

Introduction

Arthur M. Sackler and science

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In an era of superspecialists, Arthur M. Sackler (1913–1987) was one of the few 20th century renaissance figures. He made major contributions as a psychiatrist, researcher, innovative business executive, and one of the world's great art collectors and philanthropists. Besides bridging disciplines, Dr. Sackler created links between nations and cultures through philanthropic activities, such as establishing a museum in China and creating museums of Chinese art in the United States. His appreciation of globalization is exemplified in his own words: "It is clear that bridges must be built to unite peoples in mutual respect and reciprocal esteem in a shared striving for great common goals. I believe that the arts, sciences and humanities can best create those bridges of understanding essential for a world in which all people can link their aspirations to achieve their potentials and the abundances now possible to assure for all the blessings of peace."

Born in Brooklyn, New York, August 22, 1913, in humble surroundings, Sackler held down multiple jobs to finance his college and medical school studies at New York University. At that early stage, he fell in love with art history, and studied figurative drawing and sculpture in night classes at Cooper Union. In the 1940s, following clinical training in psychiatry, Dr. Sackler initiated research at Creedmoor State Psychiatric Hospital. At the same time he became involved in medical advertising and then publishing. He established the *Medical Tribune*, a newspaper for physicians, in 1960 and over the years wrote for the *Tribune* more than 500 columns on all aspects of medicine and society.

Dr. Sackler's philanthropic activities embraced diverse areas. In the sciences, he founded the Arthur M. Sackler Foundation Laboratories for Therapeutic Research; AMS Foundation for Arts, Sciences and the Humanities; and the Arthur M. Sackler Science Center at Clark University. He coendowed the Sackler School of Medicine at Tel Aviv University, the Sackler School of Biomedical Sciences at Tufts University, the Sackler Institute of Graduate Biomedical Science at New York University, and the Arthur M. Sackler Institute for Advanced Studies in Public Health, Medical Research and Communications at Tufts University. In the arts he endowed the Arthur M. Sackler Gallery of the Metropolitan Museum of Art, the Arthur M. Sackler Galleries at Princeton University, the Arthur M. Sackler Museum of Harvard University, and the Arthur M. Sackler Gallery of the Smithsonian Institution, and coendowed the Sackler Wing at the Metropolitan Museum of Art. These are only a limited representation of his charitable gifts.

For his contributions, Dr. Sackler received numerous honors, including membership in the American Academy of Arts and Sciences and the Egyptian Order of Merit, and honorary doctorates from Clark University, Hahnemann University, Tufts University, and Mount Sinai School of Medicine.

The Inaugural Arthur M. Sackler Colloquium focuses on mechanisms of neural signaling, a theme in keeping with Sackler's own scientific efforts. He carried out animal and clinical research, as well as theoretical formulations focused on reciprocal interactions between messenger molecules and biological systems that influence the homeostasis and disorders of the body



Arthur M. Sackler, 1913–1987.

and mind. In the mid 1940s, Dr. Sackler and his colleagues initiated pioneering studies teasing out metabolic factors in psychosis and applying these insights to novel therapeutic modalities (1). He began by attempting to clarify the therapeutic actions of electroconvulsive therapy and obtained evidence that a vasodilating substance such as histamine might be relevant. He conducted studies comparing influences in schizophrenics of electroconvulsive therapy, insulin, and histamine. This research led to experimental evidence for opposing actions of histamine-related systems and adrenal corticosteroids, notions that were prescient for the now well appreciated therapeutic actions of glucocorticoids in immune-related conditions. He extended this thinking to the psychiatric field and, in his own words (2), "the physiodynamic formulations of our group enabled us to predict

This paper is the introduction to the following papers, which were presented at the Inaugural Arthur M. Sackler Colloquium of the National Academy of Sciences, "Neural Signaling," held February 15–17, 2001, at the National Academy of Sciences in Washington, DC.

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in 1949 that cortisone and ACTH would in certain individuals produce psychoses,” . . . “to predict also that the very same substances would on the other hand be of benefit in the treatment of certain psychosomatic disorders,” and “to anticipate that cortisone would be hazardous in the treatment of patients with tuberculosis.” In behavioral models in rodents, Sackler discriminated adrenal cortical and medullary function as related to behavior. By measuring plasma levels of corticosterone and catecholamines he showed (3) that “isolation induced aggression . . . was directly related to increased sympathetic-adrenal activity. Conversely, no direct relationship was noted between adrenocortical activity and aggressiveness.”

The year before his death, Dr. Sackler commenced discussions with Dr. Frank Press, then president of the National Academy of

Sciences, about endowing the scientific colloquia of the Academy. Dr. Sackler’s widow, Ms. Jill Sackler, has brought this dream to realization, leading to the Inaugural Arthur M. Sackler Colloquium on Neural Signaling held at the National Academy of Sciences in Washington, DC, February 15–17, 2001. The Sackler colloquia are predicated on the notion that creativity in science is fostered by vigorous interactions among scientists. The importance of communication amongst diverse individuals, approached with rigorous exuberance, accords with Dr. Sackler’s own sentiments: “Art is a passion pursued with discipline and science is a discipline pursued with passion. Passion is the engine that drives creativity. At pursuing both, I have had a lot of fun.”

1. Sackler, A. M., Sackler, M. D., Sackler, R. R. & van Ophuijsen, J. H. W. (1950) *J. Clin. Psychopath.* **2**, 1–14.
2. Sackler, A. M., Marti-Ibanez, F., Sackler, R. R. & Sackler, M. D. (1957)

J. Clin. Exp. Psychopath. **18**, 319–322.

3. Schwartz, R., Sackler, A. M. & Weltman, A. S. (1974) *Experientia* **30**, 199–200.