



## In Memoriam to Arthur Falek


*Contributed by Robert Donahoe  
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Many of us have heard of the recent passing of our long-time colleague, Dr. Arthur Falek. Arthur was my mentor at Emory. I joined his laboratory as an enthusiastic young academician-researcher in 1980. We worked together as colleagues until his retirement in 1999. I take this opportunity to relate his passing to those yet unaware and to elaborate on his outstanding accomplishments, particularly as they connect with the founding of the Society on NeuroImmune Pharmacology (SNIP).

Arthur was a native of Brooklyn. He received his doctorate in 1957 from Columbia University in the area of Human Genetics. He died November 7, 2005 of congestive heart failure. He was 81. In 1965 he became Director of the Human Genetics Laboratory in the Psychiatry Department of Emory University. It was there in the 1970s that he began to study cytogenetic damage in heroin addicts. His reports on this phenomenon implicated heroin as a genotoxin. Evenmore, these findings hinted of the involvement of the immune system since the substrate for these studies was human peripheral blood lymphocytes. As it turned out, these observations constituted a major pathway in the founding and evolution of SNIP. A chronology follows.

Arthur's cytogenetic studies led to establishment of a NIDA research grant and to the recruitment of Dr. John Madden. Exploring the causes for the cytogenetic effects of heroin in Arthur's laboratory, John uncovered the fact that heroin addicts had decreased capacity to repair DNA-damage. Soon thereafter, he, Arthur, Dr. David Gordon from the CDC, and Dr. Bob McDonough, a local immunologist, began to explore whether the genotoxic effects of heroin abuse correlated with immune effects. They soon found, and in 1980 reported that heroin addicts exhibited depressed levels of circulating T-cell lymphocytes. They further showed that this effect could be reversed in vitro with the opiate antagonist, naloxone, and that immune deficits were reversed in addicts undergoing methadone therapy. This report coincided closely with the seminal work of Dr. Joe Wybran and colleagues who demonstrated that morphine and endogenous opiates could modulate expression of T-cell E-receptors, in vitro, in a naloxone reversible way.

This early immunological work further fueled the interest of the National Institute on Drug Abuse (NIDA) in the area of neuroimmune pharmacology. Dr. Monique Braude from NIDA, in particular, was interested in this area since marijuana had been reported to be an immunomodulator by Dr. Gabriel Nahas in 1974. Being the Program Officer on Arthur's grant, she encouraged his immunological pursuits, which eventually led to NIDA funding a grant supplement to hire an immunologist. It so happens that I was the lucky, chosen one! In October of



1980, my long association with Arthur, John and neuroimmune pharmacology had begun.


Shortly after these beginnings, our group faced the challenge of writing a competitive renewal application for Arthur's grant. With the grant submitted, we waited anxiously for review, soon learning that we were to be 'site-visited'. In those days any shift in emphasis in a grant almost inevitably led to an on-site review. Despite our neophyte nervousness, the review went well and the grant was funded. Arthur was relieved! This was the first of many yet-to-come NIDA grants having an immunological bent.

It was probably fate and certainly good Karma that one of our site-visitors was Dr. Martin Adler from Temple University. A sometime study-section colleague of Arthur's for several years, Marty, a pharmacologist by trade, was to become one of the true leaders in the field of drug-abuse immunology within the next 2 decades. We like to think that our new direction in immunology and his association with the site-visit helped spur him in this direction...but he'd best answer that himself. Surely though, a career-long bond was forged between the Falek and Adler groups—a bond that transcended science and fostered personal respect and endearment.

In 1984, Arthur approached Marty and his colleagues, as principals of the Committee on Problems of Drug Dependence (CPDD, later to be called the College on Problems of Drug Dependence), to ascertain the Committee's interest in having our group present immunological data at their annual meeting, to be held that year in St. Louis. Marty and the Committee were enthusiastic. John Madden and myself presented posters.

This initial foray expanded every year thereafter. In 1985, John and Arthur presented further data at a CPDD meeting at Lake Tahoe. Other immune data were also presented by the Weber/Pert group. In conjunction with Dr. Keith Killam, Arthur, John, Dr. Rick Weber and Marty agreed it would be a good idea to try a symposium format for presentation of immunological findings in subsequent meetings. Accordingly, Arthur and Dr. Mary Jeanne Kreek, another close colleague of Arthur's with experience in the immune effects of opiates, organized the first CPDD symposium on the topic for the 1986 CPDD meeting at Cape Cod, Massachusetts.

The symposium, attended by 100s, was a resounding success. The idea that the immune system was under the influence of abused substances and their cognate receptors had come of age. Of course, underlying much of this interest was the fact that, in 1982, heroin addicts were found to be a major risk group for contraction and spread of AIDS. Also, in the early and mid-1980's, numerous other prominent groups had begun to explore the basic and clinical immunological effects of opiates and other substances of abuse, and their endogenous ligands. By the late 1980s a conference on the subject was convened in Florida by Dr. Herman Friedman and colleagues. By 1991, the CPDD dedicated, not one, but two symposia to the topic. It was at this latter meeting that the principals involved collaborated in a decision to organize regular conferences, independently, with Drs. Burt Sharp and John Madden leading the



way. With encouragement of Dr. Charles Sharp from NIDA, John and Burt wrote a conference-grant proposal that was funded by NIDA. The first neuroimmune group-meeting was held in 1992 in Toronto, as a satellite conference to the CPDD. SNIP subsequently incorporated in 2000 and is planning its 12<sup>th</sup> annual meeting for 2006. A more-detailed historical description of the foregoing evolution appears on the SNIP website ([www.s-nip.org](http://www.s-nip.org)).

Thus, though many were involved, Art Falek deserves a great deal of the credit for the evolution of SNIP. For that, Snippers should be thankful. Before and after SNIP was formed, Arthur was a continual presence, ever-promoting interest in the neuroimmune effects of substance abuse. This type of activity characterized Arthur's life-long enthusiasm, even joy, for science, and thirst for knowledge. Indeed, it is appropriate to think of Arthur in the latter stages of his career as a promoter...maybe even, endearingly, the Barnum and Bailey of neuroimmune pharmacology.

Knowing of Arthur's dire circumstance in October of this year, I had the opportunity to talk with him several times. It was clear that he was suffering though he didn't want to let that be a focus of the conversation. Characteristically, he continued to guide me into talking about developments in the fields of science in which he had labored with love for over half a century. He wanted to hear about the upcoming SNIP conference in Santa Fe.

You can read more about Arthur's many accomplishments by accessing the following link to the Atlanta Journal and Constitution's obituary "Guest Book" and by further linking with the "Return to Obituary" in the upper right hand column: <http://www.legacy.com/Link.asp?ID=GB15646434> You will find that Arthur impacted many other areas of science and community much as he has SNIP. He had a remarkable career. He was a kind, caring, ever-inquisitive man. For many of us, he is sorely missed. Arthur leaves behind his beloved wife, Rhoda, two wonderfully successful children, Linda and James, a bevy of grandchildren, a few great-grandchildren...and many, many friends. Speaking for SNIP, our sympathies go out to them all.

