**PART IV**

# The Army Epidemiological Board is Reorganized as the Armed Forces Epidemiological Board

After the war, it was obvious to those in authority that all three of the military services could benefit from having a lay board of civilian medical scientists from whom they could seek advice. On **23** April 1948, the Committee on Medical and Hospital Services of the Armed Forces (more widely known as the Hawley Board, after Surgeon General Hawley) submitted its report entitled "Standardization of Preventive Medicine Practices and Procedures Within the Armed Forces" to Secretary of War Stimson. The report recommended that *(a)* the Army Epidemiological Board be expanded to include commissions that special problems of the Navy and Air Force might require, and *(b)* it be redesignated the Armed Forces Epidemiological Board, an advisory group to the Surgeons General of the Army, Navy, and Air Force, for consultation on field problems, field investigations, and research in preventive medicine. On 29 November 1949, the Surgeon General of the Department of the Army advised the Secretary of the Army that the Armed Forces Epidemiological Board had been established as a tri-service board, as directed. This document appears in Appendix **4.**

It had also become clear to the three Surgeons General that the activities of the Board and its Commissions should be continued during peacetime, but not until 8 October 1953 did the Department of Defense publish its Directive 5154–8, which was referred to as "The Charter." This directive, which also appears in Appendix **4,** designated the Armed Forces Epidemiological Board as a joint agency of the three military services under the management of the Secretary of the Army, and subject to the authority, direction, and control of the Secretary of Defense.

The Board was enlarged from seven to nine members, all civilians, who were selected on the basis of their national standing in fields related to the Board's functions. The members, nominated by the three Surgeons General, were appointed by the Secretary of the Army to a four-year term as a consultant. The Board elected a president from among its members, who served a three-year term and could be reelected. Over the years, individual commissions were modified, reformed, or discontinued. New commissions were formed to meet military needs as they arose; after the commissions had served their purposes, they were retired. By 1955, there were fourteen commissions of the Board.

## The AFEB's Role in the Establishment of the Berry Plan

In the 1960s and early 1970s, while Gustave J. Dammin, M.D., was President of the AFEB, Board members engaged in numerous activities that involved governmental policies related to the Board's interest. Dr. Frank Berry, an accomplished surgeon, had served as a consultant in surgery to the Surgeon

General of the Army begining in 1946. Dr. Berry was later appointed Assistant Secretary of Defense for Health Affairs. In 1963, Dr. Dammin (along with various members of the AFEB who worked through Dr. Berry) rendered advice to the Department of Defense that helped formulate the policy of medical-officer deferral that became known as the Berry Plan. On one occasion, Dr. Dammin met with Admiral Rickover, who was very helpful in presenting the policy requirements to the House Appropriations Committee. Because it deferred physicians until they were trained in their specialties, the Berry Plan strengthened the officer pool not only in preventive medicine, but **also** in clinical internal medicine and other specialties with epidemiological interests. This action helped the Department of Defense fill a large number of vacancies with physicians who were both well-qualified and experienced.

### **The AFEB's** Assistance to **the** Overseas Laboratories

Gus Dammin actively pursued the work that was done in the Department of Defense's Overseas Laboratories. During his tenure as President of the AFEB, he made site visits in 1964, 1965, and 1966 to the laboratories in Dacca, Bangkok, Kuala Lumpur, and various sites in India. His contributions as a consultant, which advanced the knowledge of acute diarrheal diseases such as cholera, were significant.

During his various trips overseas, Dr. Dammin not only visited the countries where the studies were being performed, but he also conferred with medical authorities and Preventive Medicine and Laboratory Officers in U.S. installations in Germany and other European sites, such as the 97th General Hospital, Frankfurt (in 1970 and 1972); the 9th Hospital Center, Landstuhl (in 1970 and 1972); the 4th Epidemiological Flight, Wiesbaden (in 1970); the Navy Preventive Medicine Section, Naples (in 1970); and Glostrup Hospital Group, Copenhagen (in 1970). These activities were of inestimable value to the AFEB and also to the Medical Research and Development Command, whose interests related to epidemiological surveillance, laboratory diagnosis, and disease control. In 1971, he published a report in *Military Medicine* that described the contributions to, and influences on, medicine by military research. (*Bull.* N.Y. *Acad. Med.* 47: 1455–1472, 1971.)

One of Dr. Dammin's major areas of interest was Balkan neuropathy, which was localized in isolated areas of Yugoslavia, Rumania, and Bulgaria. With Board member Dr. Charles Rammelkamp, Dr. Philip Hall, and others, he investigated the cause of this disease. They searched for the presence of nephrotoxic agents in not only the specific environment, but also in heavy metals, trace elements, plant toxins, and viruses, all of which had been suggested as possible causative agents. Although none of their studies produced sufficient evidence to establish the cause of this peculiar disease, it became apparent to the research team that urothelial cancers of the renal pelvis and the ureters coexisted with Balkan neuropathy in this same population group. Drs. Dammin and Hall published a comprehensive review of Balkan neuropathy in 1972.

### Significant Medical Accomplishments That Helped to Improve the General Public Health

The accomplishments that led to improved health in the military services represent a series of medical landmarks. Because many of the problems of preventive medicine and disease control are shared, these achievements benefited not only the Armed Forces but also the public. When the Board investigated the preventive-medicine problems of the Armed Forces, it was expected to, and did, take into consideration *(a)* the research being conducted by governmental and non-governmental agencies on similar problems, *(b)* the propriety of the research methods that were recommended for use by the military, and *(c)* the pertinent practices emphasized by the military departments in the Preventive Medicine program. There is no better example of cooperative research between the military services and academic institutions. Some **of** the accomplishments that resulted from this **joint** research are the following:

- Development of a purified pulysaccharide vaccine fur pneumunia
- Development of an influenza vaccine that required annual changes of antigenic composition

*Experimentalreproduction of infectious hepatitis, demonstrating that the agent resides in intestinal discharges and blood serum, which provided a firm base for developing control measures

- Demonstration that injections of gamma globulin will prevent naturally occurring infectious hepatitis

*Demonstrationthat the agent of primary atypical pneumonia is transmissibleby filtered bacteria-free secretions from the respiratory tracts of patients with acute manifestations of illness

- Demonstrationthat sulfadiazine can abort or prevent outbreaks of meningococcalmeningitisand arrest the carrier state

*Demonstration that penicillin and the tetracycline antibiotics prevent rheumatic fever by controlling beta hemolytic streptococcal infections

*Demonstration that streptococcal respiratory disease spreads, not from blankets or floor dust, but by personal contact, which revolutionized the hygienic protective measures aimed at control

- Proof that the automobile seatbelt is effectivein preventing serious injury, and that vehicular door locks are implicated as a cause of injury

*Demonstrationof the first known specific cures of scrub typhus, murine typhus, and Rocky Mountain spotted fever with chloramphenicolin 1948

*Reported the chemoprophylactic field studies that showed that the intermittent administration of chloramphenicol(later tetracycline) prevented scrub typhus in volunteers, in 1948

- Reported the first known effective cure of typhoid fever with chloramphenicolin 1948

*Reported the infectious dose of *Salmonella typhosa,* in a series of studies using volunteer subjects, and demonstrated that inactivated typhoid vaccine (acetone-killed)resulted in short-term but limited immunity. (Because paratyphoid **A-** and B-type vaccines were of limited efficacy, newer vaccines utilized a monovalent, acetone-killed, dried product.)

- Development of the first specific chemoprophylaxisfor leptospirosis

*Reportedthat field surveillancestudies magnified the importance of leptospirosis as a common cause of Fever of Undetermined Origin in various geographic areas, and that available antibiotics were ineffective as therapeutic agents

*Reported a series of studies that showed that very small doses of diphtheria toxoid were effective in recalling established immunity, and that adverse reactions were minimized by use of a purified toxoid

*Development of tetanus and diphtheria toxoids and introduction of their **use** in the military, which became standard in the United States until an alum-adjuvanted tetanus and diphtheria toxoid later permitted significant extension of the booster intervals

.Sponsored and assisted in the development of jet injectors with intradermal capability, a technique for vaccine administration that was instrumental in helping control smallpox and other microbial diseases

*Reported the first therapeutic efficacy of chloramphenicol and tetracycline in bubonic, septicemic, and pulmonic plague using the oral route, which simplified the therapeutic regimen in the event of a sizable outbreak because streptomycin, a very effective antibiotic, must be injected

*Demonstration of the importance of cellular immunity (as differentiated from humoral immunity) and the transferability of this cellular immunity by the subcellular "transfer factor." (These studies sparked the whole field of immunology.)

• Development of the entirely new immunological technique of fluorescent labeling of antibodies, which enhanced the confirmed diagnoses of many microbial diseases and clarified their pathogenesis

• Sponsored the original studies of properdin, which was the basis for the greatly extended interest in complement pathways

*Greatly clarified the differing strains of dengue virus and elucidated the concept of dengue-shock syndrome, an important cause of death among children in Asian countries

*Developed new immunizing agents or vaccines for infectious diseases including the following:

*(a)* vector-borne virus diseases such as dengue, yellow fever, St. Louis encephalitis, western equine encephalitis, eastern equine encephalitis, Venezuelan equine encephalitis, Japanese B encephalitis, and others;

*(b)* the hemorrhagic fevers;

*(c)* the rickettsia1 diseases such as epidemic typhus, Rocky Mountain spotted fever, and Q fever;

*(d)* malaria;

*(e)* measles;

*(f)* mumps;

*(g)* diphtheria and tetanus toxoids;

*(h)* enteric infections such as bacillary dysentery, Shigella, *Salmonella typhosa, Vibrio cholerae,* and *Endamoeba histolytica;*

*(i)* plague and *Franciella tularense;*

*(j)* enteroviral diseases including poliomyelitis and others;

*(k)* meningococcal and gonococcal diseases; and

*(l)* adenovirus infections.

A complete list of the recommendations that were made by the Board between 1955 and 1989, including those concerning the administration of live vaccines, is found in Appendix **3.**

1948 Armed Forces Epidemiological Board and Commission Directors

Seated, left to right: Dr. Joseph T. Wearn, member; Dr. Francis G. Blake, member; Dr. Colin M. MacLeod, President of the Board; Dr. Kenneth F. Maxcy, member; and Dr. Gordon M. Fair, Director, Commission on Environmental Hygiene.

Standing, left to right: Dr. Thomas Francis, Jr., Director, Commission on Influenza; Dr. John R. Paul, Director, Commission on Virus and Rickettsia1 Diseases; Dr. John H. Dingle, Director, Commission on Acute Respiratory Disease; Dr. Frank L. Horsfall, Jr., Acting Director, Commission on Immunization; and Dr. Cecil J. Watson, Director, Commission on Liver Disease.

Not pictured: Dr. James S. Simmons and Dr. Karl F. Meyer, members.

1949 Armed Forces Epidemiological Board and Commission Directors

Front row, left to right: Dr. John Paul; Dr. Rolla Dyer; Dr. Thomas Rivers; Dr. Colin M. MacLeod, President of the Board; Dr. Francis G. Blake; General James S. Simmons, MC, **USA;** Coggeshall; Dr. Isador Ravdin; and Dr. William Tillett.

Second **row,** left to right: Dr. Cecil Watson; Dr. Thomas Francis, Jr.; unidentified; Dr. John H. Dingle; and Dr. Joseph Smadel.

Armed Forces Epidemiological Board and Commission Directors
**3** December **1956**

Seated, left to right: W. Barry Wood, Jr.; Richard F. Shope; Thomas Francis, Jr.; John H. Dingle, President of the Board; William P. Shepard, and Ernest L. Stebbins.

Center row, left to right: F. Sargent Cheever, Fred M. Davenport, Richard A. Kern, Colin M. MacLeod, Charles E. Smith, Rodney R. Beard, Alto E. Feller, and Ross A. McFarland.

Back row, left to right: H. K. Sessions, Donald M. Pillsbury, unidentified, Thomas H. Weller, Colonel H. N. Eisen, William McD. Hammon, Geoffrey Edsall, Floyd W. Denny, William S. Jordan, Jr., and Captain R. W. Babione, Executive Secretary.

**Armed Forces Epidemiological Board and Commission Directors**
8–10 May **1958**

Front row, left to right: **Dr.** W. Barry Wood, Jr.; Dr. Colin M. MacLeod; Dr. John H. Dingle; Dr. Thomas Francis, Jr., President **of** the Board; Dr. Stanhope Bayne-Jones; Dr. Clayton G. Loosli; Dr. Richard **A.** Kern; Dr. Charles **E.** Smith; and Captain W. **R.** Babione, MC, **USN,** Executive Secretary.

Center row, left to right: **Dr.** Joseph E. Smadel; Dr. Richard E. Shope; Dr. Rodney R. Beard; Dr. Fred M. Davenport; Dr. William McD. Hammon; Dr. **A. E.** Feller; **Dr.** Francis *S.* Cheever; and Dr. Thomas H. Weller.

Back row, left to right: Dr. Charles L. Wisseman, Jr.; Dr. Donald M. Pillsbury; Dr. B. G. King; **Dr.** Ross **A.** McFarland; Dr. Charles H. Rammelkamp, Jr.; Dr. William S. Jordan, Jr.; Captain H. K. Sessions, MC, USN; **Dr.** M. Brown; Major **S.** Vivona, MC, **USA;** and Colonel J. Rizzolo, MC, USAF, assistant Executive Secretary.

Armed Forces Epidemiological Board and Commission Directors
15–17 May 1961

**Front row, left to right: Dr. Thomas Francis, Jr.; Dr. Richard A. Kern;** Dr. **Richard E. Shope; Dr. Gustave** J. Dammin, President of the Board; Dr. Stanhope Bayne-Jones; Dr. Charles E. Smith; and Dr. Colim M. MacLeod.

Center row, left to right: Colonel Charles H. Moseley; Dr. Donald M. Pillsbury; Dr. Francis S. Cheever; Dr. William S. Jordan, Jr.; Dr. George S. Mirick; Dr. Charles L. Wisseman, **Jr.;** and Dr. Charles H. Rammelkamp, Jr.

Back row, left to right: Colonel John Rizzolo, MC, USAF, Executive Secretary; Dr. Harry Most; Dr. Albert **V.** Hennessy; and Dr. Ross McFarland.

Not pictured: Board members Dr. John H. Dingle and Dr. Clayton G. Loosli. Commission Directors Dr. R. **R.** Beard, Dr. Theodore E. Woodward, Dr. Geoffrey Edsall, Dr. Fred M. Davenport, and Dr. William McD. Hammon.

Armed Forces Epidemiological Board, Commission Directors, and Military Representatives to the Board
20–22 May 1963

Front row, left to right: Board members Dr. C. E. Smith; Dr. S. Bayne-Jones; Dr. T. Francis, Jr.; Dr. G. J. Dammin, President of the Board; Dr. J. Dingle; Dr. C. M. MacLeod; and Dr. J. C. Snyder.

Back row, left to right: Commission Directors and Military Representatives Dr. R. D. Stoner; Colonel F. L. Bowling, MC, USAF; Dr. R. A. McFarland; Colonel A. J. Rapalinski, MC, USA; Dr. W. McD. Hammon; Dr. F. S. Cheever; Dr. C. H. Rammelkamp, Jr.; Dr. R. R. Beard; Dr. G. Edsall; Dr. H. Blank; Dr. W. S. Jordan, Jr.; Dr. H. Most; Dr. T. E. Woodward; Colonel C. H. Moseley, MC, USA, Executive Secretary of the Board; Dr. C. L. Wisseman, Jr.; General R. E. Blount, MC, USA; and Dr. F. M. Davenport.

Not pictured: Dr. R. Kern and Dr. C. G. Loosli, members, and Dr. V. P. Bond, Commission Director.

Military Representatives to the Armed Forces Epidemiological Board
**6–7** December 1965

Front row, left to right: Major Robert T. Cutting, MC, USA; Lt. Colonel Eugene **A.** Rosenberger, MC, USA; Colonel Claude M. Eberhart, MC, USA; Brig. General Joe Blumberg, MC, USA; Colonel Adam Rapalski, MC, USA; Dr. Carl Lamanna; Colonel Joseph W. Cooch, MC, USA; Captain James R. Kingston, MC, USN; Colonel Harold W. Whitcher, MC, (British liaison officer).

Back row, left to right: Lt. Colonel **A.** M. P. **Ives,** RCAMC (Canadian medical liaison officer); Captain Sidney **A.** Britten, MC, USN, Executive Secretary of the Board; Captain Jack W. Millar, MC, USN; Colonel John Rizzolo, MC, USAF; Colonel William **D.** Tigertt, MC, USA; Brig. General Colin F. Vorder Gruegge, MC, USA; Colonel Franklin L. Bowling, MC, USAF; Colonel Dan Crozier, MC, USA.

Commission Directors of the Armed Forces Epidemiological Board
**6–7** December 1965

Left to right: Dr. Richard D. Stoner, deputy director; Dr. William R. Scherer, Dr. **William** S. Jordan, Jr.; Dr. Charles H. Rammelkamp, Jr.; Dr. Harvey Blank; Dr. Charles L. Wisseman, Jr.; Dr. Irwin H. Lepow; Dr. Wilbur G. Downs; Dr. Rodney R. Beard; Dr. Horace M. Gezon; Dr. Harry Most; Dr. Theodore E. Woodward; and Dr. Fred M. Davenport.

Not pictured: Dr. 1. H. Schmidt, Dr. **Ross** A. McFarland, Dr. Victor P. Bond, and Dr. William McD. Hammon.

Members **of** the Armed Forces Epidemiological Board in 1965, not pictured: Dr. Gustave J. Dammin, President of the Board, and Dr. Stanhope Bayne-Jones, Dr. Francis S. Cheever, Dr. John H. Dingle, Dr. Thomas Francis, Jr., Dr. Richard **A.** Kern, Dr. Albert **B.** Sabin, Dr. Charles E. Smith, and Dr. John **C.** Snyder.

Armed Forces Epidemiological Board and Commission Directors
**2** March 1968

Seated, left to right: Dr. John C. Snyder; Dr. Richard **A.** Kern; Dr. Albert B. Sabin; Dr. Gustave J. Dammin, President of the Board; Dr. Colin M. MacLeod; and Dr. Francis S. Cheever.

Standing, left to right: Dr. Ross **A.** McFarland; Dr. Theodore E. Woodward; Captain S. **A** Britten, MC, USN, Executive Secretary; Dr. **Charles** H. Rammelkamp, **Jr.;** Dr. William McD. Hammon; Dr. **Abram S.** Benenson; Dr. Staney J. Weidenkopf; Dr. Horace J. Gezon; Dr. William S. Jordan, Jr.; Dr. Victor P. Bond; Dr. Floyd W. Denny, Jr.; Colonel William D. Tigertt, MC, USA; Dr. Fred M. Davenport; Dr. Lewis W. Wannamaker; Dr. Paul C. Beaver; Dr. Charles L. Wisseman, Jr.; Dr. William F. Scherer; and Dr. Harvey Blank.

Armed Forces Epidemiological Board and Commission Directors
20 February 1970

Front row. left **to** right, members of the **Board:** Dr. John C. Snyder; **Dr.** Floyd W. **Denny,** Jr.; Dr. Colin M. MacLeod; Dr. Gustave J. Dammin, President of the Board; Dr. Charles H. Rammelkamp, Jr.; Dr. William McD. Hammon; Dr. William S. Jordan, Jr.; and Dr. Theodore E. Woodward.
Not pictured: Dr. Francis S. Cheever.

Center row, left to right, Directors of the Commissions: Dr. Abram S. Benenson; Dr. Goron Meiklejohn, Dr. Fred M. Davenport; Dr. Bennett L. Elisberg; Dr. Paul C. Beaver; Dr. Saul Krugman; Dr. Lewis W. Wannamaker; Colonel Bradley W. Prior, MC, **USAF,** Executive Secretary; and Dr. Harvey Blank.

Back row, left to right: Dr. Robin D. Powell; Dr. Robert L. Kaiser; Dr. Charles L. Wisseman, Jr.; Dr. William F. Scherer; and **Dr.** Elvio H. Sadun.

'Armed Forces Epidemiological Board, 30th Anniversary Celebration
Walter Reed Army Institute of Research
17–19 February 1971

Seated, left to right: Dr. Joseph Stokes, former member; Dr. Colin M. MacLeod; Dr. Gustave J. Dammin, President of the Board; Dr. Francis S. Cheever; and Dr. Charles H. Rammelkamp, Jr.

Center row, left to right: Dr. Theodore E. Woodward; Dr. John S. Strauss; Dr. Lewis W. Wannamaker; Dr. Abram S. Benenson; Dr. Harvey Blank; Dr. Paul C. Beaver; Dr. Bennett L. Elisberg; Dr. Richard M. Krause; Dr. Gordon Meiklejohn; Dr. Fred M. Davenport; Dr. Saul Krugman; Dr. Robert L. Kaiser; and Colonel Bradley W. Prior, MC, USAF, Executive Secretary.

Back row, left to right: Dr. David Minard; Dr. Thomas R. Hendrix; Dr. George G. Jackson; Dr. Charles L. Wisseman, Jr.; Dr. William S. Jordan, Jr.; and Colonel Dan Crozier, MC, USA.

'Not pictured members Dr. Floyd W. Denny, Jr.; Dr. William McD. Hammon; and Dr. Edwin H. Lennette; Commission Directors Dr. Robin D. Powell and Dr. William F. Scherer; and deputy directors Dr. Elvio Sadun and Dr. Jonathan Uhr.

## RICHARD A. KERN, M.D.

Distinguished as a Professor of Medicine at Temple University School of Medicine in Philadelphia, Dr. Richard Kern served many societies as a member, and **was** President of the American College of Physicians 1957–58. During World War II, he was a senior officer in the U.S. Navy Medical Services; after the war, he was active in the affairs of the Department **of** the Navy and its Reserves. The Association of Military Surgeons of the United States established a memorial lecture honoring Dr. Kern as a public servant.

**As** an early member **of** the **AFEB,** Dr. Kern gave the Board insight into the practical relationships between the practice **of** medicine and the prevention of disease. He, like other Board members, served as a vital bridge between the laboratory bench and the application of those basic principles to health care.

## RICHARD E. SHOPE, M.D.

Dick Shope accomplished much during his relatively short (64-year)life. After qualifying in medicine at the University of Iowa College of Medicine in **1924,** he trained in pharmacology there, where he worked on the chemotherapy of tuberculosis. Later he joined the Rockefeller Institute at Princeton (later called the RockefellerFoundation). Always an outdoorsman with a fondness for animals, his interests shifted to hog cholera and the field of virology. This interest continued for the next thirty-eight years.

**A** key observation (with Dr. Paul Lewis) showed that a mixture of *Haemophilus influenzae suis* and swine **flu** virus produced typical influenza and severe pneumonia in swine. This clarified the complementary viral-bacterial role in producing disease, and led to his unique contribution: that swine flu virus might cycle through lung worms, with ova passed through feces, then to earthworms, and back to hogs via earthworms. This novel and controversial idea helped explain the cyclic nature of influenza. His most brilliant contribution was his demonstration that two viruses that affected wild cottontail rabbits could produce either a fibroma or a papilloma. These viruses carry his name, and have had very important implications in understanding the pathogenesis **of** cancer.

Dick had a distinguished war record, and worked with Dr. Thomas Rivers at the U.S. Navy Medical Research Unit on Guam. He was Director of the AFEB's Commission on Epidemiological Survey from the time it was reorganized in 1951 until 1959. **A** productive scientist, he had the objectivity to monitor the Scientific Defensive Biological Warfare Program at Fort Detrick (later USAMRIID), which was one **of** the roles of the Commission on Epidemiological Survey. New concepts of pathogenesis and control were elucidated under his direction. Members **of** the Commission and others enjoyed working with him; his sense of humor was infectious.

## JOSEPH E. SMADEL, M.D.

For thirty-two years, Joe Smadel was a physician and investigator whose contributions to medical science either saved or prolonged the lives of thousands of people. At the time of his death in **1963,** Joe was recognized as one of the outstanding scientists of the mid-twentieth century. Expecting no reward, he performed research because he liked it, and his labors provided the essential bridge between the laboratory and the physician who cares for infected patients. One of his most satisfying experiences was the therapeutic triumph with chloramphenicol in the treatment of typhus and typhoid fevers, and the successful field trials that showed that this antibiotic effectively suppressed scrub typhus infection.

A major contributor to the Armed Forces Epidemiological Board, he organized and directed three **of** its Commissions: those on Immunization, Rickettsial Diseases, and Epidemic Hemorrhagic Fever; each of these Commissions bears the indelible Smadel mark. He was also a member of the Commissions on Epidemiological Survey, Virus Diseases, **and** Influenza, **and his** stabilizing influence during the developmental **phases** of the poliomyelitis vaccine trials contributed significantly to that success.

Joe had little patience for armchair philosophy, and he crusaded against shallow thinking. He demanded unswerving performance from his associates, who were expected to exercise good judgment and to adhere to his personal brand of integrity. He never allowed his personal burdens to interfere with his dedication to his **work,** and his enthusiasm sparked the enthusiasm of his associates. He worked intently and set an example for others.

## ROSS GAULD, M.D.

Ross Gauld, a Canadian by birth, provided much 'behind the scenes" help for the AFEB and several of its Commissions. He served as a faculty member in epidemiology at The Johns Hopkins School of Public Health, which was followed by his appointment to the scientific professional staff at WRAIR, where he directed the Division of Preventive Medicine.

The Commission on Immunization was one of the largest commissions of the Board, and was responsible for a broad and active program. Ross served as Deputy Director of this Commission. Many leaned upon him for help, and had great confidence in his practical approach to problem-solving. Joe Smadel, for example, placed great confidence in his advice. Other commissions, including that on Hemorrhagic Fever, profited from his epidemiological knowledge. Ross was reserved and effective, and often had at hand knowledge of those historical events that helped solve a problem.

## GEOFFREY EDSALL, M.D.

Geoff Edsall graduated from Harvard Medical School in **1934** and served his house officership at the Massachusetts General Hospital from **1934** to **1936.** Research fellowships at Harvard and instructorships in bacteriology and immunology at the Harvard Schools of Medicine and Public Health followed. From **1940** until **1942,** he was Assistant Director of the Division of the Biologic Laboratories of the Massachusetts Department of Public Health, and was its Director until **1949.** For several years, he was Professor and Chairman of the Department of Microbiology at Boston University School of Medicine, which was followed by his appointment as Director of the Division of Immunology at WRAIR in **1951.**

Geoff served the AFEB in many ways, particularly as the Director of its Commission on Immunization from **1952** to **1963.** This Commission was graced by the membership of some of the leaders in American medicine in the fields of biology and immunology, and it accomplished, under Geoff's direction and in collaboration with other commissions, a vast amount of work. The three-day meetings that this Commission held at WRAIR were actually reviews of the contemporary work in immunology and vaccine development. Goeff also served as a member of the Commission on Epidemiological Survey, where his advice was put to good use. His research interests were broadly distributed throughout immunology, and his special **contributions were in the purification of toxoids, particularly those of tetanus and diphtheria.**

## JOHN C. SNYDER, M.D.

During and after World War II, Jack Snyder ranked among the top rickettsiologists in the world. As a member of the U.S.A Typhus Fever Commission, he made distinguished contributions, and he was a senior member of the small team that arrested the epidemic of louse-borne typhus in Naples, Italy. He did the pioneering work that showed that control of the Madrid strain of epidemic typhus (Strain E) is crucial if this dread disease is to be controlled.

Soon after the war, Jack was appointed to the position of Dean of the Harvard School of Public Health and Hygiene, during which time he also chaired the Commission on Rickettsial Diseases of the AFEB and served as a member of the Board. The public health menace of the rickettsioses diminished with the passage of time, and a portion of the credit for this advance is due to Jack Snyder.

## ROSS A. McFARLAND, Ph.D.

Ross McFarland graduated from the University of Michigan in 1901, and was awarded his doctorate in Science at Harvard in **1928.** He joined the Harvard faculty **in** 1939, and, beginning in 1962, he held the position of Guggenheim Professor **of** Aerospace Health **and** Safety there.

Dr. McFarland **was a** member of the Commission on Accidental Trauma from 1958 to 1959, and was its Director from 1959 to 1969. During meetings of the Board, he carefully explained the ramifications of accidents in the military, including time lost from **work,** mortality, and prolonged convalescence. Among the many contributions **that** this Commission made under his **leadership** were the **demonsti-ations** of both **the** significance of whiplash injury and the protection provided **by** the wearing of seatbelts. These two major contributions helped to reduce the morbidity of vehicular accidents.

## FRED DAVENPORT, M.D.

No one connected with a Commission of the Board was more persistent in his effort to reach the right conclusion than was Fred Davenport. His former chief, Thomas Francis, passed the influenza baton on to Fred. The control of influenza by vaccine was then being intensively researched, as were also the pathogenesis and epidemiology of influenza. He collaborated with the Jnfluenza Commission as a member and directed its activities from 1955to 1971.

## WILLIAM McD. HAMMON, M.D.

Bill Hammon was a working member of the AFEB system practically from its beginning. **As** a protege and associate of K. **F.** Meyer, Bill was actively involved in the initial isolation of the western equine encephalitis virus in California in the **1930s.** Later, he directed the development of the Department **of** Epidemiology at the University of Pittsburgh School of Public Health. He developed the data there that showed, in a large field trial, that immune serum prevented poliomyelitis. This major contribution to the understanding of poliomyelitis was an essential forerunner to its control, first by inactivated (Salk)and later by attenuated (Sabin) poliomyelitis vaccines.

Bill was straightforward, meticulous, and thorough. He was able to use historical information to single out leads that were likely to uncover new data. He made long, productive field trips to the Far East for epidemiological and laboratory studies of the encephalitides and the hemorrhagic fevers, including dengue. Dr. John Paul, director of the Commission on **Virus** Diseases until 1956, **leaned heavily** on him for help. **Bill** was Director of that Commission from 1956 to 1965, and was appointed to the Board in 1965.

## CHARLES L. WISSEMAN, JR., M.D.

At the University of Texas Southwestern Medical School at Dallas, Charlie Wisseman was a top student, and throughout his life he was a scholarly and productive scientist. He was Chairman of the Department of Microbiology at the University of Maryland for 38 years.

Following World War II, he worked with Joe Smadel at WRAIR. He pursued the mysteries of typhus, encephalitis, leptospirosis, and other diseases of military importance both at the bench and in the fields of Malaya, Borneo, Pakistan, and Africa. He was Director of the Commission on Rickettsial Diseases from 1959 to 1973, when the Commission system of the AFEB ceased. Since then, he has been a consultant to many governmental and international agencies, including the World Health Organization.

## KENNETH GOODNER, Ph.D.

Known as K. G. by his students of microbiology at Jefferson Medical College for more than two decades, Kenneth Goodner was one of the most effective medical school teachers of those medical scientists who contributed to the AFEB and its Commissions. He was born in McCune, Kansas. After his initial schooling, he became a doctoral candidate at Harvard under Hans Zinsser. K. G. was a contributing member and silent supporter of the cadre of brilliant young men at the Rockefeller Institute for Medical Research during his sixteen years there. His special legacy was his contact with and personal interest in young scientists. He wanted young men and women to achieve their potential as fine physicians and scientists, and he never ceased to impart the glow of his enthusiasm. This desire to cultivate the new generation was fed by the rich tradition of medical history, which was one of his chief interests.

His knowledge was broad and he served the AFEE as the conscience of the Commission on Immunization. K. G. was recognized internationally for his scientific contributions to immunology. He helped to develop the yellow fever vaccine and studied pneumococcal pneumonia, plague, and cholera. He was a charter member of the group that decided, in 1958, to locate the Cholera Research Laboratory in Dacca, Pakistan. He perceptively observed the significance of *Escherichia coli* as a causative agent of human diarrheas when interest in the cholera *vibrio* was reborn. K. G. simply said to a group of experimental physiologists and clinical microbiologists in 1960: "Don't forget to put *E. coli* into the intestinal loop."

Thanks are due Kenneth Goodner for his tireless search for medical knowledge and his devoted contribution to the public interest.

## WILLIAM FRANKLIN SCHERER, M.D.

Bill Scherer graduated from the University of Rochester School of Medicine and Dentistry in 1947; he interned in medicine at Barnes Hospital in St. Louis, and also served an internship in pathology at the Strong Memorial Hospital in Rochester. Bill was a resident in medicine at the Vanderbilt Hospital from 1949 to 1950. At the University of Minnesota School of Medicine, from 1950 to 1962, he progressed from Instructor to Professor of Microbiology. In 1962, he was appointed Professor and. Chairman of the Department of Microbiology at Cornell Medical College, where he made scientific contributions of lasting importance.

Rill chaired the Roard of Scientific Counselors at the National Institute of Allergy and Infectious Diseases and was the Theobold Smith Awardee of the American Association for the Advancement of Science. During his early years, he was a National Research Council Fellow and a Markle Scholar. Bill is credited with having been the first to cultivate polio virus in human Hela cancer cells.

The AFEB was privileged to have Bill Scherer direct its Commission on Viral Infections from 1965 to 1973.

## THOMAS H. WELLER, M.D.

Tom Weller always conducted himself as a meticulous student of medicine, thoroughly schooled in the fundamentals of the scientific method. Trained as a clinical and laboratory-oriented pediatrician, he extended his capabilities into the fields of virology and parasitology. With his mentor John Enders and his associate Fred Robbins, he received the Nobel Prize for the cultivation of poliomyelitis virus in tissue cultures.

Tom willingly responded to military medical problems; he served with distinction on the Commission on Parasitology and directed its activities from **1953** to **1959,** while concurrently engaged at the Harvard School of Public Health. The AFEB Commissions on Malaria and **Virus** Diseases profited greatly from Tom Weller's wise counsel, teaching ability, and scientific contributions.

## W. BARRY WOOD, JR., M.D.

Barry Wood was a proud alumnus of Harvard College and The Johns Hopkins University School of Medicine. He excelled as an academician, and was Chairman of the Department of Medicine at Washington University School of Medicine in St. Louis. One of his major contributions to the field of biology was his demonstration of the phenomenon of surface phagocytosis.

Barry was an early member of the AFEB and one of the charter members of its Commission on EpidemiologicalSurvey. His presence and stature enhanced the Board and its Commissions.

## FRANK BROWN BERRY, M.D.

Dr. Berry was the second physician to be appointed Assistant Secretary of Defense for Health. He took the oath of office on 28 January 1954 in a ceremony at the Pentagon, in the office of Secretary of Defense Charles E. Wilson.

Dr. Berry graduated from Harvard Medical School. He served as a medical officer in both world wars and held the rank of Brigadier General in the Army Medical Corps. For many years, Dr. Berry was a professor of clinical surgery at Columbia University College of Physicians and Surgeons. He was a founding member of both the American Board of Surgery and the Board of Thoracic Surgery. Beginning in 1946, he served as a national consultant in surgery to the Surgeon General of the Army and, in **1948,** he became a member of the Committee on Medical Sciences of the Research and Development Board.

Dr. Berry always interacted enthusiastically with the Armed Forces Epidemiological Board. His help and contributions made it possible for the Board and its Commissions to relate effectively *to* the various military services through the offices of the respective Surgeons General. Whenever possible, he attended meetings of the Board and made helpful contributions. During his tenure, the Berry Plan for the recruitment of young physicians into the military services was implemented. It was in this area that the AFEB was able to assist the Office of the Assistant Secretary of Defcnsc for Health Affairs, under Dr. Berry's guidance.