GRAY FOUNDATION
TEAM SCIENCE PROGRAM

PROGRAM GUIDELINES AND DESCRIPTION

ABOUT THE GRAY FOUNDATION

The Gray Foundation has a dual mission: accelerating research and awareness of BRCA genetic mutations and expanding opportunity for New York City youth from low-income communities. At the intersection of this dual mission is supporting pathways to biomedical education including a recent gift to the Faculty of Medicine and Health Sciences at Tel Aviv University. Since 2012, Mindy and Jon Gray have donated over $550M including over $200M toward BRCA-related research, treatment, and awareness. This includes the generation of the Gray BRCA Pre-Cancer Atlas, a unified resource capturing the molecular, genetic, and physiological changes occurring at the earliest signs of BRCA-associated cancer.

ABOUT GRAY FOUNDATION BRCA TEAM SCIENCE PROGRAM

The purpose of this grant program is to fund research projects that bring together the best minds in cancer research to study BRCA-associated pre-cancer and early cancerous lesions in order to develop new prevention, early detection, and interception approaches. The funded research projects are expected to be multidisciplinary and highly innovative.

GRANT TERMS AND FUNDING

The funding will be for a period of 3 years for up to $1 million/year. The Foundation plans to award multiple grants.

DEADLINES

Letter of Intent (LOI) deadline: **January 9, 2026, at 12:00 pm ET**

Full Application deadline (upon invitation): **April 2, 2026, at 12:00 pm ET**

Projected start of grant term: **September 1, 2026**

- Only invited LOI applicants may submit full applications.
- Projects and PIs must be the same as described in the LOI.
- Principal Investigators must hold a medical or other doctoral degree and have a faculty appointment at an academic, medical, or research institution equivalent to an Assistant Professor, or higher.
- Applicants must be academic, medical, or research institutions anywhere in the world.
- For-profit enterprises are not eligible to apply. They may be listed as Collaborators, but no grant funds may be directed to collaborators working within a for-profit entity.
- Applicants with questions about eligibility should contact the Gray Foundation (grants@grayfoundation.org) prior to submitting a LOI.

RESEARCH PROJECT CRITERIA

The goal of the Gray Foundation Team Science Program is to fund projects led by **multidisciplinary teams of researchers** that will perform highly innovative research focused on

Prevention, interception, and early detection of BRCA-related cancers in at least one of the following areas:

- Understanding the biology of early lesions and carriers (including the microenvironment) to determine targets for interception and prevention
- Understanding immune surveillance
- Study of immune targets (for preventative vaccine)
- Generation of new technologies (imaging, pathological, genetic, immune health, etc.) for risk stratification and early detection
- Development of novel or improved biomarkers
- Improvement of risk reduction strategies

Special consideration will be given to team projects which:

- Collaborate with researchers or utilize samples collected at Tel Aviv University (TAU) and the affiliated hospitals (see Exhibit A for a description of select research at TAU)
- Utilizes or analyzes data shared in the Gray BRCA Pre-Cancer Atlas (https://www.graybrcaatlas.org/)
- Contributes new or complementary data to the Gray BRCA Pre-Cancer Atlas

Due to the Foundation's interest in early detection, interception, and prevention of BRCA-associated cancers, proposals with a sole focus on therapeutics or treatment of late-stage cancers will not be considered. Grants will fund proposals that have significant potential for translational impact and hold great promise for advancing the Gray Foundation's goal of improving and saving the lives of patients with BRCA-related genetic mutations.

EVALUATION

Invited full proposals will be reviewed by the Gray Foundation Scientific Committee, which will provide recommendations for funding.

The following criteria will be considered for each application:

- **Innovation.** To what degree is the proposed research groundbreaking and paradigm-shifting? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or in a broad sense? Is this a refinement, improvement, or a new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?
- **Significance.** Does the project address an important problem or a critical barrier to progress in the field of BRCA research? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims lead to practical new advances in the areas of prevention, early detection and/or interception of BRCA-related cancers?
- **Approach.** Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project within the grant term?

- **Clinical/Translational Potential.** Does the work hold great promise to develop new prevention, early detection, and interception approaches for BRCA patients?
- **Investigators/Team/Environment.** Are the investigators well suited to the project? Do they have an ongoing record of accomplishments that has advanced their field(s)? Do collaborators appropriately fulfill a critical need of the project? Is the research environment appropriate?

GRANT POLICIES

Changes to application. After the submission deadline, applicants are not permitted to change the project nor the Investigator proposed in the LOIs or Full Proposals. Once approved, projects can be modified as research progresses, but material changes require consultation with the Gray Foundation and may affect future grant payments.

Grant Agreement. A Grant Agreement will be executed between the Gray Foundation and the grantee institution setting forth the terms and conditions of the grant.

Initiation of the Research Project. The grantee must agree to initiate the research project described in the proposal on or about the time the first grant payment is received by the grantee. If the grantee is unable to commence the research project at that time, the grantee must contact the Gray Foundation to discuss the timeline for the project.

Use of Funds. The grant funds may be used for direct research expenses attributable to the proposed research, which may include the following:

- A percentage of the salary and benefits expenses (limited to 20 percent of the total budget) of the grantee and any collaborators (no grant funds may be directed to collaborators working within government institutions or for-profit entity)
- Salary and benefits expenses of postdoctoral or clinical fellows, research assistants, or technicians
- Equipment, supplies, and other laboratory or clinical expenses
- Travel expenses relevant to the research project
- Expenses related to publication page charges.

Tuition and professional membership dues are not allowable expenses.

The indirect costs cannot exceed 10% of the total budget. Please alert us as soon as possible if you believe that we will need to obtain a waiver from your institution to ensure compliance with the Foundation's 10% overhead policy

Collaboration with the Gray BRCA Pre-Cancer Atlas. The Gray Foundation is working with multiple institutions to build an integrated database detailing the earliest signs of BRCA-associated cancer initiation. We request that any relevant data generated from funded projects be deposited in in this Atlas. You will have the opportunity to share your data and insights with other Pre-Cancer Atlas contributors at your discretion before publication.

Payments. Annual installment payments will initiate upon execution of the Grant Agreement. Each payment is contingent upon grantee's compliance with the Grant Agreement, including the timely submission of progress and financial reports, and the Foundation's satisfaction with the progress of the project.

Reporting Requirements. Progress Reports, including a financial accounting of expenditures, are to be submitted twice a year, with the first one due 6 months after the beginning of the grant term. Templates for the completion of the reports will be provided to the grantees at least one month prior to the report due dates.

A final written progress and financial accounting report must be submitted no later than sixty (60) days after the end date of the grant term. Detailed instructions on completion of a satisfactory progress and financial report will be provided prior to the report due date.

Grant termination. Failure to comply with the Grant Agreement, including the timely submission of progress and financial reports, or to achieve satisfactory progress toward the project's pre-defined milestones and deliverables may result in the termination of the grant.

Intellectual Property. Any intellectual property derived from the research funded by the grant will be the property of the grantee and/or its assigns. To the fullest extent permitted by the grantee's institutional policies, the grantee will use any income received by the grantee from the licensing of inventions resulting in whole or in part from the grant, net of any expenses and any payments owed to researchers pursuant to the grantee's royalty sharing arrangements, to support BRCA-related research at the grantee institution. The grantee will report to the Gray Foundation on the receipt and use of such income at least annually.

Publications and Acknowledgment of Support. Subject to the Gray Foundation's approval, the grantee agrees to acknowledge the grant in any written public statement, press release, article, or announcement associated with the project, including articles appearing in scientific journals and other publications, and to otherwise acknowledge the grant in a similar manner to other grants. When acknowledging the grant, the grantee will refer to the grant as part of the Gray Foundation's Team Science Program.

Indemnification. The grantee will agree to indemnify the Foundation and its personnel from and against any and all liabilities arising from the project or the actions or omissions of the grantee and its personnel.

Organizational Assurances. It is the responsibility of the grantee to ensure that organizational assurances/certifications are obtained.

For research involving human subjects, the grantee will certify the following:

- The proposed research project has been reviewed and approved in writing by an accredited university or medical school Institutional Review Board (IRB) constituted in

accordance with current regulations promulgated by the United States Department of Health and Human Services (HHS) and approved by HHS, or by the Association for the Accreditation of Human Research Protection Programs (in the absence of an HHS-approved university or medical school IRB).

- The grantee will secure a legally acceptable informed consent from all human subjects taking part in any research supervised by such grantee funded in whole or in part by this grant in accordance with and to the extent required by current regulations promulgated by and approved by HHS. IRB certification should be documented by submitting a copy of the institutional letter of approval, which identifies the grantee and grant-associated members responsible for the relevant component, project title, the Gray Foundation as the funding agency, the date of approval, and is signed by the IRB Chair or equivalent responsible institutional official. The project must have been reviewed and approved by the IRB Chair or an equivalent responsible institutional official. Prior IRB certification for another project cannot be substituted, but can be officially amended to include the proposed project.

For research involving animals, the institution will ensure compliance with applicable chapters of the Public Health Service Animal Welfare Policy, the NIH Manual for Grants and Contracts, and any and all requirements of the institution concerning animal welfare. Certification by the Institution Animal Care and Use Committee (IACUC) or equivalent will be documented by submitting a copy of the institutional letter of approval, which identifies the grantee, project title, the Gray Foundation as the funding agency, the date of approval, and is signed by the IACUC Chair or equivalent institution official. Prior IACUC certification for another project cannot be substituted, but can be officially amended to include the proposed project.

Guidelines for Researchers. The institution will cause Program researchers to abide by the Foundation's Guidelines for Researchers, attached hereto as Exhibit B.

Exhibit A
Relevant TAU Initiatives
Updated on November 5, 2025

BACKGROUND

In May 2025, The Gray Foundation announced a historic $125 million gift to Tel Aviv University (TAU) to transform its Faculty of Medical and Health Sciences. This gift will increase enrollment by 25%, improve access for underrepresented students by creating new scholarships, double the number of Arab Israeli students at the Medical School, support faculty recruitment, modernize facilities, expand student housing, and build on our investment in BRCA research. To catalyze progress, the Gray Foundation hopes to make connections between its clinical and academic partners across the globe. The following overview presents an outstanding opportunity to accelerate the pace of innovative and high-potential research being pursued by diverse researchers and clinicians affiliated with TAU's Cancer Biology Research Center (CBRC). TAU's investigators will be happy to collaborate with Gray Foundation's Team Science research community.

TEL AVIV UNIVERSITY: A CANCER RESEARCH POWERHOUSE

Established in 1956, TAU is Israel's largest and most influential research university, with 30,000 students enrolled in 128 schools and departments spanning the spectrum of sciences, humanities and arts. TAU excels in the area of entrepreneurship and innovation; it ranks among the top 10 schools in the world – and the only one outside the United States – for producing successful, VC-backed start-up founders (Pitchbook). It is a Reuters Top 100 Global Innovation University and leads Israel in scientific publications, citations and patents.
TAU has some 400 researchers, clinicians, and graduate students working in the cancer field. From molecular biology, genetics, and immunology to biomedical engineering, medicinal chemistry and imaging, dozens of TAU groups work night and day studying diverse aspects of cancer and its treatment.
The University runs the largest biomedical research and teaching complex in the country, with 1,400 physicians-scientists working in 18 TAU-affiliated hospitals. Among these are three major medical centers: Rabin Medical Center, Sheba Medical Center, and Sourasky Tel-Aviv Medical Center. These close, collaborative ties ensure that research conducted in the lab has every opportunity to be translated into real-world therapies and technologies to ease suffering, enhance the quality of life and save lives.
This document will be periodically updated as additional relevant initiatives emerge. You can access the most updated document on our website. If there is a specific research interest you do not see listed, please reach out to Dr. Yehudit Cohen at yehuditc@tauex.tau.ac.il, who may be able to facilitate finding the right connection for your project.

All research groups affiliated with the CBRC can be found on our website https://cbrc.tau.ac.il/
Highlights of the investigators working on BRCA-related cancers:

TAU OUTSTANDING CANCER RESEARCHERS: SAMPLE LIST

TAU is home to some 400 talented scientists and physicians pursuing cancer research across 100 independent groups at its diverse faculties and 18 affiliated medical centers, among them the following researchers focusing on BRCA-related cancers:

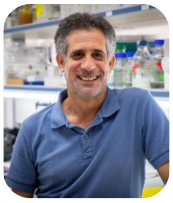
Prof. Uri Ben-David, Ph.D., Department of Human Molecular Genetics & Biochemistry, Gray Faculty of Medical & Health Sciences, and Safra Center for Bioinformatics, Tel Aviv University. www.bendavidlab.com

Prof. Ben-David's laboratory focuses on a fundamental, understudied trait of cancer, called aneuploidy, a change in the number of chromosomes in cancer cells. The lab applies a variety of experimental and computational approaches to deciphering the biological processes that underlie this phenomenon and develops novel strategies to exploit this unique trait in order to target cancer cells and eliminate tumors. Uncovering the mechanisms underlying aneuploidy, will expand the understanding of the genetic basis of cancer and open new avenues for personalized treatments. Together with the Lab of Dr. Talia Golan, we found that BRCA-mutant tumors that were resistant to PARP inhibitors were highly aneuploid (10.1158/2159-8290.CD-22-0412).
We would like to test whether these tumors would be more sensitive to proteasome and/or MAPK inhibition, based on two studies that we published recently: (10.1038/s41467-024-52176-x ; 10.1158/2159-8290.CD-23-0309). Together with Prof. Talia Golan, we found that BRCA-mutant pancreatic cancer that was resistant to PARP inhibitors was highly aneuploid. We published it in *Cancer Discovery (* 10.1158/2159-8290.CD-22-0412).
Separately, we found that highly-aneuploid tumors, including pancreatic cancer models, are more sensitive to proteasome inhibitors and to MAPK inhibitors, published in *Nature Communications* (10.1038/s41467-024-52176-x) and in *Cancer Discovery* (10.1158/2159-8290.CD-23-0309). We're currently interested in studying the clinical relevance of these findings in BRCA-mutant pancreatic cancer.

Dr. Merav Cohen, PH.D., Head, Systems Immunology & ImmunoGenomics Laboratory, Department of Clinical Microbiology and Immunology, Gray Faculty of Medical & Health Sciences, Tel Aviv University. www.mcohenlab.com
During mammary gland development, intercellular communication between epithelial, stromal, and immune cells regulates growth, particularly during puberty. Disruption of this signaling can cause dysregulation, predisposing tissue to cancer. Dr. Cohen's research investigates immune–epithelial crosstalk in normal and pre-cancerous breast tissue to identify early immunotherapy targets. Using a mouse model that mirrors human breast tumors and single-cell RNA-sequencing technologies like PIC-seq, her lab maps molecular interactions underlying physiological and cancer-initiating signaling. Validating targets in patient samples with early-stage breast cancer and BRCA1/2 mutations, the work aims to uncover biomarkers and therapeutic targets for early detection and prevention of breast cancer.

Prof. Rani Elkon, Ph.D., Department of Human Molecular Genetics & Biochemistry, Gray Faculty of Medical & Health Sciences, Tel Aviv University. www.elkonlab.sites.tau.ac.il/

The Elkon lab studies genetic risk modifiers in BRCA1/2 carriers. Women carrying pathogenic variants (PVs) in the BRCA1/2 genes face a substantially elevated risk of developing breast cancer and ovarian cancer. However, penetrance is incomplete, and the age at cancer onset varies considerably - even among carriers of the same PV - suggesting the involvement of both genetic and non-genetic risk-modifying factors. Using large whole-genome sequencing (WGS) cohorts of BRCA carriers, we are exploring diverse classes of genetic factors that may modify cancer risk in these women, ranging from polygenic risk scores (PRS) based on common non-coding variants to low-frequency and rare protein-damaging point and structural variants.



Prof. Mordechay Gerlic, Department of Clinical Microbiology and Immunology, Gray Faculty of Medical & Health Sciences, Tel Aviv University.
Harnessing Necroptotic Cell Death to Induce Anti-Tumor Immunity in BRCA-Associated Breast Cancer mgerlic@tauex.tau.ac.il

A central goal in cancer immunotherapy is to engage the adaptive immune system to selectively recognize and eradicate tumor cells. However, identifying tumor-specific neoantigens that are truly non-self and absent in normal tissues remains a significant challenge. This project aims to evaluate necroptotic cell death as an innovative strategy to induce immunogenic tumor elimination in BRCA1/BRCA2-mutated breast cancer. BRCA-mutant tumors exhibit high genomic instability, resulting in an elevated neoantigen load that may enhance their immunogenic potential. Our preliminary findings and prior studies indicate that necroptosis triggers a pro-inflammatory, immunogenic form of cell death and promotes the release of extracellular vesicles (necroEVs) enriched with tumor-derived proteins and neoantigens. We hypothesize that controlled induction of necroptosis in BRCA-related breast cancer cells, and subsequent exposure of immune cells to necroEVs, will stimulate robust adaptive anti-tumor responses.
Using in vivo mouse models, we will induce necroptosis in BRCA-mutant breast cancer tissue ex vivo after the removal of the tissue to isolate the necroEVs. We will inject the necroEVs back into the mouse to finally assess their capacity to activate adaptive immune responses and prevent tumor recurrence. This research will provide proof of concept that targeted activation of necroptotic pathways can serve as a novel immunotherapeutic strategy for BRCA-associated breast cancer, potentially extendable to other solid malignancies.

Dr. Talia Golan, M.D., Director, Phase 1 Unit Sheba and Pancreatic Cancer Program, Sheba Medical Center. Talia.Golan@sheba.health.gov.il

Pancreatic tumors are difficult to treat due to their resistance to available therapies. Pancreatic tumors with mutations in BRCA1/2 genes display superior response rates to DNA-damaging agents and PARP inhibition, however, most patients develop resistance.

In the Golan lab, we investigate mechanisms underlying therapeutic resistance, and the development of next-generation treatments that can delay the emergence of resistance and/ or overcome resistance in vitro and in vivo. We generated patient-derived models with annotated clinical and genomic data. Recently, we identified several mechanisms of resistance. In addition, we demonstrate a novel combination of treatments that extends the response period and even attenuates tumor growth of resistant tumors.

Prof. Dan Grisaru, **M.D., Ph.D.** Head, The Gynecologic Oncology Department, Tel Aviv Sourasky Medical Center TLVMC). dangr@tlvmc.gov.il

The Gynecologic Oncology Department at TLVMC integrates advanced care with translational research, including CAR-T therapy for ovarian cancer. Furthermore, they lead TLVMC's multidisciplinary BRCA clinic and national consortium studies on early malignant transformation and prevention in BRCA carriers. Their current projects include systemic levonorgestrel absorption in BRCA carriers with Mirena IUD, Chlamydia infection as a cause for tubal cancer, and national policy for BRCA surveillance. Notable publications span AI in oncology, BRCA screening cost-effectiveness, and outcomes of cytoreductive surgery and HIPEC in BRCA-positive ovarian cancer.

Dr. Asaf Madi, Ph.D., Head, Systems Immunology Laboratory, Department of Pathology, Gray Faculty of Medical & Health Sciences, Tel Aviv University. www.asafmadilab.com

Dr. Madi's laboratory focuses on computational approaches to study cancer immunology. The lab applies cutting-edge technologies, including single-cell RNA sequencing, mouse models, molecular biology, and other high-throughput genetic methods combined with advanced computational approaches to identify and functionally characterize genes that play an important role in immune cell signaling. This approach enables in-depth studies of immune cell interaction with tumor cells and other surrounding cells in the tumor microenvironment.
Spatial transcriptomics (ST) provides spatially resolved gene expression maps of the tumor microenvironment (TME) but remains costly and impractical for large or archival cohorts. In contrast, hematoxylin and eosin (H&E) slides are inexpensive and widely available. We are developing a deep learning framework that predicts spatial gene expression directly from H&E images using a dual-modality generative model that preserves spatial and transcriptional features. Our lab is applying this approach to triple-negative breast cancer (TNBC), focusing on BRCA1/2-mutated tumors. Using paired H&E–ST data from Wang *et al.* (n = 92), we will train and validate our model, then apply it to larger H&E datasets to predict spatial transcriptional profiles and delineate immune–stromal organization. We will pursue three aims: (i) cost-efficient transcriptome reconstruction using only ~10% of sequenced spots per slide; (ii) whole-slide inference to extend molecular predictions beyond assay-defined regions; and (iii) H&E-only prediction to directly infer transcriptomic maps from histopathology alone.
By enabling scalable, low-cost molecular mapping of TNBC from standard slides, spST-Net will unlock large-scale spatial analyses and, when integrated with prospective clinical and treatment data, allow prediction of therapy response, refinement of TNBC subtypes, and identification of

spatial features linked to progression and metastasis. This framework establishes a foundation for AI-driven, spatially informed precision oncology in breast cancer.

Dr. Yaara Oren, Ph.D., Head, Laboratory for non-genetic resistance, Department of Human Molecular Genetics & Biochemistry, Gray Faculty of Medical & Health Sciences, Tel Aviv University. www.yaaraoren.sites.tau.ac.il/

Our lab focuses on two complementary aspects of BRCA-related ovarian cancer research. First, we are developing novel methodologies to model time to relapse using optical pooled screening technologies, enabling dynamic, high-throughput tracking of heterogeneous cell populations over time. This will uncover biomarkers that will enable us to predict which patients are likely to recur following initial treatment. Second, we study persister cells -subpopulations of reversibly drug-tolerant cells that survive therapy through non-mutational mechanisms of resistance - in the context of PARP inhibitor treatment. Together, these approaches aim to reveal mechanisms of resistance and identify strategies to delay or prevent relapse in BRCA-mutated ovarian cancer.

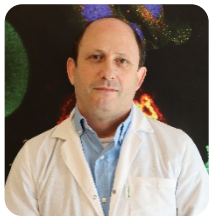
Prof. Rina Rosin-Arbesfeld, Ph.D., Department of Clinical Microbiology and Immunology, Gray Faculty of Medical & Health Sciences, Tel Aviv University. rosin-arbesfeld.sites.tau.ac.il

Uncovering the Mechanisms of Microbiome-Driven EMT in BRCA-Deficient Cancers. BRCA1-deficient cancer cells show high levels of epithelial–mesenchymal transition (EMT), a process that drives tumor initiation, progression, and therapeutic resistance. EMT can be triggered by diverse cellular and microenvironmental cues. Cellular factors include aberrant activation of Wnt and TGF-β signaling, while EMT-inducing environmental factors include hypoxia, mechanical stress, and inflammation. New and exciting evidence also implicates the microbiome as a potent EMT inducer. Recent findings from our laboratory show that specific oral oncogenic bacteria strongly promote EMT in breast and colon cancer cells. *The molecular mechanisms underlying bacteria-induced EMT and cancer, particularly in BRCA-deficient contexts, remain unclear and are currently being investigated in our laboratory.*

Prof. Ronit Satchi-Fainaro, Ph.D., Department of Physiology and Pharmacology, Head, Gray School of Medical Sciences; Head, Cancer Research and Nanomedicine Laboratory; Head, Kahn 3D Cancer Printing Initiative; Lion Chair in Nanosciences and Nanotechnologies; and Director of TAU's Cancer Biology Research Center, Tel Aviv University. SatchiFainaroLab.com

Prof. Satchi-Fainaro is a world leader in nanomedicine and cancer research. Her group designs targeting molecules that direct diagnostics, nano-vaccines and therapeutics to pathological sites by integrating biology, chemistry, protein engineering, molecular imaging, computational approaches, and nanotechnology. Her laboratory investigates tumor microenvironment (TME) biology, tumor dormancy, mechanisms of tumor–host interactions, self-assembly of polymeric

architectures into nanoparticles, and novel approaches for targeting solid cancers using patient-derived 3D-bioprinted and tumor-on-a-chip models. The RSF lab develops 3D patient-derived BRCA-mutated models of pancreatic, ovarian, and breast cancers. Using these models, which accurately recapitulate the tumor microenvironment, the team is testing engineered targeted nanoparticles delivering PD-L1 and PARP inhibitors to exploit synthetic lethality, as well as nano-vaccines (10.1038/s41565-019-0512-0) designed to modulate the immune system within the TME to delay or prevent recurrence and metastasis of BRCA-mutated and other cancers. Recent work demonstrates that radiation-guided nanoparticles selectively accumulate in and inhibit the progression of BRCA1-deficient tumors (10.1016/j.jconrel.2025.113812 ; 10.1126/sciadv.adr4762). Together with Uri Ben-David's Lab, we study the molecular link between BRCA mutations, aneuploidy and brain metastasis. We recently found that loss of chromosome 17p, an aneuploidy that is particularly common in BRCA-mutant breast cancer, promotes breast cancer brain metastasis. This work has been accepted to *Nature Genetics:* https://www.biorxiv.org/content/10.1101/2023.12.20.572490v1



Prof. Noam Shomron, Ph.D., Department of Human Molecular Genetics & Biochemistry, Gray Faculty of Medical & Health Sciences, Tel Aviv University. www.nshomron.github.io/

Our integrative BRCA research links genomics, lifestyle, and computational biology to refine breast cancer risk prediction and intervention. We discovered that microRNA dysregulation (e.g., miR-96–ABCE1, miR-515-5p–IGF-1R) enhances tumor aggressiveness, especially in BRCA1-mutant contexts, and demonstrated microRNA-based therapies that block metastasis in vivo. Using UK Biobank cohorts, we showed that high physical activity lowers breast cancer odds by up to 50% among women with BRCA1/2 variants or moderate polygenic risk. These studies connect genetic predisposition, molecular regulation, and modifiable behaviors, laying the groundwork for precision prevention and RNA-guided treatment strategies in hereditary and sporadic breast cancer.

TAU PATHOLOGY DEPARTMENTS: SAMPLE LIST

The vast network of TAU affiliated hospitals contains outstanding pathology departments. These departments are supportive of research initiatives and have clinical samples and data. Some also have biobanks relevant to BRCA-related malignancies research. Potential samples include longitudinal clinical data, tissue slides and serum/plasma samples. While sharing of clinical samples is subject to the amount available to the pathologist, the groups listed below are willing to discuss potential collaborations.

Name	Medical Center	Contact Details
Dr. Ana Tovar - Head, Institute of Pathology	Beilinson Hospital, Rabin Medical Center	anato@clalit.org.il
Prof. Dvora Kidron - Head, Department of Pathology	Meir Medical Center	dkidron@clalit.org.il
Dr. Sonia Mendelovich - Head, Institute of Pathology and Dr. Anat Shach Head of the Breast Unit, Pathology Dept.	Shamir Medical Center	soniam@shamir.gov.il, soniamend100@gmail.com anatshach@gmail.com, anatas@shamir.gov.il
Prof. Iris Barshack - Head, Institute of Pathology	Sheba Medical Center	Iris.Barshack@sheba.health.gov.il
Prof. Dov Hershkowitz - Director; Institute of Pathology	Sourasky Medical Center	dovh@tlvmc.gov.il

Exhibit B

Gray Foundation
Guidelines for Researchers

In carrying out research funded by the Foundation, researchers will abide by the following guidelines:

1. Principal investigators will use reasonable efforts to collaborate with (i) other researchers funded through the Foundation's Team Science initiative, (ii) the Basser Center for BRCA at Penn Medicine's Abramson Cancer Center, and (iii) The Gray Faculty of Medical & Health Sciences at Tel Aviv University, both in connection with Foundation-funded projects and in other BRCA-related projects.

2. Principal investigators will participate in the Gray Foundation Team Science Summit and will encourage participation by other researchers and expert personnel from their labs where appropriate.

3. Principal investigators (and, if appropriate, other researchers and expert personnel) will seek out appropriate opportunities to participate in the Basser Center for BRCA's annual symposium.

4. Any relevant Foundation-funded research data will be included in the Gray Foundation BRCA Pre-Cancer Atlas and other resources published by the Foundation for educational or scientific purposes.

5. Principal investigators are encouraged to learn more about the Gray Foundation's other projects, which focus on maximizing access to education, healthcare and opportunity for low-income youth in New York City. Investigators should contact the Foundation if they might be interested in hosting student interns in their labs.