REGENTS REPORT TO THE
MINNESOTA LEGISLATIVE
BUILDING COMMISSION

1973

MEDICAL
EDUCATION
SPECIAL

DULUTH CAMPUS
University of Minnesota
June 9, 1972
June 9, 1972

Gentlemen:

I am pleased to transmit to you this Special Request for buildings for the University of Minnesota, Duluth Medical Education Program. We have included in the request some background material on the Medical Education Program which supplements the information provided for specific building requests.

On behalf of President Malcolm Moos, the Regents of the University and members of the UMD Community, I want to express appreciation for your continuing interest in and support of UMD.

Sincerely,

R. W. Darland
Provost

Attachment
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INTRODUCTION

In recent years the emphasis in medical education has been generally oriented away from the instruction of the general or family practice physician. The need for additional primary physicians has been clearly demonstrated by a number of recent studies, and is recognized not only by medical educators and practicing physicians, but also by the recipients of health care, the people of the state.

Recognizing this need, a group of concerned laymen and physicians in Duluth, headed by Dr. S. H. Boyer, formed the Northern Minnesota Council for Medical Education. The aim of this group, which was formed in 1966, was to begin a program for the development of additional medical education facilities in the state of Minnesota.

In April 1968, in response to the activities of the Northern Minnesota Council for Medical Education, the University of Minnesota Board of Regents published a statement on medical education which proposed that a medical curriculum be planned for and implemented in Duluth. Specifically, the Regents recommended for the Duluth Campus of the University of Minnesota:

A. Establishment of the graduate programs in chemistry and biology sufficient to provide the University base for medical school development.

B. Establishment of collegiate programs in medical technology, physical therapy, occupational therapy, nursing, and other allied health professions.

C. Planning toward development of a preclinical (first two years) program in medical education in Duluth in the decade of the 1970's.

D. Planning toward development in the 1980's of a clinical program in medicine.

In 1967, the Minnesota Legislature established committees in both the House and Senate to study the need and possible location for a second medical school in Minnesota. A special advisory panel of five medical school deans and two medical economists was charged with recommending appropriate priorities for the state's next efforts in medical education. In January 1969, the panel recommended that:
In May of 1969, the Minnesota State Legislature, in direct response to this need demonstrated by its research, enacted enabling legislation which appropriated the sum of $340,000 to establish a basic sciences program for a medical training curriculum at the Duluth campus of the University of Minnesota. Senate File 2386, as amended by conference committee and subsequently approved by the Legislature, reads as follows:

Senate File #2386

Sec. 5. (ESTABLISHING A BASIC SCIENCES PROGRAM FOR A MEDICAL TRAINING CURRICULUM AT THE DULUTH CAMPUS OF THE UNIVERSITY OF MINNESOTA.) For the furtherance of expanding medical education in the state of Minnesota, there is hereby appropriated from the general fund in the state treasury to the regents of the University of Minnesota, the sum of $340,000. Such money is to be allocated to the Duluth Campus of the University of Minnesota, SOLELY FOR THE PURPOSE OF ESTABLISHING A SEPARATE BASIC SCIENCES PROGRAM AS A PART OF AN ADDITIONAL MEDICAL CURRICULUM IN THE STATE OF MINNESOTA. Such funds shall be used for THE EMPLOYMENT OF A MEDICAL COORDINATOR OR DEAN AND STAFF AND TO PAY THE RELATED EXPENSES, FOR THE PLANNING FOR THE DESIGN AND CONSTRUCTION OF A BASIC SCIENCE BUILDING, FOR FACULTY RECRUITMENT AND FOR CURRICULA PLANNING, TO THE END THAT THE FIRST CLASS OF STUDENTS IN THE BASIC SCIENCES PROGRAM MAY BE ENTERED AT THE DULUTH CAMPUS OF THE UNIVERSITY OF MINNESOTA IN THE FALL COMMENCING IN 1972. None of the moneys herein appropriated are to be used or expended by the regents of the University of Minnesota at any place except the Duluth Campus of the University of Minnesota, and for the purposes herein expressed, in order that a new medical educational capability in Minnesota may be achieved for the people of the state.

The monies to support the medical education program described in the Senate File 2386 were actually appropriated in House File Bill 3025, Sec. 4, Subdivision 5, Item (e):

House File #3025 -- Section 4, Subdivision 5

(e) Basic Sciences Program for a Medical Training Curriculum
Duluth -- -- -- -- -- -- -- -- -- -- -- -- -- $340,000
This appropriation is to be allocated to the Duluth campus of the University for the establishment of a separate basic sciences program as a part of an additional medical curriculum in the state of Minnesota. Such funds shall be used for the employment of a medical coordinator or dean and staff and to pay the related expenses, for planning for the design and construction of a basic science building, for faculty recruitment and for curricula planning.

The moneys appropriated in Subdivision 5, Item (e), are to be expended in the manner set forth in the act enacted by the 1969 Legislature as Senate File 2386. Such moneys are in lieu of the appropriation contained in said enactment for this purpose. The moneys appropriated in Senate File 2386 for this purpose are not to be given effect.

In June 1969, after the Legislature had appropriated funds to establish a medical training curriculum at UMD, President Malcolm Moos appointed an Ad Hoc Committee on Medical Education at the Duluth Campus to plan and assist in establishing the program.

The availability of initial state funds as well as additional monies from federal and local sources have made the Medical Education Program of the University of Minnesota at Duluth a viable entity.

In the fall of 1970, Robert E. Carter, M.D., then director of the University Medical Center of the University of Mississippi, was appointed dean of the new Medical Education Program at the University of Minnesota, Duluth. Under Dr. Carter's direction, the following things have been accomplished:

- A staff of 12 capable young basic medical scientists has been assembled and additional staff is being recruited.
- An innovative family practice curriculum has been developed.
- An attitudinal study of rural and urban general practice physicians has been completed.
- Nearly 200 applications for the 24 student places in the program have been processed and selection of students is progressing. The majority of the students who applied are highly qualified young people from Minnesota.
A teaching facility, the former Laboratory School, has been remodeled and readied for use in the Fall of 1972.

In addition to the accomplishments just mentioned, the Medical Education Program has received a grant of $160,000 from the Upper Great Lakes Regional Commission, and donations of more than $750,000 from the citizens of Northeastern Minnesota and the surrounding area.

The first class of 24 students will be enrolled in September 1972. A two-year curriculum of basic and clinical medical science will be offered. This curriculum is innovative in that its principal emphasis is geared toward the production of primary health care or family physicians. This emphasis seeks to specifically serve the needs of the tri-state northern region of northeastern Minnesota, Wisconsin and the upper peninsula of Michigan.

Career choices depend upon many aspects of past experience and future role perceptions. The retention of a significant number of students in a generalist's role must take this into account, provide adequate role preparation for these students and support for them in the performance of that role once in practice.

In terms of the present two-year curriculum, education for generalism consists of accurate identification of the basic scientific principles which constitute unifying factors in any group of scientific principles, together with the active teaching of these principles to students. This will be accomplished by a multidiscipline teaching approach, by early involvement of the student in the health care delivery system of the local community hospitals, active participation of the community physicians in the clinical teaching phases, and maximal correlation between the basic scientific principles and their clinical applications. As there are good clinical facilities available in the community hospitals of Duluth, no "University Hospital" is planned in the overall development of the program. Under arrangements with the University of Minnesota Medical School in Minneapolis, students completing the two-year program at Duluth will be accepted on a non-competitive basis by the University of Minnesota Medical School in Minneapolis for completion of their M.D. requirements. This proposal has received favorable review by the Liaison Committee on Medical Education, and a "letter of reasonable assurance" of accreditation has been filed with the United States Commissioner of Higher Education.

Based on progress achieved during the 1969-71 biennium, the 1971 Legislature appropriated $1,149,119 to enable the program to continue its development.
PROGRAM OBJECTIVES

Specific goals to be accomplished by the UMD Medical Education Program are as follows:

a) to increase the total production of physicians in Minnesota,
b) to increase the potential number of future family physicians, and
c) to increase the probability that graduates will establish practice in rural rather than urban portions of the northern tri-state area comprised by Minnesota, northern Wisconsin, and the upper peninsula of Michigan.

Point (a) is self-explanatory. Points (b) and (c) are a direct response to compelling statistics which illustrate an acute primary physician manpower shortage in the areas under (c), which is projected to become more aggravated during the next decade.

The following specific steps will be taken to make these objectives a reality:

1. The characteristics of successful family (general/primary) physicians in smaller urban and rural settings has been determined in a valid, scientifically designed sociological study.

2. Medical students possessing these characteristics will be selected in preference to other academically qualified applicants.

3. Preference will be given to students from the area where the school is located, specifically to Minnesota students. If out-of-state students are considered, preference will be given to those from the northern Wisconsin and upper Michigan peninsula areas.

4. The students' desire and capability to perform well in family and general medical practice in smaller communities will be specifically reinforced and supported in medical school.
5. Appropriate residency and postgraduate training in family medicine will be offered in community hospitals in the area as soon as possible.

6. Newly trained physicians practicing in the rural areas of the region will be supported professionally and psychologically with a supportive referral system, programmed retraining and return to the medical school environment as teachers during which times their patients may be covered by faculty colleagues.

PRESENT FACILITIES

Basic Science Teaching Facilities

The medical Education Program is currently housed in remodeled, temporary facilities. The available space can maximally house two medical classes of 36 students each. A charter class of 24 students has been accepted for the 1972-73 school year, and a class of 30 students will be enrolled the following year. Within the framework of the curriculum, following two years of instruction in the basic and clinical sciences, students will transfer either on a non-competitive basis to the University of Minnesota Medical School on the Twin Cities Campus (under an existing agreement) or on a competitive basis to other M.D. degree granting institutions in the nation. Both the State of Minnesota Legislature and the University of Minnesota Board of Regents' intent was clear in establishing the program as a growing one. However, the present facilities prohibit both spatial and programmatic growth.

The assignable space in the present building amounts to 11,280 net square feet (n.s.f.). This includes all teaching and study areas, support space, offices and research facilities. It is important to point out here that, except for some administrative functions, all the assignable space has been programmed for shared use. Classrooms, multi-purpose laboratories, teaching support spaces (such as study areas, a seminar room, animal quarters and the like), will be shared with teaching related faculty research. It is also expected that the faculty will share, among themselves and with teaching activities, research
spaces and equipment. Such support facilities, usually found in medical schools, as dark rooms, special procedure areas, mechanical or electronic shops, and computer link-ups are totally missing. In light of these conditions, it becomes clearly evident that growth of the program and attainment of the local and national objectives in health manpower education at UMD is critically dependent upon adequate space allotment. The most feasible route that can be taken toward alleviation of the present urgency for additional space is the construction of a basic science building as proposed in this request.

In order to realize fully the goals of the Medical Education Program at Duluth, as outlined above, and as specified by the Legislature of the State of Minnesota and the Board of Regents of the University of Minnesota, it is imperative that growth and development of the program take place. The direction of this development would be in the form of:

a) expansion of incoming class size to 96 students, and

b) preparation for a terminal M.D. degree program.

The latter point (b), while a factor in the long-range planning of the Medical Education Program, remains presently in the background as the ultimate goal to be reached in the late 1970's.

In January of 1971, representatives of the Joint Liaison Committee of the American Medical Association and the Association of American Medical Colleges noted with favor the plans to renovate the currently occupied laboratory school building and concluded "the interim buildings should provide good and entirely adequate space for students and faculty until a permanent building is constructed." The visitors also concluded that careful consideration should be made in selecting the location for the basic science building and that account should be taken of the future need for a clinical science building.

With these objectives in mind, the Medical Education Program, in conjunction with Lester Gorsline Associates, planning consultants, developed a long-range plan according to the goals set forth earlier, such that the expected natural growth of the program could take place.

In consultation with the architectural firm of Medical Facilities Associates of Minneapolis and with Lester Gorsline Associates of San Francisco, space requirements and project costs have been developed for the construction of a permanent basic science building on the campus of the University of Minnesota, Duluth. This building, as visualized, will accommodate an incoming class of 96 students under an M.D. degree granting program (by the late 1970's) and a faculty of 63 in the basic and clinical sciences.
The UMD Medical Education Program is expected to become broadly involved in future years in all areas of health education. Thus, considerable commitments are foreseen in both allied health professionals training and in continuing education programs for area practicing physicians.

Library

The Health Science Library is housed within the structure of the existing main campus library. The location is thought to be advantageous for the following reasons:

1. It makes the health sciences materials available to students and faculty in other disciplines.

2. It may minimize the need for duplication of reference and basic informational materials in both libraries.

3. This location temporarily precludes the necessity of building library space in Phase I of the Medical Education Program and reflects a better utilization of existing available space in the main library.

4. This location may encourage participation of health sciences students and faculty in the main stream of campus life.

The library is located on the third floor of the library building in an area of 3,000 n.s.f., which will be used immediately for circulating hard-copy journals and books. An additional area of 4,000 n.s.f. is adjacent to the area identified for immediate journal and book use and will be made available when the collection has expanded to require the additional space. Space in the library is being planned by the director of the library and a doctoral level medical librarian with the advice from the Medical Education Program faculty library committee.

At the end of its first fiscal year of operation, the Health Science Library consists of a collection of 1,400 books and monographs, and approximately 8,000 bound journal volumes ranging through the years 1966 to the present. To date, some 400 journal titles are on subscription, in addition to 150 serial publications. No attempt is being made to become a large retrospective resource collection or collection of exotic materials. During the initial growth of the collection, and as a temporary immediate solution
to the library needs, a loan system can be utilized for loan of materials from the University of Minnesota holdings on the Minneapolis-St. Paul campuses or from other existing state library resources. This service is available on a 24 hour basis. Less frequently used journal titles and/or unusually expensive backfiles of journals are being acquired in a microfilm format when possible. To date, the collection has approximately 1,400 volumes on 16 mm microfilm. This is not only a cost consideration, but one of availability and space as well.
### 1973 MEDICAL EDUCATION

#### SPECIAL BUILDING REQUEST PRIORITIES

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<thead>
<tr>
<th>Priority Number</th>
<th>Project</th>
<th>Request</th>
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</thead>
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<tr>
<td>1</td>
<td>Basic Medical Science Building (Planning</td>
<td>$600,000</td>
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<tr>
<td></td>
<td>funds through construction contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td>documents)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Health Sciences Library</td>
<td>1,893,800</td>
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- **TOTAL:** $2,493,800
SUMMARY OF BUILDING NEEDS

1975 - 1985
SUMMARY OF BUILDING NEEDS

Medical Education Program

1975-1985

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<tr>
<th>YEAR</th>
<th>PROJECT</th>
<th>REQUEST</th>
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<tr>
<td>1975</td>
<td>No request anticipated</td>
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<tr>
<td>1977</td>
<td>Experimental large and small animal facility</td>
<td>$850,000</td>
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<tr>
<td>1979</td>
<td>No request anticipated</td>
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<tr>
<td>1981</td>
<td>No request anticipated</td>
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<tr>
<td>1983</td>
<td>Classroom and laboratory expansion</td>
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SUPPORTING DATA FOR 1973 BUILDING REQUESTS
A new Basic Medical Science Building is needed to accommodate an eventual freshman class size of 96 medical students on the Duluth Campus. The major part of the building will be used for direct student instruction and will consist of multipurpose laboratories, classrooms, learning centers and support space. Maximum integration with existing undergraduate and graduate programs on the campus will be made and the building site will be carefully chosen to supplement, rather than duplicate existing campus facilities.

The proposed structure will house the necessary 55 Basic Science faculty as well as limited clinical science faculty. Remaining clinical science personnel will be accommodated in area hospitals. Expansion of the educational program to terminal degree stations could be accomplished with the size building indicated.

The facility includes an educational research and resource center. Health Science library space is located elsewhere and constitutes the second part of this request.

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<th>Overall square footage (gross)</th>
<th>165,286</th>
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<tr>
<td>Assignable square footage (net)</td>
<td>93,225</td>
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<tr>
<td>Teaching laboratories</td>
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<td>Student carrels, classrooms &amp; seminar spaces</td>
<td>8,860</td>
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<tr>
<td>Educational Research &amp; Resources Center</td>
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<td>Faculty offices and laboratories</td>
<td>42,525</td>
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<td>Medical school administration</td>
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<td>Student activities</td>
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<td>Animal facilities</td>
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<td>General support services</td>
<td>4,660</td>
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<tr>
<td>Planned student capacity (daily)</td>
<td>628</td>
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<tr>
<td>Planned staff capacity</td>
<td>395</td>
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<tr>
<td>Cost per square foot (gross)</td>
<td>$69.03</td>
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<td>Cost per square foot (assignable)</td>
<td>$122.39</td>
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Estimated cost:

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<th>Item</th>
<th>Cost</th>
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<td>Land acquisition</td>
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<td>Construction</td>
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<td>Architectural fees</td>
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<td>Equipment (furniture)</td>
<td>2,214,000</td>
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<td>Other non-construction costs</td>
<td>752,000</td>
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<tr>
<td>- including site work, supervision</td>
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<tr>
<td>- and contingency</td>
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**TOTAL**  $15,175,000
Funds are requested for the construction of additional library space to serve the needs of the Medical Education and related Health Sciences Program. It is believed that economy can be obtained and beneficial interaction will take place by incorporating the medical and related holdings as a part of the existing library, rather than constructing a separate Health Sciences Library. The present library can provide only temporary housing for current holdings for Health Science Programs. Matching funds for construction of the facility will be sought from private foundations, individuals and federal agencies.

Library requirements for the Health Science Programs are:

- Medical books and journals: 7,500 square feet
- Current periodicals, 1,500 titles: 1,000 square feet
- Library staff, numbering 19 in 1985: 1,666 square feet
- 225 students, allowing 30 square feet each: 6,750 square feet
- Microfilm readers & microfilm storage cabinets: 1,000 square feet
- Lobby/lounge and display area: 1,000 square feet
- 4 group carrels, holding 8 students in each: 1,000 square feet
- Seminar room: 1,000 square feet
- Related sciences, books and journals, 55,000 volumes: 5,500 square feet

TOTAL: 26,416 square feet

Overall square footage (gross): 30,512
Assignable square footage (net): 26,416
- Classroom: 2,000
- Collection: 13,666
- Administrative offices: 3,000
- Reading stations for 225 students: 6,750
- Lobby/lounge and display area: 1,000

Planned student capacity (daily): 225
Planned staff capacity: 19
Cost per square foot (gross): $49.34
Cost per square foot (net) $57.00

Estimated cost:

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Land acquisition</td>
<td>N/A</td>
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<tr>
<td>Construction (including utilities)</td>
<td>$1,505,560</td>
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<td>Architectural fees</td>
<td>132,570</td>
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<tr>
<td>Equipment (furniture)</td>
<td>132,570</td>
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<tr>
<td>Landscaping (includes site development)</td>
<td>28,400</td>
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<tr>
<td>Other</td>
<td>94,700</td>
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**TOTAL** . . . . . . . . . . $1,893,800