

ASBMB NEWS NEWS NEWS

Your Newsletter...

A Bimonthly Publication of the American Society for Biochemistry and Molecular Biology ★ Jan/Feb 2001, Vol. X, No. 1

NEWS FROM THE EDUCATIONAL FUNDING FRONT

by Dr. Terry S. Woodin*
Division of Undergraduate Education,
Directorate for Education and Human Resources,
National Science Foundation

Evaluation is an important component of any project. Advances in biochemistry and molecular biology are disseminated rapidly and widely. The outcomes of research projects are easily followed through reports in the peer-reviewed press. When scientists report education projects either in peer reviewed journals or to the agency supporting their efforts they discuss the needs they tried to address and the new approaches they introduced, but often, because of the complexity of the goals and the difficulty of determining that they have been reached, documentation and evaluation of outcomes is ignored or given negligible attention. If we are to continue to generate a cadre of individuals interested and well trained in biochemistry and molecular biology, educational advances related to these disciplines need to be well documented and then rapidly disseminated so that others can benefit from the experiences of the pioneers in biochemistry/molecular biology education change.

Funding agencies are increasing the funds they invest to support curricular change in the sciences. However, they are also requesting that proposals explicitly include adequate means of determining whether the

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ASBMB TO BEGIN PUBLICATION OF NEW JOURNAL

The ASBMB Publications Committee has recommended, and the Council has approved, the establishment of a new Journal. It will be called *Molecular and Cellular Proteomics*.

The new journal will be under the leadership of Dr. Ralph A. Bradshaw, University of California, Irvine, as Editor, and Dr. A. L. Burlingame, University of California, San Francisco, as Deputy Editor. Associate Editors and an Editorial Board will be announced in early 2001.

Molecular and Cellular Proteomics will publish original articles and short reviews that deal with the structural and functional properties of proteins and their expression, particularly with respect to the developmental time courses of their occurrences in the organism of which they are a part. Emphasis will be placed on determining how the covalent modulation or the presence or absence of proteins affects biological responses and how the interaction of proteins with germane cellular partners allows them to function. Articles utilizing or advancing protein identification technology — such as multi-dimensional electrophoresis, chromatography and/or mass spectrometry — protein and nucleic acid arrays, and computational assessments will be particularly appropriate. The journal encourages the submission of substantive supporting data sets (which will appear *en toto* in the electronic version) and will feature interactions (hyperlinks) with germane databases.

Manuscript submission, reviewing and initial appearance will all be accomplished electronically (with the online version of the journal published as a member of the High Wire consortium). All papers accepted for publication will appear *immediately* in the electronic version of the journal, including all supplemental material. The printed version of the journal will appear on a monthly basis (without the supplemental information). It is anticipated that the electronic version of the journal will be available for the submission of articles by June 1, 2001.

A more complete article will appear in a later issue of *ASBMB News* after the Editorial Board has been chosen and more definitive plans are available. ★

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Deadline for upcoming issues

Mar/Apr 2001: February 2
May/June 2001: April 6
July/Aug 2001: June 1
Sep/Oct 2001: August 3
Nov/Dec 2001: October 5
Jan/Feb 2001: December 7

DOUBLE, DOUBLE, TOIL AND TROUBLE— THE LAST MINUTE, NAIL-BITING ENDGAME FOR THE NIH BUDGET

by William Brinkley, Ph.D.*

Vice President and Dean, Graduate School of Biomedical Sciences
Baylor College of Medicine

In order to stay on track for doubling the NIH budget by 2003, it has been necessary for the Congress and Administration to approve an average increase of 15 percent in the annual budget for this agency each year since fiscal 1998. While the doubling is to be completed in fiscal 2003, getting appropriations of this magnitude signed into law has been a "nail-biter" exercise each year, and the Fiscal 2001 appropriation was no exception.

When Congress finished its business and went home for the holidays last December, our champions—primarily retiring Rep. John Porter (R-IL) and Senator Arlen Specter (R-PA)—had secured approval of a 14 percent, \$2.5 billion dollar increase for the NIH in Fiscal 2001, and the President signed it into law in late December. This action is welcomed by the biomedical research community, and represents the third installment for doubling.

As in the previous two years, the last-minute budget negotiations between Congress and the White House teetered between success and disastrous failure right up to the last minute. The irony in this budget episode was that earlier, both House and Senate appropriators had rallied bipartisan support for a 15 percent increase for NIH, but the Labor, Health and Human Services conference report was rejected by the Clinton Administration because the bill lacked requested dollars for ergonomics and education programs. This setback, along with the unfortunate voting debacle in the Presidential race, led to a near "train-wreck" for the NIH budget. As the fiscal year came to an end, the government was funded during endgame negotiations through a series of 21 (yes, *twenty-one*) short-term Continuing Resolutions.

One potentially disastrous scenario, proposed by Rep. Tom DeLay (R-TX) was for Congress to pass a long-term CR through April, 2001, thus abandoning the remaining 12 appropriations bills until the new Republican President was installed. This move would have resulted in a flat budget for NIH for the first six months of the fiscal year, and a devastating departure from the doubling campaign.

In talks with a senior NIH official on December 14th, I learned that under such a long-term CR, many new and continuing grants, including Baylor College of Medicine's own \$58 million Rat Genome Project, approved with a very high score, would be in peril. Since Tom DeLay's district is near the Texas Medical Center and many of our faculty and staff live in or near his hometown of Sugarland, Texas, I rallied our troops to send cards, letters, e-mail and telephone calls to Mr. DeLay asking for his help and consideration of the NIH bill. Moreover, other Baylor academic leaders, some of whom know Mr. DeLay personally, called or sent telegrams to thank him for his earlier leadership on the NIH doubling campaign and urge him to pass H.R. 4577 (the Labor/HHS/Education appropriations bill) that now included a slight cut in the NIH budget to 14 percent. Another Houston area



PAAC Chair William R. Brinkley

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DRAFT HUMAN GENOME SEQUENCE INFO AVAILABLE ON WWW

(Dr. Francis Collins, Director of the NIH's National Human Genome Research Institute, send the following letter to his NIH colleagues in early November.)

Dear Colleagues,

A few weeks ago, the international human genome sequencing consortium described (in a letter published in the Sept. 1 issue of *Science* and in a news brief published in the Aug. 31 issue of *Nature*) a number of electronic sites where the public working draft version of the human sequence can be found in its most useable forms. However, it is clear from a number of recent interactions with investigators, that many are still not aware of the accessibility of this important information. I am writing to make sure that you are aware that the working draft sequence is available and to ask your assistance in helping to make the entire scientific community aware of this valuable resource, by distributing the attached information describing three sites that display the entire working draft sequence and provide tools for its use.

The following links will take investigators directly to three different (but complementary) assembled views of the human genome, together with useful browsing tools that provide a wide variety of annotations of the sequence. These sites are updated very frequently, indeed almost continually.

U. Calif. at Santa Cruz

<http://genome.ucsc.edu/>

National Center for Biotechnology Information (NCBI)

<http://www.ncbi.nlm.nih.gov/genome/guide/>
and click "Map Viewer"

European Bioinformatics Institute (EBI)

<http://www.ensembl.org/>

The NHGRI is sending this information to all NIH staff, both extramural and intramural, as well as to all of our grantees. I hope that you will help us reach the larger scientific community with this important information by distributing this message to your staff and colleagues, your grantees and others with whom your Institute routinely communicates.

Thanks
Francis Collins

LETTERS.....

Responsible Conduct of Research...

The ASBMB objects to the PHS Office of Research Integrity's proposal that it be mandatory that all researchers complete an ORI-prescribed program of instruction in research ethics. Instead ASBMB recommends that recipients of PHS funds be required to sign a statement that they had read and understood ORI rules and regulations pertaining to research misconduct. While not objecting to this, I note with regret that both the PHS and the ASBMB persist in dealing with the symptoms, rather than the causes, of research misconduct. Eminent commentators identify the PHS-operated peer-review system itself as creating a climate conducive to misconduct. The system is described by Joshua Lederberg (1) as "viscous beyond imagination", and by Phillip Sharp (2) as having taken on a "mask of madness." Suggestions for reform have been dismissed (3,4).

Sincerely,

Donald R. Forsdyke, M.B., B.S., Ph.D.

Department of Biochemistry,

Queen's University, Kingston,

Ontario, Canada K7L3N6

- (1) Lederberg, J. (1989) Does scientific progress come from projects or people? *Current Contents. Life Sciences* 32, No. 48, 5-12.
- (2) Sharp, P.A. (1990) The crisis in funding: a time for decision. *Cell* 62, 839-840.
- (3) Forsdyke, D. R. (1993) On giraffes and peer review. *FASEB. J.* 7, 619-621.
- (4) Forsdyke, D. R. (2000) *Tomorrow's Cures Today? How to Reform the Health Research System*. Harwood Academic, New Jersey.

A Modest Proposal...

John Boyle's proposal (ASBMB News, Nov/Dec 2000) for undergraduate curricula is a good one but lacks one essential ingredient — statistics. A science degree should be awarded only to those students who understand the power, limitations, and appropriate use of statistical inference. I suggest a one semester course based on Harvey Motulsky's "Intuitive Biostatistics", Oxford University Press, New York, 1995.

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In addition, required readings in the history and philosophy of science would do no harm. After all, science, particularly biological research, reveals not only the mechanisms of health and disease but also an understanding of who and what we humans are. There is more to a science education than preparation to "do" science, and it is not only future working scientists who benefit from knowing what science is and why we do it the way that we do. A better public understanding of science, sorely lacking today, would go a long way toward solutions to poverty and overpopulation that are more creative and benign than Swift's suggestion.

Tim Clair
Laboratory of Pathology/NCI/NIH
Bethesda, MD

[Dr. Boyle's] proposal concerning the organization of undergraduate curricula for biochemistry and molecular biology lacks any suggestion of exposing the undergraduates to the history of these subjects. In my extended review of the recent book of Professor Joseph Fruton, *Proteins, Enzymes and Genes* (Yale University Press 1999), in the March 2000 issue of *Isis* (the *Journal of the History of Science Society*), I strongly recommended his book for possible courses in the history of biochemistry. It is my belief that undergraduate and graduate students, as well as faculty members and administrators in schools of the life sciences are greatly in need of knowledge of the history as presented by Fruton, an eminent worker, teacher and historian of biochemistry.

Seymour S. Cohen
American Cancer Society Research Professor,
Retired
Woods Hole, Massachusetts

The curriculum proposed by Professor Boyle resembles the biochemistry of the 1960s more than it does the composition of today's research. Certainly the basic chemical subjects such as organic, physical, analytical must be taught but if these classical disciplinary compartments are not penetrated, students will

simply not be prepared for the academic or industrial labor market.

New introductory courses are needed to prepare people for combinatorial chemistry that rapidly introduces students to macromolecular aspects, affinity processes, molecular communications, networks and pathways, and the manner in which molecules encode signals and specific functional identities. Principles of analysis and separation have to be quickly related to high-resolution identification, high throughput sample techniques, highly specific marking and discovery procedures. Many of the basics in chemistry alone need to be incorporated into interdisciplinary exercises such as chemistry in cells, activity of ions and ion currents in gating, and the influence of viscosity and dilancy on material transport and flow.

These changes are a necessity in the preparatory curriculum since once a student begins graduate level research and concentrates on a specialty such as genomics, proteomics, or signal networks, subjects covering a broader vista will be neglected. At this stage of scientific development, specialization generally continues the narrowing process.

Curriculum revision to integrate the new into the old, upward and downward, is a necessity for the study of modern biological chemistry and related disciplines, and should receive the attention of a special task force of elder statesmen, young investigators, and students, and representatives of academia and industry. The subjects should be parceled out so as to get compact, specific contributions that can be integrated and connected by a master group. However, such an effort should be well-integrated and not done piecemeal, or it is not likely to succeed.

Robert J. Rutman, Ph.D.
Professor Emeritus, Biochemistry
Philadelphia, Pennsylvania

We appreciate receiving letters suitable for publication from ASBMB members, commenting on articles appearing in ASBMB News. Letters should be sent to Peter Farnham, at the address found on page 2. The editor reserves the right to edit all letters.

NIH Budget from page 2

Congressman, Rep. Ken Bentsen (D-TX), a staunch supporter of NIH doubling, was contacted and agreed to lend his full support on the Democratic side. Rep. Bentsen urged his colleagues in the House and President Clinton to support passage of the bill.

Although it has been said that all politics is local, there was also an important national alert issued by FASEB, urging members to contact their individual Senators and Representatives to support H.R. 4577. In addition, the Campaign for Medical Research (a private advocacy effort representing various single disease-oriented groups as well as FASEB, Research!America and ASBMB), chaired by biomedical philanthropist John Whitehead, held a news conference on Capitol Hill in December that included various TV celebrities and former Members of Congress.

The result of all these efforts was victory for medical research. In the end, our champions and other supporters on "the Hill" were indeed impressed and grateful for the unified voice of scientists and disease advocates throughout America and felt that these voices made a difference.

As in the previous two years, agreement was reached behind closed doors involving the Senate and House leadership, and an omnibus spending bill was passed at the last minute and signed into law by Clinton on December 21. Our success may have been due, in no small part, to the urging of President-elect Bush to his fellow Republicans to work with the Administration to "clear out" all remaining legislation before he took office in January, 2001.

Thus, the first year of the new millennium has ended on an optimistic note for biomedical researchers. We are still "on the bubble" for doubling NIH by 2003, and there is much work to be done. This coming fiscal year of course brings new challenges; we will lose the support of a number of key legislators including Senator Connie Mack (R-FL) and Representative John Porter (R-IL), both of whom have retired from Congress.

Even more difficult, Congress will need to approve a 16.5 percent (\$3.4 billion!) increase next year to keep us on the doubling track, which is yet another consecutive record-breaking increase for NIH. We will also want to join our friends in the physical sciences, mathematics and engineering to double the National Science Foundation (NSF) budget. ASBMB, continuing its traditional involvement in public affairs, will be a leader in these historic endeavors.

So, we have our work cut out for us, and I will look forward to providing period reports on our progress in *ASBMB News*.

Dr. Brinkley is Chair of the ASBMB Public Affairs Advisory Committee.

ASBMB COMMENTS ON PROPOSED "WHISTLEBLOWER" REGULATIONS

In a January 29, 2001 letter to Office of Research Integrity Director Chris B. Pascal, ASBMB President Robert Wells called the Public Health Service's proposed standards for the protection of research misconduct whistleblowers "regulatory 'overkill', and thus in need of withdrawal or major revision." The proposals were offered for public comment in the *Federal Register* on November 28, 2000.

Points in Contention...

ASBMB notes that "False, fabricated or plagiarized research reports have no place in science, and individuals who bring such reports to light should be thanked rather than punished." However, the letter notes that "the vast majority of researchers are honorable and ethical, and...these individuals also deserve protection—from unsubstantiated or specious allegations brought in bad faith."

The letter also points to the existence of state and local whistleblower protection statutes, which cover employees at many state and public universities, and to internal whistleblower rules and similar rules in effect in local jurisdictions that no doubt also cover faculty and staff at most private universities. Therefore, the proposals may not be necessary.

The letter also notes the lower standard of evidence needed to find in favor of the whistleblower; the whistleblower need only prove his case based on a "preponderance of evidence" standard, rather than the "beyond a reasonable doubt" or even the "clear and convincing evidence" standard.

More Regulatory Burden

Finally, the letter notes the additional regulatory burden that will be caused by these proposals. The proposals estimate that eight hours should be enough to resolve most aspects of whistleblower complaints, which ASBMB's letter says "grossly underestimates" the amount of time necessary to resolve such complaints. ASBMB recommends that estimates of the time burden involved in resolving allegations be "revised upward by at least an order of magnitude" in the proposed regulation.

The full text of the letter is available on the ASBMB website at:

www.faseb.org/asbmb/whistleblower.htm ★

In Case You Haven't Heard...

ASBMB Member Ralph Hirschmann Receives National Medal of Science

On November 13, the White House announced that ASBMB member Ralph Hirschmann, University of Pennsylvania, was one of a dozen scientists to receive this year's National Medal of Science. The award was presented at a White House awards dinner on December 1.



Dr. Ralph Hirschmann

Dr. Hirschmann, Rao Makineni Professor of Bioorganic Chemistry, University of Pennsylvania, received the medal for his work in chemistry. Dr. Hirschmann's work with Merck & Co., Inc., led to the development of many life-saving medicines, such as the antiparasitic drug Ivermectin that is helping to eradicate river blindness in the Third World. His work also led to drugs that treat hypertension, congestive heart failure and severe infection.

As the University of Pennsylvania's first Research Professor in Chemistry, Dr. Hirschmann established a collaborative research program between the university and industry leading to continued discoveries of biomedical importance.

In announcing the year 2000 Medal of Science honorees, President Clinton paid tribute to a diverse group of researchers who set new directions in social policy, neuroscience, biology, chemistry, bioengineering, mathematics, physics, and earth and environmental sciences. "These exceptional scientists and engineers have transformed our world and enhanced our daily lives," President Clinton said in a statement when the awards were announced. "Their imagination and ingenuity will continue to inspire future generations of American scientists to remain at the cutting edge of scientific discovery and technological innovation." ★

Don't Miss ABRF Symposium in Orlando!

The ABRF/ASBMB Joint Symposium will be presented at the 2001 ASBMB Annual Meeting held in conjunction with Experimental Biology 2001 (March 31 - April 4 in Orlando, Florida). This is a continuing series sponsored by both the Association of

Biomolecular Resource Facilities and ASBMB. The goal of these joint symposia is to bring emerging technologies to biochemists and molecular biologists who can then use the new techniques in their research program.

"High Throughput Genomic Technologies: Decisions Based on Science and Reality" is scheduled for 9:45 AM on Wednesday, April 4. Michael R. Sussman, Director of University of Wisconsin Biotechnology Center and Ronald L. Niece, Research Resources & Technologies organized the symposium, which covers several different applications of developing technologies. The symposium includes an introduction highlighting the role of resource laboratories in contemporary research, how the instrumentation and experience of the core laboratory can expedite research programs.

Dr. Sussman will discuss progress in the development of saturation reverse genetics using knockout plants and will describe a maskless array synthesizer for producing high-density DNA oligonucleotide arrays "on the fly". Hundreds of thousands lines can be screened for knockout plants for any gene of interest. Combinatorial chemistry comes to the laboratory bench top in the form of high-density oligonucleotide arrays.

Dr. Smith addresses the problem of complexity in mass spectral data. His laboratory's approach is to reduce complex spectra by controlling the charge state of ion to a small number. Using ESI and an orthogonal time-of-flight mass spectrometer, the aerosol is exposed to a bipolar ionizing gas. In mixtures of proteins or nucleic acids, spectra are simplified and chemical noise minimized." ★

ASBMB Co-Sponsors Farewell Reception for Rep. John Porter

ASBMB co-sponsored a farewell reception for Rep. John Porter (R-IL), who is leaving Congress at the end of this term after twenty years of service (the reception was organized by the Ad Hoc Group for Medical Research Funding). Rep. Porter has chaired the House Appropriations Subcommittee on Labor/HHS/Education since 1995, and was instrumental in developing the House's plan to double the National Institutes of Health budget over five years, by Fiscal Year 2003. Rep. Porter indicated that, even though he will no longer be a member of the Congress, he will continue to be active in working to sustain and even increase federal spending for biomedical research. He has since accepted a

position with the prominent Washington law firm of Hogan & Hartson.

FASEB has honored Chairman Porter by naming the main road on its Bethesda Campus "John Porter Way." In addition, ASBMB made a contribution to endow the John Porter Professorship at the Northwestern University School of Medicine.

On behalf of ASBMB, we wish Rep. Porter all the best, and express our gratitude for his years of support for biomedical research in general and NIH in particular. ★

New Congress, New Committee Chairs

As usual at the start of a new congress, there is a certain amount of change in the committee chairs. However, when the Republicans took control of the House in 1994, they implemented a six-year term for committee chairs, so the usual amount of change is greatly increased this year, being the beginning of the seventh year of Republican control. Two important changes in chairmanships have occurred in the House Science Committee, and in the Labor, HHS, & Education Appropriations Subcommittee.

The House Committee on Science, which was chaired by Rep. James Sensenbrenner (R-WI), has now been turned over to Rep. Sherwood Boehlert (R-NY). Rep. Boehlert, from Utica, was elected to Congress in 1982. He has served on the Science Committee for most of his career in the House, and is known as a staunch supporter of basic research. The Science Committee provides oversight and authorization for the National Science Foundation, the National Aeronautics and Space Administration, and various other "hard" science programs. Some of you may remember that Mr. Boehlert spoke "live from the House cloakroom" via a telephone hookup at the ASBMB annual meeting when the Society met in Washington, DC in 1995.



Rep. Sherwood Boehlert



Rep. Ralph Regula

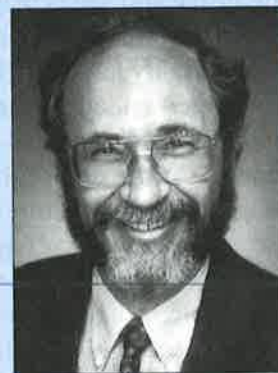
Another major change is the new chairman of the Labor/HHS/Education Appropriations Subcommittee, chaired the past six years by retiring congressman John Porter (R-IL).

The new chairman of this subcommittee—which funds the National Institutes of Health—is Rep. Ralph Regula (R-OH), first elected in 1972. Regula is a member of the moderately conservative wing of the GOP, and has served as Vice Chairman of the Appropriations Committee the past year. ★

ASBMB Member Receives Award for Virology Research

ASBMB member Bernard Moss, Chief of the Laboratory of Viral Diseases at the NIAID, is the recipient of the Tenth Annual Bristol-Myers Squibb Award for Distinguished Achievement in Infectious Disease Research. He received the award at a dinner in his honor last November in New York.

As a young scientist, Dr. Moss recognized that poxviruses provided an extraordinary system for combining biochemical and genetic studies. He discovered the structure and function of the complex methylated "cap" that forms the end unit of messenger RNA and is the template for making proteins. He and others went on to show that this structure was a vital component of the messenger RNAs of all eukaryotic cells and most viruses. Later Dr. Moss and his colleagues purified and characterized the enzymes responsible for cap formation and messenger RNA synthesis, providing a historic model. His most widely recognized accomplishment has been the development of vaccinia virus, used as a vaccine against smallpox, as a tool for research and for making almost any other kind of vaccine. Dr. Moss is currently working with other scientists to develop an AIDS vaccine.



Dr. Bernard Moss

At the recognition dinner, Dr. Moss received a silver medallion, and an unrestricted Infectious Disease Award of \$50,000.

ASBMB News congratulates Dr. Moss on his receipt of this important award. ★

G PROTEIN COUPLED RECEPTORS

An ASPET Colloquium

March 30-31, 2001

Organized by Richard A. Bond
& Graeme Milligan

Featuring talks by Shelagh Wilson, Thue Schwartz, Michel Bouvier, Barry Springer, Garrett FitzGerald, Graeme Milligan, Andrew Tobin, Patricia Hinkle, Marc Caron, Terry Kenakin, Fredrick Leeb-Lundberg, William Clarke, Yougesh Patel, Robert Lefkowitz, Thomas Wilkie, Stephan Lanier.

Short talks and posters will be selected for presentation during the afternoon session from contributed EB 2001 abstracts. Advance Registration is required by February 28, 2001. This is a satellite meeting to EB 2001.

For registration information, contact
nwhite@aspet.org, or go to
www.faseb.org/aspet/GPRC_Program.html#top

Educational Funding *continued from page 1*

investigator is instituting the changes proposed and is documenting the outcome of the efforts, a daunting task for most scientists engaged in educational change.

This article summarizes a plenary session at the June 2000 annual meeting of the American Society for Biochemistry and Molecular Biology focused on *Assessing Change in Course Presentation*. The session focused on fairly large introductory classes. The presentations ranged widely in the types of courses and the institutions represented, as did the background of the presenters. At the end of this article are a few references to help other faculty assess and evaluate their course and curriculum change efforts.

Jonathan King discussed an introductory laboratory course required of all premedical students at the Massachusetts Institute of Technology. Carol Brewer discussed a University of Montana introductory biology course that serves both science and non-science majors (enrollment about 425 students), and Trace Jordan discussed a quantitative reasoning course in science required of all non-science majors as part of New York University's core curriculum (enrollment about 220 students). Jane Korey, an evaluator in the Mathematics Department of Dartmouth University, led the session and commented upon the presentations.

Jane pointed out the importance of consulting with an evaluator early in the process of planning change and using results to help shape the project. She noted

that at first mathematics or science faculty might feel uncomfortable with the presence of evaluators and question the need for them. However, as the project progresses, faculty begin to see the merits of working with someone trained in observing change and how it progresses. Students and faculty are more comfortable in exploring their reactions to course changes if focus groups and surveys are conducted by someone unconnected to the class or their eventual grades. While Jane was observing for a fairly extensive set of courses, she mentioned that even for single courses it is helpful to enlist other faculty or external experts whose expertise is observing and recording educational, sociological or anthropological change.

As successful projects begin to emerge, everyone in the science community should be able to benefit from them. We eagerly and rapidly adapt successful methods in our discipline once they are published and new paradigms are quickly disseminated. Let us hope a modicum of such interest can be generated for curricular change.

Listed below are sources of help in evaluation for faculty contemplating curricular change. Each of these is readily accessible on the Web.

The Field-Tested Learning Assessment Guide (FLAG): This site contains some very useful surveys and guidelines created for chemistry that could be adapted to biochemistry. <http://www.wcer.wisc.edu/nise/CL1/flag/>

NSF 00-117: *Supplemental Information for Principal Investigators and Applicants to NSF's Course, Curriculum, and Laboratory Improvement Program:* Designed to be used as an assessment instrument for the Course, Curriculum, and Laboratory Improvement program of the Division of Undergraduate Education of the National Science Foundation and to alert potential proposal writers to the information needed in their submissions. <http://www.nsf.gov/pubs/2000/nsf00117/nsf00117.htm>

W.K. Kellogg Foundation, *Evaluation Handbook:* Provides general information about evaluation and assessment and a blueprint for designing and conducting evaluations. Many of the guidelines for designing assessment procedures and the instruments included could easily be adapted to single course changes. <http://www.wkkf.org/Publications/evalhdbk/default.htm> ★

Dr. Woodin is a Program Director in the Division of Undergraduate Education, Directorate for Education and Human Resources, National Science Foundation, Arlington, VA. She can be reached at twoodin@nsf.gov. The views expressed are her own and do not necessarily reflect those of the Division of Undergraduate Education, the Directorate for Education and Human Resources, or the National Science Foundation.

1999-2000 ASBMB GRADUATION SURVEY

In the 1999-2000 graduation we received 213 replies, slightly more than the 209 from the previous year. This year the number of degrees reported were very similar to the previous year: down slightly in the Bachelors and Ph.D. categories, but up slightly at the Masters level. The biggest change was in the Bachelor category where there was a substantial increase in *every* minority category (totals: 771 compared to 526). This may reflect a more accurate classification by departments since the total number of Bachelor degrees reported is very close to that of previous years. If the increase is real, it represents a drastic improvement over past years. One other change from previous years is the increased proportion of women graduating with Masters degrees. In past years the number of males and females receiving Masters degrees were almost identical. The percentages of women receiving doctorates has gone up from 40 to 43%, the first time this has gone over 40%. At the Bachelors level the percentage of women were up from last year, but did not reach the 50% level of two years ago.

Of the 213 schools reporting, at the Bachelors level 106 offered degrees in Biochemistry, 15 offered degrees in Molecular Biology and 67 offered degrees in Chemistry with a Biochemistry Track. At the Masters the respective numbers were 84, 23, and 39 while the number of departments offering the Ph.D. were 94, 31, and 27 respectively. (Total undergraduate programs=188, Masters programs=144, and Ph.D.=152).

A list of the departments replying to this survey is available upon request from ASBMB. If your department did not respond this year, please make sure you are represented in next year's survey. ★

Degrees Granted in Biochemistry or Molecular Biology: July 1, 1999-June 30, 2000

	Bachelors			Masters			Doctoral		
	M	F	Total	M	F	Total	M	F	Total
American Indian or Alaskan Native	9	7	16	5	4	9	3	0	3
Asian	231	230	461	19	16	35	43	38	81
Black, not of Hispanic origin	28	61	89	6	10	16	1	9	10
Hispanic	41	44	86	3	5	8	8	6	14
Pacific Islander	9	11	20	2	1	3	9	1	10
White, not of Hispanic Origin	705	560	1265	99	104	203	206	139	345
International Students	49	51	100	20	31	51	68	57	125
Total	1063	964	2037	154	171	325	338	250	588

ASBMB Supports Large Increases for NIH, NSF, for FY 2002

ASBMB is supporting a 16 percent budget increase (to \$23.7 billion) for the National Institutes of Health, and a 15 percent increase (to \$5.1 billion) for the National Science Foundation, for fiscal 2002, in line with the FASEB consensus conference report on FY 2002 research funding released at the end of January. The consensus conference, which took place in the fall of last year, was a three-day gathering of working scientists representing each FASEB member society. Similar increases for these agencies are widely supported in the science community beyond FASEB. The Ad Hoc Group for Medical Research Funding supports an NIH increase of similar magnitude, and the Coalition for National Science Funding supports the NSF proposal (ASBMB is a member of both groups). Copies of the FASEB consensus conference report, as well as the recommendations of both the Ad Hoc Group and the CNSF, are available by contacting ASBMB News at the address found on page 2 of this newsletter. ★



ASBMB is pleased to announce
the publication of a brand new journal

COMING IN
JUNE 2001!!

Molecular & Cellular Proteomics

Molecular and Cellular Proteomics

will publish original
articles and short
reviews that deal
with the structural and
functional properties of
proteins and their
expression, particularly
with respect to
development.



Editor
Ralph A. Bradshaw
University of California,
Irvine

Deputy Editor
A.L. Burlingame
University of California,
San Francisco

Molecular and Cellular Proteomics

will have an emphasis placed on determining how the presence or absence of proteins affects biological responses and how the interaction of proteins with relevant cellular partners allows them to function. Articles utilizing or advancing protein identification technology — such as multi-dimensional electrophoresis and/or mass spectrometry — protein and nucleic acid arrays, and computational assessments will be particularly appropriate. The journal encourages the submission of substantive supporting data sets (which will appear *en toto* in the electronic version) and will feature interactions (hyperlinks) with germane databases.

- **Electronic Manuscript Submissions** — Manuscript submission, review, and initial appearance will all be accomplished electronically (the e-version will be published as a member of the HighWire consortium).
- **Immediate Publication** — All papers accepted for publication will appear immediately in the electronic version including all supplemental material.
- **Printed Monthly** — The print version will appear on a monthly basis (without supplemental information).
- **Editorial Board** — The full composition of the editorial board will be announced in early 2001. It is anticipated that the electronic version will be available for submissions on June 1, 2001.

ASBMB TO ESTABLISH TOPICAL "FOCUS GROUPS"

As an outgrowth of the recent ASBMB strategic planning retreats, the Society's Meetings Task Force, chaired by Dr. Ed Dennis, has initiated a new program to sponsor "focus groups". The concept was approved at the November 2000 Meeting of the ASBMB Council.

Focus groups will provide an opportunity for a self-selected group of ASBMB members in a specific scientific area to meet and exchange information on a regular basis. The goal is to allow smaller groups with shared scientific interests to create an identity within the larger society, as well as enfranchise members to have influence on ASBMB's scientific and educational programming.

Activities of Focus Groups could include (but not be limited to) initial social or organizational gatherings at an annual meeting, or development of poster sessions, symposia or satellite meetings at annual meetings. If sufficiently of interest to broad sections of the membership, the Focus Group topics could develop into "themes" at National Meetings, as well as stand-alone meetings focused on specific research areas.

We invite proposals to establish Focus Groups. Your proposal should include a broad definition of the scientific topic, identification of individuals who are willing to serve as organizers and leaders, an estimation of the number of scientists who would be participants in the Focus Group, and a discussion of how this group would be of interest to young scientists and encourage their participation.

Send proposals to the Executive Officer of the ASBMB, Mr. Charles C. Hancock, at the address found at the bottom of page 2 of this newsletter. ★

Upcoming Scientific Meetings

ASBMB Annual Meeting

March 30-April 4, 2001
Orlando, FL
Ph: 301/530-7010
Fx: 301/530-7014
WWW: <http://www.faseb.org/meetings>

Angiogenesis: Basic Science and Clinical Developments

June 26th - July 1st, 2001
Knossos Royal Village
Crete, GREECE
Contact: M. E. Maragoudakis
Ph: 0030-61-997638
Fx: 0030-61-994720
E-mail: maragoud@med.upatras.gr
WWW: <http://angiogenesis.med.upatras.gr>

The Biophysical Society Annual Meeting

February 18-21, 2001
Boston, MA
Contact: R. Kampman
Ph: 301/530-7114
E-mail: Society@biophysics.faseb.org
WWW: www.biophysics.org/biophys/

The Role of Membranes in Cell Death

February 17, 2001
Boston, MA
Contact: R. M. Epanand
Ph: 905/525-9140 Ext. 22073
FX: 905/521-1397
E-mail: epand@McMaster.ca

Insights into Signal Transduction

(A symposium in honor of Martha Vaughan)
March 8-9, 2001
Masur Auditorium, Building 10, NIH
Bethesda, MD
Contact: J. Corbett
Ph: 301/496-4910
Email: corbettj@nhlbi.nih.gov

Canadian Federation for Biological Societies 44th Annual Meeting

June 21-24, 2001
Ottawa, Canada
Contact: W.H. Antonious
Ph: 613/225-8889
Fx: 613/225-9621
E-mail: Wantonious@cfbs.org
WWW: [Http://www.cfbs.org](http://www.cfbs.org)

Upcoming Scientific Meetings *continued from page 11*

Walter Reed Army Institute of Research

7th National Symposium:

Basic Aspects of Vaccines

May 2-4, 2001

Bethesda, MD

Contact: J. O'Brien

Ph: 301/319-9462

Fx: 301/319-9035

Email:

symposium@na.amedd.army.mil

WWW:

<http://wrair-www.army.mil/symposia/dmbsym.htm>

Pharmaceutical Sciences:

Climbing New Heights

2001 Annual Meeting and Exposition

American Association of
Pharmaceutical Scientists

October 21-25, 2001

Denver, Colorado

Contact: AAPS Meetings Office

Ph: 703/243-2800

Fx: 703/243-9532

E-mail: meetings@aaps.org

WWW:

<http://www.aapspharmaceutica.com>

Plant Biology 2001

**American Society of Plant
Physiologists and Canadian
Society of Plant Physiologists
2001 Annual Meetings**

July 21-25, 2001

Providence, Rhode Island

Ph: 301/251-0560

Fx: 301/279-2996

E-mail: aspp@aspp.org

WWW:

<http://www.aspp.org/annualmeeting/index.htm>

Teaching Research Ethics

Eighth Annual Workshop

Bloomington, Indiana

May 9-12, 2001

Contact: K. D. Pimple

Ph: 812/855-0261

Fx: 812/855-3315

E-mail: pimple@indiana.edu

WWW: <http://poynter.indiana.edu>

**Biology of Type IV Secretion
Processes**

**EuroConference on the Medical
and Ecological Implications**

European Science Foundation

Castelvecchio Pascoli, Italy

7 - 12 September 2001

Contact: C. Le Moal

Tel: +33 388 76 71 35

Fx: +33 388 36 69 87

E-mail: euresco@esf.org

WWW: <http://www.esf.org>



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AND MOLECULAR BIOLOGY
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Bethesda, Maryland 20814-3996

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