

# AOCS fund-raising campaign

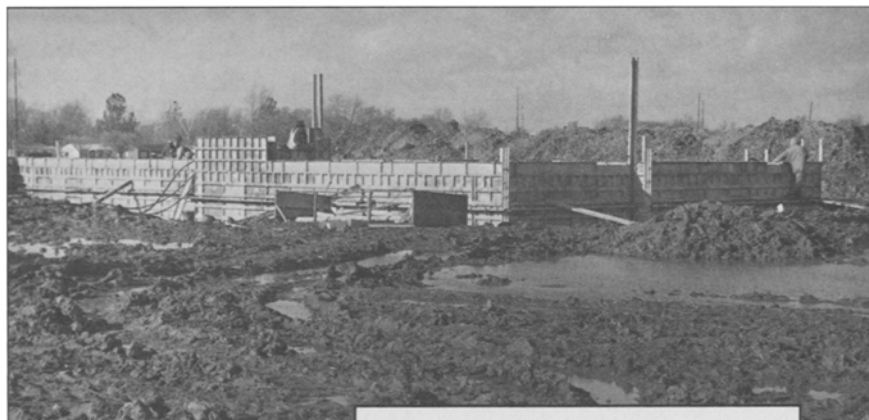
"Building for the Future" will be the slogan for the AOCS fund-raising campaign to help finance the construction of a new headquarters facility in Champaign, Illinois.

Charged by the Governing Board with the campaign, the AOCS Foundation will be seeking contributions toward a \$400,000 goal.

The campaign will include requests to individual members and to industry groups to support the project. According to Robert Hastert, Foundation chairman, every society member will be individually approached, giving each member the opportunity to be part of the endeavor. The campaign is slated to begin in late February. Hastert said plans are to complete the fund-drive by the annual meeting in New Orleans in May and to hold a celebration at that time.

According to Hastert, the Foundation plans to acknowledge varying levels of contributions, ranging from a listing in *JAACS* with a \$25 contribution to naming a room in the completed headquarters for a \$25,000 contribution.

The AOCS Governing Board in September approved the concept for a new headquarters building in Champaign. Contracts were signed Nov. 13, and construction began later that month.



The new AOCS headquarters site, as it appeared Dec. 3, 1986.

## Slogan entries

In anticipation of the fund-raising campaign for the new headquarters, the AOCS Foundation held a contest among the headquarters staff for slogan suggestions. "Building for the Future," submitted by managing editor George Willhite, was the one chosen.

According to Foundation chairman Robert Hastert, some of the runner-up entries included the following:

- "Little Oil House on the Prairie"
- "The House That Fat Built"
- "Add Your Drop to the Bucket"
- "Fat Aid"
- "We Can Do It, Drop by Drop"
- "Don't Sit On Your Fatty Acid—Contribute!"

## Certification deadlines

Applications for either certification or recertification in the AOCS Approved Chemists program and the AOCS Certified Laboratory program must be received at AOCS headquarters, PO Box 5037, Station A, Champaign, IL 61820, USA, by March 31, 1987, for applicants to be eligible for the 1987-88 official listings.

Recertification notices were mailed

in January 1987 to participants in the previous year's programs. New applicants should write to AOCS Certification Programs, PO Box 5037, Station A, Champaign, IL 61820, USA, to request application forms and check lists.

The Approved Chemist program was known as the Referee Chemist program until 1985. New applicants must complete a background questionnaire. The recertification fee for approved chemists is \$35; first-time applicants pay a fee of \$100.

The Certified Laboratory program, which covers persons wishing

to do referee analysis of soybean meal, was begun in 1985. New applicants are required to complete a questionnaire that accompanies the application forms. Laboratories participating are notified as to any deficiencies in their analyses and are asked to correct them to qualify for recertification. For the Certified Laboratory program, the recertification fee is \$1,000; new applicants also pay a \$1,000 fee.

Application forms, with completed questionnaires, must be returned to AOCS headquarters by March 31, 1987.

# 1987-88 Smalley series announced

The 1987-88 Smalley Check Sample Program will offer 22 series. The program, provided by AOCS, is a means for laboratories to check the proficiency of their analytical procedures.

A subscriber to a specific series receives a sample of quality uniform to that distributed to other subscribers. Each participant analyzes the sample using specified AOCS methods, then notifies AOCS of the results. A final compilation of results of all participants indicates whether a participant's analysis was accurate.

Information on prices and schedules is available from the Smalley Committee, AOCS, PO Box 5037, Station A, Champaign, IL 61820, USA.

The following check sample series are to be offered during 1987-88 (the number of samples in each series is shown in parentheses).

- Cottonseed (10)
- Peanuts (7)
- Fish meal (8)
- Fish oil (8)
- Edible fats (5)
- Tallow and grease (5)
- Sunflower (8)
- Soybean oil (4)
- NIOP fats and oils (5)
- Gas chromatography (fatty acid composition) (6)
- Cellulose yield (cotton linters) (10)
- Aflatoxin in cottonseed meal (8)
- Soybeans (10)

## Palm oil series

A new series on palm oil also is proposed for the 1987-88 Smalley Check Sample Program. Anyone interested in such a series is asked to contact the Smalley Committee, AOCS, PO Box 5037, Station A, Champaign, IL 61820, USA.

- Vegetable oil for color (6)
- Oilseed meals (10)
- Drying oils (6)
- Condensed fish solubles (8)
- Cottonseed oil (4)
- Sunflower and rapeseed (8)
- Aflatoxin in peanut meal (8)
- Aflatoxin in corn meal (8)
- Aflatoxin in milk (8)

Deadline for enrollment is June 30, 1987.

## Bailey winner



AOCS' North Central Section has selected Warner Linfield, retired research leader at the USDA Eastern Regional Research Center (ERRC), as the recipient of the 1987 Alton E. Bailey Award, to be presented at a dinner meeting Feb. 17, 1987, at the Holiday Inn O'Hare in suburban Chicago.

Linfield retired from the ERRC in 1984. He has authored or coauthored more than 100 scientific papers, patents and book chapters. He also served as editor of the reference text *Anionic Surfactants*. The award is to recognize research and/or service in the field of fats, oils and waxes. Linfield was cited for his research and publications relating to soaps, detergents and antibacterial compounds. The award is named for Alton E. Bailey, a prolific author and researcher who served as the first editor for the reference text now known as *Bailey's Industrial Oil and Fat Products*.

Linfield has been a member of AOCS for 30 years, serving as an associate editor for *JAOCs* from 1973 through 1986. He was a speaker at the 1977 World Conference on Soaps and Detergents and has served on national meeting committees.

For more details about the Bailey Award dinner meeting,

contact David Tandy, EMI Corp., 3166 Des Plaines Ave., Des Plaines, IL 60018, telephone 312-827-3164.

## Symposium on health aspects

"Health Aspects of Fats and Oils" will be the topic for the AOCS' North Central Section's all-day symposium to be held Tuesday, March 17, 1987, at the Levis Faculty Center at the University of Illinois in Urbana, Illinois.

Tentative topics include nutritional implications of the omega-3 fatty acids, pharmaceuticals, the role of lipids in several specific diseases and analytical methodology. Confirmation of speakers had not been completed as of deadline, but a complete listing will appear in the February *JAOCs*. The program is expected to begin at 9 a.m. on March 17. Organizers are hoping to attract registrants within a few hours' drive of Champaign-Urbana who normally cannot get to North Central programs held in Chicago.

## Enzyme talk

Researchers are still seeking to discover the mechanism of lipases, potentially useful fat modification substances. Other researchers are actively involved in developing relevant industrial applications for these fascinating biocatalysts, Carl Miller of Novo Laboratories Inc. of Wilton, Connecticut, told 50 persons at an AOCS North Central Section dinner meeting last November. Novo Laboratories, the U.S. subsidiary of the Danish biotechnology firm Novo Industri, has been involved in the lipase field for six years.

Enzymes currently cannot be considered "a low-cost alternative to fire and brimstone" for total fats and oils hydrolysis, especially with today's relatively low energy costs, Miller said, noting that the traditional Colgate-Emery process (high pressure, high temperature) for splitting is usually estimated at a penny a pound. However, enzymes can provide a way to hydrolysis

that involves less capital cost, no degradation of labile fatty acids and, when energy considerations are important, lower energy costs, Miller said. He added that enzymatic prehydrolysis may increase splitter capacity, and someday enzymes may be used for selective hydrolysis, i.e., splitting specifically only one type of fatty acid from an oil.

Immobilized enzymes may have economic applications in fat modification, such as producing specialty fats for specific uses, he said. A continuous enzymatic transesterification process for producing cocoa butter equivalents involves using palm mid-fraction (POP) and tristearin (SSS) starting materials to produce the traditional cocoa butter content of POP, palmitic-oleic-stearic (POS) and stearic-oleic-stearic (SOS), but also yields PSP, PSS and SSS that must be separated out, he said. Using continuous acidolysis techniques with enzymes permits blending POP with saturated fatty acids to produce POP, POS and SOS, with palmitic and stearic free fatty acids that are easier to separate than the complex triglycerides from the transesterification process.

Miller described other typical fat modification reactions, as well as related Novo research using an immobilized lipase to synthesize a variety of esters. While enzymes are used for hydrolysis in the presence of water, they can be made to do the reverse and synthesize esters in the absence of water, Miller said. His lab has obtained nearly quantitative yields in three hours when operating typical reactions under vacuum to remove excess water.

Noting that enzymes need a certain amount of water to function, Miller said the precise function of that water is still under investigation. It may be that the enzyme is working at the interface between water and oil or that water is needed to hold the enzyme together in the proper conformation. This requirement for water was clearly demonstrated by ester synthesis reaction in a variety of solvents. The lipase was only active in the water-immiscible solvents,

those which would not "pull away" the essential water from the enzyme.

Miller said Novo is anticipating approval from the Food and Drug Administration for generally recognized as safe (GRAS) status for its Lipozyme lipase, with 1,3 specificity, sometime early in 1987. Future work will include effort to develop nonspecific enzymes, a second generation of 1,3-specific enzymes and new detergent lipase enzymes.

### Southwest section

The Southwest Section will hold a joint meeting with the Orange County Section of the American Chemical Society on Jan. 15, 1987. The speaker will be Dr. Karol Mysels, a research consultant to the soaps and detergent industry, whose talk is entitled "Is the Surface Only Skin Deep?"

The meeting will be held at the Claim Jumper Restaurant, 18050 Brookhurst St., Fountain Valley, CA 92708. The social hour is at 6 p.m., dinner is at 7 p.m., and the meeting starts at 8:15; the cost is \$12 with reservations, \$14 without.

The section will also hold the Sixth Annual Southwest Section Product Development Seminar on Wednesday, Feb. 18, 1987, at the Buena Park Hotel, 7675 Crescent Ave., Buena Park, CA 90620-3997. It will run from 8 a.m. to 4 p.m. Contact: Rick Shook, Pilot Chemical Co., 11756 Burke St., Santa Fe Springs, CA 90670, telephone 213-723-0036.

### Mid-America section

The Mid-America Section is planning meetings for Jan. 13 and Feb. 10, 1987. The Jan. 13 meeting will feature Marlowe Iverson speaking on nuclear magnetic resonance. Iverson is with the Federal Grain Inspection Service.

Ted Matson, supervisor of surfactant application for Vista Chemical Co., will speak on surfactants at the Feb. 10 meeting. Both meetings will be held at The Gold Buffet, 503 E. 18th Ave., North Kansas City, MO 64116. Contact: Friederun

Boone, Colgate-Palmolive Co., 1806 Kansas Ave., Kansas City, KS 66105, telephone 913-573-0223.

### NE section

The Northeast Section will meet Feb. 10, 1987, at the Robin Hood Inn, Clifton, New Jersey. Jack Marcussen, manager of quality assurance at Occidental Chemical Co., will speak on statistical process control.

The dinner meeting will begin with a social hour at 6 p.m., followed by dinner at 7 p.m. and talk at 8 p.m. Cost is \$20 per person. For more information, contact Tony Montana, Occidental Chemical Co., 350 Mount Kemble Ave., Morristown, NJ 07960, telephone 201-267-1000.

The section will hold a one-day symposium on "New Emerging Technologies in Processing" March 10 at the Holiday Inn Jetport, Elizabeth, New Jersey. For details, contact Deborah Meiners, Best Foods/CPC International, 1120 Commerce Ave., Union, NJ 07083, telephone 201-688-9000.

### Canadian section

The Canadian Section of the American Oil Chemists' Society has slated its annual meeting for the first week of October 1987, in Winnipeg, Manitoba.

The tentative program includes sessions on industrial processing, plant breeding and biotechnology, nutrition and analytical concerns.

Program co-chairpersons are J.K. Daun of the Canadian Grain Commission in Winnipeg, E.E. McGregor of the Canola Council of Canada in Winnipeg and R.G. Ackman of the Technical University of Nova Scotia at Halifax.

Coordinating local arrangements are B.E. MacDonald and N.A.M. Eskin, both from the University of Manitoba.

### Desert SW officers

New officers for the Desert Southwest Section are Frank Flider, Debbie Winetzky and Jim Ingram.

Flider, executive director of JMC

Technologies Inc., Phoenix, Arizona, will serve as general chairman. Winetzky, the new program chairwoman, is a research chemist with The Dial Corp. The secretary/treasurer is Jim Ingram, lab supervisor at Anderson Clayton in Phoenix.

The Desert Southwest Section's February 17 meeting will feature Ed Rosenquist from Shell Chemical. He will speak on narrow-range ethoxylated alcohols. The location has not yet been determined. For information, contact Debbie Winetzky, The Dial Corp., 1510 N. Scottsdale Rd., Scottsdale, AZ 85260, telephone 602-998-6293.

## New members

The following persons had applied for membership in the American Oil Chemists' Society through mid-November 1986. If an applicant was invited to join AOCS by a current member, that member's name appears in parentheses at the end of the listing. The new members' listing is published bimonthly.

Elaine S. Abbott, Woodson-Tenent Laboratories Inc., Gainesville, Georgia (Peden)  
 Paul C. Adlaf, Northview Laboratories, Northbrook, Illinois  
 Tom G. Aspelund, Hach Co., Ames, Iowa (Hammond)

Robert L. Baird, Polyester Corp., Southampton, New York (Montana)  
 Philip W. Bennett, PVO Foods Inc., St. Louis, Missouri (Johnson)  
 David D. Brooks, Oil Dri Corp. of America, Prairie View, Illinois (Snyder)  
 Jeffery A. Brown, Woodson-Tenent Laboratories Inc., Gainesville, Georgia (Peden)  
 Ronald J. Carlotti, Amway Corp., Ada, Michigan  
 Shu-pei Chang, U.S. Department of Agriculture, Peoria, Illinois (Hagemann)  
 Kenneth K. Chu, International Bakers Services Inc., South Bend, Indiana  
 Henrick A. DeLange, S.A. Oil Mills, Randfontein, South Africa  
 John A. Doyle, Hercules Specialty Chemicals Co., Wilmington, Delaware (Brueske)  
 Erich E. Dumelin, SAIS, Horn, Switzerland  
 Peter S. Ellis, Exxon Chemical Co., Houston, Texas  
 Graham Finney, Union International PLC, St. Albans, England  
 Peter S. Given Jr., Nabisco Brands Inc., E. Hanover, New Jersey (Dartey)  
 Diana H. Greene, Oregon State University, Corvallis, Oregon (Selivonchick)  
 Frank D. Hermann, Baxter Foods Ltd., Sussex, New Brunswick, Canada  
 Jerry L. Holland, Cargill, Hartsville, South Carolina (Elder)  
 Leif T. Holmquist, King Gustaf V Research Institute, Stockholm, Sweden  
 Richard C. Hopping, American Fructose Dimmitt Inc., Dimmitt, Texas  
 Charles L. Huntley, Grindsted Products, Industrial Airport, Kansas (Doca)  
 Mahmoud Jarche, Qatar Detergents Co., Doha, Qatar  
 George Karnofsky, Pittsburgh, Pennsylvania  
 Loong Fatt Lai, Synn Edible Oils Sdn Bhd, Taiping, Perak, West Malaysia  
 Martin J. Lombard, S.A. Oil Mills, Randfontein, South Africa  
 Naheed S. Mustafa, American Chemical Enterprise, LaPlace, Louisiana (Mustafa)

## President's Club and Honor Roll

The AOCS members listed here have qualified for the 1986-87 AOCS President's Club or Honor Roll. Members who recruit at least one new member qualify for the President's Club; those recruiting three or more qualify for the Honor Roll. President's Club and Honor Roll members receive recognition at AOCS annual meetings. Forms for use in recruiting new members are available from AOCS Headquarters, PO Box 5037, Station A, Champaign, IL 61820 USA.

### Five

R.G. Krishnamurthy  
 M.D. Meiners  
 A.P. Menasian

### Four

C.B. Amos  
 R.C. Hastert

### Two

B.F. Adams Jr.  
 L.M. Brickman  
 J.J. Castellanos  
 C.K. Dartey  
 R.L. Husch  
 J.E. Nolan  
 J.F. Peden  
 E.L. Sorensen

### One

R.G. Ackman  
 V.I. Allbritton  
 R.J. Bertozzi  
 S. Boring  
 R.J. Bruera  
 G.D. Brueske

### A. Cahn

J.R. Carroll  
 Y.R. Choi  
 G. Clenzos  
 D.A. Diersen-Schade  
 F.D. Doca  
 W.N. Elder Jr.  
 E.A. Emken  
 N. Enomoto  
 S. Eriksen  
 L. Eyres  
 R.E. Faulkner  
 V.W.K. Fupi  
 J.W. Hagemann  
 E.G. Hammond  
 N.C. Heins  
 J.A. Hellyer  
 W.B. Hendrick  
 A.C. Ingala  
 T.J. Jacks  
 B.R. Johnson  
 H.W. Johnson  
 R.A. Jovin  
 K.A. Kasprzak  
 S. Koritala  
 K.S. Krishnan  
 K.Y. Lai

### G. Liepa

S.C. Loft  
 E.W. Lusas  
 T.K. Mag  
 B.L. Major  
 P.M. McElroy  
 G.R. Mirmira  
 A.J. Montana  
 S. Mustafa  
 E. Niki  
 D.V. Okonek  
 R. Parisi  
 L.H. Posorske  
 R.R. Regutti  
 I.R. Schmolka  
 J.L. Sebedio  
 D.P. Selivonchick  
 R.D. Sinram  
 J.M. Snyder  
 W.J. Stancel  
 R.V. Staudt  
 D.K. Strayer  
 J.G. Turcotte Jr.  
 J.A. Ward  
 J.R. Westlund  
 P.J. White  
 R.F. Wilson

Dennis J. O'Brien, Eastern Regional Research Center, U.S. Department of Agriculture, Philadelphia, Pennsylvania  
 Olutosin T. Odumosu, T&T Associates Ltd., Ikeja, Lagos, Nigeria  
 Deane W. Parker, 3M, St. Paul, Minnesota  
 Douglas J. Parry, SGS Quantum, Brisbane, Queensland, Australia  
 Etta G.B. Prado, Refinadora de Oleos Brasil S/A, São Caetano do Sul, São Paulo, Brazil  
 Kevin J. Quick, Interstate Foods Corp., Chicago, Illinois (Regutti, Husch)  
 S.S.D. Ramamurthy, S.S.D. Oil

Mills Co. Pvt Ltd., Madras, India  
 Allen H. Rau, The Andrew Jergens Co., Cincinnati, Ohio  
 William J. Reid, Sungene Technologies Corp., Palo Alto, California  
 Patrick A. Reisner, Ag Processing Inc., Omaha, Nebraska (McElroy)  
 T. Michael Rothgeb, Procter and Gamble Co., Cincinnati, Ohio  
 Glen K. Ryan, Wilson Foods Corp., Oklahoma City, Oklahoma  
 Brigitte S. Scherkus, Carson Foods, Brampton, Ontario, Canada (Parisi)  
 Kevin G. Thom, Honeymead Prod-

ucts Co., Mankato, Minnesota (Amos)  
 Philippe Van Doosselaere, De Smet USA, Atlanta, Georgia  
 Richard J. Wiersema, Clorox Technical Center, Pleasanton, California  
 William R. Wyatt, Iowa Beef Processors Inc., Amarillo, Texas (Amos)  
 Teruyoshi Yanagita, Saga University, Saga, Japan (Enomoto)

**Corporate member**  
 Cumhur Ahmet Eren, Taris Cottonseed Oil Mill, Izmir, Turkey (Hastert)

## Methodology

# Collaborative studies

Several of the AOCS technical committees have proposed collaborative studies for 1987. Other committees have studies in the planning stages.

All of these studies will need interested participants and laboratories having the necessary equipment, if special equipment is required. Equipment and instrument manufacturers have been most helpful in identifying equipment owners who would be willing to participate in collaborative studies. This simplifies the task of organizing the study. In those cases where availability, time and logistics permit, manufacturers may agree to loan equipment to the laboratories for the time it takes to complete the analysis. This facilitates the collaborative study.

For 1987, the following collaborative studies have been proposed:

- erucic acid (capillary gas chromatography)
- triglycerides (high performance liquid chromatography)
- tocopherols (high performance liquid chromatography)
- tocopherols (capillary gas chromatography)
- cold test
- dienoic acids
- oil content of rapeseed

- oil content of safflower seed
- standardized bleaching method

Anyone interested in participating in these collaborative studies is asked to contact the AOCS technical director as soon as possible.

There are other potential studies still in the initial planning stages. For example, a quality control method is needed to determine the purity of hexane used in the extraction of oilseeds. The gas chromatography committee currently is reviewing methods, and any suggestions for a useful method would be appreciated. Also, it has been suggested that an official method for automated total Kjeldahl

nitrogen (TKN) analysis would be of benefit to laboratories performing a considerable number of TKN analyses. While one such method has been adopted by the Association of Official Analytical Chemists (AOAC) for the analysis of nitrogen in feeds, its utility in analyzing a variety of oilseed meals needs to be verified. Communications are under way with an equipment manufacturer. There is a possibility of organizing a joint AOCS-AOAC collaborative study to determine if the automated TKN method is applicable to a variety of oilseed meals.

Dave Berner  
 AOCS Technical Director

## AOAC report

*Former AOCS President David Firestone serves as general referee on fats and oils for the Association of Official Analytical Chemists (AOAC). The following is Firestone's report to the AOAC 1986 annual meeting. The report includes a summary of actions by the International Union for Pure and Applied Chemistry (IUPAC) Com-*

*mission on Fats and Oils, which met in September in Vienna, Austria. Firestone is senior research chemist with the Food and Drug Administration's Division of Chemical Technology in Washington.*

### Antioxidants

Associate referee B.D. Page is continuing to investigate procedures to confirm the presence of antioxidants detected by the LC