

## Congressional Breakfast

### Excitement

Extraordinary "Go Blue" Michigan spirit is alive and well...

#### Athletics

Of course this year we cannot look forward to NCAAs...

...but NITs

But we can look back upon our 3rd straight Big Ten championship and a Gator Bowl victory...and a recruiting effort that ranks Michigan #1...

And a hockey team currently ranked #2 in the nation

And mens and women's swimming teams that next week will be challenging for the national championship

#### Solar Car Race

ii) A team of over 100 Michigan students won the solar car race from Florida to Michigan, thereby earning the right to represent the United States in the world competition in Australia this fall.

They then went on to finish 3rd in the world...behind factory teams from Switzerland and Honda.

An extraordinary performance...for a group of students.

But, even more to the point, they helped to develop a technology that may have great impact on our society.

#### Genetic Medicine

Francis Collins, Howard Hughes Medical Research Institute

Applications of molecular genetics to medicine

i) Discovery and cloning of gene responsible for cystic fibrosis

ii) Discovery of the gene responsible for neurofibromatosis...Elephant's Man disease

iii) How to inject normal genetic material into a cystic fibrosis gene and cure it

iv) Identified gene responsible for body's inability to handle cholesterol

What an extraordinary contribution!

Note: 40 years ago, Michigan conducted the clinical trials for the Salk Vaccine...

Jonas Salk was a faculty member at UM!

An example of how Michigan research has great impact on our society!

#### McCarthy Prize

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iii) It was announced that two Michigan faculty members, Sherry Ortner and Rebecca Scott, had won MacCarthy prize--the key prize used to acknowledge creativity and excellence. They were -joined by a third former Michigan faculty member, Tom Holt, now a visiting faculty member at the University. No other University won more than one.

#### Computer Network

NSFnet, the major computer network, operated by the University in collaboration with IBM and MCI, passed the milestone of linking together over one million users in the U.S. and around the world...at over 500 sites.

The next stage, the National Research and Education Network or NREN, now stands

poised to continue this momentum in the year ahead with strong support building both in the White House and in Congress.

Today in Washington, UM, IBM, and MCI are announcing the formation of a new nonprofit corporation to manage this "interstate highway system" for information transfer.

#### World's most powerful laser

Michigan scientists announced the development of the world's most powerful laser--with power equivalent to 40 times the electrical generating capacity of the U.S. (I should note that the science of holography was invented at Michigan!)

And, a week ago, it was announced that Michigan had been selected as a national center for laser research by the National Science Foundation.

#### International Activities

Teams of Michigan business students spent the summer in Poland, Soviet Armenia, and Czechoslovakia helping these rapidly changing nations in their transition to capitalism.

Bob Zaconc announced an agreement in which ISR would help Poland build a counterpart research institute in the social sciences in Warsaw.

And the President lent his daughter to Hungary for two years as a Peace Corps volunteer...

#### Tidbits

A Michigan paleontologist discovered a fossil demonstrating that whales once had hind legs and feet!

The opening of the new Child and Maternal Health Care Center... a \$100 million medical care facility dedicated to providing the best pediatric and obstetrics care in the world... and dedicated by the U.S. Surgeion General, Dr. Tony Novello, a former Michgain resident!

#### Athletics--American gladiator competition

And while not much happens in athletics during the summer, one of our women engineering students won the American Gladiator competition... and one of our alumni--and a former Regent--

Bob Nederlander, succeeded George Steinbrenner as managing owner of the New York Yankees. (The second Michigan contribution to the American Baseball League this year...we lent Bo to run the Tigers last spring!!!)

And Bob Tisch has just purchased 50% of the New York Giants.

Not a bad year this far! But then, it was rather typical for this remarkable university.

It provided a healthy and happy reminder that the real business of the University is in the very capable hands of our faculty and students and, as always, they are doing us proud.

#### **Broader Impact**

Michigan has a remarkable ability to touch our lives...

In those short years that each of us spent on this campus during our education, we become a member of the Michigan family for the rest of our lives...

And Ann Arbor becomes forever our home... at least in our hearts...

## What is Michigan

- But just what is this institution,  
this force that has had such an impact on our lives?  
When we hear the words...  
“The University of Michigan”,  
Michigan Athletics  
Ann Arbor on a Saturday afternoon in the fall...  
afternoons in the fall as 105,000 fans cram into  
Michigan stadium to watch the Wolverines...
- The Caring Michigan  
With one of the world's great medical centers...  
Serving over 750,000 patients a year...  
Pioneering medical research capable of improving the lives  
of millions...the polio vaccine...cystic fibrosis
- Or the Michigan as Silicon Valley East, working  
closely with Michigan industry and government to build the  
high-tech infrastructure to create new companies  
and new jobs to strengthen and diversify our  
existing industrial base...
- Michigan of the Big Chill...  
The tradition of student involvement helping to awaken the  
conscience of a nation...
- Michigan of the Arts  
...or Leonard Bernstein celebrating his 70th birthday  
in Hill Auditorium with the Vienna Philharmonic...  
...or the visits of Ella Fitzgerald or Toni Morrison or  
Jesse Norman, Kurt Mazur and the  
Leipzig Gewandhaus Orchestra  
University Musical Society  
Schools of Music and Art  
...or the scores of spectacular student productions,  
plays, concerts, dances, operas, and, of course  
demonstrations and protests, that have enlivened this campus  
over the past year.
- Michigan, the University of the World...  
Long renowned as a truly international center of learning...  
Whether it be through our great area studies programs  
the China Center, producing advisors to presidents...  
Japanese Studies, Southeast Asian Studies  
Russian and Eastern European Studies
- Michigan the University of outer space...  
...Apollo 15...the Michigan mission to the moon...  
...which not only established the first UM Club in space...  
...but named a crater after Michigan on the moon.
- Michigan as the unifying force in our families...  
Camp Michigania...  
the scores of alumni travel programs...
- Michigan, the educator  
Attempting to provide, in the worlds of one of our  
Or our alumni throughout the world...  
first presidents “an uncommon education for the common  
man” an education as good as any available in the world  
for all citizens, regardless of race, creed, and socioeconomic  
background...perhaps the best embodiment of the  
Jeffersonian ideal of public education.  
to over 340,000 alumni...  
150,000 in the state of Michigan alone!
- It is important to note these different perspectives of  
the University because all too often we tend to think of these  
marvelous and complex institutions in one-dimensional  
images that reflect only our particular interests or needs of

the moment...

In fact, perhaps the best way to think of a university is to recognize that our primary role is "to invent the future"...  
...through the knowledge discovered on our campuses...  
...and the graduates we educate that can carry forth this knowledge and apply it to society.  
Michigan is the prototype, the flagship, of the large, comprehensive, public research university which has served America so well in the 20th Century  
The embodiment of the hopes and dreams, commitment and stewardship of eight generations of Michigan citizens and Michigan alumni!

### **Importance**

For much of history, the university was a protected enclave respected well enough but mostly unnoticed and allowed to go about its business unchallenged and largely unfettered. What a contrast today, when the university finds itself considered a key social economic, political, social and cultural institution. And we are rapidly evolving into a new post-industrial society, in which the key strategic resource necessary for prosperity and social well-being has become knowledge itself. It is clear that the public research university...  
...an institution for which the University of Michigan is not only the prototype, but perhaps also the flagship...  
...touches the lives of a great many people in a great many different ways...  
Through education, research, and service...  
through health care, economic development, and ...yes...even through a sense of pride in their athletic accomplishments.  
In all advanced societies, our future depends to an ever increasing extent on new discoveries, expert knowledge, and highly trained people. Like it or not, universities are our principal source of all three ingredients. (Bok)  
"The solution of virtually all the problems with which government is concerned: health, education, environment, energy, urban development, international relationships, space, economic competitiveness, and defense and national security, all depend on creating new knowledge---and hence upon the health of America's research universities" (Bloch)  
Unlike most other nations, we have evolved a unique and highly creative class of institutions, the research university, that combines undergraduate education with graduate education, professional training, and research. This unique blend assures continuing renewal of these institutions.  
Our universities educate more students and conduct more research better than any other national system of higher education in the world.  
Our great research universities have done an astonishing job of transferring their knowledge of science and technology to society at large, and done so, I might add, with a fair amount of class, compassion, integrity, and humility.  
Beyond question, the scientific research done under the sheltering arms of research universities has improved human life, prolonged human life, enriched and protected and comforted human life.

Yet the unique character and role of the research university is neither understood nor appreciated by the American public at large, or by most of their elected public leaders. Indeed, even the term "research" university is viewed with skepticism and derision by the public.

While the American research university is clearly the envy of the rest and the world, it is under scathing attack at home--from leaders in the public and private sector, and from the public at large.

Countries as diverse as Japan and the USSR look to our universities as models for reforming their own.

Yet as important as these institutions are today in our everyday lives, it is my belief that in the future they will play an even more critical role as they become the key player in providing the knowledge resources...knowledge itself, and the educated citizens capable of applying it wisely... necessary for our prosperity, security, and social well-being.

Few seem to realize the enormous changes our society is undergoing as it approaches the 21st Century.

We are becoming more diverse, more pluralistic as a people. Indeed, almost 90% of the new entrants into our workforce during the 1990s will be people of color, women, or immigrants.

Our economy and commerce are becoming every day more interdependent with other nations as the United States becomes a world nation, a member of the global community -- as this past year's events in China, Russia, and Eastern Europe make all too apparent.

And we are rapidly evolving into a new post-industrial society, in which the key strategic resource necessary for prosperity and social well-being has become knowledge itself.

Indeed, we are entering what might be called an "Age of Knowledge" in which educated people and their ideas will play the role that in the past were played by natural resources or geographical location or labor pools...

Just think of the challenges which cry out for attention

- the plight of our cities,  
the development of an underclass  
polarization of American society
- greenhouse effect and global change
- international competition  
Pacific Rim or Europe 1992
- health care: cancer, heart disease, AIDS
- new frontiers: outer space  
or spaceship Earth

In the pluralistic, knowledge-intensive, global future that is our destiny, it is clear that the quality of and access to

...education in general  
...higher education in particular  
...and great research universities  
such as the University of Michigan  
and its sister institutions  
most specifically of all...

are rapidly becoming the key factors in

determining the strength and prosperity  
of our state.

But the greatest need of all is for leadership  
and this is the University of Michigan's  
great contribution to America...  
...through its teaching, research, and service  
...through its graduates and their achievements  
Indeed, leadership is both  
our heritage  
and our destiny!

### **Summary**

You know, Michigan is really a very special place....  
It is one of only a handful of universities capable  
of truly changing not only higher education,  
but the nation and the world.

A personal note here:

It was some 20 years ago that Anne and I left  
the warmth and sunshine of Pasadena to come to  
Michigan.

We did so, in part, because Michigan had what was  
clearly the best department in the world in my  
particular field of interest, nuclear engineering.  
And throughout almost two decades on this campus,  
I have found myself surrounded by faculty and  
students who have arrived on this campus because  
they wanted to be associated with the very best...  
...the world leader...in education and research.

These linked themes of leadership and excellence  
are what have kept me here...and what make  
this University so very special.

I believe the challenge of re-inventing  
the American university for the 21st Century  
...is not only an exciting and  
challenging mission for the 1990s  
...but it is also a mission befitting  
UM's long heritage of leadership

A challenge...but also appropriate for Michigan  
UM is blazing a new path

The 1990s will be a time of great challenge  
opportunity, and responsibility for your university.

But they will also be years of great excitement.

As we begin this great adventure of determining  
the nature of the university capable of  
serving a new century.

Let me call on you to once again demonstrate that  
unique Michigan spirit...  
...that "Go Blue" spirit...  
...that makes the University of Michigan...  
...in the words of the greatest College fight song in America  
...the "Leaders and best"!