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During the first week of May, I attended a Council of Scientific Society Presidents meeting in Washington, DC. I especially enjoyed this meeting because I listened to and learned from other scientists with similar - and different - experiences whose thought-processes were similar to my own. They were, after all, trained in the scientific method which requires testing an hypothesis with data. Two days later I spoke at a Superior Court Judges conference in Washington, DC. This conference was designed to examine the "Role of the Court in an Age of Developing Science and Technology." What an eye-opener that was! I was one of a few forensic scientist speakers on the program who had actually worked in a laboratory. All speakers were requested to discuss the state of forensic science with members of the judiciary. All seemed eager to listen and learn. Most of the attendees were judges. The other speakers were also judges, defense attorneys, other lawyers, social scientists, and statisticians. The conference program lists no current prosecutors on the panels.

When I accepted the invitation, I thought this opportunity to speak in a "lawyers' forum" would be self-fulfilling and all that other "feel good stuff" I had come to expect from similar experiences behind a microphone. It didn't quite work out that way. I walked away from that conference experiencing a "wake up call" best described as something from two movies I had recently viewed: "No Way Out" and the beach landing scene from "Saving Private Ryan."

Social scientists do not view the world through the same prism as those of us who use the scientific method in directed problem solving. What I experienced was this: The validity of the arguments, "truth" or "fact," call it whatever you choose, in the discussions that day were not based on what I will call substantive definitions of terminology. I rediscovered something I had intentionally downplayed in my own mind since I left the laboratory environment three years ago. In the legal setting, "truth" may be, and too often is, determined by the most passionate argument. In many instances speakers defined their own terms with their own definitions. (Does anyone care to guess how many definitions of "error rate" I encountered at that conference?) In discussions among some lawyers, truth has a way of being annoying yet negotiable. There are those who believe in a forensic science discipline (truth) when it works for them and against a forensic science discipline (unvalid/invalid - choose any prefix which sounds good) when it does not work to their advantage. . In fact, this apparent inconsistency forms the structure for the adversary system. In one case a defense attorney is expected to challenge forensic evidence because his client's interest demands it. In another case he is expected to embrace the same evidence for the same reason. In science we test a hypothesis with data. One can be more confident in an opinion

specifically because the weight of the science supports the conclusion. Many of us have encountered some legal settings where a tailored conclusion seems to have been constructed by finding the citation of another who agrees while overlooking the opinions of those myriad of others who disagree.

What I also experienced were some who manufactured partisan crises of doubt in everything “forensic.” There were others who through their presentations endorsed a term I encountered in a National Association of Criminal Defense Lawyers publication dated March 5, 2010: “Culture of Conviction.” If that term was used to describe the relationship between law enforcement (including prosecutors’ offices) and forensic science laboratories, I disagree. This was not the world I have lived in these many years. Why would any organization want to convict the wrong person?

A week or so later I read a quotation from the Honorable John G. Roberts Jr. from his 2005 Supreme Court confirmation hearing. The now Chief Justice of the United States said:

“Judges are like umpires...Umpires don’t make the rules. They apply them. The role of an umpire and a judge is critical. They make sure everybody plays by the rules. But it is a limited role. Nobody ever went to a ballgame to see the umpire.”

I came away from that conference with the impression that even some judges and lawyers might on occasion feel justified to insert their own beliefs into the criteria from appellate court decisions and statutes along with the rules of evidence to determine admissibility of forensic science testimony.” Admissibility standards are and should be determined by statute or rules which are interpreted by court decisions, not by a partisan agenda.

In reading much of the commentary and discussing some purported factual statements which are out there regarding “The Report,” I am beginning to wonder whether everyone who has access to Wikipedia or Google, no matter what their background, believes they are experts at defining the rules to suit their own agendas regarding forensic sciences.

I am confident that the United States Congress in the pending draft outline of forensic reform legislation will bring those who have experienced forensic science in the laboratory in the real world on a daily basis into the process to play a major role in determining the best legislation to strengthen forensic science. The Inter-Agency Working Groups (IWGs) for the White House Subcommittee on Forensic Science of the executive branch will also examine how best to accomplish this goal. I admire the efforts from both of these branches of government for reaching out to forensic scientists from laboratories across this country and bringing forensic scientists into their fact finding processes.

I believe that the framework which will emanate from the legislative and executive branches of government on how best to strengthen forensic science will be based on the fact that what happens in the next 25 years will be predicated on our experiences and shortcomings of the past 25 years. Let's not make the same mistake again by falling into the "it's good enough trap." Good enough seldom is! A lot of "justice" (exonerations and convictions) has occurred in our court system because of the advances in the forensic sciences. However, we have a long way to go to ensure that the best forensic science possible will be the work-product of the discussions and consensus building which will take place over the next few months.

President Obama, when speaking about those who have differing opinions, said:

"America evolves and sometimes those evolutions are painful. People don't progress in a straight line."

Scientists are people and therefore science never has and never will progress in a straight line. Even though some mistakenly believe "linear" defines "good science," those of us who have worked in a laboratory realize that the line does not always pass through all the data points. We look for the "best fit" of the data.

These next few years may be painful. People are reluctant to rock the boat when they are in the boat. However, it is time that we acknowledge the fact that we will not move forward by continuing to do things in the same way. Face the fact that all of us must pay attention to what we knew pre-February 2009; we must do a much better job formulating our conclusions, writing our reports, and enhancing the science in our scientific methods. I am talking about revisions in the way we approach our responsibilities to the justice system.

Forensic science is undergoing one of the most significant periods of evolutionary change that I have witnessed during my 32 years in the laboratory and three years teaching forensic science in the classroom. There are opportunities for enhancements and "doing it better" that I wish had occurred years ago. Let's "get over it" and realize that while change can be painful; no change is permanent. Yet change for the sake of scientific improvement should be embraced. To my younger colleagues I suggest that you buckle up because you will probably be doing this again in a few years. You will be responsible for keeping this process moving forward. However, the only way to consistently improve any profession is to evolve by listening to those on all sides of the argument realizing that there may be some words of wisdom in many comments viewed as inflammatory. Let's build on what's right and change what must be changed. Remember, we can learn from those with whom we agree. Face the fact that we are all in this together. I respectfully request that everyone stop restating the problems and

start proposing and implementing workable solutions. Let's learn to listen to one another, find the common ground, focus on solutions, and minimize the rhetoric.