# President's Club and Honor Roll

*The members listed here have qualified for either the AOCS President's Club or President's Honor Roll. All current members who successfully recruit at least one new member qualify for Club membership. Successful recruitment of at least three new members is the qualification for the more prestigious Honor Roll. All Club and Honor Roll members will receive further recognition and the opportunity to participate in other special programs and activities. Special forms for use in recruiting new members are available from AOCS headquarters.*

**Twelve**

Edward G. Perkins

**Seven**

Joseph G. Endres

**Six**

Robert T. O'Connor

**Five**

M.K. Govind Rao

**Four**

Kazuo Fukuzumi
Robert C. Hastert
Edward M. Lloyd
Samuel E. Pack
Joseph Pominski
Emmett D. Russey
Joseph Lee Williams

**Three**

Gregory E. Anekwe
Stephen S. Chang
Martin Freeman
Earl G. Hammond
Francis G. Schmid
Brian L. Walker

**Two**

Robert R. Allen
Clyde H. Amundson
John D. Brandner
Lois S. Crauer
Paul D. Cretien
David Firestone
Wilfred J. Frech
H.P. Gormley
Robert Johnson
Karl W. Klein
Fred A. Kummerow
Arieh Letan
Andrew M. Lubienski
Gerhard Maerker
L. Dave McClung
John E. Middendorf
Toshio Nakagawa
Robert L. Ory
Herbert L. Rice
Lars H. Wiedermann
Lester M. Wright

**One**

Abdel-Hamid Y. Abdel-Rahman
Toshimi Akiya
Teruzo Asahara
Vigen K. Babayan
Fred O. Barrett
Theodore E. Biermann
John Blum
Francis F. Borba
James G. Bradford
Lawrence M. Brickman
Herman Brown
Peter A. Cammelot
Kenneth K. Carroll
Juan Chavez-Pereza
William T. Coleman

Sam D. Cunningham
Stephen M. Davis
John A. Decker
Jacqueline Dupont
Harold P. Dupuy
Herbert J. Dutton
Robert L. Edwards
Tom Edwards
Richard R. Egan
Manuchehr Eijadi
Reuben O. Feuge
Homer Gardner, Jr.
Paul Gibson
Lawrence Gildenberg
Cecilia Gilmore
Charles W. Glankler
Louis H. Going
Dale P.J. Goldsmith
Louis P. Goodman
Dennis T. Gordon
Richard L. Gregory
Edward R. Hahn
Ralph A. Hagberg
Tetsutaro Hashimoto
Albert S. Henick
Samuel F. Herb
Richard E. Helland
John D. Hetchler
Robert J. Hlavacek
Charles W. Hoerr
Carroll L. Hoffpauir
Richard T. Holzmann
Joseph R. Houle
Robert L. Husch
Raymond H. Jones
George M. Kreutzer
V. Krishnamoorthi
Paul A. Krumm
Doris A. Lillard
Warner M. Linfield
William Link
Francis E. Luddy
Matthew Lynch
Ahmed F. Mabrouk
Laurence G. Mackin
Richard Eugene Madden
William V. Magee
Richard W. Martin
Tommy R. Massey
Ted P. Matson
Ernest M. Milligan
Henry A. Molteni
Wassef W. Nawar
Frank H. Passalaqua
Willie L. Payne
Nicholas Pelick
Arthur F. Pelster
William Pontius
Roy A. Pritchard
Richard Purdy
Robert B. Ramsey
Robert A. Reiners
Raymond Reiser
Albert M. Reynaud
Louis L. Richardson
James A. Robertson
Ronald Robinson
George H.G. Rowland
Joseph Sampugna
Birger H. Sandal
Werner H. Schmidt
Arthur A. Schmitz
Irving R. Schmolka
Suresh M. Shah
B.S.K. Shastry
E. Griffin Shay
Frank G. Shea
Rex J. Sims
Hal T. Slover
Lloyd M. Smith
Samuel C. Smith
Thomas H. Smouse
Paul Sosis
Robert M. Starr
Per Sten Stensby
Charles M. Stine
Victor V. Studer
Charles H. Struble
Frank E. Sullivan
Daniel Swern
James R. Taylor
Alexander E. Thomas III
A.C. Thompson
William R. Townslay
Toshiyuki Toyama
Woodrow W. Turner, Jr.
William A. Ward
Evelyn J. Weber
Gordon Wedman
Joseph F. Weiss
Ernest I. Welles
Francis B. White
William R. Wiggins
Earl R. Williamson
Randall Wood
William C. Wood
Clyde Thomas Young
Calvin T. Zehnder
Richard J. Zielinski

*The individuals listed below have applied for membership in AOCS between August 1 and September 7, 1973.*

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Frank A. Dudrow, Rust Engineering Co., P.O. Box 101, Birmingham, Ala. 35201

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Douglas Wayne Kallemayn, qual. cont. super., Miami Margarine Co., 14th and Railroad, Albert Lea, Minn. 56007

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Clem A. Kuehler, grad. res. asst., Michigan State University, Room 304, Food Science Bldg., East Lansing, Mich. 48823

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TREATED COTTONSEED MEAL. A.S. El-Nochrashy, A.H. Khalil and A.M. Gad (Fats and Oils Lab., National Res. Centre, Dokki, Cairo, U.A.R.). *Grasas y Aceites* 23, 427–31 (1972). Hexane defatted cottonseed meal was treated with ammonia gas and ferrous sulphate solution to remove gossypol. The effect of the treatments on the chemical and nutritional characteristics of the meal was investigated. Chicks were used as experimental animals. The treatments resulted in considerable improvement in the feeding efficiency of the meal.

VITAMIN A AND BONE METABOLISM IN THE RAT. M. Zile, H. Ahrens and H.F. deLuca (Dept. of Biochem., College of Agr. and Life Sci., Univ. of Wisconsin-Madison, Madison, Wis. 53706). *J. Nutr.* 103, 308–13 (1973). The mobilization of calcium from bone in the rat was found to be unaffected by vitamin A deficiency. Furthermore, the mechanisms that regulate high serum calcium levels function normally in vitamin A deficiency suggesting no impairment of calcitonin secretion. However, vitamin A deficiency lowers alkaline phosphatase activity of plasma and bone and increases hydroxyproline concentration of the plasma which implies some role of vitamin A in the metabolism of bone.

PURIFICATION AND PROPERTIES OF THE FATTY ACID SYNTHETASE FROM MYCOBACTERIUM PHLEI. D.E. Vance, Osamu Mitsuhashi and K. Bloch (Conant Chem. Labs., Harvard Univ., Cambridge, Mass. 02138). *J. Biol. Chem.* 248, 2303–9 (1973). The fatty acid synthetase from *Mycobacterium phlei* has been purified 340-fold to homogeneity. The enzyme has a molecular weight of $1.39 \times 10^6$. At low concentrations of phosphate buffer (0.005 M), the synthetase dissociates into an enzymatically inactive species (7.65 S) which can be partially reaggregated and reactivated by dialysis against 0.5 M potassium phosphate buffer. The mycobacterial polysaccharides, 3-O-methylmannose-containing polysaccharide (MMP) and 6-O-methylglucose-containing polysaccharide (MGLP), stimulate the fatty acid synthetase markedly. Their presence lowers the $K_m$ values for acetyl-CoA and malonyl-CoA 9-fold and 4-fold, respectively. The polysaccharides also appear to function by altering the rate-limiting step of fatty acid synthesis. MMP stimulates fatty acid synthesis more effectively than MGLP. Various chemical modifications of the polysaccharides do not markedly alter their stimulating activity. Acetyl-CoA is the most effective primer and its concentration affects the degree to which MMP and MGLP stimulate fatty acid synthesis. It is proposed that the polysaccharides function primarily by binding long chain acyl-CoA and thereby relieve product inhibition of the fatty acid synthetase.

EFFECT OF DIET ON FATTY LIVER-HEMORRHAGIC SYNDROME INCIDENCE IN LAYING CHICKENS. J.H. Wolford and D. Murphy (Poultry Sci. Dept., Mich. State Univ., East Lansing, Mich. 48823). *Poultry Sci.* 51, 2087–94 (1972). Liver hemorrhages characteristic of those seen in Fatty Liver-Hemorrhagic Syndrome were not observed in livers having less than 4.0 g lipid per liver or weighing less than 30 g wet weight. However, liver size and lipid level per se were not the definitive causes of the hemorrhaging because birds without hemorrhages had liver weights and lipid values equal to or greater than those with hemorrhages. Incorporation of lipotropic vitamins ($B_{12}$, E, choline, inositol) into the diet of laying chickens did not significantly ($P > 0.01$) reduce their liver lipid content. Increasing the dietary level of protein, vitamin $B_{12}$, vitamin E, choline, inositol, selenium and/or cobalt did not prevent the occurrence of liver hemorrhages. Liver lipid was significantly ($P > 0.01$) reduced by feeding a low energy diet; and no liver hemorrhages were observed.

THE ACCEPTABILITY OF ACIDULATED COTTONSEED SOAPSTOCK AS AN ENERGY SUPPLEMENT FOR BROILER DIETS. P.W. Walkroup and V.E. Tollett (Dept. of Animal Sci., Univ. of Arkansas, Fayetteville, Ark. 72701). *Poultry Sci.* 51, 1907–14 (1972). Studies were conducted with broiler chicks to determine the acceptability of acidulated cottonseed soapstock as a dietary energy source and to determine criteria which would be indicative of an acceptable sample. A poor quality sample, characterized by a high level of ether insoluble impurities (23.8%) and total gossypol (0.42%), caused a linear depression in weight gains, associated primarily with reduction in feed intake. Blending the poor-quality soapstock with high-quality animal or vegetable fats was of no benefit in alleviating this depression. Several samples of soapstock which were characterized by low ether insoluble impurities and gossypol were acceptable as energy sources for the growing chick.

STIMULATION OF STEROID SECRETION BY ANTIMICROTUBULAR AGENTS. R. Temple and J. Wolff (Natl. Inst. of Arthritis, Metabolism, and Digestive Diseases, Natl. Inst. of Health, Bethesda, Md. 20014). *J. Biol. Chem.* 248, 2691–8 (1973). The antimicrotubular agents (colchicine, vinblastine, and podophyllotoxin) have been found to stimulate steroid production by Y-1 adrenal tumor cells in culture. The amount of steroid secreted under the influence of these agents is comparable to the amount produced during maximal adrenocorticotropin (ACTH) stimulation. The steroid end products, 20$\alpha$-dihydroprogesterone and 11$\beta$-hydroxy-20$\alpha$-dihydroprogesterone, are identical after both kinds of stimulation. ACTH stimulation and vinblastine stimulation are not additive. As with ACTH, stimulation by vinblastine occurs between the cholesterol and $\Delta$4-pregnenolone steps, and it is inhibited by aminoglutethimide and cycloheximide. It does not, however, involve activation of the adenylate cyclase system. The time course of stimulation differs from ACTH; the antimicrotubular agents stimulate after a 6- to 9-hour lag period which is absent with ACTH. $D_2O$, an agent which stabilizes microtubules, inhibits stimulation of steroid by vinblastine, ACTH, or cyclic adenosine 3',5'-monophosphate (cAMP). Steroid secretion by Leydig tumor cells in culture is also stimulated by vinblastine, but to a lesser extent than by cAMP. This stimulation exhibits a lag period and is inhibited by $D_2O$. We propose that the antimicrotubular agents facilitate access of cholesterol to the mitochondrion and that this may also be the mechanism of hormonally-stimulated steroid secretion.

EPIDEMIOLOGY OF CORONARY HEART DISEASE AND STROKE IN JAPANESE MEN LIVING IN JAPAN, HAWAII, AND CALIFORNIA: METHODOLOGY FOR COMPARISON OF DIET. J.L. Tillotson, H. Kato, M. Nichaman, D.C. Miller, M.L. Gay, K.G. Johnson and G.G. Rhoads (Clinical Applications Program, Nat'l. Heart and Lung Inst., Bethesda, Md. 20014). *Am. J. Clin. Nutr.* 26, 177–84 (1973). Details of the dietary studies carried out in conjunction with a study of men of Japanese ancestry now living in Japan, Hawaii, and California have been presented together with preliminary results. Dietary information gathered by four different methods over a period of 5 years reveals striking differences in dietary patterns as the Japanese men have migrated to areas where American culture prevails. Using the data from these collaborative studies of men with a common ancestral background, the relationship of nutrient intake to serum lipid levels will be analyzed in subsequent reports.

THE EFFECT OF VITAMIN E ON EGG PRODUCTION, HATCHABILITY AND HUMORAL IMMUNE RESPONSE OF CHICKENS. R.P. Tengerdy and C.F. Nockels (Dept. of Microbiol., Col. State Univ., Fort Collins, Col. 80521). *Poultry Sci.* 52, 778–83 (1973). Vitamin E supplementation (132 mg/kg) to a control chicken diet

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## • President's Club. . .

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