THE FORUM
NEWSLETTER

A Publication of the AAMC: GEA's
Basic Science Education Special Interest Group

Vol. 2, No. 2 Summer, 1992

MESSAGE FROM THE NATIONAL DIRECTOR

Charles Dickens began one of the classics of Western literature with the now familiar words "It was the best of times, it was the worst of times..." How appropriate a description of medical education today. For we find ourselves in a time of impendent revolution, when the rising tide of discontentment threatens to overwhelm the monarchy of traditional methodology. It is a time of exponentially increasing knowledge which, while invigorating to the specialist, threatens to drown even the most aspiring and motivated of our students in a sea of information. No longer will the oppression of increasing lecture hours and narrowing the focus of our disciplines contain the problem. The voice of conscience has been stirring many to seek desperate action, but we as moderates must strive for more acceptable answers. Our goal must be to promote curricular *ev*olution rather than *re*volution. And in this, I am proud to stand with so many of you who support the cause.

But our story, to extend the metaphor, need not be titled *A Tale of Two Doctrines*, as medical education has firmly set our direction on the path of the individual. Once again, history will record the '90s as a decade of freedom for the individual, this time for both student and faculty. It will be a time of self-awareness, self-confidence, and self-direction. This decade will emphasize new methods in teaching and learning, a resurgence of compassion and humanistic values, and a new age of global communication and information exchange through the technology of computers.

The BSEF is only one effort in this struggle; but I believe that we have the potential to become the leaders in guiding rational change in the way the science of medicine is both taught and learned. Those who have read my previous "Message From..." columns, know my personal conviction that we as basic scientists have a moral imperative to fulfill this role. In this issue of *The Forum* we begin in earnest to publish on a regular basis, and at length, the first of many creative ideas. The columns we promised now begin to emerge because of the efforts of so many dedicated individuals.

I am pleased to report that membership in the BSEF (and thus readership) has increased by 70% since last summer, to the tally at press time of 529 individuals! And our ranks continue to grow daily. My only regret is that I do not have the resources to write a personal word of welcome to each new member of our organization. The time is not far off, however, when systems will exist by which we may all communicate electronically. Jim Swierkosz, on page 5 of this issue, gives us a *View* of the exciting possibilities the future holds. To this end, we have modified our membership request form (page 12) to include E-mail address. I would also ask each current BSEF member to help us update our Directory of

Colleagues by sending me his/her current E-mail address (by mail, fax, phone, or E-mail). Such information becomes especially relevant as we reach out to our colleagues in Central and South America, offering BSEF membership as the first step toward becoming a worldwide organization. I know you will all join me in welcoming our first basic scientist, and new BSEF recruiter, from the Universidad de Los Andes, in Mérida, Venezuela - Dr. José Muñoz.

Truly, it is the best of times when we can unite with others in a global effort to influence teaching and learning in the art and science of medicine. Perhaps because I write this message on July 14th the metaphor of Dickens' novel stirs my mind. But if one date is required to remind us of the desperate need for reform, then Bastille Day is indeed an appropriate choice. Change will come; but those who initiate change must not become drunk with new found power. We are the voice of thoughtful progress. Come; join us in this new *Fraternité*.

ANNOUNCEMENT

FIFTH ANNUAL MEETING OF THE BSEF

WEDNESDAY, NOVEMBER 11, 1992: 10:15 AM TO NOON

NEW ORLEANS, LA

The Fifth Annual Meeting of the Basic Science Education Forum Special Interest Group will take place on November 11, 1992 during the annual AAMC meeting in New Orleans, LA. The program for this year's meeting will address the BSEF Project Topic *Information Overload: Defining Essential Curricular Objectives*. Tentative program plans include a review of curricular objectives of selected basic and clinical science academic societies and a panel presentation evaluating these objectives. The panel will present new (or old) ways that basic scientists can meet these objectives without drowning students in a flood of information. If you have interest in working on any aspect of this program, please contact Alix Robinson at (315) 464-5870.

INNOVATIONS IN BASIC SCIENCE TEACHING AND LEARNING

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Many of us have conceived of and implemented innovative approaches in our teaching program, often with smashing success but on occasion with less than the hoped for outcome. How can we share these experiences with others? Sometimes we are able to inform colleagues in our own discipline but many times the approach is not sufficiently detailed to meet the editorial restrictions imposed by many journals. The Editorial Board of *The Forum* believes there is a need and desire to communicate the results of these educational experiments. This column has been established to exchange these innovations in basic science courses, that is "What works and what didn't work?" Since *The Forum* crosses the basic science disciplinary lines, it presents an opportunity to exchange approaches with a broad audience. Articles will not be restricted to major changes in curriculum, but hopefully will include subjects ranging from techniques for improving lectures to innovations in student evaluation. Enough information should be included for the reader to determine the applicably in their own program. The article should include, if data is available, the objective, general approaches, results, restrictions or requirements, evaluations by students and faculty, and current status of the program. Articles will be restricted to about 1,000 words, but we encourage readers to contact the contributors directly for more extensive details. We welcome submissions, or if you know someone doing something innovative, call me and I will contact them. This is your column and your opportunity to share your experiences in medical education with your colleagues. Do not hesitate to contact me with your ideas, questions, or suggestions.

INNOVATIONS IN BASIC SCIENCE TEACHING AND LEARNING

LITERATURE GROUPS IN A FIRST-YEAR MEDICAL BIOCHEMISTRY CLASS

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The dual problems of clinical relevance and expanding data in basic science courses continue to vex medical school faculty and students alike. Biochemistry in a traditional curriculum may be the most prominent example, since many of the most important and basic concepts do not figure obviously in clinical practice even if they underlie other preclinical courses. (How often do surgeons use the Krebs cycle, for example?) In some clinical courses, e.g., Cardiology and Genetics, biochemical concepts are more closely related intellectually but are farther away in time, as these blocks often are not taken until the fourth year. Coupled with the problem of clinical relevance is the speed at which research information in Biochemistry and Molecular Biology is being incorporated into clinical knowledge. Physicians in training are expected to be "lifelong learners" with the capacity for incorporating information from a host of disciplines into their practice.[1,2] Finally, physicians are expected to work collaboratively with each other and allied health professionals. These behaviors are not always characteristic of entering medical students.[2]

For the past six years our approach to dealing with these issues has been to structure collaborative learning exercises in Biochemistry which model scholarly behaviors that will be required in students' later practice. Our first-year medical students are each required to subscribe to The New England Journal of Medicine. We chose a single journal primarily to reduce the time demand on course faculty who must read the articles along with the students. The students are assigned to groups of 5 or 6 which are responsible for analysis of 4 primary research articles over the semester. Articles analyzed must be current (published within the last 6 weeks) and with a biochemical focus or content. Usually, 1-3 articles per issue meet this last criterion; since the students are taking Physiology at the same time, articles dealing with pathophysiological mechanisms and the biochemistry of organ systems are popular.

Analysis consists of a written report from each group answering a series of questions: Which article? Who are the authors? Where was the work done? What was the objective of the study? What is the biochemical background of the problem under investigation? What were the results? What are the authors' conclusions? What are your own reactions/ conclusions? (This last answer is often the most interesting; questions of statistical significance and patient population size are frequently raised.) Final reports are usually 4-6 double-spaced pages. All students in a group sign the group report to verify their participation. Time for this exercise is made available by dropping one lecture per week during the second semester of the year-long Biochemistry course sequence.

The literature reports figure into the final Biochemistry course grade in a small but potentially important way. First, reports are graded on a scale of plus (above and beyond the call of duty), check (good), minus (deficient in some aspect) or zero (no report). The grades do not figure into the course grade formally but can be used to lift a borderline grade at course end. Conversely, zero grades can bring a course grade down. The adjustment for being in a group with consistently superior reports is usually on the order of 1-3% of the final grade. Additionally, 10-15% of the course final exam is devoted to a menu of questions based on the reports submitted over the semester.

Our expected outcomes for this work were that students would learn to read primary research papers, that they could put biochemistry in a context directly related to their interests, and that they would learn to work collaboratively, learning from, reinforcing and policing each other. These goals were apparently met. In a survey of second year students who had taken the course, 22 of 28 respondents (a response rate of one-third) agreed that the exercise

improved their skills in analyzing current medical literature. Equally strong majorities agreed that they were able to relate concepts and results reported in the articles to their databases in biochemistry (24/28) and in other basic science courses (22/28). A majority agreed that the exercises helped them integrate science and medicine (16 yes, 6 no, 6 not sure). Half of the respondents agreed that the exercise helped them learn more biochemistry and that it stimulated their interest in biochemistry. Only a minority (6/28) maintained their subscriptions to NEJM through the second year. Of those who did not continue their subscriptions, several cited cost as a factor and several others indicated that they subscribed to other journals (JAMA and American Family Physician).

Information regarding other behavioral outcomes is necessarily anecdotal. In one case a group refused to let a nonparticipating student sign its report. In other cases, students have reported their efforts (successful and not) in getting their fellow group members to work harder at their assignments.

Some potential pitfalls in the exercise have been identified, mostly in the composition of the groups. Students are assigned by the course faculty to groups with the aim of roughly equalizing the level of academic background and talent. Student-selected and randomly assigned groups will vary considerably on this score. Since all individuals in the group are expected to gain the skills we expect, we wanted to avoid giving some groups an advantage coming into the assignment. One year we had a 1:1 correspondence between group members and assignments, and the students took turns writing individual reports rather than collaborating on each report; the quality of the work suffered noticeably.

In summary, we find this exercise useful in equipping medical students with some of the tools of lifelong learning and perhaps even some biochemistry. These outcomes were achieved in the context of a traditional, discipline-based curriculum. We have also used this experience as an entree into students' using the National Library of Medicine databases during another part of the first-year Biochemistry course.[3]

Acknowledgements: This program was sparked by discussions one of us (FJS) had with Dr. Alan Mehler. Additionally, Dr. Douglas Randall provided some of the questions for the report format.

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ANNOUNCEMENT

SUMMER '93 BSEF CONFERENCE

The Basic Science Education Forum is in the preliminary stages of planning a summer conference on *New Educational Strategies for the Basic Sciences*, to be held in Charleston, SC during the early part of June, 1993 jointly sponsored and hosted by The Medical University of South Carolina. The following program topics have been suggested: "Critical Review of the Problem-Based Curriculum", "Course Design: What to Teach and When", "Computers: Now and the Future", "The Student's Perspective on the Curriculum", "Case Design for Problem-Based Curricula", "Introduction of Clinical Correlations in the Classical Curriculum", "How to Design Better Multiple Choice Examinations", and "Topic-Based Multidisciplinary Teaching". This conference will be unique in that it will focus on these topics from the perspective of the basic scientist, addressing practical needs across all six traditional disciplines. If this sounds interesting to you, please complete and return the postcard enclosed with this issue.

VIEW FROM THE ELECTRIC CHAIR

by Jim Swierkosz, Ph.D.

Actually, from the "Chair" of the "Electronic" Networking Committee, but I think the above title conveys more of the "sizzle" of this exciting and ever-expanding technology. Most of us are already using computers for a variety of academic and personal reasons, and many are into electronic mail via local area networking or more globally through BITNET. For those of you experienced in these venues, and for those about to make the plunge, I would like to tell you about two electronic sources of information and communication relating to basic science medical education.

One is ETNET, the Educational Technology Network. It is an online computer conference network for developers and users of interactive technology in health care education. Sponsored by the Lister Hill Foundation at the National Library of Medicine, it is available free of charge through the INTERNET at your institution. There are "conferences" on computer hardware, shareware, CAI, hypermedia, digital imaging, and education to name a few. Each conference consists of notices (called items) which are posted by individuals who are either asking for information or giving out advice about topics dealing with that particular conference. E-mail messages can also be sent. One can access ETNET via the INTERNET by starting a Telnet session and typing: telnet etnet.nlm.nih.gov and then hitting the ENTER key. When it asks for a network login, type etnet followed by ENTER (always use lower cases when typing), then just follow directions. TRY IT OUT, you may get hooked! The National Group on Educational Affairs of the AAMC is planning on using this conference system to an increasing degree in the near future.

The second is a new "multi-user E-mail system" that I have just started in order to bring Medical Microbiology teaching faculty together via BITNET. It is a sort of ListServer which I have called MICRONET. Once you have joined this List, any message you send to the List will automatically be sent to ALL other members of the List. Though not a real conference or bulletin-board system, it does allow instant multi-user communication among those with common interests. Since many of the teaching ideas that I have gotten have come from basic scientists in areas other than my own (Microbiology), we thought it may be worth a try to use this MICRONET system as our electronic communication link for all basic science disciplines interested in sharing information on medical education. To join this List, just send me your complete BITNET address and I will add your name and send you instructions. It is very easy, just like sending a BITNET message.

I hope to talk more about these systems and get some feedback at the National "Forum" meeting in New Orleans. Call, write, or BITNET me for more info.

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CLINICAL CORRELATIONS IN THE BASIC SCIENCES

GUEST EDITOR: Gabriel Virella, M.D., Ph.D.

During the current debate concerning Medical Education the unquestionable shortcomings of the traditional curriculum have been pointed out by many. Remarkably, few have cared mention their immediate cause—the apathy and immobilism of faculty in charge of Basic Science courses. The proliferation of alternative curricula, stressing problem solving and self learning, is a clear reaction to such immobilism. Although the experience with these alternatives is too short to allow a definite judgment, there are obvious limitations with a case-based curriculum, and it is likely that more flexible approaches, combining the best features of the traditional and the new curricula will emerge. We hope that the road to compromise may be taken by faculty involved in the traditional curriculum. Indeed, all of us concerned about the education of future generations of physicians should be interested in trying new approaches to facilitate the acquisition of an enormous, ever expanding, and complex database,

while promoting self learning and problem solving. The much maligned lecture will probably be recognized as a very time-effective way to deliver information and to facilitate understanding, while other formats are unquestionably more efficient to establish correlations between basic and clinical sciences and to train the students in problem solving, literature searching, self-studying, etc. A variety of formats is already available for the teaching of clinical correlations in Basic Sciences, ranging from paper-and pencil exercises of different degrees of complexity to very sophisticated computer-run cases and simulations, although the later, are, for the most part, still being developed. Most of these formats are adaptable to all types of curricula. The clinical Correlations can be used as the main course, dessert, or just as one of the entries, and need to be customized to each on of these possibilities. But there is sufficient common ground in the different modalities to make the effort to gather information about them extremely worthwhile. Thus, with this issue, *The Form* initiates the publication of a series of articles discussing several approaches to the development and use of Clinical Correlations in Basic Science courses, hoping to facilitate information exchange and to promote much faster and directed progress. In this issue we will include a discussion of *Clinical Correlations in Immunology and Microbiology*, as developed at the Medical University of South Carolina, and Dr. Murray Saffran, from the Medical College of Ohio, will discuss a totally different approach to the use of *Clinical Correlations in Biochemistry.*

CLINICAL CORRELATIONS IN THE BASIC SCIENCES

CLINICAL CORRELATIONS IN MICROBIOLOGY AND IMMUNOLOGY

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We teach our Immunology and Microbiology-Infectious Diseases courses in the sophomore year of a traditional curriculum. Thus, the students have a very busy schedule and it was not possible either to add clinical correlations to an already overloaded schedule, or to use them in a very intense self-learning format. Thus, we planned our Clinical Correlation Exercises (CCE) as self-contained units which the students could complete during assigned class time, freed y eliminating lectures. The CCE were primarily developed by Dr. Jean-Michael Goust and myself, with collaboration by Drs. Roverr B. Galbraith and Dr. Gillian M. Galbraith. Because we had long experience with the use of POPS, we decided to adapt their format and dynamics (with the exception that there are no pre– or post-tests in the CCE), since it would be easier for the students to use the operational skills acquired during previous exposure to POPS packages. All CCE are centered on a case history, distributed to the students 4-7 days before the scheduled meeting; the students are also given a list of reading objectives for each meeting. For the purpose of working on the CCE, the class is split into five groups of 28-32 students each, and each group meets with an instructor. Within each one of those groups, the students arrange themselves into working units of four and receive a written package and instructions. The prescribed order of activities is generally as follows: first, rank in order of priority diagnostic tests out of a printed list and briefly justify the rankings; next the students are given the results of all listed tests and asked to choose additional tests our of a second list and justify their choices. The results to all the tests in the second list are also given and the students are asked to select the three most likely diagnoses on a list of five or six possibilities, ranking them by order of probability, and they are asked to briefly discuss the physiopathology of some of the major signs and symptoms presented by the patient. After the students complete the exercise, they are given a second package containing a brief discussion of the case and a faculty completed version of the case. Four CCE have been developed and tested, corresponding to patients with rheumatoid arthritis, systemic lupus erythematosus, HTLV-I

leukemia, and multiple myeloma. The students are generally able to go through a case in a one hour period. Their performance is not directly graded but the students are aware that similar clinical scenarios will be included in their objective evaluation tests.

Our primary objective in devising the exercises was to correlate basic and clinical concepts through clinical case solved in an interactive format. We realized that some of the theoretical and experimental aspects relevant to the clinical situations would probably not be discussed by the students in detail, but on the other hand the students would have to require and interpret laboratory data, rank possible diagnoses, and write discussions of physiopathological aspects relevant to each case. The students are encouraged to work as a group and to bring as many resources as they wish to the sessions and we have observed that the levels of discussion and interaction achieved are quire satisfactory.; One major concern at the onset was that the degree of clinical involvement was excessive for second year students. However, the diversity of backgrounds in the members of a group seems to compensate for individual deficiencies, and simple questions about the nature of the diagnostic tests or about the diseases listed under differential diagnosis are easily handled by the facilitators, which in our course have a medical background. Another concern was that this format would be less effective in delivering information. However, student performance on 15 final exam items related to areas in which formal lectures were replaced by POPS and CCE showed a significant improvement, from 76 $\pm$ 12% correct answers in 1989, to 80 $\pm$ 15% in 1990 and 81 $\pm$ 11% in 1991 ($p < 0.05$ by MANOVA when 1989 scores are compared with 1990 and 1991 scores). In the same period of time, the frequency of correct answers in 15 randomly selected items testing lecture contents declines from 85 $\pm$ 12% (1989) to 79 $\pm$ 14% (1992). This, it certainly seems possible to conclude that teaching clinical immunology topics in a case-based small group format does not adversely affect the performance of the students in an identical group of multiple choice questions. A final concern was how the students would react to the CCE. This concern has been dispelled by the rates of approval in the course evaluations, which have been better than 80%.

In the future we plan to develop CCE for Microbiology, incorporating pictorial materials (Gram stains, X-Rays, pictures of the patients, etc.) and we also hope to be able to transpose the CCE to computer format, which would enhance their interactive nature. Although our CCE can also be adapted to a problem-based curriculum, their main strength is the fa`ct that they are self-contained and economical in the use of student's time, and they are extremely easy to use for large classes. Obviously, they represent one pole of a very wide spectrum of tools available for those wishing to improve their teaching programs within the confines of the traditional curriculum.

CLINICAL CORRELATIONS IN MEDICAL BIOCHEMISTRY
When should clinical correlations by introduced?

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The introduction of clinical dimension in the basic science years of medical school is more difficult in the first year than in the second. The second year traditionally contains the bridge courses of pathology, pharmacology, microbiology and immunology, which thrive on close connections with heir clinical counterparts of pathophysiology, therapeutics, infectious diseases, and clinical immunology. Biochemistry's clinical connection used to be clinical chemistry, leading into laboratory medicine, but the biochemists of the USA have allowed these clinical specialties to fall into alien hands and their connection with ancestral biochemistry is no forgotten.

Most of us who teach medical school courses in biochemistry are not physicians and are

not even remotely concerned with laboratory medicine (now within the purview of pathologists). How, then, can we introduce clinical material into our courses? While some genetic diseases are clear and exciting examples of biochemical principles, such diseases are rare; most clinical problems do not lend themselves to easily-understood biochemical interpretation. Several approaches are available to bring the real world of medicine into the intangible world of biochemistry. One method is to use a biochemistry test that contains "Clinical Correlations". While this approach is better than another, the clinical correlations in dark sidebars in one such book suggest that this is secondary material, not as important as the regular test, with its many colorful illustrations. In another book the clinical correlations are printed in the same dull and visually monotonous format as the rest of the book and the cases are clustered at the end of the chapters, offering both the student and the instructor the easy alternative of ignoring them altogether. Both test so what our curricula do—they separate the basic science from the clinical matter. Is there any way of presenting biochemistry WITHIN the context of the clinical problem? Shouldn't the case be presented first complete understanding of the underlying basic science (biochemistry) is necessary to understand the pathological findings and the rationale for treatment?

When I taught the medical biochemistry course at McGill University in the 1960's I began the course by inviting a clinical colleague to bring a patient to the classroom [Saffran, M. (1971) "Relevance in the medical biochemistry course. J Med Educ 46:1080-1086]. The students were very surprised and anxious to be confronted with a human problem on the first day. The patient and the physician were introduced to the class and the students were instructed to interview the patient. The first questions were generally asked by member of the class with some health professional experience, "What made you see the doctor?" was a usual and excellent first question. The answer elicited the presenting signs and symptoms from the patient's point of view. The following questions produced more details. Soon the class forgot their anxiety and entered into the spirit of the exchange. In as little as 15 minutes, the ability of the students to get more useful information from the patient was exhausted. The patient was than dismissed and the students were invited to question the physician. The class now asked more sensitive questions related to prognosis, genetics and treatment. They physicians, by the way, were instructed to answer specific questions only and not to volunteer information. The students enjoyed the interplay and began to formulate basic science questions in exploring the pathophysiology. They were told that the biochemistry would be discussed later in the course. There were murmurs of dissatisfaction, because they were eager to explore the topic further. The first lecture ended with the promissory note that more discussion of the case would follow. The class expected the second lecture to be on the underlying biochemistry, but instead we brought in another patient, accompanied by the same physician. This time the class was experienced and immediately asked pertinent questions. In a very short time they had the chief complaints, family and medial histories, treatment from the patient's point of view, etc. After the patient left they asked the physician very pointed and intelligent questions, leading to matters in biochemistry, which, they were promised, would be discussed in the course. It was not time to take advantage of the obvious eagerness of the class to delve further into the basic science aspects of the patient's problems.

The prior exposure of the students to a real human problem provides them with motivation to learn the associated biochemistry, overcoming one of the great barriers between instructor and students. The lecturer can refer back frequently to the patient's history, physical and laboratory findings and even therapy to provide a continuous ti-in between biochemistry and the "real" medical. It is important to bring in new patients before the students tire of the constant references to the old ones. New patients can also be introduced at the beginning of new chapters in biochemistry.

I have consistently found that the patient first, biochemistry next approach, with its great motivational force, to be far more stimulating than the biochemistry first, clinical correlation later approach. It is much easier to interweave clinical and biochemical principles when the patient has been seen early, than to keep on promising some clinical relevance toward the end of the course.

NEWS AND VIEWS FROM THE REGIONS

NORTHEAST REGION
ALIX I. ROBINSON, Ph.D., DIRECTOR

The Northeast Region BSEF met at the spring Northeast Group on Educational Affairs (NGEA) conference in Baltimore, MD in March, 1992. The theme of the NGEA meeting was *Integrating the Basic Sciences and Clinical Medicine: Breaking Down the Barriers*. The BSEF program started with a brief organizational and informational meeting to sign on those interested in serving on a Regional Advisory Committee or working on BSEF project topics. Roger Koment told us about activities in the Central Region BSEF. An Open Forum on Integration of Teaching in the Basic and Clinical Sciences featured presentations by three basic scientists and questions and discussion by more than 40 medical educators attending the session.

Michael Cancro, Ph.D. from the University of Pennsylvania School of Medicine described a new program in *Integrative Neurosciences*, which presents concepts and information previously given in neurology, neurobiology, behavioral sciences, and neuropathology courses. The course, taught in the first year, has 172 hours of formally scheduled time, about equally divided between large and small group instruction. Philip Roane, Ph.D. from Howard University College of Medicine, described a new course in *Microbiology, Immunology, and Infectious Disease*. The course is designed to give students earlier exposure to clinical concepts in both small and large group settings. Camillo Benzo, Ph.D. from SUNY Health Science Center at Syracuse, spoke about *Medical Gross Anatomy*, which attempts to bring more clinically relevant applications of gross structure and function into the first year course using demonstrations by radiologists, surgeons, and neuroscientists, and takes anatomy into the clinical settings for senior medical students and residents through elective courses.

Next year the NGEA will meet in Quebec City, April 16-18. The conference title is *Thinking, Learning, and Problem-Solving in Medical Students and Residents: Effective Learning Strategies for Medical Students and Residents; Defining Exam Content to Promote Good Knowledge Integration and Organization*. The Northeast Region BSEF will meet on Saturday morning, April 17, from 9:00-12:00. I hope to hear from you about ideas for our program and look forward to seeing you in Quebec!

SOUTHERN REGION
RICHARD M. HYDE, Ph.D., DIRECTOR

In March of 1992 the Basic Science Education Forum of the Southern Region held a Special Interest Group session on the recruitment and retention of minority students. Dr. Patricia Butler from the University of Texas - Houston described a pre-entry program at her institution that provides a 5-6 week summer enrichment experience for minority students prior to beginning medical school. Students take physiology, biochemistry, and anatomy, and have the opportunity to develop their study and computer skills. Their performance is closely monitored during the first year of medical school. Dr. Philip McHale from the University of Oklahoma described the development of the Native American Center of Excellence at his institution. Its primary goal is to recruit more Native Americans into careers in medicine and to enhance retention efforts for this group of minority students. The presenters and the participants agreed on the following points of discussion.

1. Students who participated in the pre-entry program performed as well or better academically as students who had not participated in the program.

2. One of the key benefits of the pre-entry program is the development of a degree of self-confidence in the minority student participants.

3. It is necessary to identify qualified minority students early in their academic careers in order to ensure that they develop appropriate study skills.

4. Retention efforts need to be especially active and directive, particularly with Native Americans, since many of these students are reluctant to seek help when they experience difficulty with their academic work or personal lives.

CENTRAL REGION
ROGER W. KOMENT, Ph.D, DIRECTOR

The BSEF Central Region Chapter met in joint session with the Clinical Education SIG (Robert Winter, M.D., Director [312]880-4302) during the recent CGEA spring conference in Lincolnshire, IL. Consistent with the overall conference theme of developing medical educators, this session explored the topic *The Neglected Aspects of Faculty Development*. Our invited speaker was Wayne Weston, M.D., from the University of Western Ontario, who chairs the Liaison Committee on Faculty Development for the EFPO (Educating Future Physicians of Ontario) Project, a collaborative group bringing Faculty Development to medical schools throughout Ontario.

Dr. Weston reviewed for an audience of 95 educators the holistic view of Faculty Development and the five domains of knowledge that any successful faculty member must master: Education, Administration, Research, Written Communication, and Professional Academic Skills. He focused his remarks on Administration and Professional Academic Skills.

Administration involves understanding the structure and function of an academic health center and integrating personal career goals with the institutional mission. He emphasized that leadership and management skills, especially in committee situations, depends upon time needed at that level. Successful leadership also depends upon good facilitating skills. Chairs must avoid the temptation to dominate discussions, instead promoting group problem-solving and keeping the discussion on track. Also important is good "followership", when serving as a committee member: coming prepared, avoiding grandstanding for personal gain, and contributing to group process.

Professional Academic Skills (understanding the unwritten codes of academia, career management, developing professional networks) are largely a matter of emulation. This begins with advisors, continues with mentors or other role models, and develops throughout our careers by emulation of successful peers.

He described 10 characteristics of an ideal Faculty Development program: Early Onset, Mentorships, Personalized, Contextualized, Comprehensive, Accentuate the Positive, Ongoing, Institutionally Supported, Outcomes Evaluated, START NOW!

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WESTERN REGION
WILLIAM R. GALEY, PH.D., DIRECTOR

Although the Western Region Group on Education Affairs (GEA) met this past spring in Asilomar, California, the Western Region BSEF did not officially participate in the activities of that meeting. There has been some discussion as to whether Special Interest Groups (SIGs) such as the BSEF should become part of the spring Asilomar meeting. I would argue that incorporating BSEF and other SIG sessions into the program provide on opportunity to attend a meeting focused on issues of medical education that many of us may not otherwise attend. Further, in my opinion the GEA could profit from a greater involvement of basic scientists. This, I feel would happen if the BSEF were to be included in the meeting. While nothing prevents us from attending this meeting currently, a program which included the BSEF would, in my view, encourage more of us to attend. The question is still not answered. I need to hear from BSEF members in the Western Region. Would you like to have BSEF activities or sessions associated with the spring (April) GEA meeting in Asilomar? Would you attend such a meeting? If such sessions were programmed, what kinds of issues or activities would you like to address?

On another note, I hope that we can increase the membership of the Western Region BSEF. Will each of you please let your colleagues know about our young organization and encourage them to join us in promoting Basic Medical Sciences in medical education. Those of you who have been reading borrowed copies of *The Forum*, please contact Roger Koment or me so that we can get you into the official membership Directory.

CURRENT BSEF PROJECTS

Four topics have been defined which the BSEF is addressing in various ways, each one being coordinated by a Regional Director. If you have interests, opinions and/or wish to work with others toward the resolution of one or more of the following, please contact the designated individual. Our long-term goal is to create workable solutions to these problems.

TOPIC 1

Integration of the Curriculum: Defining the Role of Basic Scientists in the Clinical Educational Setting and Clinicians in the Basic Science Educational Setting.

contact: Richard Hyde, Ph.D.

TOPIC 2

Information Overload: Defining Essential Curricular Objectives.

contact: Alix Robinson, Ph.D.

TOPIC 3

Problem Based Learning: Defining the Role of Basic Scientists in Optimizing Basic Science Content within a PBL Program.

contact: Bill Galey, Ph.D.

TOPIC 4

Defining Evaluation Standards: Criteria and Consistency.

contact: Roger Koment, Ph.D.

ANNOUNCEMENT

1993 SPRING REGIONAL GEA MEETINGS

NORTHEAST

Quebec City, PQ April 16-18, 1993

Thinking, Learning, and Problem Solving in Medical Students and Residents

Organizers: Laval University, Georges Bordage, M.D., Ph.D. For details on BSEF activity phone: Alix Robinson, Ph.D (315) 464-5870

CENTRAL

Rochester, MN April 29-May 2, 1993

Making It Happen!

Organizers: Robert Winter, M.D. and Margret Lie, M. D. For details on BSEF activity phone: Roger Koment, Ph.D (605) 677-5174

SOUTHERN

Miami, FL April 21-24, 1993

The Resident as Teacher, The Resident as Learner

Organizers: Joan Friedland, M.D. and Pat Caralis, M. D.

For details on BSEF activity phone: Richard Hyde, Ph.D.(405) 271-2133

WESTERN

Asilomar, CA April 25-28, 1993

How Medical Schools Handle Change in Medical Education (Tentative)

Organizers: University of Colorado, Nancy Nelson, M.D. For details on BSEF activity phone: William Galey, Ph.D. (505) 277-0620

BASIC SCIENCE EDUCATION FORUM

AN ORGANIZATION OF BASIC SCIENCE FACULTY

Our Purposes:

* To come together, both electronically and at our annual meeting, to discuss issues in medical education of common concern to all basic science faculty

* To formulate where possible consensus opinion on issues in medical education which have direct impact on the basic sciences

* To begin resolving those issues with others through the vehicle of the AAMC and GEA at both national and regional levels

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PLEASE RETURN TO:

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