edge on various pertinent issues. It was suggested that another meeting be held, in about 2 years, but that it should be focused upon a more narrowly defined topic and arranged so as to constitute a work conference dealing with the particular topic.

The Steering Committee is in the process of deciding the manner in which the proceedings will be published.

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Fungi and Yeasts: Chemistry and Biochemistry

Fungi and yeasts, whose metabolic activities have been of perennial interest, in recent years have been the source of many substances—for example, antibiotics, pigments, and polyphenolic compounds. The chemistry and biosynthesis of these substances are, in turn, of theoretical and practical importance and were the subject of discussion at an international meeting at University College, Dublin, 18–20 July. About 200 chemists and biologists attended.

In the sesssions on chemistry, V. Prelog (Zürich) presented the structure of the macrolide antibiotic rifomycin-S. The reactions of vitamin B_{12} and its "coenzyme" form, particularly the reactions with thiols, were described by A. W. Johnson (Nottingham). The high reactivity of the thiol cobalamines (>Co-S-R) makes them attractive possibilities as intermediates in biological O/R and alkyl transfer reactions.

During a discussion of the structure of the sclerotiorin group of antibiotics, W. B. Whalley (London) reported that CH_3-labeled malonate is a specific precursor of the terminal methyl of their common side chain. In contrast, the additional acetoacetyl side chain present in rotiorin is formed from two acetates rather than from one acetate and one malonate, as might have been anticipated. This side chain can also arise by oxidation of *n*-butyrate without equilibration with 2-carbon units.

General methods of causing organisms to alter their biosynthetic pathways were noted by A. J. Birch (Manchester) who reported the production of altered novobiocins after the addition of analogs of the noviose moiety, even though the free sugar was not utilized for antibiotic formation. The biological aspects of antibiotic biosynthesis were considered by D. J. D. Hockenhull (Glaxo Laboratories), who emphasized the importance of initial growth conditions and of the "maturation" or organization phase for the formation of highly productive cells. The suboptimal cell types usually obtained by continuous culture conditions constitute a serious limitation to the usefulness of this technique.

The metabolic patterns of two organisms growing under conditions characterized by a long lag phase were analyzed. *Caldariomyces fumago,* in an unusual sequence, initially oxidizes glucose to gluconic acid and then to 2-ketogluconic acid (D. Gottlieb, University of Illinois). Adaptation to phosphorylation of 2-ketogluconic acid finally occurs, and the resulting 6-phosphate ester is then reduced to 6-phosphogluconic acid, which is utilized through both the pentose and Entner-Doudoroff pathways. The long and unpredictable lag of *Torula utilis* on acetate (oxidation occurs without net synthesis of protoplasm) is apparently terminated by the formation of isocitrate lyase. G. Ehrensvärd (University of Lund) pointed out that the requirements for induction cannot be defined at present, but that isocitrate accumulation is not the critical factor.

Yeast has no defined Golgi apparatus, such as is present in higher plants and is considered to form the polysaccharide that is subsequently transported to growing points of the cell wall. However, D. H. Northcote (Cambridge) demonstrated that membranous structures are adjacent to the nucleus and may play an analogous role in secreting wall material. It was reported that these structures are continuous with the cell membrane and have a high content of mannan, thus supporting Northcote's concept of their function.

Appropriately for a meeting in Ireland, E. Kuster (Dublin) outlined the composition and microbial flora of peat. Extracts of peat, though poor energy sources, stimulate the growth of a variety of organisms. The lectures were followed by a group visit to the peat bogs to observe the mechanized production of milled peat and peat briquettes.

The symposium was sponsored by the Irish National Committee for Chemistry under the auspices of the International Union of Pure and Applied Chemistry and was supported by Arthur Guinness Son and Company (Dublin) Ltd. The lectures will be published in *Pure and Applied Chemistry.*

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Forthcoming Events

November

11–16. **Engineering Materials and Design,** conf. and exhibition, London, England. (Industrial and Trade Fairs, Ltd., Commonwealth House, 1–19 New Oxford St., London, W.C.1)

12–15. **Magnetism** and Magnetic Materials, 9th conf., Atlantic City, N.J. (W. D. Doyle, Franklin Inst. Laboratories, 221 N. 21 St., Philadelphia 3, Pa.)

13–14. American College of **Preventive Medicine**, Kansas City, Mo. (R. E. Coker, Jr., Univ. of North Carolina, Chapel Hill)

13–15. Eastern **Analytical** symp., 5th, New York, N.Y. (R. F. O'Connell, Sperry Rand Research Center, Sudbury, Mass.)

13–16. American **Medical Women's Assoc.,** San Antonio, Tex. (AMWA, 1790 Broadway, New York 19)

14–15. **Chemical Engineering**, 20th symp., College Park, Md. (ACS, 1155 16th St., NW, Washington, D.C.)

14–21. **Measurement, Control, Regulation and Automation**, 2nd intern. congr., Paris, France. (MESUCORA, 40, rue de Colisée, Paris 8)

15–16. **Cineradiology**, 4th symp., Rochester, N.Y. (S. M. Rogoff, Div. of Diagnostic Radiology, Univ. of Rochester Medical Center, Rochester 20)

15–16. International Soc. of **Dental Surgeons**, Las Vegas, Nev. (E. Altshuler, 6043 Hollywood Blvd., Los Angeles, Calif.)

15–16. American Inst. of **Industrial Engineers**, regional conf., Davenport, Iowa. (C. G. Worthington, 100 Park Ave., New York 17)

15–19. **Diabetes**, 1st world congr., Chicago, Ill. (with the 2nd Pan American Diabetic Congr.). (Diabetic Inst. of America, 55 E. Washington St., Chicago 2, Ill.)

17–22. American Soc. of **Mechanical Engineers**, winter annual, Philadelphia, Pa. (ASME, 29 W. 39 St., New York 18)

17–22. **Radiological** Soc. of North America, annual, Chicago, Ill. (M. D. Frazer, 1744 S. 58 St., Lincoln, Neb.)

18–19. Unconventional **Inertial Sensors**, symp., Farmingdale, N.Y. (M. J. Minneman, Republic Aviation Corp., Farmingdale)

18–20. **Engineering in Medicine and Biology**, 16th annual conf. and exhibit, Baltimore, Md. (H. Gilmer, 933 Ridge Ave., Pittsburgh 12, Pa.)

18–21. **Atomic Industrial Forum** and American Nuclear Soc., winter meeting, New York, N.Y. (O. J. Du Temple, ANS, 86 E. Randolph St., Chicago 1, Ill.)

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