# Meetings

## Antimicrobial Agents and Chemotherapy

Aspects of antimicrobial agents, infectious diseases, microbiology, and chemotherapy were discussed at the 4th Interscience Conference on Antimicrobial Agents and Chemotherapy, New York, 26–28 October 1964. The meeting was sponsored by the American Society for Microbiology, with the cooperation of the Infectious Diseases Society of America; 1045 scientists from 19 countries attended.

The opening speaker, Maxwell Finland (retiring president of the Infectious Diseases Society), discussed problems in the clinical study of new drugs. The roles of the FDA and other regulatory agencies were reviewed: investigators must be permitted to exercise some initiative and responsibility. The John Scott Award for Meritorious Scientific Achievement was presented by the City of Philadelphia to Professor J. C. Sheehan (M.I.T.) for research leading to the preparation of "semi-synthetic penicillins."

A symposium convened by Morton Hamburger discussed penicillins and cephalosporins. This session included reviews of the clinical status of cephalothin (W. M. M. Kirby), ampicillin (Sidney Ross), oxacillin and methicillin (Harold Simon), and nafcillin (C. M. Martin). P. B. Bunn reported his experience with penicillin allergy and emphasized the apparent absence of strong sensitivity to ampicillin in patients allergic to penicillin G; obviously certain of these newer, semisynthetic penicillins are as clinically useful for treating certain gram-negative infections as some of the other antibiotics, including chloramphenicol. However, Simon commented that we do not yet have a "panaceamycin" useful for all infections. M. R. Pollock (National Institute for Medical Research, London) summarized his studies on the $\beta$-lactamases of bacteria, enzymes that inactivate both penicillins and cephalosporins.

New antimicrobial agents were described. Weinstein *et al.* (Schering Corp.) described the everninomicin complex (produced by *Micromonospora carbonacea*) which inhibits gram-positive bacteria and pleuropneumonia-like organisms. The *S*-ethyl homolog of lincomycin and the *N*-dimethyl analog of lincomycin are formed by adding DL-ethionine and $\alpha$-methylthiolincosamide, respectively, to lincomycin-producing fermentations, according to a report by Mason, Argoudelis, *et al.* (Upjohn Company). Almarcetin, a new polypeptide antibiotic active against certain plant pathogens, was described by Bachler *et al.* (U.S. Department of Agriculture). K. G. Gupta (Regional Research Laboratory, Jammu-Tawi, India) described a new acidic heptaene antifungal agent named monicamycin. Enteromycin (also known as seligocidin) was found in a streptozotocin-producing fermentation, according to R. R. Herr *et al.* (Upjohn Company), and enteromycin carboxamide was found in another streptomycete fermentation by S. E. DeVoe *et al.* (Lederle Laboratories). U-13714, an antiviral agent from *Streptomyces canarius*, was described by Vavra *et al.* (Upjohn Company) who reported that the therapeutic index for this antibiotic was too low to permit extensive evaluation. LL-AP191, a new antibiotic inhibiting both gram-positive and gram-negative bacteria and related to xanthomycin, was described by Whaley *et al.* (Lederle Laboratories). A toxic antibiotic named rubiflavin was mentioned by Aszalos (Squibb Institute).

In the sessions concerned with clinical problems and treatment of humans, a wide variety of topics were discussed. Animal infections studies pertinent to the understanding of host resistance and drug action included: pneumococcal infections in splenectomized monkeys; prophylaxis of aerogenic Rocky Mountain spotted fever in monkeys; experimental *Histoplasma capsulatum* endocarditis; Coxsackie A-9 infection in adult mice treated with steroids and in mice with forced exercise; penicillin toxicity in guinea pigs, related to changes in microbial flora; and renal infection with enterococcal protoplasts in rats.

Clinical studies concerned several chronic conditions, including: fungal diseases in reticuloendothelial malignancies; infection in volunteers with gonococci resistant to penicillin; staphylococcal carriers; chronic bronchitis and pulmonary disease; retreatment of tuberculosis; *Salmonella* carriers; urinary tract infections; and pathogenic studies in gram-negative rod infections. Studies of antibody responses were reported in cases of gonococcal and meningococcal infection, herpes simplex disease, and staphylococcal states.

Subjects of papers on experimental infections included: *Mycobacterium fortuitum* in mice as a TB screen; hamycin in experimental mycoses in mice; a standardized *Leptospira pomona* infection in hamsters; experimental localized *Pseudomonas* infection (keratitis) in rabbits; septicemic anthrax in rhesus monkeys; and the use of sulfonamides in murine leprosy.

Among synthetic antimicrobial agents reported for the first time at these meetings were an antifungal agent, Tolnaftate (*O*-2-naphthyl-*m*,*N*-dimethylcarbanilate), 1-(5-nitrofurfurylideneamino)-2-imidazolidinone, and 4(5-nitro-2-furyl)-2-(3-pyridyl)thiazole. Sevag and Ashton described experiments in which quinacrine–antibiotic combinations effectively prevented emergence of strains of gram-positive and gram-negative bacteria resistant to the antibiotics.

Most papers presented will appear in *Antimicrobial Agents and Chemotherapy—1964*, to be published by the ASM in April 1965. The book will be distributed to all registrants at the meeting and will be available from the ASM.

The 1965 meeting will be combined with the 4th International Congress of Chemotherapy and will be jointly sponsored by the American Society for Microbiology and the International Society for Chemotherapy, with the Infectious Diseases Society cooperating; G. M. Savage is general chairman. The sessions will be held in the Shoreham Hotel, Washington, D.C., 17–21 October. Information may be had from the American Society for Microbiology, 115 Huron View Blvd., Ann Arbor, Mich.

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