

APRIL MEETING, 1999

*The University of Michigan
Ann Arbor
Thursday, April 15, 1999*

The Regents convened at 1:40 p.m. in the Regents' Room. Present were President Bollinger and Regents Brandon, Horning, Maynard, McGowan, Newman, Taylor, and White. Also present were Provost Cantor, Executive Vice President Kasdin, Executive Vice President Omenn, Vice President Feagin, Vice President Hartford, Vice President and General Counsel Krislov, Interim Chancellor Schmoll, Vice President and Secretary Tedesco, Vice President Ulaby, and Vice President Wilbanks. Regent Deitch arrived shortly after the start of the meeting. Chancellor Renick was absent; Provost Simpson attended in his place.

Life Sciences for the 21st Century

President Bollinger called the meeting to order and announced that the afternoon would be devoted to providing information on the life sciences in a context in which no voting would be expected or required. He noted that months of effort have been devoted to determining how the University can become preeminent in this area.

He introduced Professor Huda Akil, Gardner Quarten Professor of Neurosciences, professor of psychiatry, co-director and senior research scientist at the Mental Health Research Institute. Professor Akil served as co-chair of the Life Sciences Commission.

Professor Akil acknowledged the contributions of the entire Life Sciences Commission. She said that her presentation would provide background about what life sciences is about, where the discipline stands currently, and why this is a timely moment in the history and further development of the life sciences.

Professor Akil described the fundamental aspects of biology. She observed that the central question of biology is how all forms of life can start with the same common material -- DNA -- and then diversify into very different life forms. She noted that the goal of the Human Genome Project is to determine the sequence of every gene on all of the chromosomes of the human body. Once this task has been accomplished, scientists will try to determine the functions of specific genes, including how cells, tissues, and organs are formed using the codes found in the genes. This focus has many applications in the study of mechanisms and treatment of human diseases, and this work is extremely collaborative, requiring an interplay among many different disciplinary approaches.

She described how each of the five initiatives identified by the Life Sciences Commission would be relevant in this endeavor, using the example of her own research in the area of neurosciences and depression. Professor Akil concluded by observing that this is an exciting time in the life sciences because the Human Genome Project is yielding more information than has ever been known before. Therefore, questions can be asked in ways that were not possible before the discoveries of the last several years. The answers to these questions are likely to be very complex, and intellectual and practical ways need to be found to obtain new information and integrate new findings, so that life sciences will continue to contribute to the public good.

Professor Akil then introduced John Holland, professor of electrical engineering and computer science, professor of psychology, and member of the Life Sciences Commission, to discuss biological complexity, a major theme of the initiative.

Professor Holland noted that the immune system contains “agents,” called antibodies, whose function is to handle “invaders,” or antigens. He defined the term “identity” as referring to the system’s ability to identify the set of proteins unique to each individual. The way the

system learns how to identify the antigens is related to genetics. Professor Holland also noted that within a two-year interval, all of the atoms in the body change. This is one reason that the immune system is so very difficult to understand, in the same way that ecosystems, which are also constantly changing, are difficult to understand.

All systems, he noted, exhibit “lever points” that can be activated by external agents like vaccines, and which with a small effort or amount, are capable of having a big effect. Until now, lever points have been discovered by trial and error, because there has been no principled way of searching for them. Theories in complexity are thought to provide a principled way of looking for lever points in the immune system.

Professor Holland observed that there is a large market value in the study of complexity, citing the example of the Santa Fe Institute, an institute with a small budget that is able to attract large sums of money from leading corporations. He concluded that the University of Michigan is uniquely placed to participate in this important area.

Professor Holland then introduced Jack Dixon, Minor J. Coon Professor of Biological Chemistry, chair of the Department of Biological Chemistry, and member of the Life Sciences Commission. Professor Dixon said that the Life Sciences Initiative is the most exciting thing to have happened at the University of Michigan during his tenure at the institution. He observed that we are on the brink of a revolution in scientific discovery, due to the fact that the sequence of the entire human genome will have been mapped within a few years, providing a blueprint to the makeup of the human body. There will also be blueprints for other organisms, such as those that cause disease, and these will enable scientists to attack diseases in ways that are currently unheard of. Developments like these have created great excitement among members of the Life

Sciences Commission, and faculty at the University of Michigan are eager to participate in these new areas of discovery.

Professor Dixon reported that in the course of its work, the Life Sciences Commission discovered that other institutions have also recognized the need for moving ahead in this area. He noted that the April 2 edition of *Science* was dedicated to complexity and had an article describing where other institutions are in their life science initiatives. Institutions such as Stanford, Berkeley, Harvard, Princeton, California Institute of Technology, and others, are all engaged in major initiatives designed to capitalize on the revolution that is occurring in the life sciences. The article states that to fully exploit this new information will require the collective skills of chemists, physicists, biologists, and engineers. It will not be possible for one isolated scientist to accomplish major breakthroughs.

He noted that the University of Michigan's initiative is meant to be an interdisciplinary, cross-cutting initiative that will intersect LS&A, the health science schools, and the College of Engineering. He gave examples of the positive effects it will have on the education of students, advances in health care, and in biotechnology. He noted that faculty are beginning to put some of the infrastructure into place by developing new programs to support efforts in the life sciences initiative.

Professor Dixon encouraged the Regents to support a life sciences initiative, noting that the University would have major competition from other institutions.

The presenters then responded to questions from the Regents.

In response to a question from Regent Horning about the role of the Van Andel Institute in Grand Rapids, Professor Dixon observed that he was on the selection committee that had identified George VandeWoude as the institute's director. He noted that the Van Andel Institute

would focus on genetics, would have a staff of about 20 scientists, and that although there would be a strong interaction between the University and the Institute, there would be no overlap in the work of the two entities.

Responding to a question from Regent Maynard, Professor Akil noted that there would be a lot of collaboration, both among departments within the University and among different universities. She emphasized that what is important is for the University to be a player; this will require a great deal of effort because it involves “big science.”

Regent Deitch inquired about the implications for the University if it decides not to make a commitment to this effort. Professor Dixon responded that the University of Michigan has a number of terrific scientists. Nationally, however, there are not enough scientists who are working at these high levels and those at Michigan are prime candidates for recruitment to other university sites. If the University does not make a commitment to this endeavor, the University’s best scientists will be recruited by other institutions to exploit their initiatives in the life sciences and they will leave.

Professor Holland concurred that the University is uniquely situated not only to be a player, but a leader in this endeavor, and that if it fails to act soon, the people who give it that advantage will leave. Among the factors that make it a leader in this area are its status as the only university that has an ongoing, reciprocal relationship with the Santa Fe Institute, which is a leader in the study of complexity. It also has recently started the first “named” educational program in complexity.

Professor Akil pointed out that the University of Michigan is unique in that it has on one campus both the human and physical resources necessary to embark on this endeavor, with specialties in many different disciplines, as well as major pharmaceutical companies located in

the region. Having the resources, the intellectual atmosphere, and access to areas and people and expertise that may not be readily accessible on the same campus at competing institutions are important factors in retaining faculty.

President Bollinger raised the issue of why the University should choose to focus on life sciences rather than some other area. Professor Akil observed that although the focus of life sciences is biological, it is a field that influences many other areas, such as psychology and law, that might not typically be thought of as being connected with it. She also emphasized that it is important to note that the life sciences initiative will only work well in the context of a university that is strong in all respects.

Provost Cantor next addressed the issue of how a life sciences initiative will affect students' educational experience. She noted that as a great public research university, the University has a responsibility to translate the value of research expertise for its students, particularly for undergraduate students. She observed that there is already a core set of undergraduate student interest, as demonstrated by the fact that a significant fraction of entering students consider themselves to be pre-med majors, and 20 percent of the graduating class chooses a major in one of the core life sciences areas. These students will benefit greatly from enhanced engagement with the interdisciplinary subject areas represented by the life sciences initiative. In addition, she observed that, "broadly defined, the life sciences have become a literacy test for a modern education," and therefore it is important for all liberal arts majors to have some exposure to life sciences areas. Science should be a core component of the University's educational programs.

Other advantages of this initiative are that it will provide students with a means of thinking collaboratively with others who are outside of their disciplinary areas. It would provide

additional opportunities for theme semesters, for living/learning communities, and for direct student participation in research laboratories such as occurs in the Undergraduate Research Opportunity Program. The Life Science Initiative will encourage the vertical integration of undergraduate and graduate students, postdoctoral scholars, and junior and senior faculty. Once a life sciences initiative is in place, she observed, it will be impossible not to expand the integration of research and education, because it is at the heart of this enterprise.

Finally, Provost Cantor emphasized that this initiative would also allow the University to expose undergraduate students to the intersection of intellectual discovery and technology, which is at the core of a good curriculum and a modern education. Students' knowledge of technology will be "completely intertwined with how they think about the world." In conclusion, she noted that diversity of perspectives, collaboration, and information technology, the three major elements necessary to provide the best education for students, are all woven into the fabric of a life sciences initiative.

Executive Vice President Omenn reported on implications of the Life Sciences Initiative for the Health System and academic medicine. He noted that the five initiatives within the overall initiative are "intimately interrelated" under the central theme of the complexity of living systems, and observed that the University of Michigan has a breadth of resources that no other institution can match. Executive Vice President Omenn outlined the essential elements of an initiative that would have a campus-wide impact: creation of institutes or centers to house and administer the initiatives; creation of new research facilities; vigorous recruiting efforts; enhancement of existing academic programs and departments; expanded research cores; a strengthened technology transfer infrastructure; creation of novel educational programs; establishment of a Center for Bioinformatics to begin to deal with the flood of data resulting

from the Human Genome Project; appointment of a Bioethics Scholarship Council; and the launching of “Michigan Workshops” to highlight the work being done here.

Specific benefits for the Medical School and the Health System include the increased intellectual and physical contiguity of the Medical School and other nearby units; an opportunity to strengthen the basic sciences; a major increase in research space and faculty recruitment; and high expectations for translation to clinical applications from basic biology, bioinformatics, and bioengineering.

Next, Vice President Ulaby addressed the issue of funding support for the life sciences. He noted that in 1998 life sciences accounted for about 45.5 percent of the University’s research expenditures, both by source of funds and field of study, and pointed out that federal funding in the life sciences is expected to double over the next 6-7 years. Vice President Ulaby observed that multidisciplinary centers and institutes will enjoy a decided advantage in winning major support from federal agencies.

Commenting on the proposed creation of a scientific research corridor within the state, Vice President Ulaby noted that President Bollinger and the presidents of Wayne State and Michigan State universities had begun meeting several months ago to identify ways for the three institutions to cooperate on research initiatives, and had decided to focus on the field of life sciences. They have made a proposal to the governor that \$50 million of the state’s income from the tobacco settlement be used for these initiatives, with half to be shared among the three schools and the other half to be awarded competitively for work at the three schools and the Van Andel Institute. The three universities have identified five areas of common interest, three of which relate to the life sciences initiative. Committees consisting of faculty from each of the three schools will be formed covering each of the five areas. A consulting firm has indicated

that there is a high potential for the development of biotechnology spin-off firms in the Ann Arbor area.

Vice President Wilbanks spoke on the public environment and receptivity for life sciences issues, both within the state and across the country. She noted that public support for these issues began galvanizing 30 years ago with the war on cancer, but since then advocacy has been largely ad hoc and fractured. General budgetary constraints in the early 1990s led to a concern about the future of federal support for research, and that uncertainty led to the beginning of a national dialog about the benefits to all citizens from prudent investments in research. The Science Coalition, whose membership includes major research universities, has been working for the past four years to sustain federal funding for university-based science research. In 1998 Michigan Congressional Representative Vern Ehlers completed a Congressional study that addressed the challenges inherent in establishing a new national science policy for the post Cold War period. This report was endorsed by the U.S. House of Representatives in the fall of 1998, at which time the Senate also endorsed a bill to promote federal investments in research and development. Last year, the U.S. Congress voted to increase funding to the National Institutes of Health by 15 percent, or about \$2 billion.

Vice President Wilbanks observed that within the state, there is a new interest in technology-based economic development, government-university partnerships, and ways in which those relationships can enhance the economic and educational well-being of the state's citizens. She noted that the state of Michigan, in close collaboration with the major research universities and the private sector, is taking an active interest in the technology transfer capabilities of universities.

Vice President Wilbanks concluded that public opinion surveys continue to show strong support for health research and education. Thus, positioning the University to take advantage of federal and state opportunities to advance the life sciences appears to be well timed.

Vice President Feagin addressed the issue of fundraising, noting that the University is already raising funds in the life sciences. She reported that she is working to determine how much money can be raised over the next few years. She observed that raising money in the life sciences is not easily done because potential donors who do not have scientific backgrounds are often intimidated by trying to understand the field.

The challenge at the University of Michigan is to determine the strategy that will work at this institution. Vice President Feagin noted that continual emphasis on the importance of private giving is very much needed, and that it be presented to donors as a very high institutional priority. A means also has to be devised to convey the excitement of the faculty in these endeavors and in the practical consequences of this research. Finally, she noted that the University also must make it clear that support of the life sciences is not the only institutional priority for which private donations are being sought, and that there are other important needs.

Following a ten-minute recess, the meeting reconvened at 4:05 p.m. for Public Comments.

Public Comments

The Regents heard comments from Andrew Lehto, Elizabeth Barr, and Shanta Jambotkar, students and organizers of the New Student Housing Action Coalition, about the need for new student housing facilities on the Ann Arbor campus.

Life Sciences Discussion

Following Public Comments, the president called for discussion of the presentation on the Life Sciences Initiative.

Regent Taylor commented that the presenters had done a “terrific job” of making a complex subject understandable and exciting. He said that the challenge will lie in determining how to communicate it to the public and market it to various audiences.

Regent Maynard observed that although private giving is important, this is too big of an issue to not also have support from the public sector. Executive Vice President Omenn responded that he is part of a national group requesting increased funding from federal sources for construction, renovation, equipment, additional salary, and other support.

Regent Deitch observed that “this is perhaps the most exciting thing that has come to this table in my more than six years on the board.” He complimented President Bollinger on bringing this proposal forward. He noted that early in his tenure, the Regents had asked President Bollinger to think deeply about the future direction of the University and to associate himself with brilliant scholars. This project is a major result of that process. He expressed the belief that in undertaking this initiative, the University stands on the brink of a very important frontier; it is “an extraordinarily exciting and important event for the University and for the people of Michigan.” We must be creative and energetic in seeking funding, Regent Deitch said, because “this has to happen.” In order to be a great university, he observed that “you have to be at the cutting edge of scholarship and research and to be able to attract the best minds in the world and give them a conducive atmosphere in which to work.” He believes that this project will accomplish these goals.

Regent Newman enumerated some questions that she hopes will be addressed regarding the practical realities and financial aspects of the proposal, including:

- how research dollars could be allocated among the schools;
- the impact of an institute on fundraising for other units, and the impact on sources of funding for ongoing expenses and tuition;
- the role of outside pharmaceutical and biotechnology companies in the initiative;
- the impact of the initiative on the Dearborn and Flint campuses and their roles in the project; and
- the direct benefits to the state and the type of state funding that will be sought in the years to come.

President Bollinger observed that the specific proposals to be presented at the May Regents' meeting should address most of the issues raised by Regent Newman.

Regent McGowan noted that the life sciences initiative represents a "signature moment" for the University, and said she was particularly drawn to the provost's characterization that it will strengthen the University's ability to provide a modern education to its students.

Regent Horning expressed enthusiastic support for the project. Noting that he shared some of Regent Newman's concerns, he believes that these can be addressed and that it is important that the University of Michigan move forward and undertake this project.

Regent Taylor posed the question of whether the University would still be considered one of the great universities fifteen years from now if it does not undertake this project. President Bollinger responded that it would not, as it would not be able to offer students the quality of education they need.

It was noted that interest in and study of the life sciences are broadly distributed across the University, including the College of Engineering, which has a number of projects currently underway that are directly related to life sciences. Professor Holland emphasized that funding is readily available for cross-disciplinary studies in this area, and it is a question of being in a

position to take advantage of it. Professor George Kling, another member of the Life Sciences Commission, also pointed out that the University of Michigan is the only institution that has biocomplexity among its foci, encompassing environmental studies as well as life sciences, as themes. The University is therefore uniquely positioned to take advantage of new federal funding that has recently been made available in these areas.

Regent Brandon expressed his belief that it is extremely important in developing an enterprise such as this to articulate a vision and build a case for change, and that this has been done very successfully. He indicated that it is now time to move on to the next step, with the challenge being to articulate the end result of the project -- that is, what it will look like when we are successful.

Regent White observed that “it is a dream come true” for her that this region of the country will be embarking on so monumental a project. She pointed out that there are two aspects of the initiative: the academic aspect, which requires the University to be on the cutting edge of research and education; and the technology development aspect, which has the potential to help transform the state’s economy and move it away from its traditional reliance on the automobile industry.

President Bollinger observed that this will be a multi-year project that will take about five years to become fully operational. At the May meeting more specific proposals will be presented.

Regent Maynard said that given the relative urgency of moving ahead, it would be helpful if proposals could be developed early enough to have adequate time for questions to be addressed. Regent Taylor suggested that it might also be helpful to outline the overall goals of

the project in a format similar to that of a corporate strategic plan, including a vision of the end result.

The meeting recessed at 4:55 p.m. until the following day.

Friday, April 16, 1999

The Regents convened at 9:45 a.m. in the Regents' Room. Present were President Bollinger and Regents Brandon, Horning, Maynard, McGowan, Newman, Taylor, and White. Also present were Provost Cantor, Executive Vice President Kasdin, Executive Vice President Omenn, Vice President Feagin, Vice President Hartford, Vice President and General Counsel Krislov, Chancellor Renick, Interim Chancellor Schmoll, Vice President and Secretary Tedesco, Vice President Ulaby, and Vice President Wilbanks. Regent Deitch was absent.

Motion to Meet in Executive Session

Regent White made the following motion:

Pursuant to Section 8(e) of the Open Meetings Act, as amended by 1984 PA 202 and 1996 PA 464, I move that the Board of Regents meet in closed session on April 16, 1999, in the Regents' Room, for the purpose of consulting with our attorney regarding trial or settlement strategy in connection with specific pending litigation.

Regent Maynard seconded the motion and it was approved unanimously. The meeting then continued in executive session.

The meeting reconvened at 10:00 a.m. and began consideration of the regular business agenda.

Consent Agenda

Minutes. Vice President and Secretary Tedesco submitted the minutes of the March 18, 1999 meeting.

Reports. Executive Vice President Kasdin submitted reports of Investment, Plant Extension, and the Regents Report on Non-Competitive Purchases over \$5000 from Single Sources for January 1 - March 31, 1999.

Vice President and General Counsel Krislov submitted the Litigation Report.

Vice President Ulaby submitted the report of Projects Established during March 1999.

University of Michigan Health System. Executive Vice President Omenn distributed “Pocket Profiles” for the University of Michigan Hospitals and Health Centers (UMHHC) and Data Reference Cards for the Medical School. The documents provided information on a number of items, including financial and other indices related to the status of UMHHC through the second quarter of Fiscal Year 1999. Executive Vice President Omenn also reported on a number of noteworthy issues related to the health system.

Division of Student Affairs Report. Vice President Hartford observed that the winter term would be ending next week and that this, combined with preparation for final exams and commencement create a busy time for students.

Dearborn Campus Report. Chancellor Renick commented that he was looking forward to welcoming the Regents and officers when they convene on the Dearborn campus for their meeting on May 20.

Flint Campus Report. Interim Chancellor Schmoll reported that Sean Michael Welch, a senior at UM-Flint, had his one-act play, “Earl the Vampire,” selected for performance this month at the American College Theatre Festival, held at the Kennedy Center in Washington, DC.

This play won several awards, including the Kennedy Center's John Cauble National Student Play Award for 1999, and will be published by Samuel French, Inc. There will be a special performance on the Flint Campus in June.

Voluntary Support. Vice President Feagin submitted the Report on Voluntary Support for March 1999.

Personnel Actions. Provost Cantor called attention to the proposed appointment of Shirley Neuman as dean of the College of LS&A and as professor of English and professor of Women's Studies. She reviewed Dr. Neuman's accomplishments in her current position as dean of the Faculty of Arts and professor of English at the University of British Columbia, and noted that she had been selected following an international search conducted by a faculty search advisory committee.

Provost Cantor also noted a request for a one-year extension of the appointment of Paul Boylan as dean of the School of Music, after which he would begin his retirement furlough.

Personnel Reports. Provost Cantor submitted a number of personnel reports.

Retirement Memoirs. Vice President and Secretary Tedesco submitted one retirement memoir for adoption.

Memorials. No deaths of active faculty members were reported this month.

Degrees. Provost Cantor submitted for approval the May 1999 Doctoral Degree List and changes to previously approved degree lists.

On a motion by Regent McGowan, seconded by Regent Maynard, the Regents unanimously approved the Consent Agenda.

Sale of Tax Exempt Commercial Paper to Finance University's Projects

On a motion by Regent White, seconded by Regent Maynard, the Regents unanimously authorized a \$4.5 million increase, to \$70.1 million, in the amount outstanding of the tax exempt commercial paper supported by a pledge of General Revenues. The purpose of the increase is to fund a previously approved project for upgrading of the electrical and fire alarm systems of the South Quadrangle.

Gift of Real Estate to Fund Charitable Remainder Unitrust

Executive Vice President Kasdin reported that Frank J. Turner, one of the parties to the charitable remainder unitrust described in the Regents Communication, had died during the past week, so consequently some of the terms of the proposal must be revised. On a motion by Regent McGowan, seconded by Regent Horning, the Regents unanimously approved accepting and then selling the commercial real estate building located in Caro, Michigan, into the Frank J. and Harriett Turner Charitable Remainder Unitrust. The University will obtain an appraisal of the property to assist in establishing a sales price.

Alternative Asset Investment

On a motion by Regent McGowan, seconded by Regent Maynard, the Regents unanimously approved commitment of up to \$20.0 million to Silver Lake Partners, L.P., pending favorable review of the legal documents by the Office of the General Counsel.

Women's Rowing Team Facility New Building

Regent White moved approval of the revised budget of \$1,200,000 for the previously approved new facility for the Women's rowing team, and to release the project for construction. Regent Maynard seconded the motion, and it was approved unanimously.

Executive Vice President Kasdin noted that this project will be financed with commercial paper. Regent Newman moved to authorize the issuance of \$1.2 million of commercial paper to finance this project. This increases the authorized amount of commercial paper to \$71.3 million. Regent McGowan seconded the motion, and it was approved unanimously.

University of Michigan-Flint Professional Studies and Classroom Building

On a motion by Regent Maynard, seconded by Regent Newman, the Regents unanimously authorized issuing the Professional Studies and Classroom Building (PSCB) project for bids and awarding a construction contract providing the costs remain within the project budget.

400 North Ingalls Building Orthopedic Surgery Renovations

Regent Brandon moved approval of renovations to the Orthopedics Research Laboratories, as described in the Regents Communication. Regent Maynard seconded the motion, and it was approved unanimously.

Regent Newman requested that the Regents receive an update of space usage and planning for the health system. Executive Vice President Omenn responded that this will be provided in conjunction with the upcoming FY2000 budget request.

Taubman Medical Library Renovations

On a motion by Regent Maynard, seconded by Regent White, the Regents unanimously approved initiating the design for renovations to the second and fourth floors of the Taubman Medical Library and selecting David Milling Associates in conjunction with Peter Basso Associates as the architect/engineer. The renovations are for the Medical School's Graduate

Studies Program, the lobby, and the reserve collection, as described in the Regents Communication.

Purchasing Contract with David Alban Kilbuilders

On a motion by Regent Brandon, seconded by Regent Horning, the Regents unanimously approved a purchasing contract with David Alban Kilbuilders. Because the sole proprietor of David Alban Kilbuilders, David Alban, is also a visiting assistant professor at the University of Michigan, this contract falls under the State of Michigan Conflict of Interest Statute. The following information is provided in compliance with statutory requirements:

1. Parties to the purchase contract will be the Regents of the University of Michigan and its School of Art and Design and David Alban Kilbuilders.
2. The terms of the contract are that David Alban Kilbuilders is to provide labor and materials necessary for the construction of a car kiln, at a total amount of \$42,500.
3. Mr. Alban's pecuniary interest arises by virtue of the fact that he is the sole proprietor of David Alban Kilbuilders.

Proposed License Agreement with Gradient Technologies, LLC

On a motion by Regent Maynard, seconded by Regent White, the Regents unanimously approved a license agreement between the University of Michigan and Gradient Technologies, LLC, for commercialization of the invention "Multifunction Compact Planar Antenna with Planar Graded Index Superstrate Lens." Because Linda P.B. Katehi and Kamal Sarabandi are University of Michigan employees who also have an equity interest in Gradient Technologies, LLC, this agreement falls under the State of Michigan Conflict of Interest Statute. The following information is provided in compliance with statutory requirements:

1. Parties to the agreement are the University of Michigan and Gradient Technologies, LLC.
2. Terms of the contract include:
 - A license issue fee of \$6,000.00.
 - Royalties to the University of 4.0%.

- Royalties of 20% on sublicense revenue.
 - Exclusive right to practice and commercialize the technology, subject to certain rights reserved by the University to practice it for research and educational purposes. The University retains ownership.
 - Minimum annual royalties of \$10,000.00 for 2001; \$10,000.00 for 2002; \$10,000.00 for 2003; and \$50,000.00 for 2004 and each year thereafter during the term of the agreement.
 - Term of the agreement is for the life of the patent.
 - No use of University services or facilities, nor any assignment of University employees, is obligated under the agreement.
3. Linda P.B. Katehi's and Kamal Sarabandi's pecuniary interests arise from their ownership interest in Gradient Technologies, LLC. They will waive any personal participation in the sharing of royalties received by the University from the company.

Research Agreement with Frontier Medical, LLC

On a motion by Regent Horning, seconded by Regent McGowan, the Regents unanimously approved a research agreement between the University of Michigan and Frontier Medical, LLC, through which Frontier Medical, LLC will fund a project at the University of Michigan through an SBIR Phase I grant it has received. Because a part-owner of Frontier Medical, LLC, Neal H. Clinthorne, is also a University of Michigan employee, this agreement falls under the State of Michigan Conflict of Interest Statute. The following information is provided in compliance with statutory requirements:

1. Parties to the agreement are the University of Michigan and Frontier Medical, LLC.
2. The terms of the agreement conform to University policy. The period of performance is six months at a total cost of \$9,719. The University's portion of the work will be performed under the direction of Nicholas A. Petrick, Ph.D. He has no ties with Frontier Medical, LLC. He neither works with nor reports to Dr. Clinthorne, who is a University employee and holds approximately 50% of the company's stock.
3. Dr. Clinthorne's pecuniary interest arises from his partial ownership of Frontier Medical, LLC.

Academic Calendar for 2001-2002

On a motion by Regent White, seconded by Regent Maynard, the Regents unanimously approved the academic calendar for the Ann Arbor Campus for 2001-2002, as described in the Regents Communication.

Change in Name of Department of Ophthalmology

Regent Brandon moved that the name of the Department of Ophthalmology be changed to the Department of Ophthalmology and Visual Sciences. Regent White seconded the motion, and it was approved unanimously.

Addition to the Bylaws of the University of Michigan Hospitals Executive Board

On a motion by Regent Maynard, seconded by Regent Newman, the Regents unanimously approved an addition to the bylaws of the University of Michigan Hospitals Executive Board. The new bylaw (Section 3.10) will provide for the use of unanimous written consent as a means of taking action without a meeting.

Regents' Meeting Schedule for 2000

On a motion by Regent White, seconded by Regent Maynard, the Regents unanimously approved the following schedule of meetings for 2000:

January 20-21	July 13-14
February 17-18	August - No meeting
March 16-17	September 21-22
April 13-14	October 19**-20
May 18*-19	November 16-17
June 15-16	December 14-15

* Held at UM-Dearborn

** Held at UM-Flint

Michigan Student Assembly Biannual Report

Mr. Trent Thompson, president of Michigan Student Assembly (MSA), gave a report in which he reviewed the accomplishments of MSA during the past year and described the projects planned for the coming year. He also shared a personal story describing how his experiences at the University have caused him to grow academically and socially. He shared his appreciation for how much the University's emphasis on diversity and affirmative action enriched his entire educational experience.

Mr. Thompson concluded by thanking Vice President Hartford and the Office of the Vice President for Student Affairs for their work on behalf of MSA, and the Regents and executive officers for creating “an environment of learning, toleration, and mutual respect” at the University which he believes has prepared him for the real world. He then introduced the incoming MSA president, Mr. Bram Elias. President Bollinger thanked Mr. Thompson for his work during the past year, and he received a round of applause.

Vice President Ulaby announced that the newly restored Detroit Observatory will be rededicated at a ceremony taking place on Friday, May 21.

Michigan Greats

Vice President Ulaby gave a multimedia presentation describing the life and accomplishments of Amalya Lyle Kearse, a 1962 graduate of the University of Michigan Law School and U.S. Appeals Court Judge for the Second Circuit in New York City, who he characterized as a gifted legal scholar, first-rate legal writer, and shrewd analyst.

Following the presentation, the meeting was adjourned at 10:45 a.m. The next meeting will take place May 20-21, 1999.