

## State of the Medical School 2005, the Medical School at the University of Minnesota

### Passages



When I was thinking about a theme for this year's State of the Medical School talk, I remembered two books authored by Gail Sheehy. The first, *Passages*, was published in 1974—and helped to popularize the concept of the mid-life crisis. The second, published in 1995, was titled *New Passages: Mapping your life across time*, and in this book, she traced the development of individuals from their Tryout Twenties through their Turbulent Thirties, Flourishing Forties, Flaming Fifties, Secure Sixties, and beyond. In both books, she tells inspiring stories about people whose environment changes for a whole range of reasons.

As a result, they re-invent themselves with more integrity and inner strength than before. The take-home message? Change can be good at any stage in your life and we can go through periods of major change and emerge stronger.

Our medical school has gone through some major passages in the last 10 to 15 years and there is another transformation going on now in our Medical School and at the University of Minnesota. While we are not in a mid-life crisis, we are in a passage, a transition toward a new, stronger enterprise. This major transition calls upon us to assess how our environment is changing, how our aspirations are rising, and what we can and should do to respond to new realities.

So today in discussing the State of the Medical School at the end of 2005, I'd like to look at the University's strategic goals and how our Medical School's efforts and investments in research and in education accord with those goals. I'd like to talk about our request to the Legislature in this upcoming bonding session. Finally, I want to talk about passages that particularly pertain to our faculty.

Let's begin by considering the vision for our future that President Robert Bruininks has articulated: that the University of Minnesota will become one of the top three public research universities in the world within a decade. This ambitious goal has sparked conversations across the University and hundreds of faculty are engaged in discussing aspects of this vision. Bobbi Daniels and I lead the Clinical Sciences Task Force with Rob Madoff, Jeff Miller, Jas Ahluwalia, and faculty from Nursing, Pharmacy, Veterinary Medicine, Public Health, and Dentistry. It's a major task as we struggle to define clinical sciences and set goals for the future.

For the Medical School, this passage is a particularly exhilarating move toward a goal that I believe we all must embrace. If the University is to advance to the top levels, the Medical School's continued progress will be essential. Research at the Medical School, currently makes up about one-third of the research dollars coming into the University as a whole. We have a legacy of being an incubator for scientific and treatment breakthroughs that make a difference in people's lives—from open-heart surgery 50 years ago to personalized cancer vaccines today. The University cannot be in the top three unless the Medical School meets our ambitious goals for expanding our research portfolio.

We have resources in our school—a substantial infrastructure of labs and high-tech equipment—and we continue to build, a topic to which I will return. We also have a very talented faculty, which includes a growing number of researchers who collaborate across disciplinary lines, across Washington Avenue, and, increasingly, across greater distances north to our sister campus in Duluth and south to the Mayo Clinic. It's exciting to watch these connections being made.

Our basic research is rightly renowned and we will never neglect its importance. Yet to compete and to boost the University to the top level, we also must build up other areas, areas like translational and clinical research in which we demonstrate some

strength but have much more to do.

To help this school and the other five schools in the Academic Health Center move forward in clinical research, we this year recruited Dr. Jas Ahluwalia from the University of Kansas Medical School. As AHC executive director for clinical research and as associate dean for Clinical Research for the Medical School, he heads a new initiative for the Academic Health Center and the Medical School. He and a steering committee including Betsy Seaquist and Russ Luepker are pulling together investigators from across the Medical School, the affiliated hospitals, and the schools and colleges of the AHC to write a major application for one of the newly announced Institutional Clinical and Translational Science Awards (CTSA). As the federal government seeks to fund large-scale, interdisciplinary projects that take novel approaches to clinical and translational research, we need a person with vision to guide us along this new pathway. We have that in Jas.

Initiatives like this take large amounts of time and a large number of people. But initiatives like this will boost our Medical School and University higher and thus help toward the goal of reaching the top three within 10 years.

Research support also comes from the Minnesota Medical Foundation, which recently introduced the new Medical School Fund for Biomedical Research. This fund is backed by the Dean's Board of Visitors, President Bruininks, and Frank Cerra, and its goal is to raise \$125 million over 10 years in gifts from individuals and corporations. President Bruininks has pledged to provide a match of the dollars raised which ultimately means \$250 million to support research in our Medical School in the future.

In June, we celebrated the opening of the McGuire Translational Research Facility. Just last month, we saw the dedication of the Center for Infectious Disease and Microbiology Translational Research in the McGuire building, the fulfillment of a long-held dream for Ashley Haase, Jonathan Ravdin, and John Schreiber, and ably led by Mark Schleiss and Phil Peterson. But to support our growing community of scientists, we need more laboratory and office space. We need to grow and expand our world-class Center for Magnetic Resonance Research. And, in the immediate future, we have plans for a major public investment in a new Medical Biosciences building on the Minneapolis campus. This would be a \$60 million building with sophisticated laboratories to support translational scientists in cancer, immunology, and neurosciences. To make this building a reality, however, we must rely on our partnership with the State of Minnesota.

This Medical Biosciences building is part of the bonding package that President Bruininks will ask the Minnesota Legislature to partially fund, while the University pays one-third of the costs. I hope all of us will provide Medical School support for the University's bonding request at the Legislature in spring 2006. We need the support of the state for continuing advances at the Medical School.

I hope and I expect we will be successful. I have already seen major advances since I arrived in Minnesota three years ago. In 2002, the Medical School still was feeling aftershocks from major disruptions. The University of Minnesota had had its NIH exceptional status lifted only a year and a half earlier—an experience that had shocked many in the Medical School. And for various reasons, we had lost faculty over the years. We also had sold our University hospital to Fairview in 1997 and the partners still felt uncomfortable in the relationship. There was a sense that we had goals—to pursue excellence and advance in research, education, and quality clinical care—but people questioned if we could achieve those goals. We can achieve them and moreover we cannot do just one. We must accomplish all three missions at the same time because the domains of research, education, and care must be integrated; they intersect and inform each other. I think, however, asking each and every individual faculty member to be a triple threat is unrealistic. We must increase our faculty size to include faculty with strengths in education, in research and in outstanding quality clinical care to accomplish what we need to do.

We plan to revitalize our physiology department, for example, by giving it a new name and a new purpose. We are seeking a chair for a new department tentatively named Systems Biology and Physiology. This will be the first major basic science department recruitment in some time and offers us great opportunities.

The investments and efforts that we have made and continue to make as an institution to ensure the integrity of our research enterprise bring us benefits. Our rigorous system of research review helped us gain full accreditation by the Association for the Accreditation of Human Research Protection Programs (AAHRPP) in June 2005. By “us,” I mean the entire University of Minnesota, including its coordinate campuses, its major teaching hospital, and the other hospitals and clinics of our partner Fairview Health Services—a huge enterprise and the biggest single enterprise to receive AAHRPP accreditation. At the time, we were one of only 24 institutions to receive this accreditation. We all can take pride in this accomplishment.

We also can take pride in the recent re-building of our faculty, particularly our programs in Pediatrics, Neurosurgery, and Anesthesiology. We have leaders across the school who demonstrate great gusto in recruiting talented people to build up programs in patient care, education, and research.

Refining somewhat the work of the faculty several years ago, we have targeted five research areas and three technologies for Medical School investment.

The five key research areas are:

1. cardiovascular and pulmonary disease
2. cancer
3. diabetes and the metabolic syndrome
4. infectious disease and immunology, and,
5. neurosciences.

Research in these and other fields will be supported by these three major areas of technology:

1. genetics and genomics,
2. imaging, and
3. stem cell sciences.

In all our research programs, we have made and will continue to make great progress. Now that we are a single medical school, we need to consider how research programs on both campuses can expand our portfolio. Rick Ziegler and I have asked Charlie Moldow to chair a bi-campus committee to investigate areas for successful bi-campus recruitment and investment in new faculty.

We also have seen progress in our relationship with Fairview. This summer, our primary teaching hospital became the University of Minnesota Medical Center, Fairview. We have chosen a preferred site for the new University of Minnesota Children's Hospital, Fairview. Pediatrics is an area of clinical care that we must improve with facilities designed specifically to provide better care and treatments for children and their families. And we have a site for a new University of Minnesota Physicians clinic. Moving the clinics from the Phillips-Wangensteen Building to a newly designed facility will be a passage indeed.

We also continue to innovate in education. This summer, we held two visioning retreats on medical education, to think in a new way about our system of medical education. We are developing a vision of students thoroughly engaged in learning, grounded in science, involved with patients, and connected to the communities they serve; future physicians who will make a difference. I hope you will stay tuned as we develop this passage. We have a large gathering of students and faculty planned for early January to continue this process.

I have been talking about new initiatives and changes on the horizon. Yet I'd like to take a moment to reflect upon the nature of our institution, our University and our Medical School, and how being part of this large institution affects our faculty. As members of a complex enterprise, we constantly experience passages and we must experience them. We never can remain the same; we must change, as we strive to improve care, research, and education. We all must constantly observe, promote, and progress through passages, as we re-invent ourselves and renew our institution.

The easiest passage to discern is the annual progression of our medical students and residents as they master the competencies needed to become compassionate and capable physicians, outstanding scientists, and leaders for their future communities.

That passage is changing, however. This year at Minnesota, we broke the lock-step program leading to the M.D., an educational program that has not changed substantially in a century, and introduced the flexible M.D. Ours are the only public medical school students who may take from three and one-half to six years to earn their M.D. and pay no additional tuition. This is a shift that gives our students the freedom to creatively adapt their education to their passions and to personalize their medical school experience to include opportunities to enhance their education. We will continue to educate excellent physicians while we allow them to have a hand in designing their own educations.

In addition, Jim Pacala headed a task force to review our Medical School admissions process this fall. This group has produced a thoughtful, detailed report and a series of recommendations that will guide us as we begin the search for a new Admissions Director and continue to improve our admissions and other educational systems.

For each individual faculty member, the promotion and tenure process outlines passages to advancement. As one Medical School with two campuses, moreover, we also have been integrating the P&T process on both campuses to ensure equity across the school. We want to ensure that those hired in Duluth are able to pursue their research and teaching at the same time as they promote the special mission of that campus: to train physicians who will serve rural and American Indian communities. Hopefully, joint planning for recruitment will allow us to assure the successful careers of faculty on both campuses.

There is another set of faculty passages that occurs as well—their coming and going. We have gathered a very talented group of people at our Medical School and they have been noticed by others—by the University of Chicago, by Stanford, by Johns Hopkins, by Harvard. Sometimes these other very fine institutions have hired away our faculty; at other times, our faculty have chosen to stay in Minnesota, which is gratifying. And we have hired faculty from other institutions as well. Going or coming, however—and we do have many fine people who choose Minnesota—this exchange of talent signals that our Medical School is healthy, vibrant, and alive.

One of our more unusual faculty passages has been that of Catherine Verfaillie, who has headed our Stem Cell Institute since its founding in 1999. Catherine is now in the midst of a two-year transition during which she will shuttle between Minnesota and Leuven, Belgium, as she helps establish a stem cell center there. We are interviewing for a new head for the Stem Cell Institute during this transition and, at the end of it, Catherine will retain a 10 percent appointment in our Medical School. Also during this transition, she and her colleagues here and in Belgium are building a network of relationships that promises great collaborations in the future.

While we can be rightly saddened when a colleague leaves, we can know that other talented faculty will arrive. Very shortly, we will name the new director for the Cancer Center. This search has brought outstanding candidates to campus. The search for the new head of Surgery is progressing rapidly with a large number of tremendously qualified applicants. And I hope we will soon be able to name a Director for the Lillehei Heart Institute, who also will serve as the Division Director for Cardiology. These new faces will enrich our environment and provide leadership for important departments, divisions, and initiatives.

Among the new recruits this year—and we have had many of them—there is one I must mention. Linda Watson, director of the health sciences libraries, came here from the University of Virginia. She is as committed to improving our connectedness as a school as she is to enhancing our educational programs. Our students grew up in a wired and increasingly wireless world; she and her staff will help the rest of us catch up.

I believe that the many new faculty and staff here at Minnesota are helping us improve and helping us advance. It's very exciting to have them here to help us move forward.

And I hope that many of our faculty who leave Minnesota will keep up their connections with colleagues; I would hope that all who come here maintain connections, too. That way we build on Minnesota strengths and ideas, make sure that others know about us, and create meaningful collaborations around the country and around the world.

It's an intriguing possibility—building strong networks—and one we can realize if we keep expanding our reach and maintaining our connections.

This is a great time to be at Minnesota, to be making the passage together, working for a re-invigorated institution dedicated to excellence. As I said at the beginning, the University of Minnesota's strategic repositioning to reach a spot among the top three public research institutions within a decade accords with our Medical School's strengths and investments in research and in education. And I have talked about the ongoing process of change—the passages—that we as members of a vibrant institution will continue to experience.

We cannot make this passage to greater excellence except as a committed faculty. I have come to thoroughly appreciate the dedication of our community of faculty, whether full-time, affiliated faculty, or community physicians. Whether in the Twin Cities, Duluth, or elsewhere in the state, our faculty are dedicated to excellence in patient care, to expanding knowledge, and to educating future physicians. I want thank you for all you do for the University of Minnesota Medical School.

In closing, I want to remind you of what Will Rogers said: "Even if you're on the right track, you'll get run over if you just sit there." I believe we as a Medical School are on the right track and we are moving ahead. Let's make this exciting journey—this passage—a rich experience.

Thank you.

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