

## Meet Kenneth Warren, Ph.D.



Kenneth Warren, Ph.D., is deputy director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institutes of Health (NIH). Dr. Warren recently won the RSA 2014 Lifetime Achievement Award at the Research Society on Alcoholism's annual meeting in Bellevue, Washington during June 2014.

Writer Sherry Wasilow interviewed Dr. Warren from his office at Bethesda, MD.

SW: How did you begin your work in the field of alcohol studies?

KW: My graduate and initial postdoctoral training was in the field of biochemistry, studying metabolic control mechanism[s] (<http://quizlet.com/18624217/2-metabolic-control-mechanisms-slides-1-64-flash-cards/>). In a second postdoctoral position, I researched birth defect disorders that result from errors in metabolism. I subsequently worked on metabolic control issues at the Walter Reed Army Institute of Research, and in 1976 I transferred to NIAAA to take responsibility for the extramural research programs on the biomedical aspects of alcohol use and abuse. These included not just the disorder commonly referred to as alcoholism – now called “alcohol use disorder” – but also all of the organ disease consequences of inappropriate or excessive alcohol use.

SW: How did you arrive at your current research focus?

KW: Almost immediately upon joining NIAAA, I became very interested in clinical reports that had appeared only three years earlier, describing a condition called fetal alcohol syndrome (FAS) (<https://depts.washington.edu/fasdpn/htmls/fasd-fas.htm>). I was quite surprised by these reports because even though I had worked in the birth defects field earlier, I had not heard that alcohol could cause birth defects. It was very clear that the public was also unaware as even obstetric textbooks at that time attested to the safety of alcohol during pregnancy. This is when my intense interest in developing a program to validate these clinical reports on the existence of FAS was initiated. Though I had responsibility for many research areas in NIAAA, the understanding of FAS and what became the broader category of fetal alcohol spectrum disorders (FASD) became my prime focus in the years to come.

At the time I entered the FASD field (mid-to-late 1970s), there lacked general acceptance by the medical community, scientific community, and the public, that

alcohol posed risks for the unborn fetus. As the projects we initiated have established the basis for FASD, I have stayed committed to this area. As my areas of responsibility have grown – now Deputy Director, and previously serving for five years as Acting Director – I have needed to broaden my focus to many different areas of alcohol research, however, I have always continued to focus as much as I could on FASD.

"At the time I entered the FASD field (mid-to-late 1970s), there lacked general acceptance by the medical community, scientific community, and the public, that alcohol posed risks for the unborn fetus."

There remain many challenges regarding FASD. One, more precisely establishing the prevalence of FASD in the U.S. and other countries around the world, particularly in countries where there is a high level of alcohol use by pregnant women. Two, improving diagnostic capability for FASD, including the use of computer-aided 3D facial imaging and more rapid systematic neurobehavioral testing. We also need to develop a better understanding of the mechanisms by which alcohol elicits deficits; uncover linkages between specific sites of injury in the brain to the corresponding neurobehavioral problems; improve interventions to aid the lives of those effected by prenatal alcohol; and develop better preventive approaches to reduce alcohol use during pregnancy, especially among populations and in countries where knowledge about the risks of drinking during pregnancy are not yet appreciated.

SW: What day-to-day applications has your research had for both clinicians and non-clinicians?

KW: There have been many applications of findings emerging from programmatic research efforts that I have been involved in, from overall alcohol research in general to FASD. This includes the development of clinical guides, new knowledge that is applicable to diagnosis and to prevention messages and technologies. I have seen a high payoff from the research programs I have overseen through the NIAAA.

SW: What would you like to see happen in the addiction-research field?

KW: For FASD, I would like to see a greater ability to recognize children affected by prenatal alcohol early in life, and new interventions to help address their behavioral deficits, and I believe strongly that we are moving in that direction.

For the addiction field in general, probably the most important thing is enhancing the development of new medications for the treatment of alcohol use disorder, and for other addictive agents as well. It is very unlikely that any medication will in itself serve as a "cure" for these addictive disorders. But medications are important to address the physiological factors in these disorders, thereby aiding other behavior-based therapies to achieve recovery.

In the last 20 years, a number of important medications to aid in the treatment of “alcoholism” have been approved by the Food and Drug Administration (FDA), plus at least one more by the European Medical Agency, and several others not yet approved by the FDA have proved valuable in research trials. Yet there is still a need for other medications that target a wider array of sites within the brain and aspects of addiction that are important to manage “alcoholism” and other addictive disorders. Also needed are new medications for the organ diseases caused by alcohol, for example, alcoholic cirrhosis and alcoholic hepatitis.

SW: What advice do you have for people now entering addiction research?

KW: My advice would be to adhere to your research goals. There are many unanswered questions in alcohol research, and a great need for new talent in this field. However, I would add that, with academic positions currently becoming scarce, there are many alternative opportunities to contribute to the pursuit of your research goals, including government and private agencies, research policy, journalism, and others. Keep an open mind to the many potential ways that a person can achieve fulfillment as a researcher.

SW: What does your recent award – the 2014 Lifetime Achievement Award – mean to you on a personal level?

KW: I was very surprised. Upon reflection, I have a sense that it represents that the four decades I have spent in fostering the research of scientists in the alcohol community, and serving in leadership roles at the NIAAA, are truly appreciated by other scientists in the field. I am truly humbled and honored by this tribute.

SW: Any last words for the ATTC audience?

KW: I would note that there are important new research findings emerging more rapidly now from the NIH, NIAAA, and our sister institute, the National Institute on Drug Abuse, for those who work in the field of addiction clinical care and education. I would urge clinicians and educators to stay focused on the research activities of the NIH as new knowledge appears that can be applied to the benefit of those with addiction disorders.

Website: <http://www.niaaa.nih.gov/about-niaaa/our-staff/deputy-directors-page>