



UNIVERSITY OF MINNESOTA

Office of the Vice President for Academic Affairs  
213 Morrill Hall  
100 Church Street S.E.  
Minneapolis, Minnesota 55455  
(612) 373-2033

September 12, 1983

Dr. John Howe, Jr., Chairman  
Senate Consultative Committee  
c/o Department of History  
614 Social Sciences Building  
West Bank Campus

Dear John:

I have enclosed a copy of the Report of the Task Force on Biochemistry which Vice President Vanselow and I appointed earlier in the year. Our intention is to meet with the Task Force to discuss their findings when Professor Shapiro returns from a leave he has taken to go to Japan. As we have done with other task force reports, we will treat that session as a time to clarify issues raised in the report, and to suggest courses of action which we might take as a result of the report to the extent that we believe its recommendations to be appropriate. I have found this to be an effective way of assuring that we do not simply use the report as a basis for carrying out still another study but that, indeed, it becomes a basis for action.

Vice President Vanselow and I would be happy to discuss the report with the Senate Consultative Committee and, if you believe it appropriate, with the Senate Committee on Educational Policy. I have not provided a copy of the report directly to SCEP and would appreciate your doing so if you think it appropriate. If you have further advice to give me on this matter, you know it is always welcome.

Sincerely yours,

Kenneth H. Keller  
Vice President

KHK:jhh

Enclosure

cc: Dr. Neal A. Vanselow, Vice President for Health Sciences



UNIVERSITY OF MINNESOTA

Office of the Vice President for Academic Affairs  
213 Morrill Hall  
100 Church Street S.E.  
Minneapolis, Minnesota 55455  
(612) 373-2033

February 8, 1983

TO: Professor Fritz H. Bach, Laboratory Medicine and Pathology  
Professor D. Fennell Evans, Department of Chemical Engineering  
and Materials Science  
Professor Thomas F. Ferris, Chairman, Department of Medicine  
Professor Allen Goldman, Department of Physics and Astronomy  
Professor David W. Hamilton, Head, Department of Anatomy  
Professor Richard S. Hanson, Director, Gray Freshwater Biological Institute  
Professor Ronald L. Phillips, Department of Agronomy and Plant Genetics  
Professor Irwin Rubenstein, Department of Genetics and Cell Biology  
Professor Burton Shapiro, Chair, Department of Oral Biology

Ex Officio

Professor Victor Bloomfield, Head, Biochemistry-Biological Sciences  
Professor Gary R. Gray, Department of Chemistry  
Professor Henricus Hogenkamp, Head, Biochemistry-Medicine  
Professor Philip Portoghese, Head, Graduate Studies in Medicinal  
Chemistry, College of Pharmacy

Dear Colleagues:

In the first phase of University planning, it became clear that a number of important issues could not be addressed within the context of individual college planning. Many of these issues concern related teaching and research activities carried on in several colleges where questions have been raised of optimal organizational structure, adequate coordination, and cost-effectiveness. To deal with these questions, we have appointed and are continuing to appoint ad hoc intercollege task forces to review the existing situation and to recommend changes as appropriate. One such area in which we would appreciate advice is with respect to the biochemistry-related programs and activities on the Twin Cities campus. We are requesting that you comprise a task force to provide us with that advice.

We propose that the task force examine the University's major biochemistry programs, viz., the Departments of Biochemistry in the College of Biological Sciences and the Medical School, the Bioorganic Chemistry program in the Institute of Technology and the Medicinal Chemistry program in the College of Pharmacy, and such other programs or areas of activity that it deems appropriate to consider within the practical constraints of time, and address the following questions:

1. Is the diffusion of biochemistry research and teaching activities outside of the four principal programs identified above justified in terms of the specific activities themselves and is it consistent with the preservation of standards of quality and the assurance of cost-effectiveness? If not, does the task force have specific recommendations for change? If the present situation appears justified or necessary, are there changes in recruitment or appointment procedures that would rectify any perceived weaknesses in the present system?
2. Is the organization of the identified programs into four separate entities appropriate? If so, the task force should provide a statement of its view of the demarcation of the appropriate areas of responsibility of each of these programs. If not, the task force should make recommendations on alternative arrangements.
3. Is the total number of biochemistry faculty on the Twin Cities campus appropriate for a national research university in general and for the University of Minnesota in particular? We realize the extraordinary complexity of this question, but we seek your best judgment. In particular, we hope you will address at least the following facets of this question:
  - a. What number of faculty would be necessary to meet our current class teaching loads at both the undergraduate and graduate, and professional levels?
  - b. What is the "critical size" of a biochemistry faculty to provide for an appropriate range and balance of research activities as well as to provide for healthy collaboration and interaction among faculty members?
  - c. What is the minimum number of faculty necessary to provide research guidance to graduate students in biochemistry and, conversely and perhaps more importantly, what is the maximum number of faculty for whom we may reasonably expect to attract an adequate number of graduate students of high quality?

There may be other questions which the task force believes important to address and we would certainly be open to your suggestions.

Your report should be submitted to us and will be an important element in our planning decisions. It should be clear that to the extent that the task force's recommendations provide a basis for preserving and/or enhancing the quality of our biochemistry activities and assuring that they are carried out in a cost-effective manner, the priority that we assign to these activities as we make choices for the future will be raised.

Biochemistry Task Force  
February 8, 1983  
Page Three

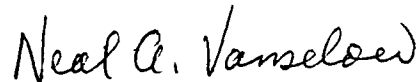
As you can see from the task force membership, we have provided ex officio, non-voting representatives of the major biochemistry programs to assure informed discussions. You may well want to invite others to present their views during the course of your deliberations. However, we are interested in having the task force complete its work at an early date and hope that you will be able to submit your report by June 15, 1983. Professor Shapiro has agreed to chair the task force and he will be in touch with you to arrange the group's first meeting. We would be happy to meet with you at one of your early sessions to answer questions and to discuss the charge in greater detail.

Unless we hear from you to the contrary, we will assume that you will accept this assignment. The task is important and we thank you in advance for your help.

Sincerely yours,



Kenneth H. Keller  
Vice President for Academic Affairs



Neal A. Vanselow  
Vice President for Health Sciences

KHK-NAV/lme



UNIVERSITY OF MINNESOTA  
TWIN CITIES

Department of Oral Biology  
School of Dentistry  
17-226 Health Sciences Unit A  
515 Delaware Street S.E.  
Minneapolis, Minnesota 55455

August 9, 1983

Kenneth H. Keller  
Vice-President  
Academic Affairs  
213 Morrill Hall

Dear Ken:

Enclosed is the report of the Task Force on Biochemistry. Because of the mad-dash and time of year, it was not possible to get signatures of the committee members. I assure you that all regular members of the Task Force concur with the report that you are receiving.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Burton'.

Burton L. Shapiro  
Chairman, Task Force

BLS:vaf

Enclosures



UNIVERSITY OF MINNESOTA  
TWIN CITIES

Department of Oral Biology  
School of Dentistry  
17-226 Health Sciences Unit A  
515 Delaware Street S.E.  
Minneapolis, Minnesota 55455

August 10, 1983

✓ Kenneth H. Keller  
Vice-President  
Academic Affairs  
213 Morrill Hall

Neal A. Vanselow  
Vice-President  
Health Sciences  
432 Morrill Hall

RE: Task Force to Examine the University's Major Biochemistry Programs

Dear Doctors Keller and Vanselow:

Enclosed is a report of our deliberations. Ex-Officio members participated in early discussions. The Task Force Chairman decided that later discussions and preparation of the enclosed report would not have input from these individuals. Prior to sending this to you, we have invited the Ex-Officio members to append comments if they so choose. Letters of response from Professors Bloomfield and Gray are appended to the report.

As you know, the charge to the Task Force included some extremely complicated issues. To avoid possible misunderstandings in interpreting the report, several central and unanimous conclusions of the Committee are listed here.

First, no decrease in the present size of the Biochemistry faculty should be contemplated; rather, in order to attain the increased quality that is essential some increase will be needed. Second, there should be no attempt made to discourage or limit the hiring of biochemists by departments other than those primarily concerned with the teaching of Biochemistry when that hiring is aimed at increasing the research base in those departments. Third, it is very clear that in recent years strength has been increased within the Departments of Biochemistry with the hiring of outstanding young faculty; it is important to note that there are, in addition, distinguished and productive senior faculty in the various departments considered in this report. In reaching these conclusions, the Committee was aware of the reported ranking of Biochemistry as 28th nationally out of 139 which places it in the top 20% of all programs rated. This is a good ranking but we believe that Biochemistry in the Twin Cities can be improved.

We believe that the Biochemistry faculty at this University is dedicated and cooperative. The programs have, as noted above, made major strides in recent years towards upgrading biochemistry; the coordinated graduate program and the hiring of very strong young faculty are noteworthy. We hope that our recommendations contribute to the continued growth and strength of Biochemistry at the University of Minnesota.

The report follows your letter of 8 February 1983 as follows:

1. Diffusion
2. Organization
3. Number
4. Other ... Biological Chemistry subspecialty in Chemistry

Members of the Task Force would be pleased to meet with you concerning our report.

Sincerely,

Fritz H. Bach

Edward L. Cussler

Thomas F. Ferris

Allen Goldman

David W. Hamilton

Richard S. Hanson

Ronald L. Phillips

Irwin Rubenstein

Burton L. Shapiro

BLS:vaf

Enclosures

8/8/83

TASK FORCE RESPONSE #1

"Is the diffusion of biochemistry research and teaching activities outside the four principal programs ... justified ...."

Biochemistry is a fundamental discipline that forms the intellectual base-for most modern life sciences; therefore, individuals with expertise in biochemistry reasonably can be found in all life sciences disciplines. For this reason, and since it is inappropriate to dictate research directions, regulations against hiring individuals for primarily research purposes in other departments or programs are not acceptable. However, the hiring of faculty by a non-biochemistry department where the primary teaching function is biochemistry instruction is equally not acceptable. Teaching of biochemistry per se at the University ultimately must be the responsibility of the biochemistry department(s). Nonetheless, it is perfectly reasonable for a trained biochemist or other life scientist to teach biochemically-orientated courses that are pertinent to other life sciences disciplines.

If hiring of a biochemist by a non-biochemistry department primarily to provide biochemistry classroom teaching is contemplated, then attempts should be made by deans and department heads to explore the use of faculty in the department(s) of Biochemistry for such instruction.



8/8/83

TASK FORCE RESPONSE #2

"Is the organization of the identified programs (Department of Biochemistry in the College of Biological Sciences, Department of Biochemistry in the Medical School, Bioorganic Program in the Department of Chemistry in the Institute of Technology and the Medicinal Chemistry program in the College of Pharmacy) into four separate entities appropriate?"

The Task Force believes that the central issue concerning organization is the relationship of the two biochemistry departments. The Graduate Studies Program in Medicinal Chemistry in the College of Pharmacy program does not appear to overlap or duplicate activities of the other programs. The Bioorganic Chemistry program in the Institute of Technology is dealt with elsewhere in this report.

The Department of Biochemistry in the College of Biological Sciences was originally the Department of Agricultural Biochemistry in the College of Agriculture. It was formed in 1924. The Department of Biochemistry in the Medical School was formed as the Department of Physiological Chemistry in 1946. At present, biochemistry at the University of Minnesota (Twin Cities) is organized into two major departments, one on the St. Paul campus and one on the Minneapolis campus. Each department has its own administrative structure and interactions between the departments rely on personal contacts and goodwill. There is no formal mechanism for interaction to coordinate hiring of faculty, to decide departmental policies or to complement the needs of the two departments. This is not true at the graduate level since in recent years a coordinated effort

for graduate education in biochemistry has functioned well.

Several problems were identified, however, which seem to be the consequence of the present organization. The quality of the program, though improving, would be strengthened by its unified administration. There is a need for better coordination. The present review system for bringing in new courses and new faculty is not adequate. For example, faculty are hired in one biochemistry department without undergoing scrutiny by the other department. The system is such that uneven promotion and tenure decisions may occur. The present organization inhibits a unified approach to the development of Biochemistry at the University and new areas of scientific excitement (such as biochemical aspects of cell biology, immunobiology, neurobiology, etc.) are not addressed in a cohesive way and may well give the impression of a less unified approach and strength than actually exists.

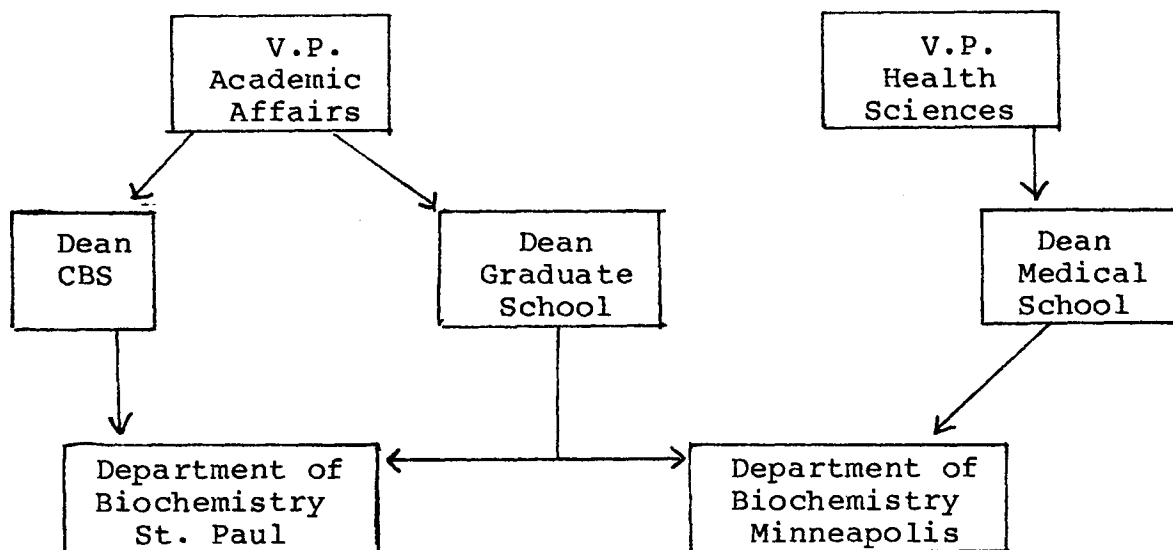
In summary, the Task Force was unified in its belief that substantial problems exist in biochemistry at the Twin Cities. These problems include:

- Graduate program ranks 28th nationally
- Insufficient quality and number of graduate students
- Too few postdoctoral fellows
- Duplication of expertise
- Weakness in neurochemistry and molecular biology
- Lack of coordination in hiring new faculty

The Task Force was in full agreement in its belief that programmatic and hiring and tenure decisions in biochemistry in the Twin Cities be unified. Division among the Task Force members occurred when the way to achieve a unified biochemistry approach was discussed.

Below are flow charts showing the current organization and a possible model of reorganization with explanatory comments.

Current organization:

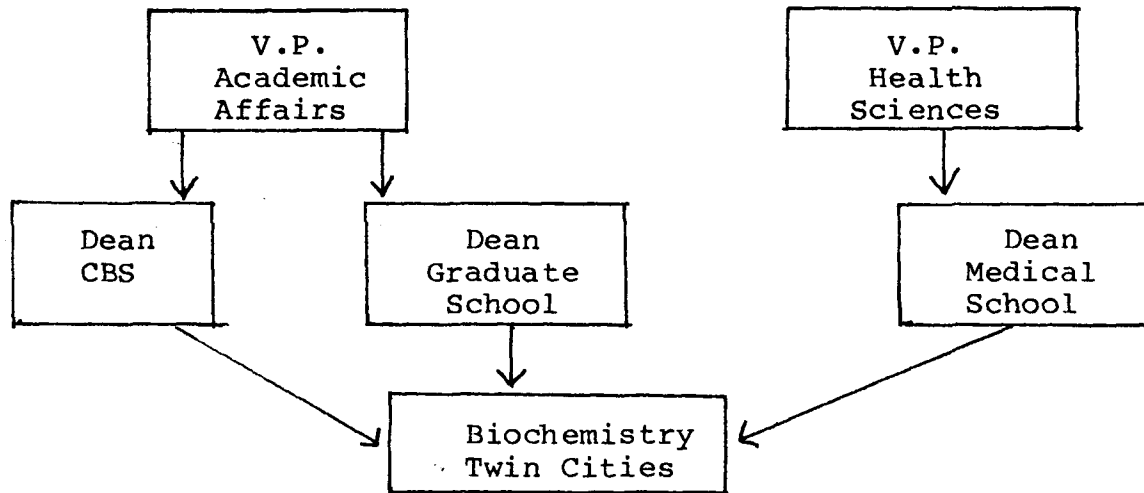


In the current organization of biochemistry at the Twin Cities, each of the two departments is completely independent of the other in terms of budget, hiring and programmatic activities. The Graduate Program, however, is coordinated. Graduate courses, admissions and awarding of teaching assistantships are administered through a coordinating committee. Much of the success of the Graduate Program (also noted by the External Review Committee) is due to the cooperative efforts of Professors Hogenkamp and Bloomfield.

Several models were discussed in terms of achieving a unified biochemistry program. Most Task Force members thought that the model shown below would provide the best probability of achieving a strengthened and unified program in biochemistry. The Task Force was deeply concerned about potential hazards of unification of the two departments. These concerns were mentioned in the cover letter and will be noted again below. Any contemplated reorganization of

Twin Cities biochemistry must be done carefully and sensitively. These are currently very good and central programs. Any organizational change must possess the greatest probability of achieving continued growth while having minimal possibilities of diminution of quality. If a reorganization is carried out, careful monitoring must ensure that negative results in programs of the two campuses do not occur.

Proposed Reorganization:



One entity would encompass all Twin Cities biochemistry faculty and activities (exclusive, for the sake of discussion, of faculty and activities in other University departments). Two geographical sites would be retained. The head of this unit would report to two budgetary deans and the Graduate Program would function through the Graduate School.

This unit would function as a department in two colleges. It was suggested that a name other than "department" such as "Institute of Biochemistry" might be beneficial. Current faculty in the two departments might be less resistant to the idea of merger if a bigger, better entity, dignified by the name "institute" was formed.

An "institute" might be more palatable than "department" to biochemists outside of these two departments and potentially lead to better cooperation.

An Institute of Biochemistry, existing as a single department with two geographic sites, would present a picture of greater strength to the outside community and in all probability enhance the national stature of Biochemistry at the University of Minnesota. Such an institute would allow better communication in terms of integration of faculty searches and appointments; provide a consultative body for appointments of biochemists to other departments and integration of such individuals into the "biochemical community"; establish and be responsible for the entire biochemistry curriculum in the University to avoid unnecessary duplication of courses offered and to optimize use of faculty talents; and to develop and integrate a seminar program for all biochemists on campus.

Recognition should be given to the fact that biochemistry is increasingly central to life science research and teaching. The expansion of biochemistry and an infusion into various life science departments (defined broadly) should be encouraged and will unlikely create true duplication. Such expansion should be "tied" to the central biochemistry program in order to better insure maintenance of a strong disciplinary base. Joint research, seminars, etc., should be facilitated through the central institute structure established for the purpose of increasing interactions.

The Task Force applauds the intensity and quality of the biological group in the Department of Chemistry (I.T.). It would be hoped that a new Biochemistry entity would enhance coordinated efforts between biologically oriented chemistry faculty and the

Biochemistry program. Coordinated efforts among all biologically oriented chemists and biochemists would certainly enhance the external reputations of Biochemistry and Chemistry at Minnesota.

Specific problems associated with this model were recognized. The geographical separation is not trivial. The physical separation of faculty and the necessity for the unit's head to function on two campuses introduces problems of time, convenience and interaction among faculty and between the head and faculty. The geographical separation of the head and half of his/her faculty could alienate a portion of the faculty. A unit head could favor his/her own campus at the expense of the other. Oversight to assure balance between the campuses must be maintained. One solution would be an associate head. Another problem is the need for the unit's head to deal with two deans. Integration of the two departments will increase the complexity of interaction with deans and central administration. A major concern in this regard would be the possibility of one dean reducing commitment to the unit while assuming that the other dean would pick up the slack. This possibility can be avoided through oversight by the Vice-Presidents. It is assumed that if the model is chosen, the charge to the unit's head would be the attainment of the highest quality total program. Increasing strength of one campus group at the expense of the other would be tantamount to failing to accomplish this goal.

If this reorganization was to be implemented, every effort must be made to retain for biochemistry positions gained through retirement and to identify additional faculty positions and significantly enhance graduate student support. The director of such an institute should be a person of international stature who would be permitted

to bring with him/her several additional young faculty. Only through addition of strong, young faculty and through attraction of top grade graduate students can biochemistry be moved into the top 10 in the country.

If such a model is applied, it might be wise to retain Drs. Hogenkamp and Bloomfield as interim co-directors of the institute. This would acknowledge the excellence of their leadership to date and their acceptance of this arrangement would minimize the trauma to faculty of a merger. Professors Hogenkamp and Bloomfield should certainly be considered among other candidates as Director of the Institute of Biochemistry.

A reorganization of Biochemistry in the Twin Cities must not generate an impression of instability, particularly to the strongest faculty. Benefits must be obvious especially to those highly productive faculty who would be able to leave Minnesota if support of Biochemistry appeared to be diminishing. Currently, the two Biochemistry departments are strong influences in agriculture and medicine. Neither emphasis can be permitted to diminish. Maintenance of current strengths in Biochemistry must be safeguarded. Despite potential negative outcomes, the Task Force believes that substantial benefits may derive from a unification of Twin Cities' Biochemistry. Evenhandedness and goodwill must prevail. Finally, any action taken must not be construed as a repudiation of Professors Hogenkamp or Bloomfield or the activities of the two departments during their tenure as department chairman. The departments have progressed well in recent years and any changes must acknowledge this growth. Changes should only be made with the aim of moving Biochemistry into one of the top programs in the country.

8/8/83

TASK FORCE RESPONSE #3

"Is the total number of Biochemistry faculty on the Twin Cities campus appropriate ..."

Prior to considering the question of "N" Biochemistry faculty here, the Task Force compared the Twin Cities programs with top-ranked programs at other institutions. The Task Force emphasizes that legitimate comparison of teaching loads, graduate student and postdoctoral advising, research funding and University support should be made only with peer programs at other institutions and not with other programs at this University. Comparison of different disciplines does not address the issues properly and may be devisive.

a. "... number of faculty ... to meet ... teaching loads ..."

The current undergraduate, graduate and professional class teaching loads of the two Biochemistry departments are relatively large when compared with top-ranked Biochemistry programs at other institutions. These teaching loads were in general less than those in the Institute of Technology departments. As noted above, the Task Force believes valid comparisons should be made with peer programs elsewhere and perhaps with science departments in CBS and the Medical School. Further, data generated concerned with teaching have not taken into consideration informal contact hours with graduate students (for example, at the University of Michigan 50% of faculty research time is considered teaching).



The following working guideline was based on comparison of the Biochemistry programs with top-ranked programs at other institutions. Teaching loads should take into account differences in the level of participation of faculty in graduate teaching, postdoctoral training and clinical teaching. The average level of activity in teaching and research of a Professor should consist of one to two courses per year, the direction of 3-5 graduate students, and one to three postdocs with external research support sufficient to support such a laboratory activity. If an individual falls below these ranges in either the numbers of students and postdocs directed or research activity, he/she would be expected to either teach a larger number of courses during the year or cross-charge his/her salary at an appropriate level if he/she wishes not to increase the number of courses he/she teaches annually. Cross-charged money must remain in the department for teaching assistantships or other activities that would upgrade the activities of the department. If the above ranges of activity were to be achieved on the average for the two Biochemistry departments, then it should be possible to maintain the current levels of staffing for current activities.

If the St. Paul and Minneapolis programs were merged, it may be perceived that total faculty could be reduced. The Task Force would advise against any reduction in faculty and, in fact, has made a case in discussions for increasing the number of Biochemistry faculty. When positions become available through retirement, early retirement or departure, these funds should be used to (1) hire young, very strong faculty, particularly in areas of Biochemistry which are under-represented in the Twin Cities and (2) increase the number and level of graduate student stipends. In an attempt

to bolster the quality of graduate students, stipends should surpass, for the next several years, stipends paid by the highest ranked biochemistry programs in the country.

b. "... 'critical size' ... research activities ... "

The Task Force could not estimate a "critical size" for research in biochemistry. Highly ranked programs are both smaller and larger than the Twin Cities groups. If Biochemistry here was one of the top five or ten in the country, the question of "N" probably would not be asked. One might say, for example, that five physical biochemists in the Twin Cities was excessive in light of the absence of some other areas of biochemical research. Physical biochemistry is a major strength of the programs and it would be a serious error to consider reduction of an area of acknowledged strength. The aim of the University, insofar as Biochemistry is concerned, ought to be to move into the top 10 in the country by building on strength and filling some major gaps. The aim of overview of biochemistry must be on quality not on number of faculty.

c. "... number of faculty ... (for) ... research guidance ..."

The number of graduate students and postdoctoral fellows relative to faculty number is clearly less than the major programs in the country. As above, if the quality and numbers of trainees were comparable to the best program in the country, the question probably would not be asked. In order to attract the best graduate students, (1) strength should be established in "hot" areas of biochemistry and (2) level and number of stipends must be increased. The question of "N" might be better asked at such a time that these problems are solved.

8/8/83

TASK FORCE RESPONSE #4

BIOLOGICAL CHEMISTRY SUBSPECIALTY IN THE CHEMISTRY PROGRAM

Numerous biochemists at this University are associated with departments other than the two departments of Biochemistry. Similarly, chemists are to be found outside the Department of Chemistry. Because of the fundamental nature of these disciplines and their importance for scholarly efforts in diverse programs, the dispersal of chemists and biochemists is to be expected and indeed encouraged. It is not surprising that there is a need for, and the presence of, biochemists in Chemistry and chemists in Biochemistry. Specifically, there exists in the Department of Chemistry a group of five faculty who comprise a "Biological Chemistry Program". This group, individually and collectively, is of superb quality in research and teaching and is extremely productive. Prior to 1980, a subspecialty in the Chemistry Ph.D. program was referred to as "Bio-organic and Biophysical Chemistry". In the 1980-82 Graduate School Bulletin, one of five subspecialties in Chemistry was referred to as "Biological Chemistry". This name was chosen by the Chemistry Department because it better reflects the interdisciplinary nature of the program. A controversy has developed because of the synonymous or construed-as-synonymous names "Biochemistry" and "Biological Chemistry".

Two problems concerning the name "Biological Chemistry" may exist: (i) The establishment of a program which may duplicate an existing graduate program, and (ii) the very great potential for

confusion (students and colleagues) as to which program represents Biochemistry at this university. Before responding to these two points, several other issues that have surfaced concerning biologically oriented activities in Chemistry can be addressed: There has been absolutely no suggestion that research efforts in chemical aspects of biological structures or functions in the Department of Chemistry be limited. There has been absolutely no suggestion or effort to prohibit biochemists from joining the Department of Chemistry. Neither the productivity, quality nor research emphasis of biologically oriented faculty in Chemistry have been questioned. Of course, faculty in Chemistry have the legitimate right to ask biological questions. There can be no limitation of research interests at this University because of disciplinary boundaries.

It is the opinion of the Task Force that the name "Biological Chemistry" is, in fact, synonymous with Biochemistry and that the name used by the Graduate Program in Chemistry is, therefore, inappropriate. This does not imply that the current activities of faculty in Chemistry are inappropriate. Other names for the activity have been suggested, including the one originally used. These names, such as "Chemistry of Biological Structures and Functions", would emphasize the chemical rather than the biochemical nature of the program. The Task Force recommends also that the Graduate School examine the degree to which courses in Chemistry and Biochemistry may overlap to the extent that joint offerings (or cross-listing or team taught) would be preferable. The Graduate School should also explore ways in which potential duplication of graduate training in programs falling under different policy and review councils can be monitored and reviewed.

UNIVERSITY OF MINNESOTA  
TWIN CITIES

Department of Biochemistry  
College of Biological Sciences  
140 Gortner Laboratory  
1479 Gortner Avenue  
St. Paul, Minnesota 55108

August 9, 1983

Prof. Burt Shapiro  
Department of Oral Biology  
17-226 Health Sciences Unit A  
Minneapolis Campus

Dear Burt:

This is in response to your invitation to append comments to the draft of the report of the Biochemistry Task Force. You and your colleagues did a heroic job of examining some complex and difficult issues. I would particularly like to assert my agreement with several of the points you made:

1. The need to recruit more and better graduate students, and the concomitant need for higher stipends and substantially more institutional support.
2. The importance of continuing to bring in very strong young faculty, and the desirability of coordinating hiring and promotion.
3. The desirability of comparing teaching loads with peer departments elsewhere.
4. The unacceptability of hiring faculty for biochemistry teaching in non-biochemistry departments.
5. The inappropriateness of the use of "Biological Chemistry" by the Chemistry Department.
6. The need for the Graduate School to examine potential duplication of teaching and research in programs covered by different P&R Councils.

There are several other instances where I agree with the principles on which your recommendations are based, but differ somewhat on implementation:

7. While I agree that biochemical research should not and cannot be restricted to the two main departments, there should be more coordination and consultation when other departments hire biochemical researchers, to maximize the effectiveness of the total effort at Minnesota.

8. Your measure of desirable average activity level, considering both teaching and research, is a good one. However, given the current shortage of grad students and postdocs, it is one we will have to work toward with time.

9. Coordination of the teaching and research activities of the two departments is crucial. We have done more with respect to teaching than you may realize: the 5751/2/3 sequence has been taught jointly for some years, we offer a single joint seminar, and we have just coalesced nearly all of our 8000-level courses.

10. I would be a strong supporter of a single Biochemistry Department or Institute, but only if all the faculty and students were in the same place. The main problem in coordinating the two Biochemistry programs is geographical. If both departments were on the same campus, a single Institute would make good sense, but by the same token we would probably have only a single department in the first place. Without geographical unity, organizational unity will be hard to achieve.

11. Your discussion of the Institute does not make clear how biochemistry-related programs in IT, Health Sciences, and Ag would be constrained to participate. Without such participation, unification of biochemistry activities at Minnesota would be badly incomplete.

Notwithstanding these points of difference, I think that the report of your Task Force will be a very fruitful basis for further developments in Biochemistry at Minnesota. I hope you enjoy your stay in Japan. You've earned it.

Best regards,



Victor Bloomfield  
Professor and Head

cc. Harry Hogenkamp

UNIVERSITY OF MINNESOTA  
TWIN CITIES

Department of Chemistry  
Kolthoff and Smith Halls  
207 Pleasant Street S.E.  
Minneapolis, Minnesota 55455

August 9, 1983

Professor Burton L. Shapiro  
Oral Biology  
17-226A Health Sciences Unit A  
University of Minnesota  
Minneapolis Campus

Dear Burt:

This letter is written in response to the report of the Task Force on Biochemistry. There are two issues I would like to address, one concerning the Biological Chemistry program in Chemistry, and the other the recommendations concerning Biochemistry at Minnesota.

With regard to the "Biological Chemistry" program in Chemistry, I would again like to stress that the name was chosen to reflect the fact that the program is interdisciplinary with all four of the classical areas in chemistry. The name may be construed by some to be synonymous with "Biochemistry" but it need not be. Indeed, in our advertising of the program and in all contacts with prospective graduate students, we are careful to explain that the program is not one in classical biochemistry. We have always stated that our program "is designed to meet the needs of the student who is primarily interested in Chemistry but desires further training and experience in the application of chemical methods and understanding to biological problems." The name "Biological Chemistry" was adopted because it is concise and it properly describes our program. The name suggested by the Task Force, "Chemistry of Biological Structures and Functions" meets neither of these criteria, and is totally unacceptable. The former name of our program, "Bioorganic and Biophysical Chemistry" is equally unacceptable because it does not properly reflect the interdisciplinary nature of our teaching and research programs. The adoption of either name would give us an even greater identity crisis and would severely hamper our recruiting efforts.

I would also like to address the Task Force recommendation that the Graduate School should examine the degree to which courses in Chemistry and Biochemistry overlap to the extent that joint offerings would be preferable. I would assume that the Task Force was referring to our three quarter Bioorganic Chemistry sequence (Chem 8401,2,3), because our three quarter Biophysical Chemistry sequence is already jointly listed and a new Bioanalytical Chemistry course has yet to be taught. The Bioorganic sequence deals with the synthetic, structural and mechanistic organic chemistry of the major classes of biologically-important molecules. The overlap between that sequence and Biochemistry is minimal. That sequence represents our most developed course program

Professor Burton L. Shapiro  
August 9, 1983

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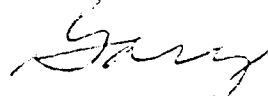
and is unique to us. We need the identity that those courses give our program and we plan to develop similar identities in the other interfacial areas of chemistry. I would categorically be opposed to cross-listing these courses, or to team teaching them (as suggested by the Task Force), which I consider to be pedagogically unsound.

With regard to the future of Biochemistry at Minnesota, I applaud the Task Force recommendation that a single Department (Institute) be established. I would counsel against comprising that Institute of all current members of the Biochemistry Graduate Faculty, however. There are many members of that faculty who have not been involved in a significant level of research, graduate student training, or post-doctoral supervision for a long time. Including them will not enhance the reputation of the Institute and would only make the Biochemistry graduate program as diffuse as it appears to be now.

A final comment: I am puzzled by the failure of the Task Force to address the question of "N" Biochemistry faculty in absolute terms. The Task Force noted that the average level of activity in teaching and research for a Professor should consist of teaching 1-2 courses per year and directing 3-5 graduate students and 1-3 postdoctorals. That level is approximately the same as in Chemistry, with the exception that we teach twice that much. I do not understand why such a discrepancy should exist for Faculties with such similar overall teaching and research missions. I would argue that such a discrepancy should not exist. The teaching and research mission in Biochemistry could be met with fewer faculty. I would argue for a phased reduction in total Biochemistry faculty by one quarter to one third, with the recovered salary money being used to support graduate teaching assistants (which are desperately needed). A temporary increase in faculty might be necessary if major weaknesses in the program are to be addressed, but a long term reduction should be possible through the phasing out of non-productive faculty.

Thank you for giving me a chance to respond to the draft of your report. I appreciate the thought you and your colleagues have given this matter.

Sincerely,



Gary R. Gray  
Professor of Chemistry  
and Biochemistry