

UW-Milwaukee Research Agenda:

Partnerships Advancing Academics and Economic Development



Carlos E. Santiago, Chancellor

Board of Regents Meeting
June 10, 2005



Milwaukee: *A Key Pillar of the IQ Corridor*

Milwaukee Region's Biomedical Strengths



Institutional Strengths

Public Health
Medical Informatics
Rehabilitation
Biomechanics
Imaging
Cardiopulmonary
Genetics
Proteomics
Bioinformatics
Biochemistry

Health Issues Addressed

Aging, Disability
Disability
Amputees
Spine, Walking, Falling
Stroke, Heart Disease
CNS Disorders
Pain, Addiction
Cancer
Infectious Disease
Drug Discovery
Personalized Medicine

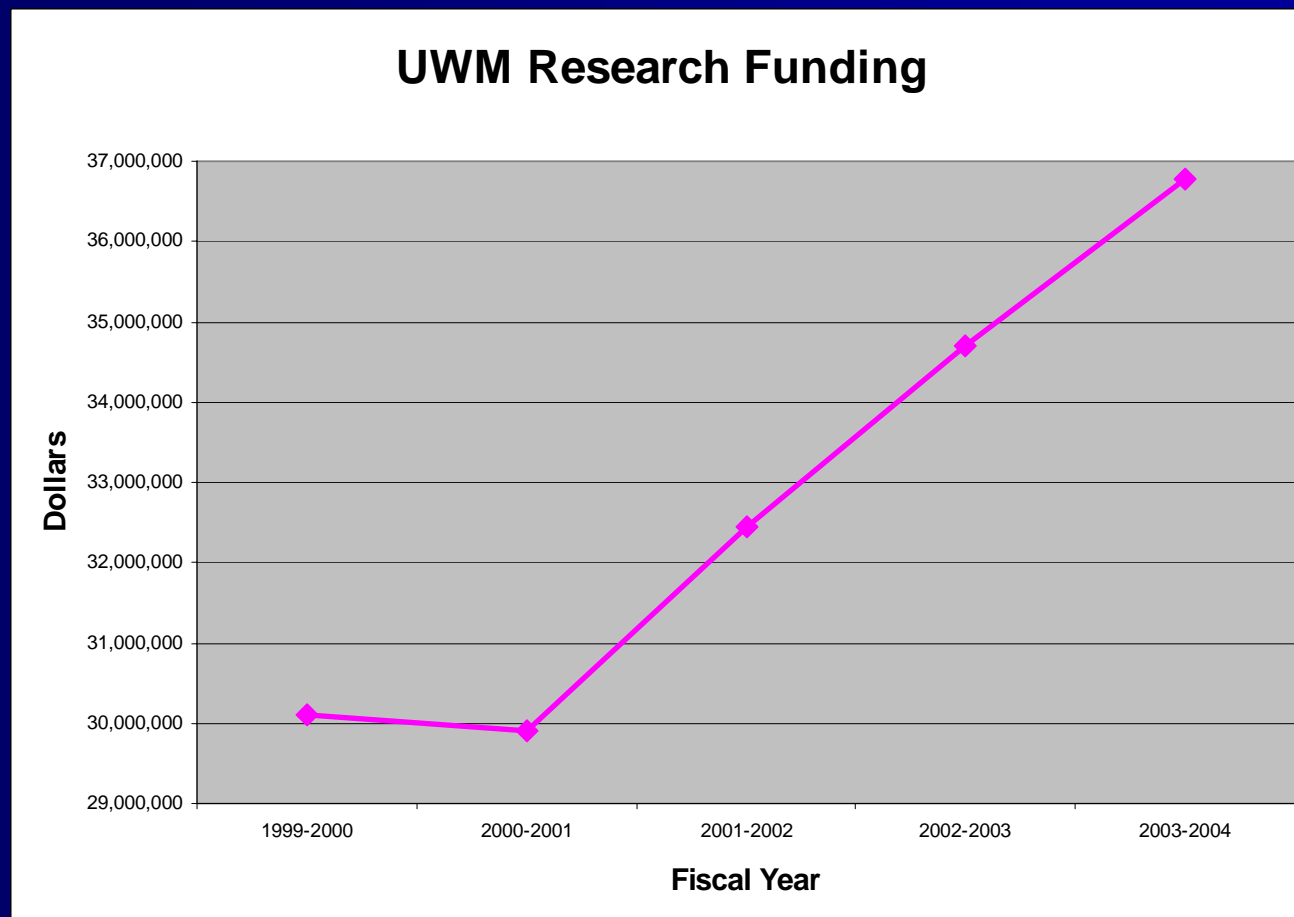
UWM Research Goal



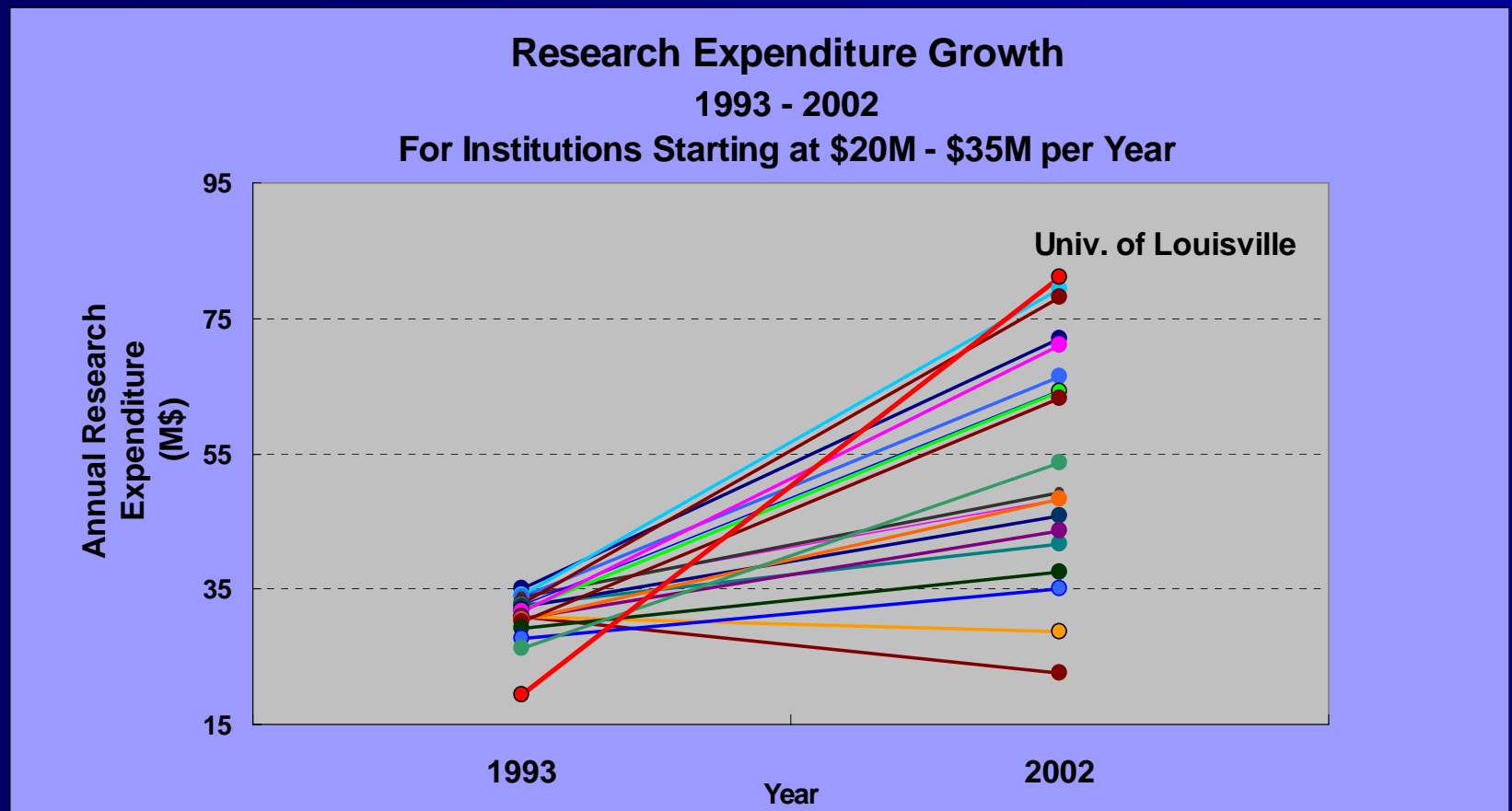
\$ 100 Million

Annual research
expenditures in 10 years

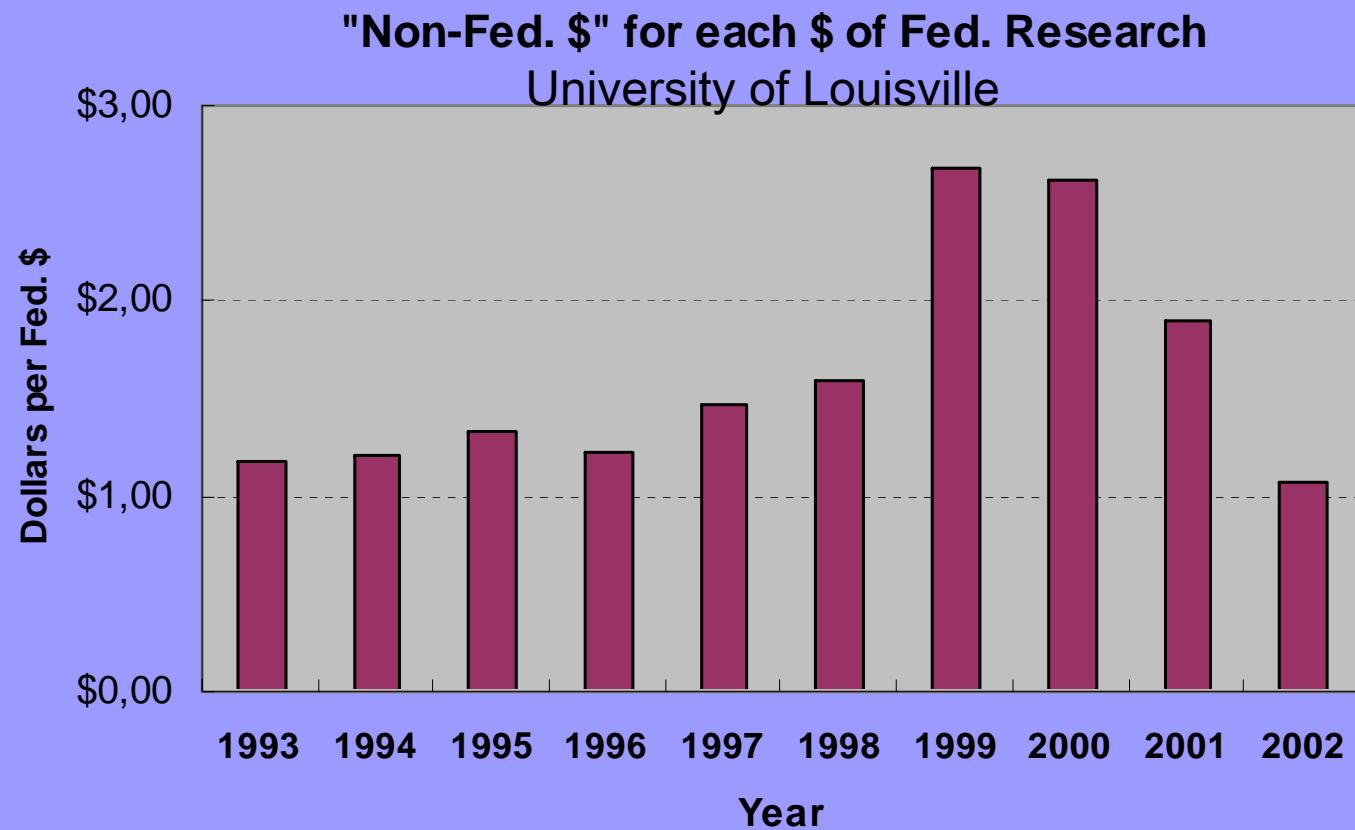
UWM Research Trajectory



Can It Be Done?



What Does It Take?



Growth from Within the Institution

UWM Chancellor's Scientist Award

Previously the Greater Milwaukee Foundation Shaw Scientist Award

Faculty member awarded a total of **\$200,000** (\$40,000/year for 5 years)

Provides financial support for faculty member's research activities

UWM Assistant Professor of Immunology **Douglas Steeber** received the 2005 Award



Biomedical Technology Alliance



*Fostering collaboration in biomedical technology
with academic institutions and industry by
creating awareness, incentives and infrastructure*

Initial Areas of Scientific Focus

Biomedical Imaging

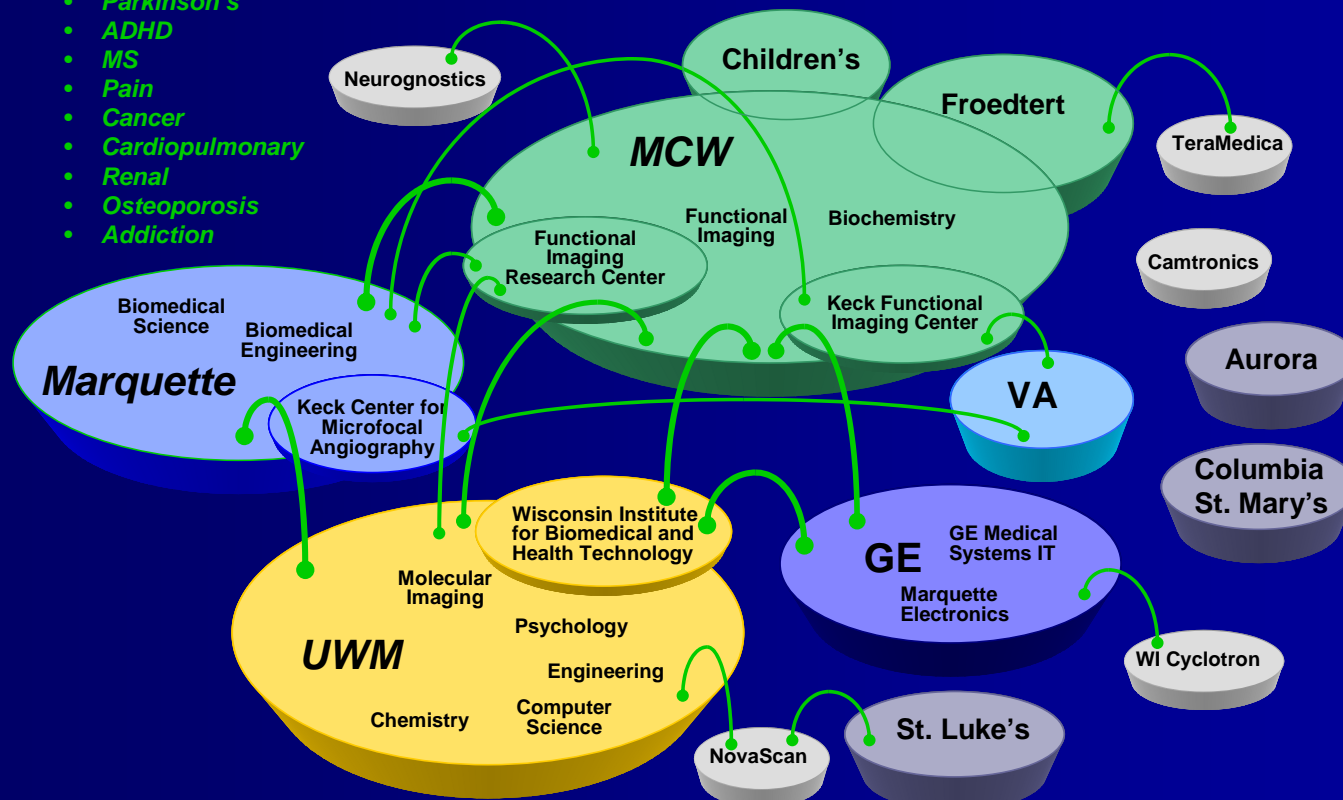
Medical Informatics

Biomechanics/Rehabilitation

Research Collaborations

Biomedical Imaging

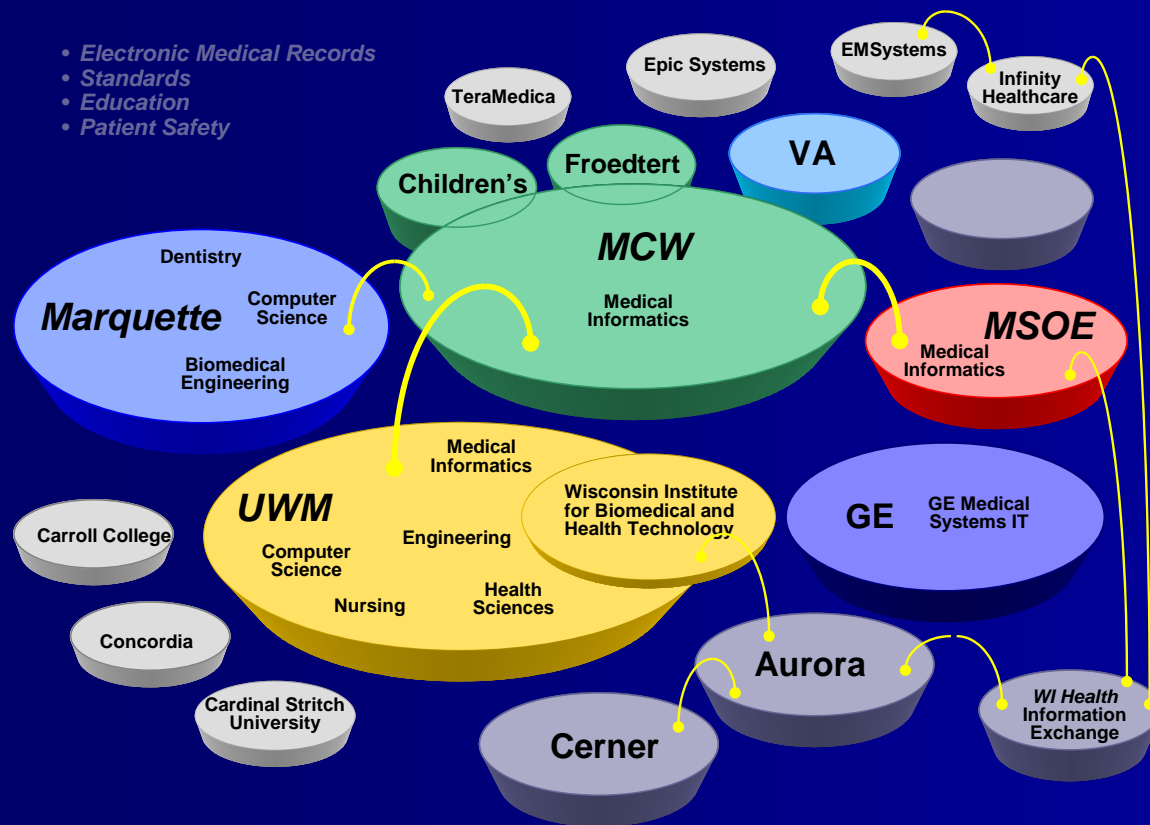
- Alzheimer's
- Parkinson's
- ADHD
- MS
- Pain
- Cancer
- Cardiopulmonary
- Renal
- Osteoporosis
- Addiction



Research Collaborations

Medical Informatics

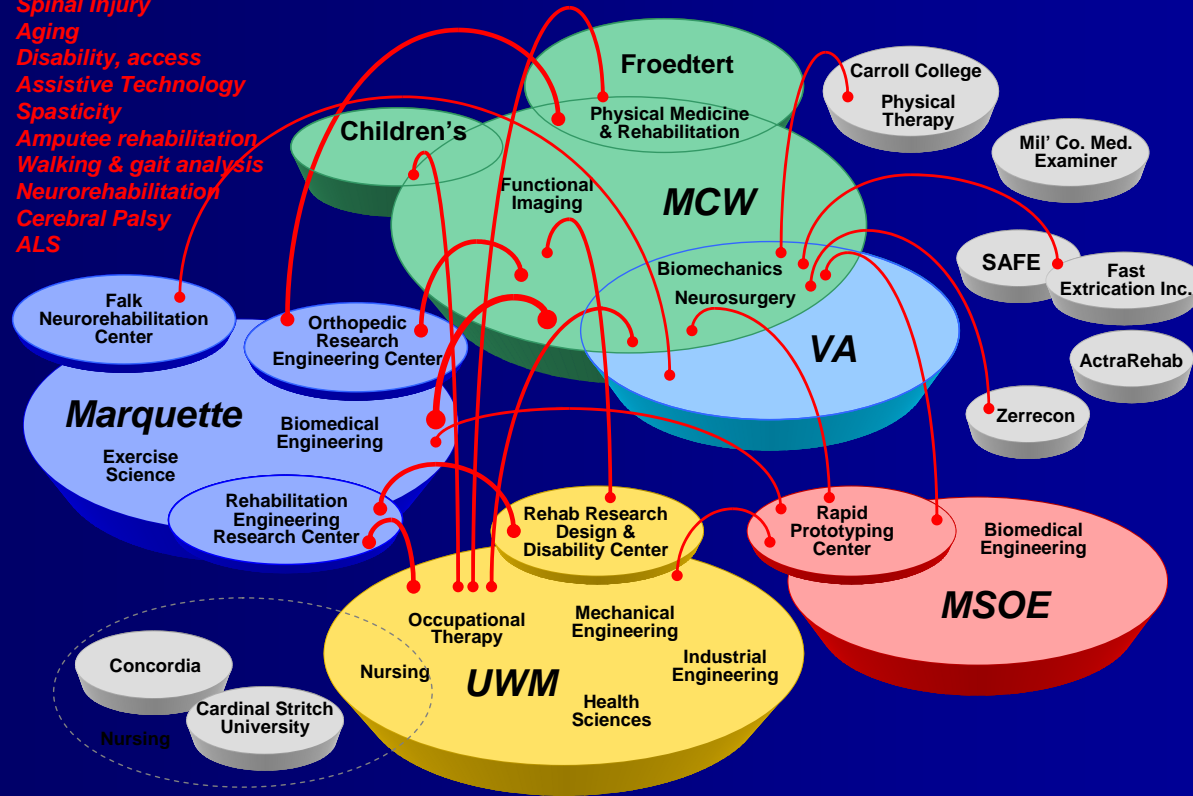
- Electronic Medical Records
- Standards
- Education
- Patient Safety



Research Collaborations

Biomechanics/Rehabilitation

- *Stroke*
- *Spinal Injury*
- *Aging*
- *Disability, access*
- *Assistive Technology*
- *Spasticity*
- *Amputee rehabilitation*
- *Walking & gait analysis*
- *Neurorehabilitation*
- *Cerebral Palsy*
- *ALS*



Strategic Research Development Program

To Develop World-class Interdisciplinary Research Teams:

- *Across UWM's schools and colleges, and regional academic institutions*
- *In partnership with industry*
- *To build nationally recognized research programs in strategic areas of research strength*



Strategic Research Development Program

Selection Criteria



- ✓ Compatibility with UWM research strengths
- ✓ Researchers and grants that would be part of team
- ✓ Potential to attract federal or industrial funding
- ✓ Potential to enhance interdisciplinary research at UWM
- ✓ Potential for inter-institutional research in SE Wisconsin
- ✓ Potential for inter-institutional research with national or international labs, centers, institutes and institutions of higher education
- ✓ Support of related industrial and foundation partners
- ✓ Potential to impact ongoing regional economic development

Strategic Research Development Program

Proposals

Center on Biotechnology

Children's Environmental Health

**Wisconsin Institute for Biomedical
and Health Technologies (WIBHT)**

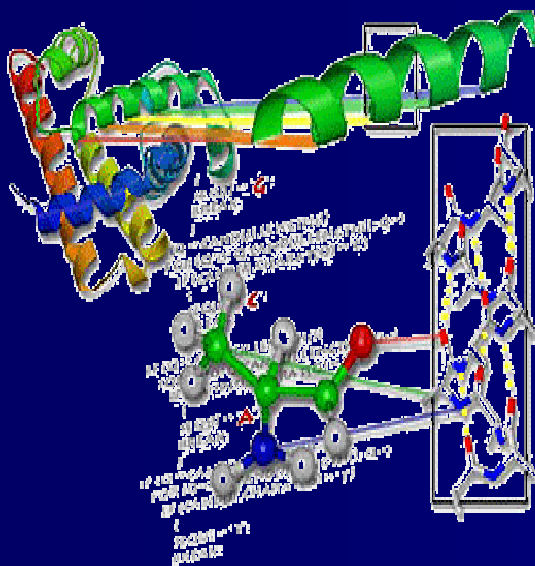
Enhance Surface and Nano Studies

Geospatial Information Science

Neuroscience: Milwaukee Center for Neural
Plasticity

Center for Improving Manufacturing
Competitiveness through Automation and
Integration

Center on Age and Community



Wisconsin Institute for Biomedical and Health Technologies

*A world-class research institute linking **Wisconsin academic institutions** with **industry and healthcare systems** to generate new knowledge at the frontiers of the theoretical sciences, engineering, health sciences, health care management and practice disciplines to be **translated** efficiently and effectively to **industry, health providers and consumers**.*



Wisconsin Institute for Biomedical and Health Technologies

UWM Colleges and Schools

College of Engineering and Applied Science

College of Health Sciences

College of Nursing

College of Letters and Science

School of Business Administration



Wisconsin Institute for Biomedical and Health Technologies

Partners – Initial Commitments \$15 Million



Wisconsin Institute for Biomedical and Health Technologies

Broad-based Support

“I am eager to begin detailed discussions with the University and the Medical College to develop joint programs that are in the mutual interests of GE Healthcare Technologies, UWM and the Medical College. It is exciting to see the possibilities.”

–Robert H. Armstrong

General Manager Global Functional and CT
Engineering

GE Healthcare - Technologies



Wisconsin Institute for Biomedical and Health Technologies

Broad-based Support

“Southeast Wisconsin...can benefit from centers of excellence that expedite technology transfer, professional training and business start-up. We congratulate the University of Wisconsin-Milwaukee on leading regional economic development and technology transfer.”

–Mary P. Burke

Secretary

Wisconsin Department of Commerce



Wisconsin Institute for Biomedical and Health Technologies

Broad-based Support

“The next segment of the economy that will be booming is health care – and we’ve got a chance to do something pretty dramatic in this area if we work at it.”

–G. Edwin Howe
President
Aurora Health Care



Wisconsin Institute for Biomedical and Health Technologies

Broad-based Support

“I know of no other location in the United States with the potential to create such an enterprise. You can count on me to do whatever I can to make this potential a reality.”

–William R. Hendee, Ph.D.

President

MCW Research Foundation

Dean

Graduate School of Biomedical Sciences,
Medical College of Wisconsin



Wisconsin Institute for Biomedical and Health Technologies

William R. Hendee, Ph.D.

President

MCW Research Foundation

Dean

**Graduate School of Biomedical Sciences,
Medical College of Wisconsin**



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