

# FOUR CORNERS



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**R. MARCUSE, E. VIOQUE, Corresponding**  
**Secretaries**

**Argentina . . . . . Meny Bergel**

## **Effects of glibenclamide and tolbutamide on rat liver fat**

C.E. Guzzo and H.F. Abitbol of the Cátedra de Farmacología, Facultad de Ciencias Médicas, Universidad Nacional de Cuyo, Mendoza, have studied the disputed beneficial effect of tolbutamide on experimental liver fat in 32 albino Wistar rats, and, likewise, the effect of the oral hyperglucemiant glibenclamide on liver fat.

The drugs were administered daily in high and low oral doses for 20 consecutive days, at the end of which the animals were sacrificed. The total hepatic fats was determined by the Folch method, and sections of hepatic tissues were stained with Sudan Black and glycemics by the method of orthotoluidine, before and after the period of treatment. Samples of plasmas were obtained for *insullemias* and were maintained at -20 C. The hyperfat diet utilized was the one proposed by Cascio. The analysis of the data reveals that, contrary to Cascio's findings, the tolbutamide does not prevent the accumulation of liver fat.

Contrary to Barthé, the total hepatic fats is not diminished by the action of the tolbutamide with 1/R ratios (wt of liver/wt of rat) of low numerical values. The glibenclamide does not prevent the formation of liver fat in rats.

## **Oral evaluation of glucosilaminoglucones**

M. Propker, N. Szappanos, M. Pongracz and J.L.J. Szabo of the Departamento de Farmacología, Szabo Hnos, Kessler y Cia, have conducted a study based on the work of Hahn (1943), who found that the capacity of heparin diminishes the concentration of fats in blood. In this recent study the experimenters kept in mind that heparin is active only through injection, and considered its anticoagulant capacity as a contraindication.

An active hyarinoide was obtained by oral means. Among the fractions isolated from the duodenum one in which condroitin 4 sulphate (condroitin sulphate a.) predominates was considered. Other constituents were: hialuronic acid, glucopeptids, heparitin sulphate, dermatan sulphate, and condroitin sulphate 6.

Presently the experimenters are engaged in the separation of each one of these constituents and its pharmacological testing. No simple in vivo method is known for evaluating the activity of hyperlipemiant by oral means. It is because of this that the experimenters propose the following, which is based on the inhibition of the hyperlipemiant effect of ACTH by the administration of glucosilaminoglucones. It was demonstrated that fractions administered orally to rabbits inhibit the liberating activity of FFA by ACTH.

**India . . . . . K.S. Krishnan**

## **Oil Technologists' Association of India**

The OTAI has appointed two panels of judges for the

awards of Jaipuria and Mahanarain Gold Medals for: (a) outstanding research contributions in oil chemistry and technology and allied subjects, and (b) outstanding contribution to the oil and oil-based industry.

The *Journal of OTAI* has been revised and will be published in four issues per year, beginning in January. It will include the following additional features: (a) reviews on technological aspects and current developments; (b) proceedings of various seminars held by the different zonal branches of the OTAI; (c) highlights from literature published in various international journals; (d) information on new products, processes and equipment.

The OTAI plans to hold its 28th Annual Convention and Symposium at the end of February or beginning of March, 1973, at the Taj Mahal Hotel, Bombay. The main subjects for discussion are: increasing yield of oilseeds per hectare; production of inedible oils; production and processing of sunflower oil; development of synthetic fatty acids and synthetic glycerine to make up shortage of fat and glycerine in the country; use of phosphates in detergents; solvent extraction: sludge waste; and requirements of oils, soaps and detergents.

The OTAI recently published a brochure on sunflower seed and on the processing of sunflower oil.

## **OTAI Southern Zone:**

A refresher course on surface coatings was organized at the Regional Research Laboratory, Hyderabad, September 20-30, 1972. About 70 participants from industries, universities and research laboratories attended the course. The refresher course was inaugurated by N.R. Kamath of the Indian Institute of Technology, Bombay. Twenty-five lectures by experts from the industries, universities and research organizations were arranged on various topics, and were followed by demonstrations of modern analytical techniques.

The organizing committee consisted of M. Yaseen (Convener), M.A. Sivasamban, N. Bhojraj Naidu, P.S. Sampathkumaran, B.G.K. Murthy, M.M. Shirsalkar, M.M. Paulose, S. Venkob Rao and A.S. Indulkar.

## **OTAI Western Zone:**

A fourth refresher course on chemistry and technology of oils was conducted November 19-December 2 at the YMCA International House, with practical classes at the University Department of Chemical Technology and at the Hindustan Lever Research Center. The course was inaugurated by B.P. Godrej and included 38 lectures by chemists and technologists from industry and educational institutions.

A 1 day seminar on oil-based food products was held at Taj Mahal Hotel, Bombay, on November 26, 1972. It dealt with following subjects: nutritional value of fats; cooking oil, traditional and ideal; nutritional spread for children; consumer requirement for fatty foods; prospects of sunflower oil in India; problems of fat-based food industry in India; butter or margarine—a family choice; role of pack-

aging in preservation of fatty foods; modern trends in confectionary fats; and international scene on fatty foods.

#### **Kane appointed emeritus scientist**

J.G. Kane, OTAI president and formerly the director of the Department of Chemical Technology, University of Bombay, has been appointed emeritus scientist by the Indian Council of Agricultural Research. Kane is well known as a teacher and research worker in the field of oils and fats. The present appointment is a high honor, in recognition of his contributions.

#### **Khan, Ajila and Bhow earn new appointments**

M.A. Wadud Khan, till recently the managing director of the Tata Oil Mills Co. Ltd., has been appointed chairman of the Holding Company for Steel by the government of India. This is another instance of changeover of senior executives from the corporate sector to the governmental sector of industries in India. Khan is well known for his dynamic leadership in industry.

K.K. Ajila, till recently general manager (production) of the Tata Oil Mills Co. Ltd., has been named executive director on the board of the same company. Ajila was born in 1922 and after a successful scholastic career, joined TOMCO in 1947 and rose to the position of general manager in 1965. He was also affiliated with Geoffrey Manners & Co. Ltd. for a period of 8 years. Ajila has been closely associated with planning, designing and execution of various new schemes for TOMCO. He is actively connected with OTAI, the Institute of Chemical Engineers, the Indian Chemical Association and other learned societies.

N.R. Bhow, till recently general manager (projects) of the Tata Oil Mills Co. Ltd., has been promoted as director in charge of projects of the same company. Born in 1922, Bhow took his Ph.D. in Chemical Engineering from Brooklyn Polytechnic Institute in 1950. Earlier he was connected with Swastik Oil Mills as their deputy general manager and was responsible for setting up the first detergent plant in India. He worked as U.N. consultant in oils, fats, soaps and detergents for ECAFE. Bhow is a member of various committees appointed by government of India and has written numerous articles on oils, soaps and detergents. He is closely associated with the OTAI, having convened many of its seminars, and also with many other learned societies.

#### **G.S. Nevatia elected president of ISTMA**

G.S. Nevatia, managing director of Kusum Products Ltd., has been elected president of the Indian Soaps and Toiletries Makers' Association, whose offices are located at P-11, Mission Row Extension, Calcutta-1.

#### **Standardization in soaps and detergents**

A regional conference on standardization in soaps, detergents, cosmetics and toiletries was organized by the Indian Standards Institution in Bombay on October 6-7, 1972. The session on soaps and detergents was presided over by J.S. Badami, who is adviser to Swastik Oil Mills, Bombay.

The session on cosmetics and toiletries was presided over by A. Seetharamiah, who is deputy director general of the Directorate of Technical Development of the Government of India. Two papers have been published, by way of background notes, by the Indian Standards Institution, Manak Bhavan, New Delhi-1.

#### **Japan . . . . . Teruzo Asahara**

#### **Biodegradation test methods of nonionics**

At the JOCS-AOCS Joint Meeting last April, the JOCS Biodegradation Subcommittee gave an interim report of its shake culture test method of nonionics. Surfactants used

for this test are alkylphenol or alcohol ethoxylates and alkanol amide, and after biodegradation residual surfactants of those are estimated by foam volume or colbaltothiocyanate analysis, or both.

In Japan increased use of emulsifier for oil spill induced the demand to establish the standard of biodegradability and fish toxicity of nonionics by the Ministry of Construction, which is in charge of coastal oil spill accident. On the other hand, because of severe regulation against water pollution, users of industrial surfactants tend to use biodegradable nonionics and request the standard test method to guarantee the biodegradability of nonionic products.

For these situations the Biodegradation Subcommittee decided to complete the draft of test method by next March. The draft will then be submitted to the government to make it the Japanese Industrial Standard (JIS). Of course this method is related only to primary biodegradation; yet disappearance of surface activity would contribute to avoiding water pollution.

#### **Continuing activity of JOCS GLC Committee**

Also at the JOCS-AOCS Joint Meeting, the JOCS GLC Committee reported the joint experiment results on FID gas liquid chromatography (FID-GLC). This joint test was held because of the widespread of FID-GLC measurement. Recently the Committee moved to establish the Standard Procedure of FID-GLC as an independent one from TCD-GLC, which was already established.

The Sterine Analysis Subcommittee is another new activity of the committee. The subcommittee was formed in October, aiming to identify animal and vegetable fat and oil by GLC analysis of contained sterine derivatives.

#### **Scandinavia . . . . . Reinhard Marcuse**

##### **Denmark**

*International Symposium on Emulsions and Foams in Food Technology, Ebeltoft, Denmark, April 3-5, 1973:* The Danish Society for Food Technology and Hygiene, a section of the Danish Society of Chemical Engineers, and the Food Working Party of the European Federation of Chemical Engineering, are preparing an international symposium, "Emulsions and Foams in Food Technology." The organizing committee consists of J. Kofoed, Copenhagen; S. Friberg, Stockholm; N. Krog, Brabrand; O. Christensen, Copenhagen; and O. Tolboe, Aarhus. The following sections are planned: (a) general and theoretical subjects; (b) dairy products; (c) meat products; (d) confectionary and baked goods; and (e) beverages. The working language will be English.

The symposium will be held at the Hotel Hvide Hus at Ebeltoft, Denmark, a small town 12 km from the Aarhus airport.

The preliminary technical program is available, by request, from the congress bureau: Food Technology Department, The Jutland Institute of Technology, Marselis Boulevard 135, DK-8000 Aarhus C, Denmark. Further information will be issued early in January 1973.

##### **Norway**

*Scandinavian Symposium on Quality of Feed for Fur-bearing Animals, Røros, September 1972:* The subsection "fur-bearing animals" of the Scandinavian Agricultural Research Worker's Association on the occasion of its 25th annual meeting at Røros, Norway, September 27-29, arranged a Scandinavian symposium on the quality of feed for fur-bearing animals. The symposium was organized by G. Loftsgård and P. Widding, Oslo, and G. Jørgensen, Hillerod, Denmark. Invited speakers gave reviews on items of general interest to the group, such as lipid alterations, nutritive aspects of proteins, and additives in feeds. The full text of the papers given will be published as a special

monograph in Scandinavian languages and can be obtained, upon request, from: Nordiska Jordbruksforskarens Forening, Wergelandsvejen 15 III, Oslo 1.

*VIIth Scandinavian Symposium on Lipids, Røros, June 1973:* The VIIth Scandinavian Symposium on Lipids will be held at Røros, June 17-20, 1973. Papers are planned in the following sections: production, manufacture and consumption; and nutrition, foods and feeds. The following plenary lectures are planned: world production of fats; research on marine oils in Norway; lipoproteins and their metabolism; the metabolism of long chain fatty acids; and the demand for vitamin E and unsaturated fatty acids.

The organizing committee is chaired by Olav Notevåg, Trondheim. The secretary is John Lie, Denofa, Fredrikstad, Norway.

The symposium is part of the activity of the Scandinavian LIPIDFORUM. Information can be obtained through: LIPIDFORUM, c/o SIK, Fack, S-400 21 Göteborg 16, Sweden.

#### Sweden

*IUPAC-Sponsored Symposium on Control of Mycotoxins:* In connection with the annual meeting of IUPAC Food Section, the Food Contaminants Commission organized an International IUPAC-Sponsored Symposium on Control of Mycotoxins, August 21-22, at Kungälv near Göteborg. The organizing committee consisted of A.D. Campbell, Washington; P. Krogh, Copenhagen; I. Purchase, Pretoria, and was chaired by R. Marcuse, Göteborg.

The symposium was supported by the Swedish Board for Technical Development (STU) and the Danish Research Board for Natural Sciences, and was arranged through the courtesy of the Swedish Institute for Food Preservation Research, Göteborg. Eighty participants represented 20 countries; WHO sent 2 representatives.

L.A. Goldblatt, New Orleans, gave the introductory review, which he called "Aflatoxin—A Case History." Thirty papers were read in the following sections: metabolism and biological action; natural occurrence; and methods for detection and determination. The emphasis of the symposium was on mycotoxins rather than aflatoxins. There was a significant number of papers on certain special aspects of the aflatoxins, which also were regarded as pertinent subjects of the symposium.

The symposium was closed with a panel discussion chaired by F. Berglund of the Swedish Food Administration, Stockholm, under the heading "The Natural Occurrence of Mycotoxins and Control Measures by Supervising Authorities." This discussion was introduced by a review on toxicology of aflatoxin, given by W.H. Butler, Carshalton, Surrey, U.K.

Abstracts of the papers can be obtained by writing to R. Marcuse, SIK, Fack, S-400 21 Göteborg 16, Sweden. Price: 25 Sw.Crs. (postage included).

*LIPIDFORUM seminars:* A seminar on "Colloidal-Chemical Aspects in Fat Technology" was conducted by LIPIDFORUM at SIK in Göteborg on October 27. The program included eight contributions by scientists working in this field and was prepared in close collaboration with Stig Friberg, The Swedish Institute for Surface Chemistry, Stockholm, and Kåre Larsson, Lipid Chemistry Laboratory, Göteborg. Thirty-seven persons from Denmark, Finland, Norway and Sweden participated. It is planned to repeat this seminar, with some modification, in a year or so.

A seminar on "Lipoproteins and Their Metabolism" will take place at the Sahlgren's Hospital, Göteborg, on January 19, 1973, arranged by LIPIDFORUM and organized by Anders Gustafson. Preliminary announcement of the seminar has created great interest. Information can be obtained through: LIPIDFORUM, c/o SIK, Fack, S-400 21 Göteborg 16.

*LIPIDFORUM brochure:* "What is Done Where in

*Scandinavian Lipid Research and Technology*": A survey in Scandinavian lipid research and technology has been collected by R. Marcuse, with the assistance of B. Jensen in Denmark, J. Lie in Norway, P. Olafsson in Iceland and N.H. Simberg in Finland, and published in May 1972. In the preface a review is given of 20 years of Scandinavian collaboration in the field of lipid research and technology, and especially of the Scandinavian organization LIPIDFORUM started in 1969.

The survey is divided into three sections: research not of physiological-medical type; research of physiological-medical type; and technology. Each section consists of separate parts for Denmark, Finland, Iceland, Norway and Sweden with information from a total of nearly 100 institutions and companies. The information includes names of the leading personnel, number of employees, kind of activity, general program, projects, facilities and in many cases also data for annual production.

A final chapter, called "Facts in Figures" and collected by J. Kahl, contains statistical data for, e.g., oil and seed cultivation, animal production, industrial production, import and export, and consumption.

The booklet, 86 pages, is published by LIPIDFORUM (mailing address: c/o SIK, Fack, S-400 21 Göteborg 16). Price Sw.Crs. 20.-, postage included.

#### Spain . . . . . Eduardo Vioque

##### VIIIth Plenary Meeting of the Assembly of Members of the Instituto de la Grasa y sus Derivados

As every year, the VIIIth Plenary Meeting of the Assembly of Members of the Instituto de la Grasa y sus Derivados was held in Seville, Spain, May 17-19, 1971.

The sessions were presided over by J.M. Piñar, president of the Technical and Administrative Council of the Instituto de la Grasa; J.M. Martínez Moreno, director of the institute; R. Lengarán, as a representative of the General Commissary of Food and Transport, and the members of the council Mr. Carbonell, Mr. Muñoz and Mr. Ribelles. Many people attended the sections not only from Spain but also from Portugal. Also present were experts from France, Switzerland and Germany.

The following papers were among those presented: "The Technology of Table Olives in Several Mediterranean Countries," M.J. Fernández Diez; "Report on the Last Results on the Research on the Processing of Black Table Olives," M.J. Fernández Diez and A. Garrido; "Report on the 1971-72 Crop from the Experimental Mill of the Instituto de la Grasa," J.M. Martínez Suárez; "Control Instrumentation in the Oil Industries," P. Díaz (Fischer and Porter Iberica, S.A.—Madrid); "Oil Refining Study on the Determination of Refining Loss and Its Correspondence with Those in the Industry," J.M. Prieto and F. Ramos; "The Use of Sunflower Flour for Feeding," M.J.C. Ronssean (L'Air Liquide, Paris); "The Canning of Edible Oils Using Plastic Materials," R. Anguita (Reposa, Madrid); "The Study of New Materials for Canning Olive Oils," F. Gutierrez and R. Gutierrez; and "Gas Liquid Chromatography and Panel Test Applied to the Study of Canned Olive Oils," J.M. Olias.

The assembly granted the gold medal "Marqués de Acapulco" to M. Lora, to whom the Instituto de la Grasa owes its creation in Seville in 1947.

The plenary assembly came to the following conclusions: (1) The assembly agrees with the project of canning all the olive oil as an obligatory law. (2) The assembly considers it of great interest to recommend to the canning people the use of a system to control the time the oil is under canning conditions. (3) As a result of the research work developed by the Instituto de la Grasa, the assembly considers it quite important to store the olive oil in opaque  
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containers.

Regarding the black table olives, the increasing interest taken in this direction by the olive tree growing countries is clear. The last results obtained in the investigations on black table olives were presented and were a significant help to the industry. For this reason it has become necessary to continue the research work on that point by the Instituto de la Grasa, in order to maintain and improve the competitive situation of our country in this international market.

### Expoplasic '72

Expoplasic '72, a technical fair devoted to the industry of plastic materials and related products, took place during October of 1972. This fair is held every 3 years in Madrid and constitutes the greatest exponent of the polymeric materials industry. Participating were the starting materials industries, manufactured products, machinery, etc., representing ca. 200 firms.

The main interest of this demonstration on plastic is that it represents a great impact on other industrial sectors using those products. Apart from the actual exhibition there were several technical sessions to study the economical-technological aspects of the industry. This fair is organized by the Association for the Progress of Science and Technology (FOCITEC) in collaboration with the Official Board of Commerce and Industry of Madrid, as well as the Institute of Plastic and Rubber of the Scientific and Technical Patronage "Juan de la Cierva."

### 26th Meeting of the International Oil Council (COI)

The 26th Meeting of the COI was held in Madrid, June 5-9, 1972, and was attended by 16 delegates from member states, observers from nine countries, nonmembers as well as representatives of several governmental and nongovernmental organizations such as the United Nations Organization, Conference of the United Nations for Commerce and Development (UNCTAD), United Nations Organization for Food and Agriculture (FAO), European Economical Community (CEE), International Commerce Chamber (CCI) and Oilculture International Federation (FIO).

One of the problems studied by a technical committee was that related to the determination of tocopherols in both olive and orujo (sulfur olive) oils, in order to complement the standard adopted by the codex alimentarius.

A resolution was adopted to make interregional the Center of Improvement and Demonstration of Oil Techniques of Córdoba (Spain) (Project PNUD/FAO) (Spanish Government), established 2 years ago, the aim of which is to specialize technical people from developing countries and to accomplish research work.

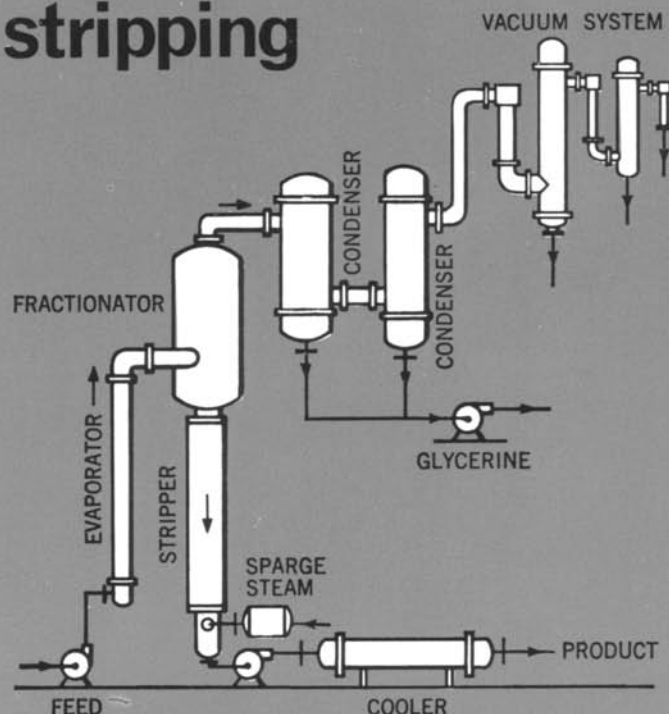
It was also decided that every country should start making the determination of sterols, as well as the determinations of the triglyceride structure, by using the pancreatic lipase method in their oils. ■

### Woodson-Tenent implements new lipids section

AOCS member James Laubscher has announced that Woodson-Tenent Laboratories can now do all types of lipid chemistry. Along with the established tests needed for referee vegetable oil work they have the capabilities of determining the percentages of soybean oil, cottonseed oil and palm oils in mixed oils, through the use of fatty acid composition. Other lipid materials such as cholesterol and stigmaterol are readily quantitated in products by gas liquid chromatography.

Laubscher, a member of the AOCS Smalley Committee, is vice-president at Woodson-Tenent. ■

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