



The Human Health Renaissance:

USC's Duties, Dreams, and Destiny

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IT'S A NEW ACADEMIC YEAR AT USC, AND THAT MEANS YET ANOTHER NEW SEASON OF PROGRESS AND POSSIBILITY ACROSS ALL OUR CAMPUSES. FOUR YEARS AGO, I HAD JUST TAKEN OFFICE AS USC'S PRESIDENT, AND I CAME HERE TO DELIVER MY FIRST MAJOR ADDRESS. EVEN BEFORE I HAD DELIVERED MY INAUGURAL SPEECH TO THE LARGER TROJAN FAMILY, I WANTED TO SPEAK TO YOU RIGHT HERE ON THE HEALTH SCIENCES CAMPUS.



I spoke on the central role that medicine and biology and patient care would play in the future of our university. I wanted to address the astonishing possibility before us: the chance to play a leading role in the medical sciences and healthcare.

Of course, there are many new faces here today who came since then to join us in this exciting USC journey in the human health revolution. So, here I am to ponder again, together, our incredible, once-in-a-lifetime opportunity.

Consider how far USC has come as a university since 1880. Los Angeles was just a small, dusty village in the American Wild West when USC first opened its doors. Some 53 students and nine teachers came together in a humble two-story white building.

The world paid no attention. All the intellectual and cultural and scientific energy was centered in the northeast of the United States, and in Europe.

But even then, USC's dreams were large. Its ambitions were grand in scope.

That original two-story white building still stands today, but now it is surrounded by one of the world's most dynamic and elite private research universities, and that university now stands at one of the 21st century's greatest crossroads for global commerce and culture.

Today, USC is the largest private employer in the city of Los Angeles with more than 26,000 people on our payroll. USC's founder, Judge Robert Maclay Widney, and the early leaders of Los Angeles shared an audacious passion, a bold determination: to be where the action was, and especially to be where the action was going to be.

USC, our university, educated the doctors, lawyers, teachers, and engineers; the architects, entrepreneurs, filmmakers, artists, and social workers; the dentists, pharmacists, occupational and physical therapists, and other professionals who would allow a quiet frontier to explode onto the global scene.

No obstacles could keep the USC academic community from moving to the cutting-edge of research and education—from the Industrial Age to the Aerospace Age, to the Personal Computing Age, to this current Age of the Internet, digital media, and wireless communication. That academic ambition and determination are still in the very air we breathe on all of our campuses today.

This approach continued to guide USC as it

responded to a seismic shift in the academic landscape. The queen of the sciences in the 20th century had been physics and electronics. This drove the activities of America's top research universities in one direction for six decades, usually through our engineering schools and natural sciences programs.

As the 21st century arrived, and thanks to electronics, we are in the process of witnessing, my fellow colleagues, the coronation of another queen in this new century: medicine, biology, and biotechnology.

We are poised for a new era of breakthroughs in medicine:

- in the science of health—and the art of healing;
- in extending human life—and adding to the quality of it;
- in preventing tragedy—and giving new hope;
- in relieving suffering—and bringing forth well-being and joy;
- and in reaching an understanding of human life—and how to allow it to blossom to its fullest and highest expressions.

In ancient times, all these were considered the provinces of the gods. But now these are our own new frontiers, waiting for us to report for duty. Just as human beings for thousands of years dreamed of the ability to fly, or to communicate instantly across vast distances, today new breakthroughs are now on the horizon in biology and medicine and pharmacy and dentistry.

As a result, medicine, biotechnology, and health sciences are assuming central roles in the life of the best American research universities. These new realities, along with the economic meltdown of five

years ago, the introduction of the Affordable Care Act, and the resulting demographic and political factors, have generated untold amounts of conflict and controversy and uncertainty. They have created uncertainty for all institutions, especially public universities.

Needless to say, our public universities will never be the same again. But when the economic downturn occurred, what seemed like a hurricane to the fortunes of other institutions was a very favorable wind for USC. This is because we have always managed USC's finances prudently. When the crisis arrived, many universities could not meet their basic obligations. Even some private institutions needed to borrow money just to meet payroll.

But USC, our university, was sitting at that time on \$500 million in working capital. That allowed us to make our historic acquisition of our two hospitals.

So, in the midst of the greatest recession since the Great Depression, we made a serious investment for our future.

The uncertainty that slowed others down did not slow down this university. In fact, it gave us a competitive advantage. It actually invigorated us. After all, what is uncertainty? Isn't it simply the beginning of a great adventure?

We know that the deck is being shuffled by a thousand factors that USC and the Trojan Family could use to move forward, and to make the kind of impact in medicine that few institutions have ever been privileged to make.

The highlight was the dramatic transformation of our Keck School of Medicine five years ago. It was a historic and high-stakes transformation. After we bought our two hospitals, we integrated all 19 faculty practice plans with 520 clinical doctors into



the university. We turned this university into a very different kind of animal overnight. Suddenly, about 45% of USC's overall budget was related to medicine and health—from 14% to 45%!

My fellow colleagues, we irreversibly committed the entire, worldwide Trojan Family, in perpetuity, to taking a leadership role in the human health revolution. Of course, in times of change, being reasonable and conventional isn't how you become a leader. And so all of you responded with characteristic boldness and determination.

I have to give credit and thanks to our senior vice president, Tom Jackiewicz; and our dean Carmen Puliafito; and our provost, Elizabeth Garrett. These three have brought energy, wisdom, and persistence to this astonishing metamorphosis.

Yes, the process has been painful, in some ways like the birth pains of a mother, which are endured with courage and patience. We also know that the pains we currently face are the pains of growth, the pains of wondrous new possibility. Always welcome the pains of growth—embrace them, invite them. We say, bring them on!

Most institutions are realistic and conservative in what they may achieve according to the conventional metrics. But what makes our academic community special is our ability to scan the horizon, to sense changes that are making the old metrics and models of success obsolete, and to respond with boldness to what can and must be done now for the future.

This is why USC has been able to elbow its way to a position of leadership in fields ranging from engineering to the arts to the various professions. So it will be in the human health revolution. So it

will be with Keck Medicine of USC.

Many of our close competitors, although larger than us, are invested in the medical enterprises of yesterday. Sure, they are looking ahead as we do, but it's very difficult for them to do serious restructuring and reallocation of resources in order to fund the exciting new priorities. They are unable to change what they already have, and as a result they are less nimble. Public universities are in no position to respond quickly to the new realities.

My fellow colleagues, never forget, we are investing in the medical enterprise of tomorrow, and everything has changed. Four factors help explain USC's position today and in the future.

First, USC is a university that is fully private, fully independent, fiscally healthy, aggressively entrepreneurial, and with a first-class, dedicated Board of Trustees. At USC, when we want to make something happen, we make it happen quickly. We can turn and move in new directions at a speed that our bureaucracy-burdened competitors envy. We are nimble.

Second, USC is uniquely broad and uniquely interdisciplinary, in a way that others can only pay lip service to. Others cannot overcome turf wars and the tendency to protect existing academic fiefdoms.

Third, USC stands at the center of where the action is: at the nexus of a new Century of the Pacific, in a place that is the greatest living laboratory for the health challenges of the 21st century.

And fourth, USC is uniquely committed to public service: service to its local community, service to its LA County Hospital, service to our partner Children's Hospital Los Angeles, and also service on

a global scale, more than any private university, and more than perhaps any public research university.

Make no mistake, the academic brand of USC is very powerful today. It is very strong. It allows us to execute our strategy quickly. And given that the Trojan Family is now 300,000 members strong, stretching across the world and across all time zones, you could say that the sun truly never sets on the Trojan Family!

Four years ago, we recognized that destiny had dealt USC a favorable hand at a time when the ranks of leadership were being shaken up. But we knew we needed to make rapid progress. Our ambitions needed financial support, so we announced three years ago a fundraising campaign goal of \$6 billion—the highest amount in higher education history!

Experts were in disbelief. Here's what *The Chronicle of Philanthropy* wrote: "Some fund-raising experts are questioning whether the University of Southern California can really reach its audacious goal of raising \$6 billion by the end of 2018. No private organization has ever tried to collect that much from a single drive."

In the meantime, it is no secret that schools such as Harvard and Stanford took note. Their own fundraising campaigns three years ago were quietly reshaped to account for how USC had raised the bar nationally.

Where are we today? We are at \$3.7 billion—of which one third is in medicine, biological sciences, and health professions. It includes remarkable endorsements from the Keck Foundation; our trustee, Ming Hsieh; Dr. Gary Michelson; and so

many other donors and grateful patients.

Yet while we should be proud of our progress, please let's not celebrate yet. We still have a lot of hard work ahead of us. For the second half of the campaign, it's about reminding every member of the Trojan Family, every grateful patient, that every gift counts, of every size. Every gift can make a difference for our academic community.

In the recruitment of new faculty and new leadership, we aimed for the stars—and we reached them. We brought in a dynamic new generation of medical leadership, including 12 new faculty chairs in the Keck School of Medicine, as well as six new directors of research centers and institutes. We've brought in more than 70 stellar professors in the Keck School alone over the past five years. This includes top-notch talent from Caltech, the Cleveland Clinic, Johns Hopkins, Stanford, Cedars, Michigan, UCSF, UCLA, Vanderbilt, Northwestern, and elsewhere.

They bring with them more than \$140 million in NIH funding. They include elite research groups from Harvard and Rochester, the Scripps Research Institute and beyond. And, of course, they include a world-class brain sciences and mapping institute from across town, which alone brought 110 excellent researchers to USC.

These were shots heard around the country and around the world. These showed that we have reached the point where, finally, we can recruit anyone we want. Not just excellent talent, but rare, better than excellent talent, game-changing talent, and we will continue to do so.

We also enjoyed some key academic victories. We

helped Children's Hospital Los Angeles strengthen its position as a top-five leader nationally, and as one of USC's anchor campuses. We also helped CHLA to recruit a number of new stars and establish its Institute of the Developing Mind, and its Translational Biomedical Imaging Laboratory. And they are advancing USC's work in other areas, including personalized medicine.

Our schools and institutes and centers for medicine, life sciences, engineering, pharmacy, and dentistry all made an extraordinary commitment to "Convergent Bioscience." They know that it is at the points of interdisciplinary convergence that we discover the greatest new pathways.

Thanks to the leadership of our new brain sciences and mapping institute, we celebrate a landmark NIH Big Data funding—about \$23 million for two new Centers of Excellence. It constitutes

20% of the entire nation's investment in Big Data. Coming on the heels of the \$16 million NIMH grant last month, we have proven we can compete and win big by breaking records in an uncertain funding environment.

Here is another way in which the USC community turned uncertainty into adventure: USC's online education enterprise is now the pacesetter in new forms of health education and delivery. Our online programs have become a model for the rest of higher education. Think about it: in the new online education revolution, no other top research university has succeeded the way we have—with 8,700 remote students and \$150 million in annual tuition revenues!

To reach our goals, USC's work in research and education needs be married to the best work in clinical care. Here, we needed to make fast progress.





Look how far we have come in just four years:

- Our hospital earnings (EBIDA) have grown from being in the red to \$50 million;
- Most of the clinical service lines at the Keck Medical Center (urology, cancer, cardiovascular, neurosciences, spine, and many others) are two years ahead of their targets;
- Inpatient discharges have grown over 30%, while the state-wide discharges have contracted by 7%;
- Keck Medicine of USC's total revenue has increased by 150%, to \$1.2 billion (under Tenet, it never exceeded \$390 million);
- And we also made dramatic gains in patient safety grades and acuity rates. We still have the largest acuity rate west of the Mississippi.

This blossoming of excellence is also reflected in the physical blossoming and beautification under way on this campus.

Our expansion also required finding new partners in clinical care. So, we acquired and integrated the Verdugo Hills Hospital. We acquired a premier

oncology/hematology group in Orange County. And we expanded across Beverly Hills, Downtown Los Angeles, the South Bay, La Cañada, Pasadena, as well as on our own University Park Campus.

To my longtime colleagues, I want to say thank you. This has been your victory.

This is indeed the Century of the Pacific, and this is the century

of the human health revolution. Our university stands at the nexus of both of these, here in the Los Angeles basin, this amazing, 14-million-people-strong microcosm of our new world.

Bear in mind, too, that west of Chicago, there are only two large private research universities: USC and Stanford. All other 25 private competitors of ours are east of Chicago. After 135 years since our founding, finally our geographic location works to our advantage!

But what is next? Where do we go from here?

I believe we have opportunities and we have duties. The rules of healthcare are being rewritten, and there is a need for a new model. I believe our academic community is the one best equipped to do it. But we will not lead globally until we lead locally.

There is a story from antiquity that seems relevant to where we are today, and where we aspire to go next. Go back some 2,400 years to when the men and women of Thebes were in conflict with Sparta. In 371 BC, the Spartan army invaded Boeotia, and they were close to taking over Thebes. The entire

Greek world of antiquity had feared Sparta. No one dared take them head on.

But a Theban general by the name of Epaminondas and his army faced down the Spartans at Leuctra, even though they were outnumbered two to one.

The Thebans crushed the Spartan army. Suddenly the Spartan aura of invincibility evaporated. Suddenly their expanding empire was vulnerable.

But it wasn't enough for the Thebans to simply protect their own turf. Eighteen months later, General Epaminondas surprised the ancient Greek world again by rejecting conventional military tactics. For 400 years, no army had ever dared to cross the Isthmus of Corinth and march south toward Sparta.

So, against all expectations, Epaminondas and his troops marched south during wintertime. In that era, conventional wisdom held that you simply don't attempt that kind of attack during the winter.

But the Thebans were determined. They marched 200 miles, through the bitter cold and rain. They crossed the isthmus, then moved confidently into the den of the Spartan lion, in Laconia. As a result, the Thebans not only pushed over the invincible Spartans, they humiliated them. They shook Spartan dominance to its core. The Thebans reshaped the 400-year political map of Greece in just two years.

So, my fellow colleagues, that is the sort of reshaping of the medical sciences and healthcare map of Southern California that you have been doing in just the past four years. The aura of invincibility of other medical centers in the region evaporated because of you. Let us pledge together today to keep reshaping it in the future.

So, what are our audacious goals as we march forward in the next decade? What is our vision for the future?

We intend to become the largest and academically most elite health system in Southern California, with global prominence in the medical and biological sciences, translational research, biotechnology, and patient care. This is the challenge I present all of us here today. This is the charge I place before you.

It has been said that change is inevitable, while growth is optional. But USC, our university, will change and will grow. We will grow our Keck medical enterprise in size and academic quality, by every means available: by recruiting more game-changing faculty in both basic sciences and clinical programs; by promising new alliances and partnerships with research institutes, hospitals, and physician groups; and by strategic acquisitions.

We will expand our medical and biological sciences research collaborations with engineering and the health professions. We will expand our health system's footprint to triple its current size, while ensuring that patient safety and experience always remain in the forefront, never to be compromised.

We will be at the center of the ongoing market consolidation in healthcare and set a new standard. We will capitalize on the fact that another 9 million Californians are expected to gain access to health insurance coverage.

We will find ways to allow the USC brand to build our Keck medical enterprise to maximum strength. We will aim to double the size of our overall physician network to more than 1,200 clinical doctors.

We will strengthen and expand our partnership with CHLA by opening at least 10 satellite locations within the region, simultaneously reaching out-of-state and international markets. With CHLA, we must establish an Exclusive Provider Organization for our employees. We must win on our own campuses in order to win in the rest of the region.

We must improve the patient experience in our health system. We want to create an environment so patients and their families always feel that they are joining our Trojan Family.

And finally, we will be relentless working with the county and the city to establish a biotech park on the Health Sciences Campus where the county yards are currently located.

We will also be ready for serendipity. This journey should allow us to wake up each day with a sense of challenge, a sense of duty, but also a sense of childlike joy.

Innovation is the watchword of this great human health revolution, and innovation is what USC is uniquely equipped to do, given our inter-disciplinarity.

Yet innovation requires a childlike frame of mind, a humble sort of innocence, and a sense of play. It is when our faculty and postdocs and students join with others, from every field, that discovery and invention can reach new levels on our campuses.

My own pledge to you is to work day and night on behalf of USC.

To continue running a marathon at a sprinter's speed.

To build the platform you need to do world-changing work together.

To raise the money you need so we can materialize our dreams and duties.

And to help you bring your greatest innovations to suffering children, to those in pain, to a society under duress.

I gladly make this pledge because of my gratitude to each and all of you. You are illuminating the mysteries of life in ways that humanity's forebears would have found unthinkable.

You are at the center of our efforts to improve and extend human life, and to make it meaningful for society and each member of it: every child, every aging person, every victim of suffering, each and every human being who aspires to reach his or her fullest potential. What an extraordinary privilege this is!

In closing, I'm reminded of the old heroic legends, as captured by the great Roman poet Ovid in his masterpiece, *Metamorphoses*. He tells the full story of human history, as an ongoing series of metamorphoses—a series of transformations, beginning with the creation of cosmos and continuing with the legends of the gods, the rise of humankind, and the great quests of humanity.

Everything of consequence, Ovid says, everything of lasting value, has come through profound change and transformation. Ovid captured times of trial and times of change, and how greatness was forged in the crucible of such circumstances.

That electrifying, historic process of metamorphoses is what we are going through today, for the benefit of society and for the benefit of our world.

This is a thrill!

Thank you, and Fight On!