

2019

PURSuing PROMISING AREAS OF LUPUS SCIENTIFIC INQUIRY A HIGHLIGHT OF THE YEAR'S BREAKTHROUGHS

Throughout the year, the **Lupus Research Alliance** (LRA) funded the world's most pioneering lupus research, pursued bold initiatives, and made tremendous gains!

The brilliant scientists looking at lupus from every conceivable facet made new and important discoveries. These minds—the world's best and brightest—advanced the very understanding of the disease at the molecular level and gave hope to millions worldwide that new treatments are on the horizon.

All with the help of incredibly loyal and generous donors, the **LRA** was able to make breakthroughs in directions that were considered impossible not that long ago.

But you are helping in more areas than research. Thanks to you, we are able to advocate for greater lupus awareness and funding in the halls of Congress and in the homes of average Americans.

This banner year marked our 20th Anniversary --I hope you are proud to be part of our extraordinary history ... proud to know that you've contributed the more than \$200,000 the LRA has invested in lupus research programs.

Combined with the generosity of other LRA donors, you've helped speed the development of new treatments—ushering in the next chapter of lupus research.

We truly are breaking through on the many pioneering fronts of lupus research:

Breaking Through ... Investing in Trailblazing Research

Breaking Through ... Accelerating Drug Development

Breaking Through ... Partnering with Pharmaceuticals

Breaking Through ... Collaborating and Sharing Ideas

Breaking Through ... Celebrating Outstanding Leadership

Breaking Through ... Transforming Goodwill into Research

Breaking Through ... Investing in Trailblazing Research

As the world's leading authority in lupus research, the Lupus Research Alliance funded 15 scientists to conduct trailblazing investigations in four critical areas:

- Six scientists received \$1.8 million in grants through our two-year **Lupus Innovation Award** grant program. Supporting advances in novel hypotheses and/or technologies, this award aims to propel new research concepts forward. Supporting highly meritorious research, this program aims to discover molecular pathways and therapeutic targets that will lead to new treatments.
- Our up-to-three-year **Lupus Mechanisms and Target Awards** granted \$3.6 million for six research projects aimed at characterizing lupus disease pathogenesis ... identifying targets for treatment ... facilitating evaluation.
- The **Dr. William E. Paul Distinguished Innovator Award in Lupus and Autoimmunity** of up to \$1 million challenged our 2019 awardees: **Fabienne Mackay, PhD** and **Jeffrey Rathmell, PhD**. These exceptional thinkers aim to shift the lupus paradigm with bold explorations.
- Our once-a-year **Lupus Insight Prize** of \$100,000 went to Dr. Ignacio Sanz in recognition of the seminal scientific discovery he made in B cell research.

We're Breaking Through ... thanks to donors like you!

Breaking Through ... Accelerating Drug Development

Recognizing the need to improve the way clinical trials are conducted—and to speed drug development—the LRA formed an affiliation with **Lupus Therapeutics** in 2017.

Much progress has been made since then. *“Lupus Therapeutics serves as the organization that oversees the **Lupus Clinical Investigators Network (LuCIN)** we created with the LRA,”* said **Al Roy**, Executive Director of Lupus Therapeutics. *“We're on a mission to accelerate drug discovery for all patients living with lupus.”*

When the program started, about 30% of our sites participated in LuCIN trials. Today, all 57 sites participate—and many are simultaneously conducting more than one trial.

We're Breaking Through ... because you understand research is key!

Breaking Through ... Partnering with Pharmaceuticals

Since our inception in 1999, the LRA has advanced scientific lupus research with the help of pharmaceutical companies and in 2019, we formed a major new alliance.

In August of this year, we formed a unique new partnership with the **Celgene Corporation**—which will be providing \$3 million for bold cutting-edge research

projects. The focus of the research is on understanding the underlying mechanisms of disease, addressing heterogeneity (how much the disease varies from person to person), and identifying novel biomarkers.

We're Breaking Through ... with the power of research and you!

Breaking Through ... Collaborating and Sharing Ideas

Throughout its history, the LRA has played a pivotal role in bringing together the key players in the fight against lupus, and 2019 is no exception.

More than 100 of the world's top scientists in lupus research and treatment gathered in October for the LRA's 2019 annual three-day **Forum for Discovery** scientific conference.

Researchers shared their promising discoveries funded by the LRA, sparking dynamic discussion and exchange of ideas that may well lead to the next breakthrough.

At the conclusion of his presentation on metabolic networks and unbiased genetic screens to identify targets for lupus, **Jeffrey Rathmell**, PhD, stressed the inestimable value of the Forum for Discovery gathering.

"The diversity and promise of the science discussed at this meeting are impressive," said Dr. Rathmell. *"As investigators, we tend to focus on our own work. But this Forum allows us to see the big picture and the field at a higher level ... to learn what our colleagues are working on ... and to look at collaborating together to tackle this very complex disease. It's very impressive!"*

And on September 19, the LRA hosted a collaborative meeting entitled **Microbiome in Lupus**. Thanks to the support and leadership of Board Member, **Bill Wolfe**—the LRA gathered world experts from a cross-section of varied disciplines to discuss how this burgeoning field could benefit lupus people with lupus.

What's the significance of gut bacteria or microbiome? For one, there are more microbiome cells than human cells in the body. Secondly, microbes are capable of communicating with the immune system to fight infection.

Evidence already shows that bacterial imbalances are linked to immune-related diseases and even some cancers. More than ever, we're finding out just how important these microbes are. This is why the LRA is open to devoting additional grant funds for microbiome research in the near future, building on the organization's past work in this fascinating field.

We're Breaking Through ... because you believe in lupus research!

Breaking Through ... Celebrating Outstanding Leadership

The LRA is enormously grateful to [Mary Crow](#), MD for her more than 10 years of devoted service and leadership as the organization's Co-chair of our Scientific Advisory Board. Dr. Crow's tenure concludes on December 31st.

"It's well known that Dr. Crow has brought vision ... leadership ... expertise to the LRA—but she also inspired all of us by her uncompromising determination to find answers for those who suffer from this debilitating disease," said LRA President and CEO [Kenneth M. Farber](#). *"Although she is stepping down as co-chair, we are fortunate that Dr. Crow will continue to work with the LRA in several other capacities."*

Dr. Crow is Physician-in-Chief and Chair of the Department of Medicine at Hospital for Special Surgery and is Chief of the Division of Rheumatology at HSS and NewYork-Presbyterian/Weill Cornell Medical Center.

We're Breaking Through ... thanks to your compassion.

Breaking Through ... Transforming Goodwill into Research

People affected by lupus make all the difference—that's something the LRA knows for certain. And we don't have to look any further than our [Walk with Us to Cure Lupus](#) events.

Walkers—many of whom have lupus or have a close relationship with someone who has the disease—are invested in helping the LRA fund critical lupus research initiatives.

In 2019, the determination of walkers like [Matthew Niskanen](#) helped to generate nearly \$2 million, bringing the total raised by walks throughout the country to over \$41 million!

Here's one reason why: *"I'm not looking for a cure for me,"* said Matthew. *"I'm looking for a cure in case one of my kids gets diagnosed with this disease—and for the kids of other parents. I don't want them to suffer all I have gone through."*

We're Breaking Through ... because you helped us become the world's largest funder of lupus research!