



ASP NEWSLETTER

Volume 28, Number 2

Summer, 1992

The American Society of Pharmacognosy

Rapoport to Receive 1992 Research Achievement Award

Henry Rapoport is the 1992 recipient of the ASP Research Achievement Award. Dr. Rapoport earned both his B.S. and Ph.D. degrees from the Massachusetts Institute of Technology in 1940 and 1943 respectively. His entire professional career has been spent at the University of California at Berkeley, where he started as an Instructor in 1946, and where he is now Professor of Chemistry Emeritus while maintaining an active research group. His research efforts in his 46 years and more than 400 publications at Berkeley have spanned the breadth of natural products chemistry, from alkaloids to peptides to antibiotics to pigments to toxins and from isolation and synthesis to biosynthesis. Rapoport's research that has been highlighted in textbooks includes his biosynthetic studies on morphine, his isolation and structure studies on saxitoxin, and his synthetic studies on pyrrole pigments. Dr. Rapoport is the recipient of various awards and fellowships and has served the ASP on the editorial board of the *Journal of Natural Products* since 1980. Henry will address the attendees of the Annual Meeting in Williamsburg on Tuesday, July 28, 1992, from 10:30 to 12:00 noon. Congratulations!

SEE YOU IN
WILLIAMSBURG!

1992 Award and Grant Winners

Awards and Grants for Students

To stimulate interest in all phases of natural products research, the American Society of Pharmacognosy is offering the following awards and grants:

1. Undergraduate Research Awards. The ASP Undergraduate Research Awards consist of a stipend of \$2000 to the student and \$500 to the advisor to help defray the costs of the research. There are no limitations on the type of research to be conducted other than that it should be in the area of natural products.

This year's winners are:

Kirstin Hanson, College of Pharmacy,
Ferris State University, Robert J. Krueger, advisor.
Susan Firestone, Department of Chemistry,
Texas Christian University, Manfred Reinecke, advisor.
Aaron Schulman, Department of Chemistry,
Florida Atlantic University, Russel Kerr, advisor.

2. Lloyd Library and Museum Travel Grants. This grant program was established in cooperation with the Lloyd Library and Museum. In keeping with the Lloyd Library's interest in promoting student activities, two \$500 travel awards to attend the national ASP meeting will be awarded. These awards will be made based on excellence in both scholastic and research activities in the field of natural products.

This year's winners are:

Rowena K. Richter, Department of Chemistry,
University of California at Davis.
Hector H. Alarcon, Department of Chemistry,
San Jose State University.

Awards and Grants for Active Members

To stimulate interest in all phases of natural products research, the American Society of Pharmacognosy is offering the following awards and grants:

1. Research Starter Grants. ASP small research grants from \$2000 to \$5000 are available for active members in the first five years of their career. These are one-time awards and are not subject to indirect costs.

This year's winners are:

Russel Kerr, Department of Chemistry,
Florida Atlantic University, \$3000.
Bradley S. Davidson, Department of Chemistry,
University of Hawaii, \$3000.
Shmuel Carmeli, Department of Chemistry,
Tel Aviv University, Israel, \$3000.
Topul Rali, Department of Chemistry,
University of Papua, New Guinea, \$3000.

LOCAL INFORMATION FOR WILLIAMSBURG

The local organizing committee is pleased to have the opportunity to introduce you to Williamsburg and to some of the many and varied attractions which are available.

The hotel and conference center chosen for the 33rd Annual Meeting of the American Society of Pharmacognosy, the Fort Magruder Inn, is located just a few minutes by car or about 10-15 minutes by foot from Colonial Williamsburg. The conference center is extremely comfortable and well maintained and is fully air conditioned. The rooms are large with plenty of closet space and rates are guaranteed on a per room basis so there is no extra charge for kids. Likewise up to four students may share a room at the fixed price. The rates are \$78.00 per night and this reduced rate is also available for the weekend preceding the meeting and the weekend after.

There are many attractions in the Williamsburg area for the whole family. The most famous is Colonial Williamsburg which is a faithful restoration of the period of the 1700's, and is complete with the typical craftsmen, shops, inns, taverns, and costumes of the period, as well as the Governor's Palace and the Capitol building. This is a truly fascinating place. A great evening experience is to dine in one of the colonial taverns but reservations are essential, so make them as soon as you arrive in town. Also not far away are several famous historical plantations on the James River, including Carter's Grove, the Berkeley Plantation, The Edgewood Plantation, and the Shirley Plantation. These

are quite impressive and are all very much worth seeing. Other historic sites in the area include Historic Jamestown 1607, the Jamestown Festival Park, the Yorktown Battlefield, and the Yorktown Victory Center (special tours for holders of British passports). For family entertainment there are several theme parks including Busch Gardens -- the Old Country, and Water Country USA. There is great shopping at the factory outlet malls and the Williamsburg Pottery Factory which advertises "over 130 acres of bargains". You can save enough on the shopping bargains to pay for your trip!

Williamsburg is about an hour by car from Norfolk, which is a major naval base, and a bit further south is Virginia Beach, a major seaside resort with all the associated attractions. A bit west of Norfolk is the Great Dismal Swamp, which is a fascinating place for exploration, but is full of mosquitoes in Summer. Heading north from Williamsburg, it is only a three-hour drive to Washington, D.C., where there are numerous attractions of all types. If you have not been to Washington it is a "must see".

The weather in mid-Summer is very hot and rather humid, so lightweight clothes and casual dress are recommended. The Conference Center and most shops are air-conditioned.

The Southern hospitality you will experience will be a pleasant memory. We are sure that this will be a meeting all of you will remember fondly.

FUND RAISER TO BE HELD FOR FOUNDATION

The Local Committee for the 1992 Annual Meeting to be held in Williamsburg, Virginia will sponsor a fund raiser for the A.S.P. Foundation. This will be either a raffle or an auction depending on the number and value of items contributed. The committee is requesting donations of items of special interest to members such as either very recent or very old books related to natural products research, memorabilia related to pharmacognosy, etc. All contributions to the A.S.P. Foundation are fully tax deductible and donors will receive receipts for those contributions which can be readily valued.

All donated items should be sent to the Local Committee well in advance of the meeting so that they can be appropriately displayed at check-in and so that adequate plans can be made for the benefit. Donations will be accepted starting immediately and can be sent to:

Mrs. Sue Tafur
Philip Morris Research
P.O. Box 26603
Richmond, VA 23261

Please send all items well wrapped and prepaid. The Williamsburg Local Committee cannot accept postpaid deliveries or responsibility for fragile items. If you have any question as to the appropriateness of a possible donation, or if you have items that are particularly bulky or present special problems, please contact Matt Suffness at (301) 496-8783 or Sue Tafur at (804) 274-3984.

C.E. AVAILABLE FOR WILLIAMSBURG

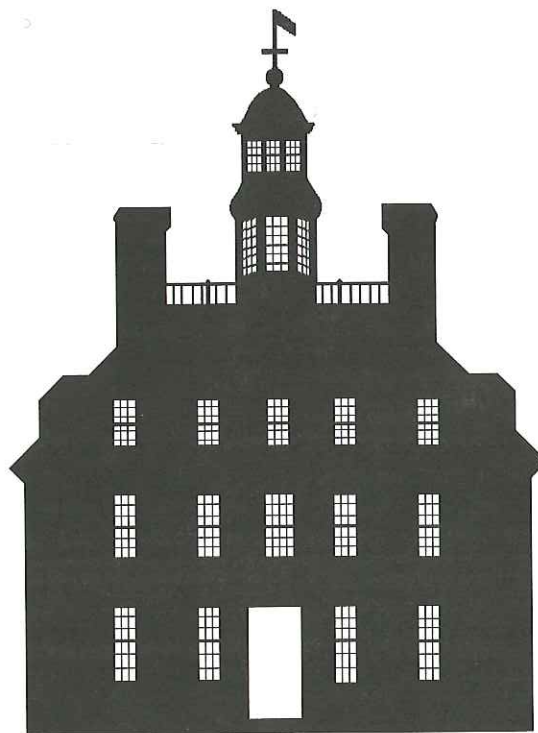
The ASP Ad Hoc CE Committee is currently developing a CE program to be offered in conjunction with this summer's meeting at Williamsburg. It is anticipated that 15 CEU's will be offered for participation in the Symposium lectures, the Young Investigator Symposium, the Research award lecture, and selected podium sessions. No credit may be obtained from the poster sessions.

The sponsoring institution will be the School of Pharmacy of the Medical College of South Carolina (Charleston). Its CE director is Dr. Ronald Nickel. A table will be set up in the general registration area for those interested, who are registered for the meeting. A nominal fee will be charged for CE participation.

Questions concerning the program can be sent to Robert Krueger, College of Pharmacy, Ferris State University, Big Rapids, MI 49307, or by phone (616)592-2236.

FROM THE EDITOR

I would like to express my thanks to those who have contributed to the ASP Newsletter. It is your contributions which make the Newsletter a success. I welcome any information which may be of interest to our members, including letters to the editor, publications of interest, grant information, position openings, promotions, meeting information, and so on. For inclusion in the Fall issue of the ASP Newsletter, please forward this information to me by September 1, 1992 at the following address: Joy B. Reighard, Ph.D., Editor, ASP Newsletter, Temple University School of Pharmacy, 3307 N. Broad St., Philadelphia, PA 19140, U.S.A. Phone (215) 221-4946. FAX: (215)221-3678.



WILLIAMSBURG SYMPOSIA

Drugs of Abuse Symposium

Monday, July 27 (8:45 a.m. - 12:30 p.m.)

Dr. Mary Jeanne Kreek

Rockefeller University

Dr. Mahmoud ElSohly

University of Mississippi

Dr. Moyhee Eldefrawi

University of Maryland

Dr. Kenner Rice

National Institutes of Health

"Opiates, Opioids and Addiction"

"Analytical Methods and Forensic Toxicology Issues Concerning Drugs of Abuse"

"Cocaine Receptors and Addiction"

"New Ligands for the Study of Structure and Function of Receptors for Drugs of Abuse in the Decade of the Brain and Beyond"

Young Investigator Symposium

Tuesday, July 28, 1992 (8:30 a.m. - 10:00 a.m.)

Dr. Brian deCosta

National Institutes of Health

Dr. Tadeusz Molinski

University of California, Davis

Dr. Kevin Reynolds

University of Maryland

"Studies of Receptors for Drugs of Abuse"

"Developments in Marine Natural Products: Receptor Specific Bioactive Compounds"

"Comparison of Two Enoyl-CoA Reductases in *Streptomyces collinus*"

ASP Research Achievement Award Lecture

Tuesday, July 28, 1992 (10:30 a.m. - 12:00 noon)

Dr. Henry Rapoport

Applications of Biotechnology Symposium

Session I - Wednesday, July 29, 1992 (8:30 a.m. - 10:10 a.m.)

Dr. Rob Verpoorte

Leiden

Dr. Samuel Page

Food and Drug Administration

"Biotechnology for the Production of Alkaloids: Current Status and Prospects"

"The L-Tryptophan Story"

Session II - Thursday, July 30, 1992 (8:30 a.m. - 10:10 a.m.)

Dr. Ronald Weiner

University of Maryland

Dr. Mamoru Tabata

Kyoto University

"Discovery and Implications of a Novel Marine Tyrosinase"

"Production of Pharmacologically Active Compounds by Plant Cell Culture"

Session III - Friday, July 31, 1992 (8:30 a.m. - 10:10 a.m.)

Dr. John Payne

USDA, Beltsville

Dr. Christopher Price

NOVA Pharmaceutical Corporation

"Applications of Biotechnology for Agriculture"

"Receptor Screening for Drug Discovery"

EMPLOYMENT SERVICE AVAILABLE

The American Society of Pharmacognosy is offering a placement service to aid our members find employment positions or prospective employees. This service is available **only** to ASP members and is **free** to both the applicant and the prospective employer. Once an application is submitted, it will remain on file for one (1) year, at which time it will be destroyed. The applicant should also realize that the application will be submitted to the prospective employer **exactly as submitted**. (The submitted form will be xeroxed, then sent to the prospective employer.)

Further information can be obtained by contacting: Robert J. Krueger, Ph.D., College of Pharmacy, Ferris State University, 901 S. State St., Big Rapids, MI 49307 USA. Phone: (616)592-2236.

The School of Pharmacy and The School of Hygiene and Tropical Medicine University of London

MSC Programme For Full-Time Students

A 12-month taught course providing a multidisciplinary training for the evaluation and investigation of plant-based medicines. Includes Pharmacology, Toxicology and Cell Biology, Parasitology, Pharmacognosy, Phytochemistry, Structure Analysis. Comprises six months lectures, tutorials, workshops and practical classes, and six months research project and dissertation. Applicants from phytochemists and organic chemists in developing countries particularly welcome.

Further details and application form can be obtained from the Registry, The School of Pharmacy, 29/39 Brunswick Square, London WC1N 1AX.

LET'S WELCOME ASP'S NEWEST MEMBERS!!

The ASP would like to welcome the following **Full Members**:

Ashfaq Ahmad
Panjab University
Lahore, Pakistan

Damon S. Arney
American Mercantile
Memphis, TN

Louis R. Barrows
University of Utah
Salt Lake City, UT

Paul D. Baygell
Sacramento, CA

Phil Beauchamp
Pomona, CA

John M. Berger
Hoboken, NJ

Richard K. Bestwick
Epitope, Inc.
Beaverton, OR

Bruce F. Bowden
James Cook Univ. of NQ
Queensland, Australia

Ihsan Calis
Hacettepe University
Ankara, Turkey

Barry V. Charlwood
Kings College, London

Demetzos Costas
Greece

Jerry Cott
Rockville, MD

Bruce L. Currie
University of Illinois at
Chicago

Jinrui Dai
Xechem, Inc.
New Brunswick, NJ

Miguel Angel Gutierrez
Dominguez
Universidad Autonoma De
Tlaxcala
Tlaxcala, Mexico

Dale R. Gardner
USDA Poisonous Plant
Research Lab.
Logan, UT

Mary J. Garson
The University of Queensland
Queensland, Australia

Beatrice Gehrman
Hamburg

Jacqueline Gleye
Toulouse, France

Edmundo Lozoya Gloria
Guanajuato, Mexico

Kazimierz Glowinski
Medical Academy of Lublin
Lublin, Poland

Nezhun Goren
Turkey

Maria Guinea
Madrid, Spain

A. A. Leslie Gunatilaka
Virginia Polytechnic Institute
& State University

Kirk R. Gustafson
National Cancer Institute
Frederick, MD

Marcos Soto Hernandez
Colegio de Postgraduados
Mexico

R. Van der Heyden
State University of Leiden
The Netherlands

Chi-Tang Ho
Rutgers University
New Brunswick, NJ

Peter Houghton
King's College, London

Iliana Ionkova
Bulgaria

Lyndon Johnson
Scientific Research Council
Jamaica, West Indies

Riitta Julkunen-Tiitto
University of Joensuu
Finland

Thrassyvoulos Kefalas
University of Athens
Greece

Ronald B. Kelley
North Dakota State
University

Douglas Kenfield
Columbia Falls, MT

Masayasu Kimura
Toyama Medical and
Pharmaceutical University
Toyama, Japan

Jaroslav Kopecky
Institute of Organic
Chemistry and Biochemistry
Czechoslovakia

Toni M. Kutchan
Universitat Munchen
Munchen, Germany

Hui-Yin (Harry) Li
Du Pont Merck Co.
Wilmington, DE

Norbert Linnenbrink
Federal Republic of Germany

David Lontsi
University of Yaounde
Yaounde, Cameroon

Wenwen Ma
San Carlos, CA

Gary D. Manners
USDA - Agricultural
Research Service
Albany, CA

Franz-Josef Marner
Universitat zu Koln
West Germany

Robert S. McCaleb
Herb Research Foundation
Boulder, CO

Beat Meier
Bruetten, Switzerland

Philip A. Miller
Bothell, WA

Biswapati Mukherjee
University of Calcutta
Calcutta, India

Adewole L. Okunade
University, MS

Barry L. Parnas
Chesterfield, MO

Charles Pathirana
Ligand Pharmaceuticals
San Diego, CA

Nigel B. Perry
Univeristy of Otago
Dunedin, New Zealand

L. Pieters
University of Antwerp
Antwerp, Belgium

Topul Rali
University of Papua
New Guinea

Amelia Pilar Rauter
Lisboa, Portugal

Maria Da Garca Ribeiro
Campos
Universidade de Coimbra
Portugal

Robert H. Richmond
University of Guam
Mangilao, Guam

Colin B. Rogers
University of
Durban-Westville
South Africa

Leonidas Samochowiec
Pomeranian Medical
Academy
Szczecin, Powstancow Wlkp.

Hans-Peter Schmauder
Philosophenweg, FRG

Sahat Sirisithi
Arleta, CA

Krishna C. Srivastava
Odense University
Odense C, Denmark

Satoshi Tahara
Hokkaido University
Sapporo, Japan

Dieter Treutter
Weihestephan, Germany

Theodore Tyler
Framingham, MA

Joseph J. Veilleux, Jr.
Lichtwer Pharma US Inc.
Coraopolis, PA

Maria Velcheva
Bulgarian Academy of
Sciences
Sofia, Bulgaria

Continued on Page 5,
Column 1

New Members - Continued
from Page 4, Column 4

Inger Wahlberg
Stockholm, Sweden

John Westerdahl
Shaklee Corporation
San Francisco, CA

M. Wink
Universitat Heidelberg

Jack G. Woolley
Leicester Polytechnic, UK

Takeshi Yasumoto
Tohoku University
Sendai, Japan

Carlos Leomar Zani
Brazil

Longmei Zeng
Zhongshan University
Guangzhou, P.R. China

Jordan Zjawiony
University of Mississippi

New Associate Members:

Jay D. Allen
Portland State University
Portland, OR

Pamela L. Boner
Ohio State University
Columbus, OH

Edith I. Cline
University of Alberta
Edmonton, AB Canada

Xin-Ping Fang
Purdue University
West Lafayette, IN

David Horgen
University of Illinois at
Chicago

Shawna Mackinnon
University of Ottawa
Ottawa, Ontario, Canada

Jose J. Morales
University of Puerto Rico
Rio Piedras, PR

Kurt A. Neidigh
Virginia Polytechnic Institute
& State University

Nga T. Phan
University of Oklahoma

Agnes M. Rimando
University of Illinois at
Chicago

Maged H. Sharaf
University of Pittsburgh
Pittsburgh, PA

Claudia Simoes
University of Rennes I
Rennes, France

Jacintha Marie Stall
University of Maryland at
Baltimore

Jo Anne Zabinski
Temple University
Philadelphia, PA

FUTURE MEETINGS

Future ASP Meetings
1992 - July 26-31 - Williamsburg, Virginia. Find details on pages 1, 2, and 3.
1993 - July, San Diego, California
1994 - July 31- August 5 - Halifax, Nova Scotia

Phytochemical Society of North America Future Meetings
Phytochemical Potential of Tropical Plants, Miami Beach, Florida, August 9-12, 1992. For further information contact: Dr. Kelsey R. Downum, Department of Biological Sciences, Florida International University, Miami, FL U.S.A. 33199. Phone: (305)348-3419. FAX: (305)348-1986.

Phytochemical Society of Europe Future Meetings
Sixth Plant Cell Wall Meeting, Nijmegen, Netherlands, August 25-28, 1992. For more information contact: Professor M.M.A. Sassen, Department of Experimental Botany, Catholic University, Toernooiveld, 1, 6525 E D Nijmegen, The Netherlands (FAX 080-553-450).

American Association of Pharmaceutical Scientists Future Meetings
1992 - November 15-19 - Seventh Annual Meeting - San Antonio, Texas. For further information contact: AAPS, (703)548-3000. FAX: (703)684-7349.

Other Meetings of Interest
1st International Symposium on Natural Drugs and the Digestive Tract, Naples, Italy, July 26-28, 1992. For details contact: Prof. Francesco Capasso, University of Naples Federico II, Dept. of Experimental Pharmacology, Via D. Montesano 49, 80131 Naples, Italy.

18th IUPAC International Symposium on the Chemistry of Natural Products, Strasbourg, France, August 30-September 4, 1992. For further information contact: Mrs. M.C. Dillenseger, General Secretariat, IUPAC Symposium, Centre de Neurochimie, 5 rue Blaise Pascal-67084-Strasbourg, France. FAX: (33)88 60 76 20.

40th Annual Congress of the Society for Medicinal Plant Research, Trieste, Italy, September 1-5, 1992. For details contact Prof. Roberto Della Loggia, Istituto di Farmacologia e Farmacognosia, Università degli Studi di Trieste, Via A. Valerio 32, 34127 Trieste. Ph. 040/573073. FAX 040/577435.

Fourth and International Congress on Phytotherapy, Munich, Germany, September 10-13, 1992. For details contact: Secretariat, MCO, Medical Congress Organization, Rosenkavalierplatz 8, W-8000 Munich 81, Germany. Phone: ++49/89/910 18 03. FAX: ++49/89/91 80 42.

3rd International Congress on Amino Acids and Analogues, Crete, Greece, August 23-27, 1993. For further information contact: G. Lubec, Univ. Vienna, Dpt. of Paediatrics, Wahringer Gurtel 18, A 1090 Vienna, Austria. FAX: x43.1.4o4oo3238.

OBITUARY

Edward Leete, a University of Minnesota chemistry professor who was seeking a scientific solution to the war on drugs, died February 8, 1992, of cancer-related complications. He was 63.

Leete was born on April 18, 1928 in Leeds, England. He received his B.Sc. and Ph.D. degrees from the University of Leeds in 1948 and 1950 respectively.

Ed developed an interest in alkaloids, in particular their biosynthesis. Leete was among several biochemists across the nation who received government grants to explore ways to block the coca plant from producing cocaine by changing its genetic blueprint.

Ed came to the United States in 1954, and spent the next four years teaching part-time at the University of California at Los Angeles. From there he joined the University of Minnesota in 1958, and rose rapidly through the academic ranks from assistant professor to associate professor in 1960 and full professor in 1963. He had 225 scientific publications and received numerous fellowships and honors during his distinguished career.

Ed was an avid runner who often ran the three miles from his house in St. Paul to his office on the Minneapolis campus. He was also a sculptor and a painter who exhibited his works at the Minnesota State Fair and at several Twin Cities art galleries. He also enjoyed entertaining in the form of "blowing fire" at various functions.

Leete was survived by his wife, Shiela; sons Michael, Nicholas, and Peter, and daughters Allison, Carolyn, Jennifer, and Lorraine; and two grandchildren.

Dr. E. John Staba
College of Pharmacy
University of Minnesota
Minneapolis, MN 55455



David J. Slatkin, Ph.D., Treasurer
The American Society of Pharmacognosy
P.O. Box 9558
Downers Grove, Illinois 60515

MEMBERSHIP

Membership in the American Society of Pharmacognosy is recognized in several categories:

Full Membership

Full membership is open to any scientist interested in the study of natural products. Dues are \$75.00 per year. If overseas airmail is requested, the dues are \$150.00. These members receive the *Journal of Natural Products* and the *ASP Newsletter*.

Associate Membership

Associate membership is open to students of pharmacognosy and allied fields. These members are not accorded voting privileges, and dues are \$50.00 per year. These members receive the *ASP Newsletter*.

Emeritus Membership

Emeritus membership is open to retired members of the Society who maintained membership in the Society for at least five years. Dues are \$5.00 per year. These members receive the *ASP Newsletter*.

Honorary Membership

Honorary members are selected by the Executive Committee of the American Society of Pharmacognosy on the basis of meritorious service to pharmacognosy.

Present Honorary Members are:

- Dr. Jack L. Beal, Columbus, Ohio
- Dr. Lynn R. Brady
University of Washington
- Dr. Arnold Brossi
National Institute of Health, MD
- Dr. David P. Carew
University of Iowa
- Dr. Norman R. Farnsworth
University of Illinois
- Dr. R. Hegnauer, Leiden, Netherlands
- Dr. Albert Hofmann, Switzerland

- Dr. Richard E. Schultes
Harvard Botanical Museum
 - Dr. Arthur E. Schwarting, Florida
 - Dr. Gordon H. Svoboda
Indianapolis, Indiana
 - Dr. Varro E. Tyler, Purdue University
 - Dr. Monroe E. Wall
Research Triangle Institute
North Carolina
 - Dr. Heber W. Youngken, Jr.
University of Rhode Island
- Additional information about memberships may be obtained by writing to the Treasurer of the Society:
David J. Slatkin, Ph.D., Treasurer
The Am. Society of Pharmacognosy
Chicago College of Pharmacy
555 31st Street
Downers Grove, IL 60515

ELECTION RESULTS

The Teller's Committee reports the results of the 1992 elections for the ASP:

- Vice President (1992-1993):
John M. Cassady
- Executive Committee Member (1992-1995):
R. Frank Chandler

The amendments to the Constitution and By-Laws both passed. Package A allows the Assistant Treasurer to serve on the Executive Committee only in the absence of the Treasurer. Package B eliminates the Patron Membership Committee, which is no longer necessary since the ASP Foundation functions in this capacity.

EMPLOYMENT AVAILABLE

Phyton Catalytic, Inc. is a dynamic, young and growing biotechnology company on the forefront of plant cell culture technology. Located in Ithaca, New York, Phyton Catalytic produces life-saving pharmaceuticals and other fine chemicals from cell culture to satisfy industries' growing needs for plant derived products.

The company is currently recruiting Scientific Staff at all levels in the areas of Bioreactor Studies, Stability Studies, Product Enhancement and Stability, New Compound Discovery, and Validation Studies.

Successful candidates are expected to be self-starters, independent thinkers, not afraid of hard work, and able to work creatively on a "start-up" budget.

If you're eager to work in an exciting, fast-paced, and demanding environment, send your resume ASAP: Phyton Catalytic, Inc., 175 Langmuir Lab, 95 Brown Road, Ithaca, NY 14850, Attention Laurie Sedgwick.

Phyton Catalytic offers a competitive salary, benefits and unlimited opportunity for growth.

Phyton Catalytic is also seeking a candidate to skillfully coordinate and oversee the technical and nontechnical staff involved with the establishment, maintenance, and storage of literally thousands of plant cell lines.

As Plant Cell Culture Supervisor, the successful candidate should possess:

- BS/MS degree in Plant Sciences and/or Biotechnology

- Minimum of three years of relevant technical and industrial experience

- Familiarity with database management
- Experience in cell genetics and analytical biochemistry

- Familiarity with natural products chemistry and bioreactor technology

Send resumes to: Phyton Catalytic, Inc., 175 Langmuir Lab, 95 Brown Road, Ithaca, NY 14850, Attention Laurie Sedgwick.