First I wanted to indicate that I appreciated that the President actually took time from her almost non-existent free time and sat down and expanded on her thoughts about the relationship between teaching and research. This may well speak positively of her commitment to all aspects of the teaching mandate for the U of S. She could have easily passed this on to a committee to deal with. And by providing this report perhaps she has opened up a path and opportunity to create a conversation with her and the top administration of the U of S. Her support is exceedingly important if we want to implement major changes in current practices and ideologies. Because of her tight time limitations I suspect there were significant time delays between when she read her references and wrote the paper, and this could be a factor in some of my comments. Also, this report presents personal views and observations as well as literature references. Thus it is not an academic paper and I have tried to take that into consideration in my comments.

I should first note that I do not claim to be an expert on the data/papers that may or not support either the Teacher-Scholar model or the model that claims there is a direct connection between quality in research and quality in teaching. However these questions have been around for a long time and I certainly heard other faculty offer opinions (usually as obvious truths) on the topics as soon as I arrived in 1988 from spending 15 years in government/industry. Perhaps because of my government/industry experience I had a different set of lenses to observe some significant differences between workplace behaviour in academia and industry/government. I have also noted that undergraduate and graduate students, a majority of whom will establish careers in government/industry, obtained experiences that focus almost entirely on technical features of the discipline. Often they are given little or no exposure to the broader aspects of problem solving or of the attributes needed in their future professional career. Consequently a significant portion of my university career has engaged me in exploring broader aspects of teaching and learning in a desire to avoid the failures of my university education that seem so clear to me now. My experience with introducing inquiry based PBL in a 300 level chemistry course and the graduate professional attributes course GSR984 have led me to read a significant amount of the pedagogical literature on learning and teaching. And much of this reading/study does pertain to the pedagogical aspects of the connection between research and teaching.

Teaching and Research Comments, With References. A report by Ilene Bush-Vishnias, President U of S.

Although the title does not specifically state what the question is, by the end of the report it appears the President would like to show that excellence in teaching is connected to excellence in research. She seems to be addressing the following two main points:

a) That good researchers are good teachers and thus there is a direct link between the two.

b) That “teaching and research are not independent – they are the flip sides of the same coin”

Later in her report she identifies herself as one of the number of people “who would like to have evidence that research and teaching are positively correlated” even though none exists in the literature.

At the start of the paper the President notes that she intends to “provide material to document my comments and support them with references”. She begins the paper with personal observations. While
there is usefulness to life experiences and it helps the reader understand where the author is coming from, this is not the kind of data that can be referenced or that we can apply to broader generalizations.

In this first section she states that ‘teaching graduate students and PDFs how one conducts research....is dissimilar to undergraduate or classroom teaching only in that it has a stronger one-to-one relationship”. I suspect this may be what she if referring to when she states “they are the flip sides of the same coin”. I am not sure that this statement can be supported by the literature. While there may be some similarities between undergraduate teaching and graduate research, there are a number of significant differences. Different teaching formats and goals must be implemented to address these differences. Some of these differences are: Graduates are generally more motivated, have demonstrated academic ability to learn on their own, have focused their disciplinary interest in a sub-discipline of a discipline, and the one-to-one teaching relationship is predominantly focused on problem solving in a narrow field with little attention given to the broader relationships that the research may have when introduced into society. Undergraduates possess a wide range of motivation, interest and academic ability. As these undergraduate students progress though their degree they are expected to develop the skills of a critical reader, learn to make connections between different topics/ideas, and assimilate ideas to create new knowledge (the extent to which this is done depends on the discipline). Ultimately we would like the students to become metacognitive thinkers, i.e. they think about their thinking. The extent to which this happens in our educational institutions is a topic of some debate. The pedagogy used at the undergraduate level needs a strong emphasis on student learning. There is extensive literature on student learning and how we teach should be informed by this body of knowledge. Unfortunately most teaching at the university level follows the rule “Do unto others as was done unto me--lecture”

At the bottom of the first page she refers to “the role of engagement in producing desirable student learning outcomes” and that “student engagement is a proxy for student learning”. If by ‘proxy’ she means engagement is an important aspect, then I would agree strongly. It should also be noted that research on learning indicates that engagement can be achieved in several different ways. Later on in p2 she states that the “impact of research on undergraduate learning has been studied”, and that a “key study is M Healy and Al Jenkins, Developing Undergraduate Research and Inquiry, 2009”. This is a very long report so I carefully read the Executive Summary, The Argument (Origins and Scope), and The Research Evidence sections. This paper addresses primarily the following two themes.

a) That the introduction of selected students to research, particularly to a specifically constructed course that involves students in research, leads to a number of positive outcomes. I would agree strongly with this position and would think that anyone with a background in the pedagogy of teaching and learning would also. This Healy and Jenkins report does not address any aspects of introducing conventional research into normal classes nor the possibility that there may be a direct connection between research and teaching.

b) The Healey Jenkins paper also focuses on the overlap between research methodology and inquiry based learning, which the authors see as a classroom approach that will engage students in skills required in research. Although the authors note that inquiry based learning is a problem based learning approach, they use the term ‘inquiry based learning’ possibly to differentiate it
from some PBL that can in some instances be very narrow in scope. I am a strong supporter of applying inquiry-based/problem-based learning in place of conventional lecturing, and I believe that it teaches good research skills. Consequently I agree with what is in this report.

The next report that the President singles out is a report by J. Halliwell on the Nexus of Teaching Report, 2008 produced for the Higher Education Quality Council of Ontario. The President refers to this as a meta-analysis of many meta-analyses on teaching and learning. No meta-analyses were done. This paper is a review, and not a critical review, of the conclusions and recommendations of many published reports and papers. This paper can certainly be recommended as a good starting place to learn more. The two main messages that this paper seems to convey are:

   a) There has been no relationship shown for a direct relationship between research (as it now exists in our universities) and teaching.

   b) Many people feel that there could be a connection between research and teaching (particularly teaching outcomes), that several qualitative studies have looked at those individual cases where this relationship does exist, and that if we want to move in this direction then we have to carefully consider what might be needed and most importantly have this initiative burned into the institutional structure.

At the end of the paper the President admits the fact that there is no relationship, negative as well as positive between effective teaching and effective research. She then uses this lack of relationship to support her statement “we should not anticipate that our teaching will change for the worse as we push for greater research intensity; it may well change for the better”. Unfortunately there are some research results (Hattie and Marsh) that indicate that this may not be the case. These researchers found that “there is a substantial negative relationship (-0.33) between time spent on teaching and time spent on research” and “Where there is some choice, academics choose to reduce time devoted to undergraduate teaching and increase time devoted to graduate teaching” (Hattie and Marsh, 2004, 2nd & 3rd paragraphs).

But for me the most important feature about this report is that the President is not just committed to developing research, but to using research excellence to inform and improve teaching. If this interest is genuine, then perhaps we can use it to make a quantum step in the application of sound pedagogically based teaching throughout the U of S.