



# NEWSLETTER

Fall, 2001

Editor: Geza S. Bodor, MD  
Denver, Colorado

## President's Message

Petrie M. Rainey, MD, PhD

Fellow ACLPS members—

The events of September 11 have impacted all of us in many ways. We have all had our share of anthrax inquiries, and have begun to determine how we can become better prepared for possible future bioterrorism events that might directly involve our laboratories. At its Nov. 7 audioconference, your Executive Council considered what role ACLPS should take. The consensus was that we had no special expertise that would allow us to add to information already widely available. We did feel that we could identify questions in need of answers, such as what can we do now that would prepare us to have the capability to test safely specimens that contain smallpox or other exotic viruses that are readily transmitted by aerosolization.

Computer viruses were also a concern. Alan Wells reminded us that instruments controlled by programs based on a Windows operating system are highly susceptible to computer viruses. Instruments can become infected if are linked directly or indirectly via a network

to other computers that receive e-mail attachments or access the internet. Currently, manufacturers are making no provisions for protections. Security rests entirely in the hands of the users.

Some good news was that our annual meeting was a survivor. It will be held as planned on June 6-8, 2002 in New York City. Good news, too, from this year's meeting in Seattle. After closing the books, Tom Fritsche and Wayne Chandler sent a check to the ACLPS treasury for over \$13,000.

Eric Spitzer has taken the reigns of the Young Investigator Program from David Sacks. Eric is hoping to have all abstracts submitted electronically this year. His note in this newsletter will be the only "Call for Abstracts" you will receive. There will be no abstract forms to keep track of until February, and the only thing that will need to be mailed will be the copyright release. Information and copyright release forms will be put on the ACLPS web site, for access and downloading at your convenience.

Publications Committee Chair Lou Fink reported that Mike Laposata has

submitted the names of several ACLPS members for consideration as members of the Editorial Board of the *American Journal of Clinical Pathology*. It was noted that clinical pathology articles have been underrepresented in recent issues. Responsibility for that lies squarely in our laps. We have not been submitting those articles. When we made our cosponsorship agreement with AJCP, we agreed to take major responsibility for providing clinical pathology submissions to the journal. I hope that ACLPS will return to that commitment. I would encourage each of you to plan to submit an article in the coming year. This is our journal. It is up to us to make it one that serves our needs.

The Executive Council approved the concept of an ACLPS satellite meeting at a future United States and Canadian Academy of Pathology (USCAP) meeting, both to serve our members who also attend this meeting, as well as to increase our visibility among the many non-ACLPS pathologists attending the USCAP meeting. Brian Smith will head this effort. If you would like to help, please contact Brian. USCAP lead time requirements are considerable, so don't expect an event next year.

The Council also endorsed a letter from the American Association of Medical Colleges (AAMC) to Health and Human Services Secretary Tommy Thompson requesting changes in proposed patient privacy regulations that have the potential to seriously impact the ability to carry out a wide range of clinical research. The text of the letter should be available on the AAMC website ([www.aamc.org](http://www.aamc.org)) by the time you have this newsletter.

The Council discussed in more detail the specifics of investigations using leftover specimens in an anonymous fashion. It appears that use of such

specimens for quality assurance purposes will not be impacted. While such studies are almost completely free of risk, IRB's at different institutions have taken different stances on whether specific informed consent is required if information obtained using such specimens might be published as research. Fred Apple will be leading the effort to determine the most effective way for ACLPS to support our continued ability to carry out such studies without the serious encumbrance of needing specific informed consent from each subject.

I have been able to obtain contact information for many students in Medical Scientist Training Programs who expect to graduate in 2002, and have sent them letters calling their attention to the opportunities for a research career in Laboratory Medicine. I also included the name of a local ACLPS member to serve as a contact for further information or questions. I would like to thank the following for serving as contacts for their institutions: Doug Blackall, Geza Bodor, David Bruns, Larry Demers, John Eckfeldt, James Eshleman, Karen Frank, David Herold, Tony Killeen, Martin Kroll, Debra Leonard, John McKittrick, Valerie Ng, Ellinor Peerschke, Samuel Santoro, Brian Smith, John Smith, Steve Spitalnik, Steve Vamvakas, and Alan Wells.

I would be very interested in learning what impact this effort may have had. If any MD,PhD residency applicants whom you may interview mention having their interest raised by the letter, please let me know.

As always, I would welcome your suggestions as to how ACLPS may better serve its members

([pmrainey@u.washington.edu](mailto:pmrainey@u.washington.edu)).

Pete Rainey, ACLPS President

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## Should PhD Laboratorians Have Part B Billing Privileges?

I am submitting this to the membership of ACLPS for comment (wellsa@msx.upmc.edu) on the stipulation that I am planning to ask the Executive Committee to endorse the concept that we move forward on this initiative. Obviously, the specifics of any recommendation to HCFA will require further work. For now, I need feedback as to whether ACLPS membership supports Part B billing privileges for non-MD, PhD laboratorians.

Alan Wells  
President-Elect

### **Background:**

Last year, HCFA released a list of 18 clinical laboratory tests that qualify for Part B billing if an interpretation is provided. However, the billing can only be submitted if performed by an MD.

### **Arguments for:**

1. PhD laboratorians are fully qualified to direct laboratory subsections.
2. As part of their responsibility, PhD laboratorians MUST be able to provide clinical interpretation and correlation, as per CLIA regulations.
3. The PhD laboratorians are often the most qualified to interpret these results; in many cases they are the sole providers of a particular laboratory subspecialty.
4. Non-MD health professionals such as psychologists, nurse practitioners and therapists are permitted to Part B bill.
5. Billing improves the professional image of laboratorians in the eyes of our patient-oriented physician colleagues (if it is valuable, one gets paid for it' attitude).
6. The interpretations that are required for billing enhances the professionalism of the service by mandating standards, TAT and clinical correlation.
7. If the added demands of interpretation and billing are deemed excessive, the lab can choose not to pursue this avenue.

8. The magnitude of billing is of such low extent as not to detract from the value of an MD for a greater interaction with patient-oriented physicians and broader span of responsibilities (as an argument against the CAP position, below).
9. The magnitude of billing is not sufficient to prompt departments and hospitals to hire MD rather than PhD laboratorians (as an argument against the CAP position, below).
10. Part B billing would enable labs to establish value-added outreach and consultancies outside of Part A contracts from their institutions.

### **Arguments against:**

1. CAP is against non-MD billing since they feel it would lessen any incentive for departments and health care institutions to hire MD rather than PhD laboratorians.
2. There is no consistent mechanism for training and certifying non-MD laboratorians akin to the other non-MD practitioners.
3. Part B billing would lead to a statewide or national certification process that would eliminate some PhD laboratorians from practice, and make it harder to attract new young blood into the discipline.
4. It is not worth the hassles for the small amounts of remuneration.

*Decision for ACLPS: Whether we are to approach other organizations that represent non-MD laboratorians to pursue this with HHS?*

To my knowledge, the following groups have expressed an interest or have actively pushed this – AACC, ASHI, and ASM.

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# ACLPS Annual Business Meeting Minutes

Saturday, June 16, 2001

12:30 Noon – 1:30 PM

## 1. Call to Order and Reading of the Minutes

Steve Spitalnik called the meeting to order at approximately 1:15 PM PDT at the Renaissance Madison Hotel in Seattle, Washington. It was moved, seconded, and unanimously approved that we dispense with the reading of the minutes of the Annual Business Meeting of June 10, 2000. It was further moved, seconded, and unanimously approved that the minutes be approved as written and previously published in the ACLPS 2000 Fall Newsletter.

## 2. Reports of the Executive Council

Steve Spitalnik thanked Tom Fritsche and Wayne Chandler for organizing an outstanding, stimulating, and well-attended meeting. He also thanked David Chou and his committee for their continuing efforts to upgrade the ACLPS web site and make it more useful for our members.

## 3. Reports of the Standing Committees

### A. Membership Committee

Jonathan Miller presented the list of new members and associate members for approval. The new active members are as listed below:

#### **Name**

Bahler, David W., M.D.

Bernard, David W., M.D., Ph.D.

Craig, Fiona E., M.D.

Daly, Thomas M., M.D.

Dunne, Wm. Michael Jr., Ph.D.

Frank, Karen M., M.D., Ph.D.

Freund, Gregory G., M.D.

Jerome, Keith R., M.D., Ph.D.

Larone, Davise H., Ph.D.

Lent, Richard W., Ph.D.

Limaye, Ajit P., M.D.

Mast, Alan, M.D., Ph.D.

Palmer-Toy, Darryl, M.D., Ph.D.

Polski, Jacek, M.D.

Rinder, Henry M., M.D.

Scott, Jerry R., M.D., Ph.D.

Shrimpton, Antony E., Ph.D.

#### **Sponsors**

Ronald Weiss, William Roberts

Kathleen Sazama, Ching-Nan Ou

Milka Montiel, Chantal Harrison

John A. Smith, Jay MacDonald

Samuel Santoro, Jack Ladenson

Godfrey Getz, Josephine Morello

Charles Sparks, Robert A. Mooney

James S. Fine, Wayne L. Chandler

M. Desmond Burke, Ellinor I.B.

Peerschke

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Peerschke

James S. Fine, Thomas R. Fritsche

Morey A. Blinder, Samuel A. Santoro

Robert E. Miller, Daniel W. Chan

William A. Gardner, Jr., Carole Vogler

Brian R. Smith, Peter Jatlow

Beth Hartwell, Amitava Dasgupta

Jonathan L. Miller, Gregory A. Threatte

The new associate members are as listed below:

<b>Name</b>	<b>Sponsors</b>
Albertson, Christopher M., M.D.(Young Inv. Award)	David B. Sacks, Louis M. Fink
Coleman, Landon W., M.D.(Young Inv. Award)	David B. Sacks, William L. Roberts
Galambos, Csaba, M.D.(Young Inv. Award)	David B. Sacks, Charles S. Eby
Ianelli, Christopher J., M.D., Ph.D.	David B. Sacks, James Winkleman
Jacobson, Michael C., Ph.D.(Young Inv. Award)	David B. Sacks, Jonathan F. Tait
Johnson, F. Brad, M.D., Ph.D.	David B. Sacks, Richard Bergman
Lai, Keane Kay-Yin, M.D.	David Chou, Petrie M. Rainey
McKenna, David H., M.D.(Young Inv. Award)	David B. Sacks, Phuong L. Nguyen
Schmechel, Stephen C., M.D., Ph.D.(Young Inv. Award)	David B. Sacks, Wayne Chandler

The following requested a change to Emeritus status:

Peter J. Brueckner	David E. Normansell
Stephen N. Cohen	Vidmantas A. Raisys
Robert E. Cross	Paul A. Raslavicus
William R. Dito	Robert C. Rock
William C. Kashatus	Gottfried Schmer
Susan D. Leslie	Chester M. Zmijewski
Vadiraja V. Murthy	

New members were unanimously approved.

**B. Program and Finance Committee**

Pete Rainey thanked Tom Fritsche, Wayne Chandler and Elaine Brooks for putting on an outstanding meeting. He presented preliminary income and expense estimates for the meeting. Thanks to strong support from sponsors, it appeared that meeting income would exceed expenses by about \$10,000.

Members were reminded to begin planning now to attend next year's meeting, which will be hosted by Cornell on June 6-8, 2002 in New York City.

**C. Publications Committee**

Val Ng reported for Mike Laposata. He has proposed the names of several ACLPS members to join the AJCP editorial board. He has not heard back. Several laboratory medicine reviews will appear in future issues. He is working to decrease the turn-around-time of submitted manuscripts. If any ACLPS member submits a manuscript, they can contact Mike and he will try to expedite the review. He will investigate whether AJCP will allow us to post the abstracts for our annual meeting on our web site. He will also explore whether ASCP will allow us to use their method (if they have one) for electronic submission of our abstracts.

**D. Nominating and Awards Committee**

Lou Fink announced the ballot to the membership and called for any nominations from the floor. There were no nominations from the floor. The ballots were distributed to

the membership.

**4. Reports of the Ad Hoc Committees**

Val Ng gave a brief report for the ad hoc committee on the Bylaws revision.

**5. Unfinished Business**

Robert Nakamura suggested that the term of the President of ACLPS be increased to two years.

**6. General Business**

Secretary/Treasurer's Report

Bill Roberts reported that the financial condition of the Academy remains sound and that the following account balances exist:

General Fund Account:	\$24,126.64	(effective 5/16/01)
Young Investigator Account:	\$27,180.63	(effective 5/16/01)
Young Investigator Endowment and Charles Schwab Account:	\$482,514.59	(effective 5/31/01)

**7. New Business**

Steve Spitalnik thanked outgoing Executive Council members for their dedicated service to the Academy.

**8. Presentation of New Members**

Jonathan Miller had previously presented the new members for approval. Those who were present were introduced and welcomed into the Academy.

**9. Announcement of Election Results**

Lou Fink announced that the election ballot as presented to the membership was approved.

President-Elect, 2001-2002 .....	Alan Wells
Executive Council Members-at-Large .....	David Sacks
2001-2004:	Jonathan Miller
Nominating and Awards Committee Elected Member .....	Marisa Marques
2001-2004:	Alan Mast
Publication Committee Member, 2001-2004 .....	Jonathan Tait

The changes to the Bylaws were also approved.

Steve Spitalnik congratulated all the newly elected members of the Executive Council and Committees.

## 10. Installation of the New President

Steve Spitalnik completed his duty as President and turned the office over to Pete Rainey as the new President of ACLPS. During his remarks, Pete put forth several goals for the organization. First, to develop and provide leadership in academic medicine for the new leaders that must be trained. One way to accomplish this is to get younger members involved with the organization by serving on committees. Very few young individuals are going into the field of clinical chemistry. Trainees need to be encouraged to explore this area. Also, individuals in medical scientist training programs need to be made aware of laboratory medicine as a specialty. Second, electronic communication within the organization needs to be improved. An ACLPS list server will be made available. The web site will be enhanced and the job board will be kept up to date. Third, the ACGME is moving to competency based residency training. All residencies must provide evidence of six core competencies in their residents. Objective measurements of competencies are necessary. ACLPS participated in the Graylyn Conference Report that appeared in AJCP (103:127-9, 1995). A new report that interprets competency goals for laboratory medicine is necessary. ACLPS can begin work on this project through the list server. A plan needs to be developed.

## 11. Adjournment

There was no further business to conduct and Pete Rainey adjourned the meeting at 1:50 PM PDT.

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### ACLPS Officers 2001-2002

President ..... Petrie M. Rainey  
Seattle, WA

President-Elect ..... Alan H. Wells  
Pittsburgh, PA

Secretary-Treasurer ..... William L. Roberts  
(1999-2002) Salt Lake City, UT

Immediate Past President ..... Steven Spitalnik  
Rochester, NY

Past President ..... Louis M. Fink  
Little Rock, AR

### Executive Council

(Includes 2001-02 officers listed above and the following members at large.)

#### 1999-2002

Daniel E. Sabath ..... Seattle, WA  
Fred S. Apple ..... Minneapolis, MN

#### 2000-2003

John C. Cate, IV ..... Charleston, SC  
Brian R. Smith ..... New Haven, CT

#### 2001-2004

Jonathan L. Miller ..... Syracuse, NY  
David B. Sacks ..... Boston, MA

### Representatives to Other Organizations

Council ..... Stebbins B. Chandor  
of Academic Societies Los Angeles, CA

Intersociety Pathology Council ..... Jeffrey A. Kant  
Pittsburgh, PA

Commission on Accreditation ..... Mitchell G. Scott  
in Clinical Chemistry St. Louis, MO

American Board ..... Geza S. Bodor  
of Clinical Chemistry Denver, CO

Association of ..... Steven Spitalnik  
Pathology Chairs Rochester, NY

## Committees and Special Assignments

### Membership Committee

Jonathan L. Miller, Chair  
(1999-2002) ..... Syracuse, NY

William L. Roberts, Secretary/Treasurer  
(1999-02) ..... Salt Lake City, UT

Amitava Dasgupta, Member-at-Large  
(1999-02) ..... Houston, TX

David Chou, Member-at-Large  
(2000-03) ..... Seattle, WA

Karen Frank, Member-at-Large  
(2001-2004) ..... Chicago, IL

### Nominating and Awards Committee

Steven Spitalnik, Chair  
(Immediate Past President) ..... Rochester, NY

Michael L. Astion  
(1999-2002) ..... Seattle, WA

Anthony Butch  
(2000-2003) ..... Los Angeles, CA

Marisa Marques  
(2001-2004) ..... Birmingham, AL

Alan Mast  
(2001-2004) ..... Memphis, TN

**Paul E. Strandjord Young  
Investigator Award** ..... Eric D. Spitzer  
**Program Director** ..... Stony Brook, NY

**ACLPS Newsletter Editor** ..... Geza S. Bodor  
..... Denver, CO

**ACLPS Membership  
Directory Editor** ..... Michael L. Astion  
..... Seattle, WA

**Historian**  
George Z. Williams (1966-76) ..... Tiburon, CA  
Ellis S. Benson (1976-86) ..... Minneapolis, MN

Ed R. Ashwood (1987-96) ..... Salt Lake City, UT

### Publications Committee

Louis M. Fink, Chair ..... Little Rock, AR  
Robert A. Mooney (1999-2002) ..... Rochester, NY  
Richard J. Benjamin (2000-2003) ..... Boston, MA  
Jonathan F. Tait (2001-2004) ..... Seattle, WA  
Mike Laposata (ex-officio) ..... Boston, MA

### Program and Finance Committee

Chair ..... Alan H. Wells  
(President Elect) ..... Pittsburgh, PA

2002 Local Host ..... Ellinor I. Peerschke  
..... New York City, NY

2003 Local Co-Hosts ..... S. M. Hossein Sadrzadeh  
..... Ronald B. Schifman  
..... Tucson, AZ

2004 Local Co-Hosts ..... Geza S. Bodor  
..... Mike L. Wilson,  
..... Denver, CO

Secretary/Treasurer ..... William L. Roberts  
..... Salt Lake City, UT

PES-YI Award ..... Eric D. Spitzer  
Program Director ..... Stony Brook, NY

Exec. Dir., ACLPS ..... Steve Spitalnik  
Postgraduate Programs ..... Rochester, NY

2001-2002  
Member-at Large ..... Jorge Sepulveda  
..... Pittsburgh, PA

### Internet Applications Task Force

ACLPS World Wide Web Home Page:  
<http://www.aclps.org>

David Chou, Chair ..... Seattle, WA  
James H. Harrison, Jr. ..... Pittsburgh, PA  
Curtis A. Parvin ..... St. Louis, MO  
John H. Eckfeldt ..... Minneapolis, MN  
Michael L. Astion ..... Seattle, WA

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## Announcements

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### Paper or Electronic?

Starting with this issue, you will receive the Newsletter both in hard copy and electronic format. The electronic edition of the Newsletter will be in Adobe .pdf file format. You will need the Adobe Acrobat Reader, a free program, to read the electronic edition of the newsletter. If you don't have Adobe Acrobat Reader on your computer, you can download the most current version from the Adobe website at <http://www.adobe.com/products/acrobat/readstep.html>.

The plan is, that, with the approval of the membership, future issues of the newsletter would be distributed electronically to those who have an email address. According to preliminary estimates, the electronic distribution could save two to four thousand dollars annually in printing and mailing cost for ACLPS. There will be a ballot regarding paper vs electronic distribution during our annual membership meeting in June, 2002.

Please send your comments regarding the electronic Newsletter to Pete Rainey at [pmrainey@u.washington.edu](mailto:pmrainey@u.washington.edu), David Chou at [dchou@u.washington.edu](mailto:dchou@u.washington.edu), or Geza Bodor at [gbodor@dhha.org](mailto:gbodor@dhha.org). You can also mail your comments to one of us at the addresses listed in the membership directory.

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**ACLPS Web Site - Links:** There was an interest at our spring meeting in having the ACLPS web site include links to sites of importance to our readers. If you have a URL that may be of interest to our membership, please forward them to David Chou, Chair, Internet Application task Force. David's email address is: [dchou@u.washington.edu](mailto:dchou@u.washington.edu).

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**AJCP Subscription:** Several ACLPS members have not received copies of the American Journal of Clinical Pathology since June of 1999. My investigation has revealed that they were not members of ASCP and therefore were on a special

### Call for Abstracts

Dear ACLPS Colleagues:

Members of ACLPS and non-members, with the sponsorship of an ACLPS member, are invited to submit abstracts to be presented at the Session for Scientific Papers at the 2002 Annual Meeting. I hope that you will encourage your residents, fellows and other trainees in Laboratory Medicine to submit abstracts for the Paul E. Strandjord Young Investigator Awards Program.

This year the materials needed for submitting an abstract to the Paul E. Strandjord Young Investigator Awards Program will be distributed electronically. The Instructions for Preparing Abstract Forms, Abstract Forms A and B, and the Copyright Release Statement will be available on the ACLPS website ([www.aclps.org](http://www.aclps.org)). The deadline for abstracts will be February 15, 2002. Individuals will be able to submit the completed abstract forms as an e-mail attachment; however, it will still be necessary to mail the copyright release statement.

Eric D. Spitzer, MD, PhD  
Director, Paul E. Strandjord Young Investigator Awards Program, ACLPS

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subscription list. ASCP changed computer systems in July 1999 and the codes for this special list were apparently not transferred. ASCP is working on this problem. If any ACLPS member has a problem with their AJCP subscription please contact Michelle Harris McGraw at ASCP. Her phone number is (312) 738-1336 and her e-mail is [micheleh@ascp.org](mailto:micheleh@ascp.org). She will mail back issues and add your name to a manual mailing list which has been created for temporary use while the computer problem is being fixed. Also, please let me know of your problem. My phone number is (800) 242-2787 ext. 2086 and my e-mail address is: [william.roberts@arup-lab.com](mailto:william.roberts@arup-lab.com).

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**ACLPS**  
**2002 Annual Meeting**

June 6-8, 2002

**Weill Medical College of Cornell University**  
**New York, New York**

*Preliminary Program*  
**Grand Hyatt Hotel**  
**New York, New York**

Thursday, June 6, 2002

3:00 PM - 5:00 PM	Executive Council Meeting
3:00 PM - 6:00 PM	Registration
6:00 PM - 8:00 PM	Welcome Reception – Grand Hyatt Hotel
8:00 PM - 10:00 PM	Optional Walking Tours of Manhattan

Friday, June 7, 2002

8:30 AM - 11:30 AM	Young Investigator Program Presentations
11:30 AM - 12:30 PM	Lunch
12:30 PM - 1:30 PM	Cotlove Lecture: Barry S. Collier, M.D., Rockefeller University, New York, NY
1:40 PM - 3:00 PM	Plenary Session: Carlo Brugnara, M.D. Harvard University, Boston, MA Mitchell G. Scott, M.D. Washington University, St. Louis, MO
3:15PM - 4:30 PM	<b>Simultaneous Sessions</b> Current Topics: Hematology Microbiology Clinical Chemistry Molecular Pathology
5:30 PM	Optional Tour: New York Presbyterian Hospital Laboratories Weill Cornell Center
6:30 PM - 10:30 PM	Reception and Awards Banquet Griffis Faculty Club, Weill Medical College

Saturday, June 8, 2002

9:00 AM - 12:00 Noon    Panel Discussion: Laboratory Automation  
M. Desmond Burke, M.D., Chair  
Weill Medical College of Cornell University, NY, NY  
Frederick L. Kiechle, M.D.  
William Beaumont Hospital, Royal Oak, MI  
Dan Fink, M.D. (*invited*)  
Columbia University, NY, NY

12:00 Noon - 1:30 PM    Lunch and Annual ACLPS Business Meeting

1:30 PM                    MEETING ADJOURNED

2:00 PM – 4:00 PM        Executive Council Meeting

### Simultaneous Sessions

Friday, June 7, 2000

3:15 PM – 4:30 PM

#### Clinical Hematology

Elizabeth van Cott, M.D. (Harvard University, Boston, MA)  
Update on Heparin Induced Thrombocytopenia

Ellinor I. Peerschke, Ph.D. (Weill Medical College of Cornell University, NY, NY)

New challenges in F VIII measurement

#### Clinical Chemistry

Amitava Dasgupta, M.D. (University of Utah, Salt Lake City, UT)  
Alternative Medicines: Interference in Clinical Laboratory Testing

Richard Lent, Ph.D. (Weill Medical College of Cornell University, NY, NY)  
C Reactive Protein: Cardiovascular Risk Factor

#### Clinical Microbiology

James Versalovic (Harvard University, Boston, MA)  
Molecular methods for HIV and HCV testing

Davise Larone, Ph.D. (Weill Medical College of Cornell University, NY, NY)  
Emerging Fungal Pathogens

#### Molecular Pathology

Mary Zutter, M.D. (Washington University, St. Louis, MO)  
Lessons from alpha-2 knockout mice

Ethel Cesarman, M.D. (Weill Medical College of Cornell University, NY, NY)  
Viral Pathogenesis of Lymphoma