

## **1999 STATE OF THE UNIVERSITY ADDRESS**

**by**

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Thank-you, Harold, and thank you, members of the University Council and the Board of Trustees, for another year of outstanding support. Former White House Press Secretary Ron Nessen once said, "Nobody believes the official spokesperson. . . but everybody trusts an unidentified source." As an official spokesperson, I am grateful for your vote of confidence as we start the academic year.

Of course, this is no ordinary year. This is a millennial year, and we begin it with great enthusiasm, extraordinary momentum, and a position as a national leader in all our missions. We are, at our core, a university that holds fast to the revolutionary vision that Ezra Cornell and Andrew Dickson White brought to Cornell, and to American higher education, 135 years ago, and we are carrying it forward by re-creating their vision for the new century.

Just as Andrew D. White conceived of a university that would embrace all the traditional fields of scholarship while incorporating those -- like agriculture and the mechanic arts -- that were of direct importance to 19th century America, Cornell today continues to offer intellectual opportunities of remarkable breadth and intensity, while moving assertively into fields likely to define progress in the 21st century. And just as Ezra Cornell wanted an institution where all young women and men of promise could have the opportunities for education that he, himself had been denied, Cornell today

remains committed to its program of need-blind admissions and need-based financial aid.

At his inaugural in 1892, Jacob Gould Schurman looked back on the university's progress in its first 25 years, and offered this observation. "[Cornell] is dedicated to truth and to utility; and between these there is no incompatibility; for, as Plato has well said, the divinest things are the most serviceable. We are at once realistic and idealistic. And while we cherish the old we are always in quest of something better."

And so we remain today.

We have built a great faculty to carry us forward into the 21st century -- a faculty noted both for its high quality and for its diversity. Over the past few years, drawing on the Academic Initiatives Fund which I announced to this audience in October 1996, we have made exceptional appointments, especially of young faculty.

Several of these appointments have been in the strategic research areas of advanced materials, genomics and information science, and six of the younger faculty appointed in those areas have already won major national awards. Because the Academic Initiatives Fund has been so instrumental in allowing us to appoint distinguished new faculty members, I am committed to working to renew it -- and to increase it -- for another four years.

We have made several other strong appointments recently, which are notable for the diversity of interests and backgrounds they represent. For example, last year, Cornell and the Boyce Thompson Institute for Plant Research cooperated in recruiting Gregory Martin, as the first truly joint appointment since our affiliation agreement was signed 25 years ago. Professor Martin, whom we recruited from Purdue, is a plant molecular biologist studying how plants recognize and protect themselves against disease-causing microbes, and, as a member of the genomics planning committee, he is coordinating BTI's instrumentation investments in genomics with colleagues in several departments at Cornell.

Next July, we will welcome Dr. Michael Kotlikoff, currently chair of the department of animal biology and director of the Center for Animal Transgenesis and Germ Cell Research at the University of Pennsylvania's School of Veterinary Medicine. He will be an important player in building Cornell's strength in genomics and in the biological sciences generally.

David Grusky is a new professor of sociology and head of the Center for the Study of Social Inequality now being established at Cornell. Previously at Stanford, Professor Grusky brings a long-standing interest in studying the structure of social inequality.

Building our strength in Latino studies, we brought to Cornell this year Pedro Caban, a tenured faculty member at Rutgers, as visiting associate professor of Latino Studies, with the expectation that he will assume the directorship of the Latino Studies Program. Maria Christina Garcia, a specialist in Latino history, joined us last year as a tenured associate professor of history, and this year Mary Pat Brady, who has a strong background in Chicana literature as well as in women's studies and general American literature, joined us as a new assistant professor of English.

It is essential not only that we recruit strong faculty members, but that we retain and reward our continuing faculty. Over the past 20 years, average endowed faculty salaries have slipped below where they should be with respect to salaries at other top universities, especially at the senior level. We have begun a program aimed at restoring our competitiveness, and for the past three years we have been able to provide five-percent increases to our endowed college faculty. But progress is slow in making up ground lost over such a long period of time, and we need to increase our efforts. On the statutory side, we are in serious discussions with the State to gain greater flexibility in addressing the salary shortfalls we have experienced in the past decade of inadequate state budgets. We must break out of the cycle of declining state support relative to other states which have put a premium on higher education as a means of building their economies and their social structures. Cornell must have a great faculty in order to achieve its mission, and we must compensate the faculty appropriately.

Because of the strength of our faculty, we have had remarkable success in obtaining federal research grants -- especially in support of work that will keep us in the forefront of centrally important research fields that have so much promise for the new millennium. Since our last meeting, we have competed successfully for several major federal research awards. They include \$88 million from the National Science Foundation over five years for the Cornell Electron Storage Ring -- the synchrotron -- and \$16.5 million for a related facility, the Cornell High Energy Synchrotron Source. These grants will advance our front-line investigations in fundamental particle physics and our X-ray research in microbiology, materials science and other fields.

In July, Cornell emerged the winner, from a field of 400 proposals, as the home of a new \$19-million national nanobiotechnology center. The center, under the direction of Professor Harold Craighead, will meld biology and nanotechnology in exciting new ways. One of the new center's thrusts, for example, will be the powering of

nanomachines with molecular motors, which could be used in implantable devices, drug-delivery systems and nanomachines that mimic biological functions.

Our Center for Materials Research enjoys one of the highest levels of NSF support in the nation, and just last week, a multidisciplinary team led by Paulette Clancy, associate professor of chemical engineering, received an additional NSF grant to delve into the science behind new types of semiconducting materials that might one day be used in such things as light-emitting diode displays and flexible laptop screens. The Cornell Theory Center is also advancing our stature in materials research with a recent NSF grant to develop hardware and software to simulate problems in materials science and molecular biology.

These projects, in which NSF has invested a total of nearly \$145 million, hold great potential for scientific discovery and application in some of the most promising research areas of the 21st century.

Our \$55-million Lake Source Cooling Project, while not a research facility, is one of the most significant environmental initiatives ever undertaken by an American university to promote a sustainable future, and it has strong support from our local utility, New York State Electric and Gas (NYSEG). The project, which is featured in the latest issue of *Scientific American*, will use the cold deep waters of Cayuga Lake as an environmentally friendly, naturally renewable cooling resource. It will reduce our energy consumption for air conditioning by 80 percent -- allowing us to avoid the use of refrigerant chemicals that damage the earth's ozone layer and to reduce our reliance on fossil fuels for electricity generation. I commend the teamwork and the great engineering skill of the Cornell staff members who are making this project a reality.

The 21st century will be a time when we begin to comprehend life on the molecular and genetic level -- molecule by molecule and gene by gene; when advanced materials will make possible nanometer devices in electronics, improvements in data storage capacity, advanced drug delivery systems, and many other applications; and

when information science will change fundamentally the way we communicate and the way we analyze data. Cornell, through strategic investments in people and programs, will be a leader in all these fields.

We are developing a major initiative in genomics -- an interdisciplinary approach to studying the function of genes. Genomics promises to bring enormous benefits to humankind in curing disease, raising the yield and quality of food crops, improving livestock and aiding the environment. It is a science that could revolutionize our understanding of the origins of life and of the molecular processes that underlie it.

The Genomics Initiative has already received strong endorsement from the U.S. Department of Agriculture, which has established a national gene data research center at Cornell, the Center for Bioinformatics and Comparative Genomics. In the state budget adopted over the summer, Governor Pataki added \$1 million for our genomics research initiative, and we are in the midst of submitting a multi-million dollar proposal to carry the efforts forward to the next stage.

We are about to begin a major push in a third strategic research area: information sciences. This initiative builds on Cornell's already formidable strength in computing and information science. It meets head-on the information revolution that promises to touch virtually every field and discipline, "from computational techniques in the physical and biological sciences, to new interactive media in the arts."

Last June, the Task Force on Computing and Information Science at Cornell released its initial report, "Cornell in the Information Age." The report noted -- and I quote -- "Cornell has a nearly unrivaled combination of depth and breadth upon which to build -- with one of the top Computer Science Departments, outstanding research programs in Computational Science and Engineering coordinated by the Theory Center, the new Computational Genomics initiative, and pockets of computational expertise across the campus, in Engineering, Physical Science, Arts, Humanities and Social Sciences. We can be the first university to broadly integrate Computing and Information

into education for all students and into research and scholarship across the campus.”

Robert Constable, former chair of computer sciences, has agreed to lead our efforts in this area as the new Dean of Information Sciences.

In our commitment to truth and utility and in our continual quest for something better -- which Jacob Gould Schurman identified early on as reasons for Cornell’s strength -- we are building considerable momentum in our three areas of strategic research, and we are testing other ideas for research and scholarship in the social sciences, the humanities and the arts. Cornell remains remarkably strong in those disciplines as well, and recent appointments in a number of humanities and social

science departments across campus give us confidence that we shall continue to be at the forefront of those disciplines.

We aim to be -- as I have said before in this hall -- the best research university for undergraduate education in the country, and we are doing that by building on Cornell's founding vision and revitalizing it for the new century. Our intention is not only to create knowledge and carry it forward for the benefit of society, but also to ensure that students have every opportunity to learn from a great faculty and to pursue scholarship and creative work with a great faculty. We are off to a running start.

The undergraduate experience begins with our focus on students. We have an outstanding freshman class this year, thanks to strong recruiting efforts and our high level of national visibility. Completed applications to the College of Arts and Sciences increased 25 percent, and they were also up significantly in the School of Industrial and Labor Relations and the College of Engineering. We enrolled considerably more undergraduate students through early decision, and our yield, overall, was up substantially, to 49 percent. We are especially pleased by the yield rates for students in our recognition programs -- the Cornell Tradition, the Meinig Family Cornell National Scholars and the Cornell Presidential Research Scholars -- all of which increased substantially this year. Moreover, the quality of the entering students is extremely high, with their mean SAT scores up 8 points from last year to 1359.

There is good news to report at the graduate level as well. Completed applications to the Johnson Graduate School of Management almost doubled -- a trend that we hope will be bolstered by the Johnson School's designation, just yesterday, by the World Resources Institute as one of the country's top schools to "train students to handle complex social issues and provide stewardship of fragile environmental resources." In the Graduate School, we have our largest entering graduate class ever, with 1409 students, and a graduate enrollment of 4116 students overall. With two strong years of graduate recruiting, we have arrested a trend of declining graduate



student numbers. Equally important, the quality of the entering graduate students is very high. Better graduate students mean greater intellectual stimulation for the faculty, better assistance on faculty research -- and better undergraduate instruction by teaching assistants.

Strengthening undergraduate education also means creating opportunities for students and faculty members to participate in the life of the university outside the research laboratory, classroom, and studio. That means, among other things, having a strong athletics program.

We have found, in our new athletic director Andy Noel, a dynamic leader to carry forward the momentum generated over the past five years by Charlie Moore. We are off to a great start this fall under his leadership: Our football team remains undefeated after its first three games, including Ivy victories over Princeton and Brown, and our soccer, field hockey and cross-country teams are doing very well, too.

Last spring a Trustee Task Force chaired by Robert Kennedy released recommendations aimed at improving Cornell's competitive position in intercollegiate sports and maintaining the high quality of its other athletic and recreational programs. One of its chief recommendations was that we give strong consideration to a fund-raising campaign to give us more competitive budgets in intercollegiate athletics. We are committed to beginning the "nucleus-fund" or "quiet" phase of a fund-raising campaign after we have completed the Scholarship Challenge Campaign. We are currently conducting a feasibility study for such a campaign, and we expect a full report for the December board meeting, which will give us guidance on an appropriate goal and timetable. I am delighted to tell you this morning that Trustee Emeritus and Presidential Councillor Robert Staley and Trustee Jan Rock Zubrow have already agreed to lead this effort. It's been said that the happiest time in a person's life is when he or she is in red-hot pursuit of a dollar, with a reasonable prospect of overtaking it.

But success also requires a lot of hard work. I greatly appreciate Bob's and Jan's willingness to provide leadership in this area.

Last year at this meeting, I pledged that Cornell would invest up to \$400 million in undergraduate education over the next decade. This morning I am pleased to report that we are well on our way to meeting -- and even exceeding -- that original commitment.

The first component in that investment is the Scholarship Challenge Campaign that will allow us to extend Ezra Cornell's promise to students in the new century. I want to commend Trustees Ronay Menschel and Peter Meinig for the superb job they have done as co-chairs of the campaign. As of this morning, we have raised more than \$136 million toward our \$150-million Scholarship Challenge Campaign goal, and I am confident that we will meet the goal by Dec. 31, thereby claiming the challenge funds and creating a \$200-million endowment for student aid. With that endowment, we will be able to maintain our need-blind admissions and our need-based financial aid policies without compromising our ability to invest in faculty and

academic programs, and we will be able to keep tuition increases in check. Thank-you, Ronay and Peter.

The second building block in this transformation will be a comprehensive review of the undergraduate experience as part of our 10-year Middle States reaccreditation in 2001. We aim to create a seamless environment for undergraduate education where students can learn from faculty members who are world leaders in their fields, who develop and teach challenging courses, who advise and mentor students, and who make an effort to connect with them beyond the classroom. We will use our up-coming Middle States reaccreditation to determine how well we are doing on all these counts and how we can improve. The effort, which is just getting under way with leadership from Vice Provost Mary J. Sansalone, will look broadly at the curriculum, advising, and the living-learning environment.

On North Campus, we are moving rapidly to implement the plan I announced last year. We have re-opened Robert Purcell Community Center, after a \$12.5-million renovation, to rave reviews about everything from the new media tower to the food in the marketplace dining facility. The Marketplace Eatery is so good, in fact, that it was chosen as the best dining hall in the country by *Food Management* last week. Students used to go home for fall break so they could have home cooking. Now they stay here for good food.

This year we are housing more than 60 percent of our freshmen on North Campus, compared to just 44 percent in 1997-98, when I announced the residential initiative, and there are now four all-freshman residences on North Campus.

Academic concerns are central to this initiative. I am pleased that David Powers, professor of Near Eastern Studies and a faculty fellow in the Holland International Center, has agreed to chair an accreditation committee on academic initiatives on North. Among the ideas on the table is a faculty mentor program that would connect the large introductory courses that students take in their first year with the residential program and that would create new opportunities for freshmen to interact with faculty in those disciplines.

Advising will also be an important component of life on North Campus. Kathryn Abrams, a faculty-in-residence in Balch and professor of law and of women's studies, and Herta Teitelbaum, assistant dean of advising in the College of Arts and Sciences, will be looking closely at freshman and pre-major advising as co-chairs of the Middle States committee on mentoring and advising. Among the ideas their committee will explore are the involvement of emeritus faculty in advising, a freshman seminar series taught by advisers, and rewards for faculty members who have been outstanding advisers and mentors as well as scholars and teachers.

Our plans for West Campus are in a much earlier stage of development, but our efforts there are already generating excitement. As you may recall, the report "Transforming West Campus," developed last year, recommended the establishment on West Campus of living-learning houses for sophomore and upper-division students under faculty mentors. That report was emphatic in its conviction that "[r]esidential life at Cornell is much more than dormitory housing. It is an important part of a student's growth and development as a social and cultural being, an important moment in forging individual identity. It is also a time for students to explore the world of ideas outside themselves with others, with their peers and with their teacher-mentors." It went on to urge, as its core recommendation, that Cornell develop a post-freshman-year living environment on West Campus that has faculty leadership from all of the undergraduate schools and colleges, so that we might create there a residential college atmosphere

I am delighted that Isaac Kramnick, the Richard Schwartz Professor and chair of Government and a Weiss Presidential Fellow, is leading a committee charged with translating the recommendations of that report into a programmatic plan for West Campus. One especially promising proposal is to combine ethics with writing for sophomores in learning houses on West Campus. This approach would build upon our very successful Knight Writing Program, which offers freshman writing seminars to beginning students, and the “writing in the majors” program for juniors and seniors.

The growing complexity of public life, and the increasing diversity of those with whom we live and work effectively, argue for a greater emphasis on ethics in undergraduate education. And a growth in serious scholarship in practical ethics is providing exciting new material for teaching. Cornell’s two largest colleges -- Arts and Sciences and Agriculture and Life Sciences -- are currently engaged in a comprehensive review of general education, and both are considering the addition of courses in moral or ethical reasoning as a requirement for all their students. The other five undergraduate colleges are also engaged in discussions about incorporating ethics into their curricula.

To further Cornell’s academic capabilities in ethics, we are currently seeking candidates for the Wyn and William Y. Hutchinson Professorship Ethics & Public Life, and we are seeking funding to develop several interdisciplinary courses -- ranging from “European Intellectual History and Ethics,” to “Reproductive Technologies and Ethical Dilemmas,” to “The Ethics of Race-based Decision-making.”

A new focus on ethics in the undergraduate curriculum is just one example of the ideas that are being generated to meet our objectives. The university-wide examination of the role of computer science and information technology is yet another. Initiatives of this sort would help inform and shape student life in the living-learning houses on West Campus. We expect other synergies to emerge as plans for transforming the West Campus Community move toward implementation.

In my Inaugural Address to the Cornell community on Oct. 12, 1995 -- during Trustee-Council Weekend -- I talked about the need to draw undergraduates into the intellectual life of the faculty, and I said that "If in the vast terra incognita of the undergraduate experience at Cornell, we discover a chasm separating our students' intellectual lives from their social and personal lives . . . then let us fling a rope bridge, however narrow and tenuous, across that abyss." On that occasion four years ago, I felt that it would be many years before we could take serious steps to realize that vision.

Today, however, I am delighted to announce an extraordinary commitment that will help us realize the full potential for linking living and learning on West Campus: A \$100-million pledge toward our plan to transform the West Campus Community, from a friend who wishes to remain private. This magnificent pledge -- only the second of this magnitude in Cornell's history and the first in support of undergraduate education

-- gives us a solid path, not a narrow and tenuous rope bridge, along which to develop the plans for the transformation of West Campus.

With momentum generated by this new commitment and with the successful conclusion of the \$200-million Scholarship Challenge Campaign, we will be well on the way toward completing the investment in undergraduate education to which I committed the university last year. This is a tremendously exciting opportunity for us and one that will enable us to help Cornell undergraduates realize their full intellectual and societal potential. We are moving rapidly to ensure that Cornell is indeed the finest research university for undergraduate education in the country, and we are way ahead of the ambitious schedule we set for ourselves just last year. No other university in the country is investing as much in undergraduate education as Cornell is -- and with the incentive of the West Campus commitment to spur us on -- our investment will reach at least a half-billion dollars by the year 2009.

None of this would be achievable without the support of our alumni and friends, and particularly the members of the Board of Trustees and the University Council. I am delighted to tell you that for the fiscal year that ended on June 30, Cornell received \$341 million cash in private support, putting us second in our Ivy-Stanford-MIT group, behind only Harvard. This is the largest amount ever raised by Cornell, and it is an enormous increase from the \$253 million raised the previous year. In terms of alumni and individual giving, the results are even more impressive. For only the second time in history, Cornell is first in alumni and individual giving, with \$271.9 million raised.

Giving of this magnitude enables us to invest in a superb faculty, and to improve their salaries -- as we have done through the Academic Initiatives Fund. It enables us to move forward in strategic research areas and to create intellectual opportunities for our students that are available nowhere else. I want to thank every one of you for the role you have played in that success -- through your own generosity, your leadership in Cornell affairs, and the example you provide to others.

As we begin this millennial year, we are renewing Cornell's founding vision and interpreting it for the 21st century -- composing our vast resources in ways that make sense for the 21st century, just as Ezra Cornell and A.D. White did in the 19th.

Several years ago, a student at Cornell commented, in a remarkably prescient turn of phrase, that "Cornell was not founded as a peer institution." Cornell remains an institution without peers today. We are unique in our scope, in our depth, and in our ability to bring together teaching, research and service in ways that enhance them all.

With your continued confidence and commitment, we will continue to combine the practical and the theoretical -- which Andrew D. White pioneered. We will continue to maintain diversity in people and programs -- harkening back to "any person, any study," the vision of our founder, Ezra Cornell. We will move assertively into areas of promise and need -- including advanced materials, genomics, and information science - - while creating at Cornell the best undergraduate experience available at any research university in the world. We will remain a pace-setter in American higher education -- a national leader -- at the very top in all our missions, and, as we continue to quest for something better, we will face the new millennium with confidence rooted in 135 years of remarkable success.

Thank-you all.