



NEWSLETTER

A PUBLICATION OF THE AMERICAN SOCIETY OF PHARMACOGNOSY - EDITED BY MELVIN R. GIBSON

WASHINGTON STATE UNIVERSITY, PULLMAN, WASHINGTON

Volume 2, 1965 Number 2

Annual Meeting. The Sixth Annual Meeting of The American Society of Pharmacognosy will be held jointly with a meeting of The Society for Economic Botany from June 15-18, 1965 at the University of Rhode Island, Kingston, Rhode Island. Highlighting the program is the Symposium on Chemotaxonomy scheduled for the afternoons of June 15 and 16. Federal financial support has been obtained for partial support of this symposium. Invited participants in the symposium are listed in alphabetical order as follows with their affiliations and topic: Ralph E. Alston, University of Texas, "Comparisons of the Importance of Basic Metabolites, Secondary Compounds and Macromolecules in Systematic Studies"; R. Darnley Gibbs, McGill University, "A Classical Taxonomist's View of Chemistry in Taxonomy"; Robert Hegnauer, University of Leiden, "Chemical Taxonomy of Plants in the Past and Future"; Kurt Mothes, Institute for the Biochemistry of Plants, Halle (Salle), "Modern Trends in the Biochemistry of Alkaloids"; Tony Swain, Low Temperature Research Station, Cambridge, "Recent Observations on the Comparative Phytochemistry of the Flavonoids"; G. H. N. Towers, University of British Columbia, "Chemical Taxonomy as Applied to the Lycopodiales." Informal discussion sessions are planned with the symposium speakers for Tuesday and Wednesday nights. Scientific sessions are planned for Tuesday and Wednesday mornings and all day Thursday. The ASP business meeting will be held Friday morning. The banquet will be held Thursday night. The program committee has distributed the preliminary program announcement, and a second announcement should reach ASP members at about the same time as this Newsletter. Further information may be obtained from the chairman of the Program Committee, Leonard Worthen, College of Pharmacy, University of Rhode Island, Kingston, Rhode Island.

Pharmacognosist Needed. A letter from Edwin W. Brown, Assistant Director, Division of International Medical Education, Association of American Medical Colleges, enlists the assistance of the Society in locating a pharmacognosist for Haile Sellassie I University. Addis Ababa, Ethiopia for a three-year contract with two-year renewals. Teaching is in English. Further information may be obtained by contacting Dr. Brown at AAMC headquarters, 2530 Ridge Avenue, Evanston, Illinois 60201.

Forest Service Research. The Forest Service, USDA, has started a timber-related crops research project at its field office in Berea, Kentucky. The investigations will include work on medicinal plants of the southern Appalachian forests. The objective is to find what important medicinal plants grow in the forest, where and how they grow, how the populations can be maintained or increased, and how they can be harvested and marketed. M. J. Williamson, project leader, would welcome any comments on the project, and would appreciate hearing from pharmaceutical companies, universities, or others who might be interested in cooperating in the research program.

Deaths of Members. Deaths of ASP members should be reported to the Editor. Beginning this year the business meeting will include a recognition of these losses.

AFPE Awards. The American Foundation for Pharmaceutical Education has announced the awarding of \$165,000 for graduate fellowships and \$36,000 for undergraduate scholarships for 1965-66. The Foundation also will support the American Council on Pharmaceutical Education, the AACP teacher's seminar, and the American Journal of Pharmaceutical Education, with educational appropriations for the year of \$283,000. A three-year grant of \$110,000 has also been made to the National Advisory Commission on Careers in Pharmacy for production and distribution of a student recruitment film "Edge of Decision -- This is Pharmacy." The Foundation further announced that Ara G. Paul, Associate Professor of Pharmacognosy, University of Michigan, received a Gustavus A. Pfeiffer Postdoctoral Memorial Research Fellowship for studies on biosynthesis of ergot alkaloids at Tokyo University.

Alkaloids Symposium. At the request of the Editor, Varro E. Tyler, Jr., University of Washington, prepared the following item: The Third International Symposium on the Biochemistry and Physiology of Alkaloids will be held in Halle (Salle), Germany on June 24-27, 1965. The program will be divided into several major topics, each of which will be presented by a principal speaker, to be followed by additional contributed papers and discussion. The main themes and principal speakers will be "Biology of Alkaloids" (K. Mothes, Halle); "Pyridine and Tobacco Alkaloids" (H. Rapoport, Berkeley); "Ergot and Indole Alkaloids" (H. Plieninger, Heidelberg, and E. Leete, Minneapolis); "Quinolizidine Alkaloids" (K. Hasse, Karlsruhe); "Isoquinoline and Poppy Alkaloids" (A. R. Battersby, Liverpool); "Amaryllidaceae Alkaloids" Tropane Alkaloids" (W. C. Evans, Nottingham); "Steroidal Alkaloids" (K. Schreiber, Gatersleben); and "Miscellaneous Alkaloids and Biogenic Amines."

A large number of alkaloid specialists, including many members of the ASP, have indicated their intent to attend this important symposium. Members from the United States listed on the preliminary program include Arthur E. Schwarting, E. John Staba, Gordon H. Svoboda, Einar Brochmann-Hanssen, Robert J. Suhadolnik, and Lynn R. Brady.

Persons interested in receiving further information about the meeting should contact Detlef Gröger, Institut für Biochemie der Pflanzen, Postschliessfach 250, 401 Halle (Salle), D. D. R., Germany.

Natural Products Symposium. The Sixth Annual Symposium in Medicinal Chemistry of the School of Pharmacy, Department of Medicinal Chemistry, State University of New York at Buffalo, will be a symposium on the chemistry of natural products to be held June 3-5 at the University. Principal speakers and their topics are: W. I. Taylor, Ciba, "Aspects of Chemistry of Indole Alkaloids"; G. Stork, Columbia University, "Progress in Total Synthesis of Steriods"; N. Neuss, "Recent Progress in the Chemistry and Biology of the Vinca Alkaloids"; K. Bernauer, Hoffman-LaRoche, Inc., "Recent Work on Pro-Aporphine and Aporphine Alkaloids"; K. Biemann, MIT, "High-Resolution Mass Spectrometry"; R. Ireland, University of Michigan, "Studies on the Synthesis of Diterpenes"; R. Hirschmann, Merck Sharp & Dohme, "An Approach to an Improved Anti-Inflammatory Steroid"; Josef Fried, University of Chicago, "Steroids from Tetracyclic Triterpenes"; and R. B. Merrifield, Rockefeller Institute, "Solid-Phase Peptide Synthesis." Further information may be obtained from A. J. Solo, School of Pharmacy, Department of Medicinal Chemistry, State University of New York at Buffalo, Buffalo, New York 14214.

Paris Symposium. A symposium on the treatment of cancer with the alkaloids of Vinca rosea has been organized and will be officially called by the Groupe Européen de Chimiothérapie du Cancer under the leadership of Georges Mathé. Physicians and scientists from Germany, France, Switzerland, and Italy will attend this symposium to be held in Paris June 21. Gordon H. Svoboda will open the symposium with the presentation "The Current Status of Research on the Alkaloids of Vinca rosea Linn. (Catharanthus roseus G. Don)."

São Paulo University Expansion. Richard Wasicky reports that the University City of São Paulo, Brazil is on its way to completion. Several buildings are to house the Faculty of Pharmacy and Biochemistry. A separate building will house the Institute of Pharmacognosy and Phytochemistry which may make it the largest such structure in South America.

Slides Available. In a recent visit to the Northwest, Kenneth Redman, South Dakota State College, prepared 16 mm. colored cinemas and 35 mm. slides of peppermint and cascara harvesting. In response to an inquiry by the Editor, Dr. Redman has agreed to prepare a

(Continued) Active Steroids by N. Applezweig (Holden-Day, Inc., San Francisco); Oligosaccharides (Vol. 4 of International Series of Monographs on Pure and Applied Biology, Biochemistry Division) by R. W. Bailey (The MacMillan Company, 1965); Amerchol Lanolin Derivatives (American Cholesterol Products, Inc., Amerchol Park, Edison, New Jersey) ... James Jiu, G. D. Searle & Co., calls our attention to a facsimile reprint of Genera Siphonogamarum 1900-1907 by C. G. Dalla Torre and H. Harms (Wiesbaden, Verlag für Wissenschaftliche Neudrucke GMBH, 1963, \$25.50). This reprint is without the Index Nominum. Jiu also points out that the first English translation of the important series Chemistry of Natural Products Edited by E. Lederer has begun with Tetracyclic Triterpenes. Translations into English of other volumes will follow. Further information may be obtained from Hermann, 115 Boulevard Saint-Germain, Paris 6... Another book by an ASP member is Die Mutterkornalkaloide by A. Hoffmann (Ferdinand Enke Verlag, Stuttgart, 1964, DM 64)...ASP member I. Novák is co-author of Pharmakognosie-Lehrbuch by J. Halmai and I. Novák (Medicina Verlag, Budapest, 1963). Anyone wishing an outline of this book may obtain a copy from the Editor. The following books may be of interest to readers: Analysis and Characterization of Oils, Fats, and Fat Products, Vol. 1, Edited by H. A. Boekenoogen (Interscience, 1964, \$12.75); Steroid-Spektrenatlas by Walter Neudert and Horst Ropke (Springer-Verlag, New York, \$36); Handbook of Cell and Organ Culture by Donald J. Merchant, Raymond H. Kahn, and William H. Murphy, Jr. (Burgess Publishing Company, 1964, \$6.26 spiral bound, \$7.50 cloth bound). Beneficial Insects: Nature's Alternative to Chemical Insecticides by Lester Swan (Harper & Row, 1964, \$7.95); The Thymus in Immunobiology by Robert A. Good and Ann E. Gabrielsen (Harper & Row, 1964, \$24.50); Molecular and Cellular Aspects of Development by Eugene Bell (Harper & Row, 1965, in press); Actualités de phytochimie fondamentale by Charles Mentzer and Olga Fatianoff (Masson et Cie, 1964); Primary Processes in Photosynthesis by M. D. Kamen (Academic Press, 1963, \$5.50); Organization for Protein Biosynthesis by A. Wiseman (Elsevier, 1965, \$8); Synchrony in Cell Division & Growth by E. Zeuthen (Wiley, 1964, \$17.50); The Physiology and Biochemistry of Herbicides Edited by L. J. Andus (Academic Press, 1964, \$16.50); Proceedings of the Fourth International Seaweed Symposium Edited by Ad. D. DeVirville & J. Feldman (Macmillan, 1964, \$15); Chromatographic Methods by R. Stock and C. B. F. Rice (Reinhold, 1963, \$10); The Biochemical Aspects of Hormone Action Edited by Albert B. Eisenstein (Little, Brown, 1964, \$8.50); Pollen Physiology and Fertilization, A Symposium held at the University of Nijmegen, Netherlands, 1963, Edited by H. F. Linskens (North-Holland, Amsterdam, 1964, \$11.50); Flora Europaea, Vol. 1, Lycopodiaceae to Plantanaceae Edited by T. G. Tutin, V. H. Heywood, N. A. Burges, D. H. Valentine, S. M. Walters, and D. A. Webb (Cambridge University Press, 1964, \$16); Tetracyclic Triterpenes by Guy Ourisson, Pierre Crabbe, Oscar R. Rodig (Holden-Day, Inc., San Francisco, 1964, \$8.75); Tobacco Alkaloids and Related Compounds Edited by U.S. von Euler (MacMillan, 1964, \$15); The Biochemical Approach to Life by F. R. Jevons (Basic Books, 1964, \$4.50); Isotopes in Biology by George Wolf (Academic Press, 1964, \$2.45 paper, \$5.50 cloth); The Genera of Flowering Plants (Angiospermae): Based Principally on the Genera Plantarum of G. Bentham and J. D. Hooker, Vol. 1, Dicotyledones by J. Hutchinson (Oxford University Press, 1964, \$20.20); Quantitative Problems in Biochemistry, 2nd Edition, by Edwin A. Dawes (Williams & Wilkins, 1963, \$7.50); The Addict and the Law by Alfred R. Lindesmith (Indiana University Press, 1965, \$7.50); Native Vegetation of Nebraska by J. E. Weaver (University of Nebraska Press, 1965, \$4.75); Shore Wildflowers of California, Oregon, and Washington by Philip A. Munz (University of California Press, 1964, \$2.95 paper, \$4.75 cloth); Chemistry of the Steroids, 2nd Edition by Charles W. Shoppee (Butterworths, 1964, \$16.50); Plant Virology by M. K. Corbett and H. D. Sisler (University of Florida Press, 1964, \$12.50); The Hormones, Vol. V. Edited by Gregory Pincus, Kenneth V. Thimann, and E. B. Astwood (Academic Press, 1964, \$28); A Selected Guide to the Literature on the Flowering Plants of Mexico (University of Pennsylvania Press, 1964, \$25).

set of the slides of each subject for five dollars. Orders should be directed to Dr. Kenneth Redman, Division of Pharmacy, South Dakota State College, Box 16, College Station, Brookings, South Dakota.

Japan Meeting. The following was submitted by Isao Inagaki, Nagoya City University: The annual meeting of the Pharmacognostical Society of Japan was held May 7 and 8 at the University of Tokyo. The pharmacognostical and chemical studies on Scopolia japonica, Lycopodium clavatum, Dioscorea batatas, Smilax china, Dipsacus japonicus, Lycium chinense, Panax ginseng, Curcuma longa, Gardenia jasminoides, Alpinia kumatake, Nandina domestica, Evodiopanax innovans, Marsdenia cundurango, Cynanchum paniculatum, Euptelea polyandra, Sambucus sieboldiana, Crataegus cuneata, Gleditsia japonica, Cirsium, Viverra cibetta, and others were reported. Several problems on the evaluation of quantities of crude drugs on the market and chemotaxonomy of Heterotropa, Asarum, Rhoeadales, Asclepiadaceae, Solanaceae. Umbelliferae, Lyonia, and others were also discussed. A lecture on simarubaceous bitter principles and botanical relationships was given by T. A. Geissman of the University of California.

New Professorship at Connecticut. Underwritten by a \$11,000 grant from the Gustavus and Louise Pfeiffer Research Foundation, the University of Connecticut has recently established a visiting professorship for distinguished visiting scientists in the natural products field. Appointments as Pfeiffer Professors will be reserved for scientists who have done exceptional work in natural products chemistry or biochemistry or for those who have developed a novel area of investigation. It is planned that appointments will normally be for six months, however, shorter or longer appointments will be possible.

<u>USPHS Manuals</u>. David Carew, University of Iowa, reports that the USPHS now has available two new policy statements, each in the form of a twenty-page booklet. One is titled "Grants for Training Projects." and the other "Grants for Research Projects." These replace "Grants Manual" which was the guide for some time.

Call Research. At California State Polytechnic College at San Louis Obispo, California, in the last two years Tracey G. Call has conducted undergraduate thesis research with G. Mothersbaugh and J. Bewley on the modification of experimental osteolathyrism in the rat by plant components; with M. Brinson on an antiestrogenic activity of the leaves Pteryxia terebinthina (Hook.) C. & R. var. terebinthina; with J. Ferguson on toxicity and nutrient properties of the inner bark of Pinus Murrayana G. & B.; with E. Raposo-Silva on the MAO inhibitory properties of some plant components. He has also prepared five papers with B. Perry, S. Strauss, N. Dole, R. Gracia, and L. Johnson on the protective activity of some natural and synthetic coumarins against digitoxin toxicity in the 72-hour chick embryo; papers with M. Raveling on the effect of plant components on teratogenesis in the chick embryo; a paper with L. Johnson on the effect or oral hormones on growth and organ weights in the rat; a paper with E. Tsuchiya on the effect of oral hormones on the organ weights and hematology of the mouse; and a paper with V. Call on a chromatographic study of the taxonomic relationship of five varieties of Pteryxia terebinthina. Extensive field work has been done for many years on western Umbelliferae for materials to be used in personal and student research. Material collected also resulted in the isolation of Lomatin and Columbianin by T. O. Soine at the University of Minnesota as well as the previously isolated coumarins Suksdorfin, Pteryxin, and Columbianadin by Call. Isopteryxin and other possible coumarins recently isolated by Call are being investigated by Soine and co-workers.

Lunsford-Richardson Award. Robert Dobberstein, a senior at the University of Nebraska, received second place in this year's Lunsford-Richardson Undergraduate Research Contest for his paper "Chlorophyll Production in Mentha arvensis L. Suspension Cultures." Mr. Dobberstein will begin graduate study at the University of Nebraska in pharmacognosy this year.

Grants. Norman R. Farnsworth, University of Pittsburgh, has received a two-year grant from the National Cancer Institute for "Isolation of Antineoplastic Alkaloids from Plants." The first-year stipend is \$32,670...The School of Pharmacy, West Virginia University, has received a \$7,000 grant from the NSF to start an undergraduate participation

research program. Students selected will work under various disciplines, but part of the program will be utilized to start an investigation of the medicinal plants of West Virginia...E. John Staba, University of Nebraska, has received a two-year NSF research grant of \$24,600 for "Plantlet Induction from Biphasic Plant Suspension Systems"...Julia F. Morton, University of Miami, has received a three-year contract from NIH for "Search for Possible Plant Causes of Esophageal Cancer." The field work will be done in Curacao where esophageal cancer is most prevalent... Jack L. Beal, Ohio State University, has received a renewal of a grant from NIH amounting to \$41,133 for a three-year continuation of the phytochemical study of the genus Thalictrum ... Raymond A. Doskotch, Ohio State University, has received an NIH grant of \$36,000 for the isolation and characterization of antitumor substances from plants...leo A. Schiuchetti has been awarded a supplemental grant of \$6,460 from the PHS in addition to a previous grant of \$43,104 in February to conduct the second year of a three-year study of screening Northwest plants for medicinal activity. The supplemental grant makes it possible to utilize the full-time services during the summer of two co-investigators, one-postdoctoral research associate, and five graduate research assistants...L. C. Schramm, University of Minnesota, was awarded a grant of \$1,000 by the AACP Committee on Undergraduate Awards under the terms of the Mead Johnson Undergraduate Research Program. The project is entitled "Fusarium graminearum Growth Studies."

Personal. E. John Staba, University of Nebraska, has been promoted from associate professor to professor and has been granted a leave of absence for the first semester, 1965 to write a monograph entitled "Plant Suspension Cultures"...Frank E. Bulda, for thirty-four years professor of biology at St. John's University, died on February 25 after a long illness... New personnel in the Department of Pharmacognosy at the University of Pittsburgh include Gordon H. Svoboda, Eli Lilly and Company, who has been appointed a Visiting Research Professor. He will present research seminars, advise members of the Department on research, and act as a consultant during annual visitations to the University. Harry F. S. Fong, who has completed requirements for the Ph.D. degree at Ohio State University, has been appointed Research Assistant Professor in Pharmacognosy. He plans to develop a research program in chemotaxonomy. Asaad N. Masoud, a graduate student at Oregon State University, is spending six months in the Department of Pharmacognosy at Pittsburgh to conduct specialized research on specific assays for Catharanthus antineoplastic alkaloids. He will return to Oregon State in June, 1965...Gordon H. Svoboda, Eli Lilly and Company, lectured at the University of Houston and Texas Southern University on the alkaloids of Vinca rosea under the auspices of the AACP Visiting Scientists' Program and presented the first Rho Chi Memorial Lecture at that organization's national meeting in Detroit ... Richard Wasicky, São Paulo, was recently awarded the Professorate Honoris Causa by the University of Santa Maria...David P. Carew, State University of Iowa, has been elected chairman of the AACP Undergraduate Research Awards Committee...J. W. Fairbairn, London, during an extensive tour of the Far East and Sudan in February visited Singapore where he acted as External Examiner in Pharmacognosy and delivered two lectures, visited the primal Jungle of Johore, visited Nepal to give advice to the government on the production of crude drugs and pharmaceuticals and to visit drug farms, gave two lectures in Sudan, and spent two days in the Blue Nile region investigating the native flora, visited Bangkok, Calcutta, and the Birla Institute of Technology in Pilani, India...Kenneth L. Euler has completed his doctoral studies at the University of Washington and accepted the position of assistant professor of pharmacognosy at the University of Maryland.

Books. Medicinal Plant Alkaloids, Introductory Lecture Notes for Pharmacy Students by Stephen K. Sim (Book Department, University of Toronto Press, Front Campus, Toronto 5, Canada, 1964, \$2.10) is an interesting 134-page booklet by an ASP member which would be an interesting addition to any pharmacognosist's library...A number of readers have commented on the long-delayed appearance of the English translation of Thin-Layer Chromatography by ASP member Egon Stahl (Academic Press, 1965, \$17). It is unfortunate that the English edition was so long delayed, and Lynn Brady, University of Washington, points out that it is essentially a direct English translation of the German edition which was published in 1962 with an attempt to update the book by including a section entitled "Some Recent Noteworthy Articles" in the bibliography. Brady further mentions that these additional references appear to stop in mid-1963...Frank D. O'Connell, West Virginia University, believes the following books to be worthy of mention: Steroid Drugs, Vol. II, Index of Biologically