

Ms. Judith Prister
712 Pinehurst Dr
Richardson, TX 75080

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Mr. Bill Gimson, Executive Director
Cancer Prevention and Research Institute of Texas (CPRIT)
211 E. 7th Street, Suite 300
Austin, TX 78701

Cc. Crosetto Foundation
900 Hideaway Pl
DeSoto, TX 75115

Cc. Ms Margaret Bentley

Dear Mr. Gimson:

My name is Judith Prister. I am a CPA and I live in Dallas, TX. Because of my family history and concern for my own health, I follow cancer research very closely.

In 2007 I supported HB 14, which established the Cancer Prevention and Research Institute of Texas. I also voted yes to HJR 90 for \$3 billion in general obligation bonds which will provide \$300 million a year for cancer research in Texas.

Today I am a proud taxpayer writing to you to ensure that my money is put to good use.

I am one of the over 7,000 people who signed a petition requesting a public scientific review of the Three-Dimensional-Complete Body Screening (3D-CBS) technology for early cancer detection invented by Dario Crosetto which is 400 times more efficient than current Positron Emission Tomography (PET). In the context of this review, you made a promise of a meeting with the newly appointed Scientific Director of CPRIT Dr. Alfred Gilman. You recanted on your promise, and I am writing to urge you to keep your word. Lives are at stake.

The basis of the 3D-CBS innovative technology was recognized and approved in 1993 by an international review panel of scientists appointed by the Director of the Superconducting Super Collider (also Director of FERMIlab). More recently, Dario Crosetto developed other innovations in the field of Medical Imaging for the early detection of cancer. These were also approved by several international panels of scientists and experts in the field (see video recording at www.crosettofoundation.com of the July 1, 2003 international review of Crosetto's 3D-CBS innovative technology in Dallas, TX and the June 23, 2008 international review in Rome, Italy).

For some time I have followed the communication between the legislators who proposed HB 14 and inventor Dario Crosetto.

I am aware of the latest communication between Dario Crosetto and CPRIT: Crosetto's presentation to the CPRIT Board and letter dated February 20, 2009 and his meeting with you and Ms. Margaret Bentley on May 21, 2009. I was pleased to hear that during the meeting you decided to pursue in-depth this avenue and you promised to arrange a meeting between Dario

Crosetto and the newly appointed CPRIT Scientific Director Dr. Alfred Gilman, as soon as he assumed office during the summer of 2009 for the express purpose of ensuring that all parts of the technology were clearly understood by him.

I also witnessed your conference call with Dario Crosetto, as did many others at his presentation of 3D-CBS at the University of Pavia, Italy on June 12, 2009. During that conference call we were quite surprised to hear that you would not arrange the meeting between Dario Crosetto and CPRIT Scientific Director Dr. Alfred Gilman as promised. You said only that you did not think he would agree. This raises our concern that once again cancer patients will not get the benefits from this life-saving breakthrough, a scientifically irrefutable and valuable innovation.

To be clear about our request and the reason for this meeting with Dr. Gilman, this grew out of the discussion you had with Dario Crosetto and Margaret Bentley on May 21, 2009 with respect to the difficulty that many scientists and doctors have expressed about understanding the entire technology. They have reported that they do not feel competent to evaluate it because they do not understand it all. As you may recall, you suggested that Dr. Gilman would be able to understand the entire concept with the benefit of being face to face with Crosetto so that he could clarify any misconceptions. In fact, the discussion continued regarding historical experience of a number of scientists and doctors who at first did not understand parts of it, but who became strong supporters once they had a chance to discuss it with Crosetto directly.

I am aware that you three also discussed the problem with non-public reviews and now we have public recognition of the result of this situation in *The New York Times* of June 28, 2009 (http://www.nytimes.com/2009/06/28/health/research/28cancer.html?_r=1&ref=health&pagewanted=all) where Dr. Richard Klausner, former Director of the National Cancer Institute says the present grant review system is not working and "*Money goes to projects unlikely to break much ground*". I see clearly why this happens. I hope you now understand, too. However, the possible review of a proposal by Crosetto is not the matter at hand. What we want to encourage is simply a face to face meeting with Dr. Gilman to make sure the entire concept is fully understood.

We were disappointed to learn that the motivation you offered for recanting your word seems to be the perceived unfairness with regard to "competition" among grant applicants. What is being requested here is only to ensure that the technology is understood as you suggested. A request for seed money and evaluation of a grant request would come later. The real "competition" between grant applicants should not be about who might gain an advantage by getting closer to a decision maker, but who ultimately has the most effective solution. Our disappointment derives from the fact that in the past there was no willingness to have a thorough scientific understanding of a potentially revolutionary invention which requires understanding ALL innovations by having an interaction between the inventor and experts in specific fields which is not what a typical review panel can offer. Once it is assured that Dr. Gilman fully understands the technology, he will be in the knowledgeable position to select the appropriate experts, who together will be competent to understand this advanced technology. Your recanting the meeting makes us believe that we are encountering the same problem as before. Indeed it is unfair to the cancer patient to keep delaying the opportunity to learn in-depth about a solution that has been missed by the medical and scientific community until today that would save his life and many other lives.

As Dario Crosetto and Margaret Bentley explained clearly in your meeting, in the past ten years, several grant review panels have admitted that they do not possess sufficient expert knowledge to understand Dario Crosetto's written proposals. Without his direct clarification, the reviewers have never been able to see the relation of the invention with the technical advantages and benefits to

the patients. In fact, Dario Crosetto has only been able to scientifically prove his innovation to the reviewers when given the chance to talk to them in a face-to-face review and answer their questions directly. And here, your response was that you would try to set up a face-to-face meeting with Dr. Gilman so all concepts could be discussed and clarified.

In the past ten years, no scientific argument has been put forward to invalidate Crosetto's claims. However, in spite of the great impact of this technology, which is capable of identifying cancer at the molecular level, which in turn results in a dramatic reduction of cancer deaths, reviewers never funded his technology. In his interview of June 28, 2009 in the New York Times, Dr. Richard Klausner, says that the current grant system leads researchers to focus on small projects unlikely to take significant steps toward curing cancer. Clearly, if the right experts are not chosen who can understand an entire technological advance and are not given the opportunity to question the inventor, the result is obvious.

I therefore asked Dario Crosetto to write a two page Appendix summarizing his invention and its key elements. It is attached at the end of this letter. I would hope that you will provide it to Dr. Gilman when you explain your and our request for a face-to-face meeting with Dario Crosetto to clarify and answer any questions.

I urge you to arrange the meeting between Dario Crosetto and Dr. Gilman. We trust that a man of Dr. Gilman's stature will understand Dario Crosetto's scientific approach so that he can then determine which scientific experts are required to evaluate his innovation. Because Crosetto was able to overcome the reviewers' preconceptions in the field any time he talked to them in a face-to-face review and answered directly to their concerns, doubts or obstacles, we trust that this will happen in Dr. Gilman's case as well. No additional delay must occur to prevent all the benefits of Crosetto's innovations from reaching patients. Dr. Gilman has a very well deserved reputation for being a keen innovator and acute listener. Dario Crosetto is an outstanding communicator who can present his innovations concisely and supported by solid scientific arguments. A revolutionary and life-saving technology like 3D-CBS must not languish because of the lack of expert knowledge of grant review panels today, especially when, while the cure for cancer may be in a distant future, the tools for early detection may already be at our disposal!

I therefore strongly urge you to keep your promise to Dario Crosetto and Margaret Bentley.

Please, arrange a meeting between inventor Dario Crosetto and the Scientific Director Dr. Alfred Gilman.

Please let me know your decision and I will pass along your comments to the over 7,000 people who signed the petition. They are also anxious to know if Dr. Gilman's understanding of this technology supports or invalidates Crosetto's claim or if other inventions or projects that clearly provide much greater impact in the reduction of premature cancer deaths can be pointed out.

I am looking forward to your reply,


Judith Prister

APPENDIX:

Summary of the logical steps that support Crosetto's claims to save more lives thanks to his innovations in Early Cancer Detection.

1. Total cost of cancer in Texas (2007) is \$21.9 billion/year, in the U.S it is \$219.2 billion/year (in general \$730/year/American) and reduction in cancer deaths is less than 2%, while for heart disease the reduction was 64% during the past 50 years.
2. Experimental data confirm that **cancer diagnosed at an early stage has 90% to 98% probability of resulting in a life saved.** (Diagnosis at a late stage for lung cancer, the number one killer, shows a [survival rate of less than 10%](#)). It is therefore necessary to address research toward early cancer detection.
3. Cancerous cells differentiate from normal cells through different signals that provide information about their mutation. **Such signals are related to changes in: odor, temperature, tissue density, fluorescence, metabolism, perfusion, etc.**
4. Because cancerous cells take up to 70 times more nutrient with respect to normal cells, the signal most reliable and useful for early detection and useful for reduction of "false positives" and "false negatives" is the change in metabolism (nutrient to body cells) that provides information at the molecular level. Positron emission technology allows identification of which cells (or a group of cells) take more nutrient than normal, thus a suspected cancer site. This technique captures and counts in a unit of time the signals from the radioactive tracer placed on the molecule of the nutrient to the body cells. (In comparison, [CT](#), X-ray, mammography and all other devices based on tissue density measurement are much less reliable for early detection because 1 cm³ of tissue consists of about one billion cells, too many to be considered to still be at an early stage. In addition, some types of cancer develop without changing density).
5. After having verified that 'positron emission technology' provides the best signals, one should also realize that the current over 4,000 Positron Emission Tomography (PET) devices that make use of the principle of operation of 'positron emission technology,' because of their low efficiency, cannot provide early detection because they capture with inaccurate measurements only one signal out of 10,000 from the tumor markers (and they require administering a radioactive dose to the patient that is over ten times higher than the one recommended for screening asymptomatic people by the International Commission for Radiation Protection -ICRP).
6. Crosetto's invention allows an increase in efficiency over current PET by more than 400 times, capturing more accurately 1 out 25 signals from the tumor markers instead of 1 out of 10,000.

Crosetto basic invention in the Trigger for High Energy Physics application opened the door to [other inventions](#): some dependent on the original invention and others that are independent inventions.

In the field of Medical Imaging such new inventions relate to different technological aspects: mechanics, detector geometry (elongation of the detector), simplified assembly of the detector, coupling of the detector system to the electronic system, real-time execution of photon identification algorithm, etc.

No one could ever refute with scientific arguments Crosetto's claims that allow this great increase in efficiency and accuracy in measuring the parameters that make possible an early and more accurate detection of cancer.

In greater detail, these innovations relate to five main areas:

1. Increased detector length – longer Field of View (FOV) made possible because of the other innovations that allow the use of more economical crystals without a large increase in cost.
2. Improved and simplified detector assembly.
3. Innovative electronics providing a means of:
 - a) accurate identification of the impact point of all photons including the oblique photons and accurate measurement of their total energy.
 - b) reduction of the initial number of the electronic channels.
 - c) simplification of the method for identifying in-time coincidences.
4. Capability of executing complex algorithms for photon identification.
5. Innovations in the visualization of the information obtained.

The synergy of all these inventions allows capturing more accurately all possible signals from tumor markers at a lower cost for each signal captured providing the physician more accurate measurements of five parameters that allow reduction of "[false positives](#)", "[false negatives](#)" and the examination cost and enables early diagnosis.

These five parameters are:

1. Accurate measurement of the total photon energy, using the signals received from 9 electronic channels (rather than 4 as used in current PET), that allows discrimination of "good events" from "scatter events"
2. Accurate measurement of the photon arrival time (Time-of-Flight –TOF-) that allows discrimination of "good events" from "[randoms](#)" and "[multiple](#)" events.
3. Accurate measurement of the spatial resolution referred to the 'x' and 'y' coordinates (distance in the axial and 90° with respect to the axial directions of the impact of the photon into the surface of the crystal. Centroid calculated based on a 3x3 array rather than a 2x2 array used in current PET).
4. Accurate measurement of the photon [Depth Of Interaction](#) (DOI) which allows elimination of the parallax error.
5. The improved signal to noise ratio makes it possible because of the capability to execute complex algorithms in real-time, while sustaining at the same time a high input data rate.