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In Praise of Fantasy

Some see things as they are and ask "Why?"
Others see things that do not exist and ask "Why not?"
—Robert F. Kennedy

I have a dream...
—Martin Luther King, Jr.

Being realistic is certainly a worthwhile trait. Indeed, people who correctly assess a situation, the likelihood that a particular project can be completed or that a certain diagnosis best accounts for a specific constellation of signs and symptoms are considered to be knowledgeable, realistic and effective. But when is it worthwhile to persist, to try harder even when it seems to some that it makes more sense to stop, to conserve one's resources for another day or for another task? If events unfold in the right way, these people are even more successful, the best practitioners of their craft. So it is in medical practice, in investing, in coaching or athletic competition, in leading organizations, armies or states.

How does one know that he or she has correctly assessed the likelihood of success, of reaching a goal that seems out of reach or has never before been achieved unless there is a sense of commitment, of dedication to achieving that goal? Success depends on determination and belief that the goal is worthwhile and can be reached even though "logical" assessment of the odds may suggest otherwise.

Although steady progress is made by the rational, efficient practitioner, business manager or organization, the truly great achievements have been made by those—individuals or groups—who have faith; that is, belief in themselves, in the notion that what has not been done before or what seems too difficult to some can be achieved, that the dream can be realized, that the struggle can end with success.

There is, of course, always the danger in this type of striving that people can get lost in fantasy, in unrealistic assessment of their own abilities, and consequently squander resources, time and even their lives pursuing goals that are simply beyond their grasp. How, then, does one determine when a dream is only an illusion, an unrealistic, albeit worthwhile, goal? When is it too much for the individual or group to undertake? And when is it a vision of what is possible to achieve through special effort even if it has not been done before, or at least not done by one of us, or our team, our organization, our society?

The answer is "not very easily." But unless an individual or group of individuals believes that the prize is worthwhile, we will simply be prudent practitioners, bean counters, hangers of crepe. We will accept the easy victories and walk away from the more difficult challenges. We will be mediocre practitioners of our craft, responding to those who regulate medical practice, who are determined above all to control costs while mouthing platitudes about quality, benefits and outcomes.

In contemporary nuclear medicine science and practice, there are procedures and developments that had been at one time considered by many to be impractical and not cost-effective. Some procedures have been disapproved while others have evolved into standard medical practice, held to be of great benefit, ultimately producing great savings in dollars and significantly reducing patient morbidity and mortality. At one time, insurance companies and government agencies refused to

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MURR

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set of radiolanthanides trying to find the one with the best chemistry and the best physical properties. The initial patients were dogs at the vet school. Then, of course, it went to people—first here at Columbia, and then elsewhere in the country."

Samarium-153 was approved by the Food and Drug Administration for use as a palliative agent for metastatic bone disease in the U.S. in March 1997. MURR continues to supply the raw irradiated product for manufacture into that agent. The work with ^{153}Sm has led to work with other bone agents. MURR recently began assisting with clinical trials using ^{166}Ho as a marrow ablative agent for multiple myeloma.

Indeed, because of its pioneering work in the field, MURR is well placed to take advantage of the rapidly expanding area of therapeutic nuclear medicine. "We're suffering from funding problems like anyone else, and we don't have the infrastructure support that some government labs do, but we've always tried to work well within our means," commented Ehrhardt.

MURR continues to look forward as the new millenium approaches. One project in development is a $25 million, 81,500-square foot building addition that will provide additional research laboratories and office space. Current emphasis, however, is on the renewal of MURR's Nuclear Regulatory Commission operating license, which expires in November 2001. Stone and Webster Engineering Corporation (Boston, MA) was hired to develop the plan and budget that will allow MURR to upgrade its infrastructure. These improvements will allow MURR to continue making strides in nuclear medicine and biomedical research well into the next century.

—Jeffrey E. Williams

Radiopharmaceutical Measurement Assurance Program

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tory (of which the Radioactivity Group is a component) because of the commercial importance of nuclear medicine procedures, the customer service aspects of the program and the program's longevity and track record—over 20 years of data on costs and benefits that could be monitored.

According to the study's results, both patients and industry receive tremendous cost savings from the program. For example, without NIST standards, the accuracy of radiopharmaceuticals would decrease by 10%–15%, resulting in the need to redo about 1% of most diagnostic tests because of doses that are too low or test results that are unreadable. The use of NIST standards results in estimated savings of $45 million yearly for diagnostic procedures. According to the study, patients also see savings for therapeutic applications as well. Without NIST standards, 3% of all therapeutic procedures (of which about 1 million are performed annually at costs of $1500 to $2500 per procedure) would have to be repeated.

Manufacturers also reap economic benefits by not having to develop standards and resolve measurement discrepancies. "The radiopharmaceutical MAP is an excellent, cost-effective program," said Steingart, "particularly in view of the results we receive. It would be difficult for the radiopharmaceutical community to conduct a similar program, the special equipment is expensive and it would require cooperation from all the manufacturers regarding standards." According to the study, it would take 5–10 years to establish a privatized radiopharmaceutical standards entity if NIST abandoned the MAP program, at a cost of about $1.3 million per year during the transition phase.

—Eleanore Tapscot

Scatter

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reimburse for nuclear cardiology, inflammation imaging and SPECT imaging in general. We are currently reliving those experiences with PET imaging, cerebral perfusion imaging, fusion imaging and the diagnostic and therapeutic use of radiolabeled antibodies and peptides. How many efforts by academic centers and industry have been aborted because of the lack of financial support and subsequent fear of the effect of failure?

Medicine and our specialty, nuclear medicine, frequently overcame past adversities and achieved its current successes. We must continue to believe in, and subsequently prove, the efficacy of our newly developed procedures and commit our personal and professional resources to achieve new successes despite the lack of vision of others who fail to see the value in the quality of health care provided by these procedures.

Stanley J. Goldsmith
Editor-in-Chief, *The Journal of Nuclear Medicine*
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