

IN MEMORIAM

George Freeman Solomon (1931–2001)

When, in 1994, I was preparing a chapter on perspectives in psychoneuroimmunology, I wrote to George Solomon, one of the original wise men, asking him to give me his views of the field and how he came to it. Of course, I was quite familiar with George's work, but I wanted his perspective in his own words. George began by saying that, "Curiosity, serendipity, psychodynamics, and the ability to put together disparate observations all play roles in the process of scientific discovery. Tenacity, frustration tolerance, and believing the encouragement of some and ignoring the negativity of others play important roles in the fruition of any new observations and theories. The evolution of my contributions to what is now the burgeoning field of psychoneuroimmunology illustrate all these factors." Indeed, they did, and George's contributions were still evolving in these same ways when he died on October 8, 2001, at the age of 69.

George Freeman Solomon was, in the true sense of the word, a pioneer in the development of the field of brain, behavior, and immunity—a leader who was among the very first to challenge the notion of an autonomous immune system and to document relationships between the brain and the immune system. And, as many of us have found out for ourselves, he pursued these ideas in the face of much resistance on the part of the biomedical community.

George went to medical school to become a psychiatrist like his father. He became fascinated with internal medicine, however, and, on the advice of his father, he instigated an award-winning medical student project on the border between medicine and psychiatry. He studied rheumatoid arthritis. As a resident in psychiatry at the University of California in San Francisco, George asked to be attached to (rather than just a consultant to) the Rheumatic Disease Group. Based on this experience, he and W. Jeffrey Fessel described psychosis as an initial symptom of systemic lupus erythematosus (SLE) and found patients with SLE who had initially been hospitalized in psychiatric facilities. These observations precipitated George's interest in and research on schizophrenia as an autoimmune disorder—a subject that still occupies the attention of researchers, as witnessed by this issue of *Brain, Behavior, and Immunity*.

In the 1960s, George, working with Rudolf Moos, a clinical psychologist, published a series of classic studies describing the life histories and personality characteristics of arthritis patients, seeking a clue to the frequently observed association between emotional states and the onset or course of rheumatoid arthritis. This work continued for a time, but the future, George thought, lay in basic research and mechanistic studies. So he began to reeducate himself in immunology, spending some time with Sir MacFarlane Burnet and Sir Gustav Nossal in Australia. He claimed, however, that he learned more about immunologists than about immunology. Nonetheless, soon thereafter, George began a lengthy and productive collaboration with Alfred Amkraut, an immunologist, and several other talented colleagues to conduct some of the first studies of the effects of stressful life experiences on immune function in animals.



Much to the consternation of some of his professional colleagues, the sign on his door read "Psychoimmunology Laboratory."

"Nobody, however, was listening," he said, and in the early 1970s, George closed the door on this line of research, having lost the support of the academic establishment at Stanford. During this period, he joined the faculty of the University of California at San Francisco and concentrated on another of his long-standing interests, violence and criminal behavior. I'm glad to say, however, that I played a role in reopening that door to psychoneuroimmunology. In an attempt to collate what little was known at the time about brain-immune system interactions, I asked George to review the research on emotional and personality factors in the onset and course of autoimmune diseases and on immunologic abnormalities in mental illness. As George put it, "PNI was on the map at last," and he returned to the field, taking off in still another direction. AIDS was suspected of being infectious, it involved immune abnormalities, and it could affect the CNS. Thus, AIDS seemed an ideal model for psychoneuroimmunologic research. George began to study long-term survivors with AIDS from whom we might learn about the psychobiological mechanisms that contributed to health and longevity. Norman Cousins's similar interests in psychological factors and healing played a role in the invitation George received to join the Department of Psychiatry at the University of California in Los Angeles and Cousins's Task Force on Psychoneuroimmunology.

In the course of his professional career, George wore many hats. He had clinical, teaching, and administrative roles as a psychiatrist, served on innumerable committees and advisory boards, inside and outside academia, and did all the things that people who are already too busy are asked to do. He gave special attention to aging research, drug dependence, and criminal behavior and forensic psychiatry. His (successful) efforts to aid drug-addicted Vietnam veterans earned him some television visibility and a place on Richard Nixon's "enemies list." To fully appreciate such events—and there were so many interesting life experiences—you had to listen to George tell the story. George had lots of stories because he did lots of things—and he did them in his own inimitable way.

Most of us, however, know George and his work by virtue of his presence in psychoneuroimmunology. George Solomon was synonymous with the field. He was interested in all of it. He could talk about all of it and had an encyclopedic knowledge of the literature. He never stopped learning and never failed to be excited by new findings, especially those from young investigators. He was especially nurturing of trainees and, whenever he could, provided support for those who needed a little boost to get them going—or get them going again. George became good friends with Elena Korneva, another pioneer in the study of brain-immune system interactions, and she and other Russian investigators were able to get equipment, supplies, and other support from George's Fund for Psychoneuroimmunology.

George, more than anyone I know, loved life and enjoyed living. He was perhaps the most colorful, dedicated, and enthusiastic participant in our society—during the meetings and afterward. During the meetings, speakers could expect a question, a comment, or a recital of the oldest or the most recent evidence on an issue. After the meetings, you could expect a kuzatski at the first musical opportunity—and he would outlast men half his age.

Scientifically, we live in interesting times, and George helped make them that way. His contributions were wide-ranging and they will be enduring. In his autobiographi-

cal *From Psyche to Soma and Back*, George wrote, "I most value contributing to human knowledge, helping others, being socially responsible, being a good friend, father and husband (and having sports cars)." He did and was all these things. He will be greatly missed by friends and colleagues all over the world.

Robert Ader