My job is to talk to you just briefly about the part of the self-assessment process and the maintenance and certification process that deals with the lifelong learning requirement. But I wanted to emphasize something that ____ said because it's really true. There's not a lot here that you're not already doing. We're just asking you to document it. And the documentation we're trying to make as easy as possible by putting up a password protective website for you, each of you, in which you can put the information in on a continuing basis the end of which will be that you simply download that information in your application for a recertification or for continuation of your certification. So if you think about this and listen to it carefully you'll recognize that we're really not asking you to do much more than what you're already doing or should be doing to stay up with the field. Even the cognitive examination that Steve will talk about in a moment,

we're making it so that you would have to work hard not to pass. You could fail but you would have to work at it. OK. Lifelong learning and periodic self-assessment. There really..first talk about lifelong learning. There are two components to this. One component is continuing education credits category one, the sort of credits that you get for attending a meeting like this. If you are compiling those credits we would ask you to continue that compilation. Those will count towards recertification or maintenance of your certification. The second area is something that is unique to the physics group and we think it's going to be very helpful to you. These are called self-directed educational projects that you design as a reflection of the kind of information that you need to know to be of greater service to your institution, to your practice and to the patients that you serve. And we'll give you a couple of examples of that in a moment. But it's

no different than the kinds of things that you should be doing as an ongoing educational process. Each self-directed educational project counts for 15 credits. If you have certification in one specialty, then we would expect you over the 10-year period to have accumulated 500 learning credits, a minimum of which must be category one, continuing education credits, and a minimum of which should be 150 self-directed educational projects. And the total would be 500. These are the two minimums that you would have to achieve in terms of how you would separate those two. If you are certified in two specialties we're obviously not going to ask you to double that number. So you would then be required to compile 600 lifelong learning credits. And if you have all three certificates you would be asked to document that you have 700 credits distributed reasonably well amongst the three different specialties. So those are the requirements. Now

there's also a second component to this. I'm going to come back and give you an example or two of self-directed educational projects in just a moment. Before we get to that there's also a requirement that you periodically self-assess your progress towards the maintenance of your certificate. That's important for you to do. You need to check yourself to make sure that you're moving in the right direction that..at approximately the right rate. So we would ask you to document that you've gone in and looked at how well you are achieving each of the four goals, professional standing, lifelong learning, cognitive expertise by taking the exams, and practice performance. So this is really something that you do for yourself to check your own progress towards sustaining your certification. Now what do we mean by self-directed educational projects. Well, these are really self-study topics and you would decide on the basis of your

practice and the responsibilities that you have that there may be an area that you believe you

really need to brush up on or that you may need to learn about because it's being incorporated into your practice or it's a new development in the field that you need to know about. So in diagnostic physics, which are a theory that I'm responsible for, I just came up with some examples. These are just examples that you might in the basis of your practice decide you need to know more about. For example, you may decide that you need to update your knowledge of quality control instrumentation and procedures in diagnostic radiology. Say a new task force report comes out from AAPM on quality control in diagnostic radiology and you say I've got to learn, this is the standard so I've got to learn this new standard and how it applies to my practice. That would be a self-directed educational project. You would set up a mechanism to use that

document as a tool to improve your ability to perform quality assurance procedures or quality control using quality control instrumentation in diagnostics. Or here's another example. Learn about applications, quality control, safety standards and regulations related to the medical use of lasers in response to new duties because you've just been asked to expand your duties to worry about the applications of safety of lasers in the operating room and in the surgical suite. And so you have to now learn a lot about lasers and their safety and their utilization. That would require a self-directed educational project. You would do it any way, wouldn't you? But this way you sort of organize it and you document it, you've done it, and you have a way of evaluating success. I'll give you an example. What about HIPAA? Anybody ever hear of HIPAA? Of course. You had to learn about HIPAA, right? You had to learn about the privacy act, the

HIPAA regulations and how they pertain to your practice and how they pertain to the ways that you have to protect the privacy of patients. You did that. Well, that was a self-directed education project. Why don't you give yourself credit for it? Well, there's lots of other examples. I'm not going to go through all of these. Increase my understanding of duplex Doppler ultrasound and this applications in cardiology and cardiovascular medicine because you're adopting some new procedures in the practice of radiology for which you would be responsible. So you can see that this can continue on over several different areas. Let's say, for example, and I'm going to give you one example so look at number 8, enhance my understanding of molecular imaging and its applications to molecular biology and to genetics. That may be something that you decide you need to know more about because molecular

imaging is increasingly being discussed. You're not even sure how to define the term but that puts you in very good company with many others. But you need to know more about it because it's being discussed in your institution. So let me give you an example how you would design a self-directed educational project around molecular imaging. For example, suppose you're in an academic institution and a group of basic science chairs come to the department of radiology chair and say we need to support our molecular biology and genomics and prodromics research. We need a core molecular imaging facility that would include PET, SPECT and CT and micro CT and so forth and so on. We need that facility and we really think it ought to be within the realm of radiology to provide and staff that facility to support the research that those of us who are in basic science. It would be a very nice thing for radiology to be asked to do would be to

support, build, design, support, staff and use a core in molecular imaging facility. So your chairman says of course, we would be delighted to do that. You have the resources, you want to build it, you've got the money, you have some grants from the NIH, the institution's going to

support this, we would be happy to take responsibility. Who does your chair go to, to ask to take that responsibility on? Of course, the chief diagnostic physicist in your department, so maybe that's you. So you're visit from the chair says you're in charge, you design it, you build it, use the resources, figure out how to staff it, and provide the services that the basic science chairs need and get our faculty and residents involved in using it, too. That's your new job. I'm not taking anything away from you but that's a new one for you. Alright. So what are you going to do? You don't even know what molecular imaging is. So you decide well, I've got to find out.

There's an introductory course on molecular biology that includes molecular imaging along with a number of other tools. You better take that course. It's starting now, it's a fall semester. So you sign up for the course, you don't pay tuition because you're a faculty member, that's great. You read seminal articles, you take the course. That's one thing that you've done. You read articles, you talk to people, you get as much knowledge as you can within a three or four month period. How do you evaluate how well you're doing in assimilating information? Well, you take the examinations like everybody else, you pass the exams, you can begin to understand the lectures, you can begin to comprehend presentations in your institution and elsewhere on this topic, you can engage meaningfully in discussions with the basic science chairs and with basic scientists who want to utilize this facility as you go about the design because you have to

understand what it is they need. You're beginning to really understand molecular imaging. That's what a self-directed educational project is designed to do. What is its impact? Obviously you are and have become the departmental contact and the institutional representative in molecular imaging in terms of the tools to support basic research and you are now ready to plan and deploy this system and the facility in support of that research. So over a period of time. It's also a nice self-directed educational project. That's a rather large one actually. But it was meaningful. Some other ones could be quite small. Some of them can be larger. Fifteen credits each. Here's another one. So there's some new information about the decay mechanisms of thallium 201 that cause you to believe that some of the estimates of testicular dose from the clinical and utilization of thallium 201 label thallous chloride may be incorrect because they've

been using older dosimetric data but now there's new data available to suggest that some of the decay properties are different, so you're going to review the old data and you're going to review the new dosimetry data and you're going to use the new dosimetry data to compute new testicular dose levels which actually lead to a publication. And you will evaluate the success not only by the fact that you did the computations but the computations led to what you expected they would, which is a reduction in dose. The manuscript was accepted for publication and the impact is that now there's new dose information on testicular dose and thallium 201. That's important to the clinical utilization of that nuclide and it could actually lead to procedural changes allowing higher dose, better images as a consequence of your calculations, who knows. But that will be another self-directed educational project in nuclear medicine physics. These are

the kinds of things that you should be doing, that you are doing. You could be learning new things to stay up with the field in terms of new technologies that are evolving and new opportunities for each of you to make a contribution to your institution. So that's kind of a very short capsule of lifelong learning and how it pertains to maintenance and certification process. I'd like to turn it back to Steve.