years old. "I was always trying lotions and hydrocortisone creams and taking oatmeal baths to control the itching, but nothing worked," he recalls. "When I went away to college, the scratching got so bad I couldn't get out of bed or walk to class the next morning."

Mr. Baird had participated in several Mount Sinai trials, with no real relief from the everyday distress. That changed dramatically when he joined the Measure Up studies for upadacitinib. "I noticed significant changes three months into the study," he says. "My itching stopped and I no longer needed to put on lotions every hour of the day. My skin started to clear up and the permanent goose bumps I appeared to have simply went away." More recently, Mount Sinai and Dr. Guttman have opened a new investigative front on a malignant disease with immune system origins—cutaneous T-cell lymphoma—that mimics atopic dermatitis with rash-like redness and scaly round patches on the skin. Not only is the disease difficult for clinicians to diagnose, treatment is limited to palliative measures.

"We're studying the molecular phenotypes of cutaneous T-cell lymphoma to understand why some patients remain stable with minimal affects, while 20 percent to 30 percent develop aggressive tumors," says Patrick Brunner, MD, MSc, Director of the Cutaneous Lymphoma Clinic at Mount Sinai, who began studying the disease at his research lab in Vienna, Austria, and moved that work in the fall of 2021 to Mount Sinai. His overarching goal—to develop better treatment options—will also be applied to his research around alopecia areata and atopic dermatitis.

"What's taking place in medicine now is really a revolution in the thinking about chronic inflammatory and malignant diseases," says Dr. Guttman-Yassky, "and our lab is a unique place where everyone has a common interest in moving translational research forward in these areas."

Designing the Best Skin Cancer Treatment for Each Patient While Advancing Diagnosis, Treatment, and Research

When it comes to promoting the importance of catching skin cancer early, Jonathan Ungar, MD, Medical Director of the Waldman Melanoma and Skin Cancer Center at Mount Sinai, shares the story of a recent patient who had 3D total body photography, which is 360-degree imaging performed by dozens of cameras in a matter of minutes. The system then creates a high-resolution avatar displaying all moles and lesions.

"This patient had more than 1,000 spots on his body, which is a real challenge," says Dr. Ungar, who is also an Assistant Professor of Dermatology at the Icahn School of Medicine at Mount Sinai. With an extensive family history of skin cancer, the patient came to the Center twice, several months apart, for total body photography with the Vectra[®] WB180 system, allowing Dr. Ungar to identify, compare, and physically examine three areas of concern. One spot turned out to be a very early melanoma.

"By catching that melanoma so early, it could be surgically removed. Who knows how long it might have otherwise gone undetected and what the consequences would have been," says Dr. Ungar. "That kind of experience validates that these



Jonathan Ungar, MD, Medical Director of the Waldman Melanoma and Skin Cancer Center at Mount Sinai, says the new technologies at the Center are making a difference for patients.

technologies aren't just bells and whistles; what we're doing is really making a difference."

The Waldman Melanoma and Skin Cancer Center is home to a unique combination of state-of-the-art early detection technologies that allow specialists to find and more closely monitor lesions. In addition to total body photography, the Center offers noninvasive diagnostics called reflectance confocal microscopy (RCM) and optical coherence tomography (OCT), which enable dermatologists to image lesions and perform blade-free "biopsies." The Center also offers electrical impedance spectroscopy (EIS), a noninvasive lesion-assessment technology. While some of these procedures need to be followed by a traditional biopsy, in many cases these noninvasive technologies help patients avoid unnecessary incisions and scarring.

"These early detection technologies are found in few specialized centers throughout the world, and it's even rarer to have them all together under one roof," says Nicholas Gulati, MD, PhD, Assistant Professor of Dermatology and director of the Early Detection of Skin Cancer and Oncodermatology clinics. "We are able to detect skin cancers early enough to be cured with a one-day outpatient procedure as opposed to more intensive surgery and chemotherapy, which has a lot of dangerous side effects."

Combined with physical skin exams and genetic testing, these sophisticated technologies position the Waldman Center, housed within the Kimberly and Eric J. Waldman Department of Dermatology, to provide a comprehensive menu of diagnostics that can be tailored to each individual patient. The Center opened in 2020. Mount Sinai received a second \$10 million gift from the Waldman family to open the Center.

Should cancer be detected, the Waldman Center is home to experts in dermatologic surgery who remove early stage melanomas with procedures including wide local excision. In cases of more advanced disease, our team coordinates seamless, multispecialty care, working closely with medical oncologists, surgical oncologists, pathologists, social workers, and other specialists to give patients easy access to the full range of treatments, including surgical management, chemotherapy, and targeted immunotherapies.

"Any cancer diagnosis, whether it's early or late stage, can cause overwhelming distress for patients, so I don't want them to be bounced from one doctor to another," Dr. Gulati says. "I want our patients to feel all their needs are being met and to know they're seeing a trusted group of physicians all working together."

Jesse Lewin, MD, Assistant Professor of Dermatology, and System Chief of the Division of Mohs Micrographic and Dermatologic Surgery, agrees that such coordination is crucial. "The ability to collaborate with other specialties is why you come to Mount Sinai because you get multiple minds from multiple specialties working toward a common goal."

Never satisfied with today's treatment offerings, the Waldman Center is invested in research that will shape tomorrow's clinical care. Waldman physician-scientists are engaged in robust investigations, including basic science, translational science, and novel clinical trials that explore areas including genetic mutations in melanoma, early disease progression, and noninvasive diagnostics and treatments.

"The lessons we learn from these studies can be applied to patients in the future and may lead to the approval of new treatments," says Dr. Gulati. "They also increase scientific understanding of skin cancers: how they come about, how they spread, and how they can be treated."

In addition to innovative research and clinical care, the Waldman team understands the importance of listening to each patient and their needs.

"We're working to achieve the highest cure rate and best aesthetic outcome when treating skin cancer, but always in the setting of each person and their emotional well-being," says Dr. Lewin. "Because our patients are awake and undergoing procedures with local anesthetic, the team does all we can to make the experience comfortable. Typically our surgeries are on the face, so it can cause significant anxiety for the patient. Whether it's playing

their choice of music, or chatting about their families or hobbies, seemingly small interventions make a big difference in comfort level."

In addition, the Center offers patient navigators, who help to guide patients through treatment logistics, and providers who value communication. Empowering patients is another key priority.

"Once you've had a melanoma or other skin cancer, you are at higher risk for developing another skin cancer. We want to get patients to have regular surveillance to be diagnosed and treated if necessary. We engage and teach patients to be our partner in their ongoing surveillance and care," says Dr. Lewin.



The ability to collaborate enables specialists to work together to help patients, says Jesse Lewin, MD, right, Assistant Professor of Dermatology, and System Chief of the Division of Mohs Micrographic and Dermatologic Surgery.



"We are able to detect skin cancers early enough to be cured with a one-day outpatient procedure as opposed to more intensive surgery and chemotherapy," says Nicholas Gulati, MD, PhD, director of the Early Detection of Skin Cancer and Oncodermatology clinics.

In the clinical sphere, the Waldman team is introducing Mohs surgery, the most effective treatment for most types of skin cancer including melanoma, in which specialists precisely identify and remove an entire tumor while leaving the surrounding healthy tissue intact and unharmed. The Center is also launching several clinical trials, including studies related to skin cancer metastasis and a novel topical treatment.

"We are working to expand our reach so that we can help more patients with skin cancer or a history of skin cancer," says Dr. Ungar. "We are developing new and better ways to utilize our various technologies, as well as new technologies, to ensure we detect cancer as early as possible. And that's going to come from research."

Brian Kim, MD, MTR, FAAD, Joins Mount Sinai

Brian S. Kim, MD, MTR, FAAD, has joined the Kimberly and Eric J. Waldman Department of Dermatology at the Icahn School of Medicine at Mount Sinai as Vice Chair of Research and Site Chair, Mount Sinai West and Morningside, effective January 1, 2022. Dr. Kim will also assume the role of Director of the Mark Lebwohl Center for Neuroinflammation and Sensation under the collaborative leadership of Emma Guttman-Yassky, MD, PhD, the Department Chair, with Miriam Merad, MD, PhD, Director of the Precision Immunology Institute, and Eric J. Nestler, MD, PhD, Director of the Friedman Brain Institute at Mount Sinai. Dr. Kim will hold joint appointments in Dermatology and the two institutes.

Dr. Kim is one of the top researchers worldwide in the study of itch and inflammatory skin conditions, with many groundbreaking publications, including in the journal *Cell*. The overall goal of his research program is to understand the regulatory mechanisms that control neuroimmune interactions at the skin barrier surface. His research examines how immune responses interface with the sensory nervous system to regulate inflammation, sensation, and immunity.

Bringing numerous grants from the National Institutes of Health (NIH) and other organizations, as well as many international and national awards and



In partnership with Dr. Guttman, Dr. Kim will aim to elevate the Department's research profile by expanding federally funded research and clinical trials and recruit high-caliber research faculty and physician-scientists. Dr. Kim will develop an internationally recognized, highly regarded research enterprise by enhancing the current infrastructure, allowing for research growth. He will oversee research operations and formally mentor research faculty to ensure their long-term success.



Brian S. Kim, MD, MTR, FAAD

Helping to position the Department among the top in the U.S. while fostering innovative, multidisciplinary research

The Mark Lebwohl Center for Neuroinflammation and Sensation will advance multidisciplinary research, bringing together skin biology, immunology, and neuroscience. By leveraging its influential scientific advances, coupled with outstanding clinical expertise, the state-of-the-art research center will provide world-class clinical care for patients with chronic itch and other sensory disorders. The ultimate goal is to bring therapeutic innovations through fundamental new science and cutting-edge clinical trials toward highly unmet sensory and neuroinflammatory disorders.

Dr. Kim was previously Co-Director, Center for the Study of Itch and Sensory Disorders, Associate Professor of Medicine, Associate Professor of Anesthesiology, and Associate Professor of Pathology and Immunology at Washington University School of Medicine, Division of Dermatology, in St. Louis. He earned his BS at Haverford College and his MD at University of Washington School of Medicine. He was the Howard Hughes Medical Institute Research Scholar from 2004-2006 at the NIH at the laboratory of Stephen Katz, MD, PhD. He also completed a Master in Translational Research (MTR) at the Perelman School of Medicine at the University of Pennsylvania, where he also did his dermatology residency, and a postdoctoral fellowship at the laboratory of David Artis, PhD, at Perelman School of

Medicine at the University of Pennsylvania.

The recipient of numerous honors and awards, Dr. Kim most recently received the American Skin Association Research Achievement Award in Discovery in 2020 and the American Dermatological Association Young Leadership Award in 2019. He has published in many internationally recognized journals including *New England Journal of Medicine, Cell, Immunity, JAMA Dermatology, European Respiratory Journal, Frontiers in Immunology, European Academy of Dermatology* and *Venereology, Science,* and *Journal of Immunology.*

He will also be the first recipient of the Stephen Katz inaugural lectureship and award at the annual meeting of the Society for Investigative Dermatology in 2022.

A Q&A With Andrew Ji, MD

When Andrew Ji, MD, joined the Icahn School of Medicine at Mount Sinai in September 2021, he brought an exciting background in leading-edge skin cancer research. An Assistant Professor of Dermatology and Director of the new Laboratory for Dermatological Diseases, he is focusing his initial investigations on squamous cell carcinoma. As a physicianscientist, Dr. Ji seeks to expand treatment options for skin cancer patients-and open doors to novel therapies in other areas.

What led you to dermatology as a specialty, and to research in particular?

When I was a medical student at Cornell University, I was having trouble deciding on a specialty. I was fortunate to get accepted to a lab at Memorial Sloan Kettering, where I focused on how melanoma metastasizes in the setting of therapeutic resistance. We were studying a type of targeted therapy called BRAF inhibitors, which worked well initially, but inevitably the patients' tumors would come back, and sometimes behave even more aggressively than the original tumor. I wanted to understand the biology of melanoma and how it leads to metastasis, so I was inspired to pursue dermatology as a specialty, where we work to catch this deadly cancer early, before it has a chance to spread.

I did my residency at Stanford and became interested in squamous cell carcinoma. In my postdoctoral training, I led a project that profiled a cohort of patients' squamous cell carcinoma tissues. We did innovative work that combined technologies — single cell RNA sequencing and spatial transcriptomics — to determine the identity of every cell type present in squamous cell carcinoma, as well as the spatial arrangement of those cell types. Through this



work we discovered a dangerous subpopulation within the tumor cells that we think is responsible for their invasive behavior.

What led you to Mount Sinai?

I had known about the strength of Mount Sinai's Department of Dermatology in inflammatory skin diseases, but my first introduction to Mount Sinai was when I met Dr. Sarah Millar, the Director of the Black Family Stem Cell Institute, and learned about the different institutes at Mount Sinai. like The Tisch Cancer Institute and Precision Immunology Institute. There is this great structure at Mount Sinai that brings together investigators across a broad range of disciplines, so there's an amazing opportunity for collaborating, learning, and having your own expertise complemented by others. That was a big reason I wanted to come. Then I met Dr. Emma Guttman, who has an incredible lab focused on inflammatory skin diseases, and had just been announced as the next Chair of the Department. So with my focus on skin cancer, it felt like a great opportunity to bring something valuable to the Department and

join a place where I could thrive. It seemed like a really good match, and I'm very excited to be here.

What's next?

Right now I'm building the lab, ordering equipment, and continuing work on squamous cell carcinoma, especially this dangerous subpopulation of tumor cells. There are specific cell types, like fibroblasts, that seem to communicate with these tumor cells and allow them to emerge and execute their behaviors. So there's a lot of work to be done focusing on this particular cell population and understanding how different cell types communicate with them and cause potentially worse outcomes for patients. The goal is to block that communication in order to improve and expand treatment options. In addition to running the lab, I have a weekly clinic, where I see general dermatology patients.

How do you see the relationship between that clinical care and research?

There is a natural synergy for

physician-scientists in pursuing biomedical research because the clinical observations shape the questions you ask in the lab. Let's say you see squamous cell carcinomain a patient, and a surgeon clears their tumor, but a couple months later the tumor is back. Why is that happening? Is it possible these cells made it beyond the areas that the surgeon could see and clear? Did they somehow mask their identity to hide from the surgeon's view? These are the observations that get the wheels turning in the lab. On the flip side. science can take you in a multitude of directions. But as a physician-scientist.mv avenues of investigation are focused on "How can this work to help a patient?"

How does Mount Sinai support your work?

Science these days requires a very multidisciplinary approach, so it's a great time to be at Mount Sinai. If you need an approach to your work in which you don't have experience, there's a very good chance that another lab—maybe next door or across the hall—has that expertise. There's this great facilitation of collaboration at Mount Sinai that I think will be key to advancing science.

New Appointees



Brian J. Abittan, MD Clinical Instructor, Dermatology Director, Skin and Hair Rejuvenation Director, Hair Transplantation



Patrick M. Brunner, MD, MSc Associate Professor, Dermatology Director, Cutaneous Lymphoma Clinic



Joel Mauricio Correa da Rosa, PhD, MSc Assistant Professor, Dermatology



Nicholas Gulati, MD, PhD Assistant Professor, Dermatology Director, Oncodermatology Clinic Director, Early Detection of Skin Cancer Clinic



Andrew L. Ji, MD Assistant Professor, Dermatology, and Oncological Sciences Director, Laboratory for Dermatological Diseases



Brian S. Kim, MD, MTR, FAAD Vice Chair of Research Site Chair, Mount Sinai West and Mount Sinai Morningside Director, Mark Lebwohl Center for Neuroinflammation and Sensation



Jesse Miller Lewin, MD, FACMS Assistant Professor, Dermatology System Chief, Division of Dermatologic and Cosmetic Surgery Program Director, Micrographic Surgery and Dermatologic Oncology Fellowship Program



Lynne Napatalung, MD, MA Clinical Instructor, Dermatology



George W. Niedt, MD Associate Professor, Dermatology/ Dermatopathology Co-Director, Dermatopathology Services



Darrell S. Rigel, MD, MS Clinical Professor, Dermatology



Belen Rubio Gonzalez, MD Assistant Professor, Dermatology/ Dermatopathology



Cula Dautriche Svidzinski, MD, PhD Assistant Professor, Dermatology Medical Director, Skin of Color Center



Benjamin N. Ungar, MD Assistant Professor, Dermatology Director, Rosacea and Seborrheic Dermatitis Clinic



Andrea Waldman, MD Assistant Professor, Dermatology, and Pediatrics Director, Adolescent and Pediatric Dermatology

New Dermatology Advisory Board Will Champion Innovative Treatments









Mount Sinai has the foresight, the dedication, and the talent needed to make a transformational difference in dermatology in the years to come, and now Emma Guttman-Yassky, MD, PhD, System Chair, the Kimberly and Eric J. Waldman Department of Dermatology and Waldman Professor of Dermatology at the Icahn School of Medicine at Mount Sinai, has visionary leadership to help realize our ambitious goals.

The new Dermatology Advisory Board brings together the perspectives of dermatology patients, physicians, and advocates with an interest in understanding the origins and progression of skin diseases, championing innovative treatments, and pushing the boundaries of research and clinical care in dermatology.

Through philanthropy and directed action, the Board will further our mission of delivering superior, comprehensive dermatologic care, and creating a better, brighter future for patients with dermatologic diseases.

Members of the Dermatology Advisory Board

Andrew Bronin, MD Elissa Cullman David Granson Joel Haney Leon Kircik, MD Dennis Kosovac Michael Lee Jody A. Levine, MD, and Elie Levine, MD Will Manuel Rita O'Connor, PhD, and Theodore Schell Catherine Orentreich, MD Jonathan Pure Steven Schnur, MD, and Eliane Braz-Schnur Kimberly and Eric J. Waldman Huachen Wei, MD, PhD John Weinberg Johannes Worsoe Carol F. Zale, MD, and David Zale Anonymous Honorary Board Member/

Scientific Advisor: George Yancopoulos, MD, PhD



Honoring the Stewardship and Service of Mark Lebwohl, MD

Over 24 years as Chair of the Department of Dermatology, Mark Lebwohl, MD, grew the Department into one of the largest in the nation with more than 300 full-time and voluntary physicians and scientists.

Dr. Lebwohl created Mount Sinai's first Phototherapy Center and added the Divisions of Dermatopathology, Surgical Dermatology, and Cosmetic Dermatology. Through generous donor support, Dr. Lebwohl established and expanded a vibrant dermatology research program. The Department has led the nation in the research and development of nearly all biologic therapies for psoriasis and performed groundbreaking research in the use of topical immunomodulators to treat precancerous and cancerous skin lesions, and topical calcineurin inhibitors for the treatment of psoriasis.

In January 2021, Dr. Lebwohl accepted a new leadership role as Dean for Clinical Therapeutics at the Icahn School of Medicine at Mount Sinai. Dr. Lebwohl's focus is on generating clinical research programs throughout the Mount Sinai Health System. This includes both investigator-initiated studies and therapeutic clinical trials, areas in which he has enormous expertise and an impressive record of success. He continues his robust practice in caring for patients along with his duties as Dean.

We applaud Dr. Lebwohl's remarkable career and remain grateful for his continued leadership and service to the Department of Dermatology, the Icahn School of Medicine, and the Mount Sinai community.



Meet Our Trainees



Emma Guttman-Yassky, MD, PhD, Waldman Professor and System Chair, Kimberly and Eric J. Waldman Department of Dermatology, with the Department's trainees in years 1, 2, and 3. The Dermatology Residency offers trainees the opportunity to work in a department that sees tens of thousands of patients each year. Given the size of our patient population, residents encounter patients with a wide variety of cutaneous diseases and syndromes and train to be future leaders in the field.

Chair Ceremony



Emma Guttman-Yassky, MD, PhD, was inducted as the Waldman Chair of Dermatology on October 20, 2021. The induction ceremony was held at the Goldwurm Auditorium at the Icahn Medical Institute with faculty, residents, staff, and Dr. Guttman's family in attendance. Special thanks to the generosity of Kimberly and Eric J. Waldman and the Waldman family and Dennis S. Charney, MD, Anne and Joel Ehrenkranz Dean of the Icahn School of Medicine at Mount Sinai and President for Academic Affairs for the Mount Sinai Health System, for awarding this honor.

Department of Dermatology 2021 Quick Facts



Clinical Statistics

95,600+ Patient Visits

34,500+ Outpatient Cases Processed by Dermatopathology Services

350+ Providers Using Dermatopathology Services

3,600+ Hospital Cases Processed by Dermatopathology Services

Research and Faculty Statistics

\$10 Million in Research Funding

240 Publications

54 Clinical and Research Faculty

34 Residents and Fellows

Mount Sinai Health System

Icahn School of Medicine at Mount Sinai The Mount Sinai Hospital Mount Sinai Beth Israel Mount Sinai Brooklyn Mount Sinai Morningside Mount Sinai Queens Mount Sinai South Nassau Mount Sinai West New York Eye and Ear Infirmary of Mount Sinai

The Kimberly and Eric J. Waldman Department of Dermatology

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Call to book an appointment: **212-241-9728** For inquiries, please email: **dermatology@mountsinai.org** Visit: **www.mountsinai.org/care/dermatology**

