







# Cancer Investigative Research Innovation: TREATMENT VALIDATION THROUGH ADVANCED IMAGING



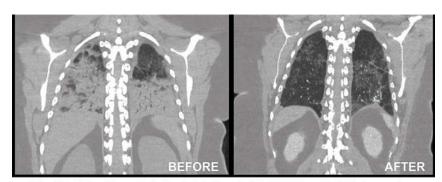
DR. ROBERT L. BARD, award winning cancer diagnostic imaging analyst (NYC) is available to support all cancer research programs with his inclusion of ADVANCED INVESTIGATIVE IMAGING VALIDATION (AIIV) protocols. Through the use of comparative evidence-building and decades of proven experience in "tumor detective work", Dr. Bard offers a major analytical and strategic advantage to any testing and reporting team. Dr. Bard is recognized by the top cancer medical centers for his

work with all radiological imaging solutions (including the latest advancements in quantitative 3D Doppler Ultrasound technology) to identify and monitor the behavior of cancer tumors during a trial process.

#### "BEFORE & AFTER" STUDIES

For most testing and experimental programs, researchers have found the most sensible way to identify results of any treatment is by tracking the patient's physiological response. Controlled testing must show the patient's condition PRE and POST effects, where true data-finding means collecting the necessary EVIDENCE of its claims. Dr. Bard's investigative contribution to clinical research adds real-time monitoring

and image recording of all responses including anomalies and future projections of possible side effects. His experience as a second investigator has uncovered oversights that can occur in trials with a large number of test patients. To capture the benefits of a BEFORE AND AFTER review, Imaging is often used as a standard screening solution for the response of most of the major organs.



Before/After CT Scan Image of a Covid patient- Dr. Varon treated with MATH+ protocol. The images shows resolution of a wide spread bilateral pulmonary infiltrate. This massive infection has largely cleared leaving patchy peripheral traces of pneumonia. The absence of pleural effusion (fluid in lungs) portends rapid recovery.

### INVESTIGATION PROCESS OPTIONS



#### **VALIDATION REPORTER FOR STANDARDS & COMPLIANCE**

Dr. Bard's career has been dedicated to supporting cancer treatment specialists and research projects. His work also includes helping developers of medical technologies, clinical labs and pharmaceutical products achieve regulatory compliance. As a primary or second reviewer, Dr. Bard uses clinical imaging to validate a product's efficacy through comprehensive patient screening or scan reviews-confirming their results or challenging their short and long term effects.



Supporting diversity in research teams can add new strength to the collaborative process

#### PRIMARY or CO-INVESTIGATOR

Assembling top investigators and diagnosticians for research teams and studies is a major part of the end success of any medical, surgical, or behavioral intervention. This is the primary way that researchers find out if a new treatment, like a new drug or diet or a medical device is safe and effective for people. Where clinical trials may test ways to find a disease or disorders early, sometimes before any apparent symptoms, others test ways to prevent a health problem.



Patient-derived xenograft mouse models in cancer research

#### STRATEGIC INTEGRATIVE RESEARCH PLANNER

Today's testing programs have expanded toward INTEGRATIVE research options. Dr. Bard offers a vast network of fellow cancer experts, advanced cancer diagnostic facilities and innovative resources, Dr. Bard's capacity to provide infrastructural support to any conclusive study covers a wide array of planning options from CASE-CONTROL STUDIES, CASE REPORTING, META ANALYSES, COST-BENEFIT ANALYSIS, DOUBLE BLIND STUDIES, EMPIRICAL RESEARCH just to name a few.



3D Doppler imaging offers many unique advantages in cancer diagnostic scanning

#### NON-INVASIVE CANCER IMAGING

When imaging detects a region of interest or suspicion, it can also be used to direct selective biopsies to obtain very small tissue samples for further laboratory analysis (pathology). The use of imaging together with pathology gives the most accurate information about the size, location and aggressiveness of any cancer thus identified. 3D Doppler imaging offers the following advantages:

- Accuracy 95% (greater than MRI at 80-90%)
- 1000-1500 images obtained in 5-10 minutes painlessly
- 2 x more accurate for detecting spread of tumor outside gland than MRI
- Optional 3D Histogram Analysis of Vessel Density indicative of tumor aggression
- Non-invasive non-biopsy modality to verify tumor treatment response
- Submitted MRI, bone and CT scans reviewed as part of the consultation

# FROM THE MEDICAL FRONT

# Virtualization 2.0 Gives Patient Care A Global Boost

By: Adrian Barrios / AngioFoundation Tech Review

Dr. Robert L. Bard, 40+ year diagnostic imaging professional in NYC has scanned countless cancer patients from some of the most prominent health centers both locally and abroad. They received point of care screenings or second opinion scans (in person) about a wide array of health concerns from cancer tumors to traumatic injuries. Expanding on digital innovations, access to Dr. Bard's radiology practice extends to the virtual realm as a remote medical overreader of ultrasound scans via private web portals.

The advent of medical ultrasound technology advanced medical imaging protocols to support a completely digital, non-invasive and affordable platform for physicians, resulting in the globalization of access and cross-continental collaboration. Groups like the NY Cancer Resource Alliance recently published Dr. Bard as one of the top advocates of medical virtualization - earmarking his vision for a "borderless medical community".



Dr. Bard began his career in radiology in 1970 at the US Air Force. He was a medical consultant for the American Embassy where he communicated confi-

dential x-ray files and medical reports from Vientiane, Laos through a private transmission exchange system.

He opened his private diagnostic practice in NYC in 1976, partnering with local and foreign hospitals (for his work with the 3D Doppler Imaging of Cancer tumors). Patients of cancer centers from as far as Queensland (Australia), France, Italy and Germany would travel internationally to see him. This scenario fostered the need for a remote collaboration portal between doctors.

By 2018, Dr. Bard designed a web-based program called R.E.D.S. (Remote Emergency Diagnostic Solutions). This application enabled pre-hospital ultrasound in ambulance rigs with field access to ER physicians or a radiologist to confirm patient readings in the field. This year, Dr. Bard is launching a similar virtual remote program for offshore commercial vessels and military ships.

During the early months of the Covid-19 crisis, ultrasound manufacturers worldwide fast tracked their engineering design to respond to the current field demands of the front lines. Triage areas and critical care physicians may encounter patients with respiratory symptoms, pulmonary embolism and other potential signs of covid-related symptoms which calls for a fast, accurate and portable scanning. These Point of Care Ultrasound Solutions (POCUS) often came with secure WIFI access to allow for quick file sending and access to any physician or radiologist for conclusive image evaluations. "These feature-rich portables are so intuitive-- many of them come with organ presets to help speed up your time with the patient ...and connecting with your tablet or cell phone via WIFI is just brilliant", states Dr. Bard.



Dreamstime.com

The earliest form of virtualization referred to a non-physical version of hardware, storage devices, and computer network resources, much like web hosting or cloud-based solutions. In Dr. Bard's medical imaging orbit, virtualization incorporates key elements of Telemedicine, Secure File-Accessing, Real-Video Conferencing and Dynamic Data Sharing between medical professionals. "30 years deep into the internet, our communication has finally caught up to allow us to work on any patient at any time from any location. The security aspect and high-speed exchange for conferencing has (finally) been perfected to make this a reliable platform for medicine. I have found myself to be "remoted" everywhere from surgeries to cruise ships to European clinical trial conferences... virtual technology really streamlines so many critical aspects of patient care!"

## Special Efforts for a Charial abild

#### GLOBAL ACCESS TO DIAGNOSTIC RESEARCH COLLABORATION

Thanks to VIRTUALIZATION, medical imaging and collaboration in the cancer research community has leveraged its talent and resource acquisition beyond a localized facility. Dr. Bard's expertise is available to all research groups nationwide and overseas. For more information or to discuss your research program, contact Dr. Bard's office directly at: 631-920-5757 or visit: www.BardClinicalTrials.com