Lost in a dark wood

Organizations are defined by their missions. When they lose sight of them, they risk losing their identity and purpose. Developments in American academic medicine over the last several years point to a loss of focus on the long-term objectives and the big picture. This nearsightedness is a major threat to our enterprise.

In the middle of our life's journey
I found myself in a dark wood
Because I had departed from the right way
—Dante Alighieri, *The Divine Comedy*

Academic medicine as we know it in the US today dates from the post–World War II era of the expanded NIH and its support for extramural clinical and basic research (1). According to this chronology, academic medicine is now 50–60 years old. A recent large-scale survey of the US population indicated that midlife crises often occur after the age of 50 (2). Perhaps this is triggered by the now-ubiquitous unsolicited arrival of a membership card from the American Association of Retired Persons shortly after one's 50th birthday. The German developmental psychologist Erik Erikson argued that the struggle to find and define our purpose under the evolving changes of midlife could create a crisis. I believe academic medicine is suffering from one. This crisis arises because, as Dante put it, we have "departed from the right way"; we have lost sight of the mission of academic medicine, and as a result, we are in danger of losing the link between science and the clinic, a connectivity that academic medical centers traditionally, and almost uniquely, excel at.

It is commonplace to state that academic medicine has a tripartite mission: clinical care, research, and teaching. These are, and should remain, our core activities; however, these are strategies to achieve the mission, not the mission itself.

I submit that the mission of academic medicine is to improve human health via the advancement of knowledge. Simple enough, no? So why do so few institutions state that explicitly? In an unscientific survey, I examined the Web pages of the top 10 schools of medicine (based on NIH funding) for the 2005 fiscal year, plus a select group of other major institutions. Surprisingly, many did not provide a mission statement at all, and only two of them (UCSF and Johns Hopkins) even mentioned the overarching goal of advancing human health.

When we lose sight of our mission, it becomes easy to focus solely on individual means. One such means is money. Gradually but inexorably, and often in response to external pressures, academic medicine has become a business, and although most centers are not-for-profit, it would be difficult to discern this based on the messages that are communicated to their faculty and staff and the incentives that are used to govern their behavior. Clearly, we cannot ignore the bottom line; it is imperative that we be fiscally responsible, because sound finances are essential to achieving our mission. Moreover, as the faculty in my division have heard me say on numerous occasions, while we may complain about cost-cutting measures, we also want our paychecks to clear when we cash them. Yet a sound bottom line is the only the means to the end.

What I see as the confusion of ends and means is not limited to the fiscal arena. As noted above, few of the major schools of medicine give true mission statements on their Web site. I suspect it will not surprise a single reader of this editorial that virtually all Web sites provide information about how highly they are ranked by *U.S. News and World Report*. Congratulatory e-mails are sent each year to the faculty when these rankings are released. High rankings may help attract trainees, facilitate fund-raising, and keep the hospitals full. But those rankings alone don't translate scientific advances into improved health. Wouldn't it be nice if communications also focused on spectacular new discoveries at the bench, major advances in clinical research, or innovative new programs that serve the health needs of the (often underserved) communities in which we are situated?

Many external forces beyond the control of the academic biomedical community have contributed to the current dilemma, and they have been discussed at great length in numerous scholarly journals. Yet while complaining is easy (and in this arena, my family believes I am without peer), and may make us feel better, it will not accomplish much else. If we wish to refocus on our mission (knowledge discovery and the translation of those discoveries into disease prevention and treatment) and reverse the dissociation between medical care and biomedical science, we must abide by the biblical imperative — "Physician, heal thyself." What is my prescription for cure?

First, physician-scientists should remember that they are not a lone voice in the wilderness. The largest sources of research funding in the US, the NIH, the Howard Hughes Medical Institute, and the Gates Foundation, are also committed to the goal of translating scientific discoveries into improved health. A number of elements of the NIH Roadmap are specifically designed with this in mind. The implementation of Clinical and Translational Science Awards at 12 sites around the US provides new opportunities and infrastructure for translational medical research. Many individual NIH institutes also have created their own focused programs to accomplish this goal, such as NIAID's Immune Tolerance Network (http://www.immunetolerance.org), NINDS's Specialized Program of Translational Research in Acute Stroke (http://www.spotrias.com), and the NIGMS's Pharmacogenetics Research Network (http://www.nigms.nih.gov/initiatives/PGRN/). We must support and take advantage of these initiatives, which provide mechanisms for physicians and scientists at all levels to play a major role in mechanistic bench-to-bedside clinical research. It is critical that we find ways for scientists to be involved in the clinic and clinicians to be involved in science; otherwise, we risk becoming "lost in translation."

Second, we must serve as trainers and role models, acting locally at our individual institutions to attract outstanding physicians and PhD scientists to careers in biomedical research and nurture their progress. In the current era of increased competition for limited funding, they are vulnerable and need our help. We should keep them focused on the big picture — uncovering mechanisms of and new treatments for disease and applying them to patients.

Third, we must attract energetic and inspirational individuals who are committed to the mission of academic medicine to our leadership positions and tailor them for success. We must ask ourselves what

made the leadership jobs worth doing in the past and what we can do to make them good again.

Finding our way out of the dark wood will not happen overnight, but it *must* happen. American academic medical centers, and the people who work in them, need to remember that their mission is to advance health and knowledge and to focus their energies and goals accordingly. By losing sight of our mission, we have focused on lazy metrics like *U.S. News* and NIH rankings, forgetting how to measure what we really care about. As Albert Einstein said, "not everything that can be counted counts, and not everything that counts can be counted."

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1. Office of NIH History. http://history.nih.gov/index.htm.
2. Wethington, E., Kessler, R.C., and Brim, O.G. 1998. Midlife development in the United States (MIDUS): psychological experiences follow-up study, 1998 [computer file]. In Midlife Development in the United States (MIDUS) Series [data collection]. Study no. 2911. Cornell University Computer-Assisted Survey Team, producer. Inter-University Consortium for Political and Social Research, distributor. ICPSR02911-v1. http://webapp.icpsr.umich.edu/cocoon/ICPSR/STUDY/02911.xml.