



Annual Report 2022



**Mesothelioma Applied[®]
Research Foundation**
research - education - support - advocacy

The Mesothelioma Applied Research Foundation is the only 501(c)(3) nonprofit charity organization dedicated to ending mesothelioma, and the suffering this cancer causes, through:

- **funding research to improve treatment options;**
- **providing treatment support and education for patients and their families;**
- **advocating for federal funding of research.**

Board of Directors

Volunteer members of the board of directors of the Meso Foundation are responsible for the organization's long-term financial stability and integrity and for governing the Foundation and setting its strategic direction and broad policy directives.

Marjorie G. Zauderer, MD, *Chair*
Memorial Sloan Kettering Cancer Center

Jessica Blackford-Cleeton
Springfield, IL

Cheryl Bruner, Esq.
Louisville, KY

Keith Cengel, MD, PhD
University of Pennsylvania

Patrick Forde, MD
Johns Hopkins University School of
Medicine

Jason Foster, MD
University of Nebraska

Aaron S. Mansfield, MD
Mayo Clinic

Shani Nembhard, Esq.
Kingston, Jamaica

Sanjay Popat, MD, PhD
The Royal Marsden

R. Taylor Ripley, MD
Baylor College of Medicine

Buerkley Rose, MSN, RN
The University of Chicago

Boris Sepesi, MD
MD Anderson Cancer Center

Daniel Serman, MD
NYU Lagone Health

James Stevenson, MD
Cleveland Clinic

William N. Ziegler ("Bill")
Rochester Hills, MI

In Memoriam
Congressman Bruce F. Vento

Sandy Robb
Blue Springs, MO



Science Advisory Board

Our science advisory board is comprised of clinicians and researchers who work within the mesothelioma field around the world. Members of the SAB are volunteers. They are expected to review and score the applications submitted for our research grants. They are also called upon for expert opinions and advice on scientific matters on behalf of the Meso Foundation.

Tobias Peikert, MD, *Chair*
Mayo Clinic

Assunta De Rienzo, MD
Brigham and Women's Hospital

Joseph Friedberg, MD
University of Maryland

Travis Grotz, MD
Mayo Clinic

Chuong Hoang, MD
National Institutes of Health

Fabian Johnston, MD
Johns Hopkins

Richard Lake, PhD
University of Western Australia

Edward K. Moon, MD
University of Pennsylvania

Steve Mutsears, PhD
University of Western Australia

Arnaud Scherpereel, MD, PhD
Thoracique Hospital Calmette

Peter Szlosarek, MD
St. Bartholomew's Hospital

Emanuela Taioli, MD PhD
Mount Sinai

Walter Weder, MD
University Hospital Zurich

The following financial information is compiled from the Meso Foundation's 2022 audited financial statements.

Public Support and Other Income	2022	2021
General Contributions	\$ 1,915,164	\$ 2,812,416
Investment Income	\$ (742,412)	\$ 348,256
Total	\$ 1,172,752	Total \$ 3,160,672

Expenses	2022	2021
Research	22% \$ 266,295	36% \$ 430,528
Education, Support, Awareness	43% \$ 515,519	42% \$ 504,074
Advocacy	3% \$ 33,925	3% \$ 40,527
Fundraising	12% \$ 141,355	9% \$ 114,565
Management	20% \$ 233,432	10% \$ 117,225
Total	\$ 1,190,526	Total \$ 1,206,919

Total Assets at end of year 2022 \$ 9,449,879.00

Patient Support Services

One-on-one patient/caregiver consultations:

In 2022, our patient support services included personalized one-on-one consultations to:

- Identify a mesothelioma specialist if needed
- Review your treatment options to choose the best one tailored to each patient's unique case
- Advise patients regarding symptom-management and side-effects
- Understand the basics of the disease and the complex medical terms
- Connect with other mesothelioma patients
- Obtain financial assistance

In 2022, through this program, we helped over 584 patients.

Travel Grant Program

Immediately preceding the pandemic, our travel grant program was growing significantly, year over year. Treatment centers and clinical trials are now back to operating normally, and demand for our travel grant program is back to pre-pandemic level and rising.

Support Groups

1,200 participants in our support groups (patients, caregivers, bereaved community) took advantage of our Zoom and Facebook support and social groups.

Education

International Symposium on Malignant Mesothelioma

For over 18 years, the International Symposium on Malignant Mesothelioma was the go-to place for mesothelioma patients and their families to find community and support while learning about new and upcoming treatment options directly from experts in the field. After a pause of two years due to the Covid pandemic, in 2022 the conference once again brought the mesothelioma community. In 2022, 318 registered patients, caregivers, bereaved, and medical professionals attended our International Symposium on Malignant Mesothelioma either in person or virtually. We received an additional 782 views of our Symposium presentations by unregistered viewers searching for the presented information online.

Meet the Mesothelioma Experts

In 2022, our Meet the Mesothelioma Experts program included an interview with a mesothelioma attorney answering legal questions from our community.

MesoTV

In 2022, our educational programming accumulated over 13,000 views on our website and YouTube.

Through a rigorous review process that spanned over six months and involved a scientific peer review by the members of the Science Advisory Board of the organization, as well as a community review by members of the Community Advisory Board, three promising research projects were chosen for funding.

The projects will be awarded \$200,000, bringing the organization's total research funded to date to \$11 million and total projects funded to 116. All funded projects can be reviewed on the Foundation's website.

The resources for our research program, just like the rest of the funding for the Foundation, come from patients, family members, friends, those who have lost a loved one to mesothelioma, and our community fundraisers.

The following projects rose to the top out of 36 proposals and were approved for funding by the Foundation's Board of Directors.

Identifying novel Treg targets to sensitize mesothelioma to immune checkpoint blockade

Joachim Aerts, MD, PhD, Erasmus University Medical Center

Dr. Aerts is a veteran mesothelioma researcher from the Netherlands with dozens of peer-reviewed publications under his belt. This project seeks to answer questions surrounding one very particular aspect of immunotherapy: the regulatory T cells (also known as Tregs). Immunotherapy has been a very hopeful area of progress for mesothelioma. However, while some patients show remarkable responses to this therapy, most don't. In order to understand who responds and why, and to then be able to apply that knowledge to make the non-responders also respond, researchers have looked at various parts of the immune system for answers. One of the reasons for this lack of response in some patients is thought to be tied to the regulatory T cells. As it turns out, immunotherapy activates both the immune system AND the regulatory T cells. The activation of regulatory T cells, in turn, inactivates the immune system thus canceling out its actual intended therapeutic effect. In this project, investigators will try to better understand the role of immunotherapy on the regulatory T cells with the goal of developing a treatment that, when combined with immunotherapy, would activate the immune system without activating the immune-suppressing regulatory T cells.

Radiation-induced vascular remodeling to boost immunotherapy outcomes

Alistair Cook, PhD, University of Western Australia (UWA)

This study, like the previous one, seeks to answer questions related to the disparate efficacy of immunotherapy. In this project, investigators will use knowledge derived from preclinical experiments that low dose radiation used prior to immunotherapy can boost the effect of the latter. Along these lines they will seek to better understand three specific areas.

They will analyze the alterations caused by radiation at the tumor microenvironment level.

They will define the window of time following irradiation when immunotherapy is most effective.

They will identify biomarkers that will help clinicians identify which tumors are more sensitive to immunotherapy based on the changes caused by radiation.

This information will be useful in clinic and will help investigators as they develop a future clinical trial testing low dose radiotherapy plus immunotherapy.

Reactivation of mesothelial progenitor genes in mesothelioma



Congressionally Directed Medical Research Program (CDMRP), through the Department of Defense (DoD)

The U.S. Congress established the Rare Cancers Research Program in the FY20 Department of Defense appropriation. With this new program, consumer advocates and scientists work together in this unique partnership to evaluate the scientific merit of research applications. COL Sarah B. Goldman, Director of the CDMRP, expressed her appreciation for the consumer advocates' hard work. "Integrating consumer perspectives into our decision-making process brings energy and focus to our research programs. Patients, caregivers, family members, and advocates help us keep our efforts center around what is truly important to those impacted. We very much value this critical input from our consumers who help ensure the CDMRP's work remains critical and relevant," she said.

Mesothelioma is currently funded through two programs within the CDMRP. In addition to the rare cancers program, scientists can also apply and compete for an additional \$120 million housed within the Peer Reviewed Cancer Research Program (PRCRP). Over the years, these programs have funded more than \$22.5 million worth of mesothelioma research. The Mesothelioma Applied Research Foundation has been solely responsible for adding and maintaining mesothelioma as an eligible topic.

Scientists applying propose to greatly improve outcomes for people with rare cancers through discovery, community building, and expansion of knowledge across the cancer landscape. The RCRP fills important gaps not addressed by other funding agencies by supporting groundbreaking research while encouraging out-of-the-box thinking.

