

**The Catholic University of America  
Department of Biology  
Washington, DC 20064**

**March 2008**

Dear Colleague,

I am writing to you to solicit your support for a project that will serve to accelerate the elimination of a major blemish from the landscape of science. As scientists learn about the underlying facts their reactions change from disbelief to outrage, characterizing the current situation as scandalous, embarrassing, corrupting, and extremely wasteful. The blemish is that many of the cell lines used for biomedical research are misidentified and/or cross-contaminated by cells from other cell lines. Hence, much published research using cell lines, perhaps as much as 20%, is tainted, ---is false,--- is misleading. This has been known since 1966 and it has been allowed to continue unabated .

I am writing to you and many other scientists because all scientists share the responsibility to serve as guardians of the integrity of scientific research. Also, I am writing with confidence because what I will ask of you, though not burdensome, will be important and rewarding.

An ad hoc group of concerned scientists has been involved for three years in an initiative to seek a resolution of the problem of cross-contamination and misidentification of cell lines. It has made considerable progress despite the absence of appropriate leadership from professional societies, scientific journals, and providers of research grants. With a widely distributed Call for Action white paper serving to sound the alarm and document the nature and magnitude of the problem, support was obtained from 4 professional societies, 5 major cell repositories, the HHS Office of Research Integrity and individuals throughout the world. Subsequently, our initiative was featured in Science magazine ( Chatterjee,R. 2007. Cases of Mistaken Identity. 315:928-931.) and in a BBC Radio investigative documentary. An expert panel was convened to plan the next step in our quest for a profession-wide consensus on authentication. The panel then sent an open letter to Secretary of HHS Michael Leavitt, who referred the matter to the Director of NIH, Dr. Elias Zerhouni, for resolution. In a letter to me, Dr. Zerhouni encouraged continuance of my initiative. Notice NOT-OD-08-017, issued on November 28,2007,is an addition to the NIH Guidelines for Research. It acknowledges the validity of my concerns and calls for diligence in the characterization of cell lines. It also calls on the peer review process for grants and publications to help rectify the problem. The Zerhouni letter and the Guidelines addition are important advances. They “certified” the legitimacy of the numerous calls for resolution by researchers at home and abroad over a span of forty-five years! The action on the part of the NIH also showed that progress can be made if accompanied by proper doses of education that lead to heightened awareness.

Much of my three year odyssey has been devoted to seeking an understanding of the factors that contributed to the persistence of the scandalous situation. Several that I have identified include denial (it could not happen in my lab), disbelief (wouldn't there have been intervention and correction if there was a serious problem; isn't science self-correcting?), ostrich transformation (as long as I keep my head in the sand I will not get upset or have to examine my operation or have to confront my less- than-diligent colleagues), a sense of hopelessness (methods for

authentication are difficult or expensive or not sufficiently sensitive or because of its size and so many shared responsibilities it is unmanageable), and a lack of in-depth awareness on the part of many researchers who adopted cell cultures as a valuable tool but are insufficiently prepared regarding quality control and the history of cross-contamination and misidentification.

Rebuttals and corrections exist for each of these factors. What is needed to correct the situation is sustained education that will lead to heightened awareness and to correction. Finally, we have arrived at the place where you can get involved, even if you are not a cell culture user. The ad hoc group of concerned scientists plans to have at least one cell line authentication activity held during April-May in as many universities, research institutes, and companies throughout the world. This is part of a sustained global education effort that will lead to heightened awareness and facilitation of correction of a problem that has persisted too long. Without heightened awareness made possible through education, realistic hope for a lasting solution gets diminished.

We hope that you and many other scientists, regardless of specialty, will volunteer to serve as a host for a one- hour activity (webcast, lecture, seminar, discussion session or teach-in) to be held at your institution. As host, your responsibility will be to select the kind of activity you chose to host, select a day and time, secure a meeting place, and enthusiastically publicize the program by email and/or flyer. The kind of activity and level of sophistication of the program should be dictated by the availability of experts and designed to accommodate the background of the target audience. A website (<http://cellid.cua.edu/>) will be fully operational within 10 days. It will serve to provide support of the host in order to ensure the best program possible and to minimize the burden to be carried. Hosts who are not well grounded regarding cell line identification and authentication, as well as many other hosts, may prefer to select a webcast for presentation in lieu of searching for a speaker.. The webcasts will be narrated power points prepared by experts; they will be available for viewing 24/7 throughout the month. The host could introduce the webcast to a group by reading an introduction we can provide or one prepared by the host. Hosts in an institution harboring experienced cell culture workers may chose to concentrate on methods for authentication, or causes and prevention, etc. Or what can be more exciting than a well- moderated round table discussion of the different responsibilities of various components of the cell culture scene, such as grant agencies, peer reviewers, policy makers, editors, lab chiefs, technicians, professional societies, and whistle blowers? Other support material accessible from our website will include bibliographies, focused references, lists of misidentified cultures, sources of authenticated cell lines and services, history, ethical implications, and cell banking, The broad spectrum of webcasts and other materials will make it possible for individuals to fashion a tutorial for their personal use and files. However, advantages stemming from the interaction of members of a group suggests that the host should try to sponsor a program for a group whenever feasible.

I hope that you will accept this invitation to be a host for your institution and in that way contribute to the restoration of scientific rigor to the use of a very important research tool.

Sincerely,

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