Thomas Brandon, Research Psychologist, Prevents Cancer By Fighting Tobacco Smoking



By Randolph Fillmore

As our lives unfold, the mentors who help shape our career interests, paths and goals may come in all sizes and shapes, and from a variety of sources. Some mentors, in fact, may come from unlikely sources. Thomas Brandon, Ph.D., a clinical psychologist, chair of Moffitt's Department of Health Outcomes and Behavior, and director of Moffitt's Tobacco Research and Intervention Program, is quick to admit that his earliest psychologist mentor was comedian Bob Newhart, playing the role of Chicago-based psychologist Dr. Robert Hartley on a popular sitcom that aired during the 1970s.

"It may be surprising to many, but when Bob Newhart played a psychologist on TV, he inspired many of today's psychologists," Dr. Brandon says. "Not long ago, the American Psychological Association invited him to be a guest speaker at an APA professional meeting. The ballroom was a sell-out. Despite all the laughs, his TV portrayal of a psychologist really highlighted how psychologists help people."

The Road To Becoming A Research Psychologist

A native of Berkeley, California, Dr. Brandon started his academic career at the University of California, Berkeley. He originally planned to major in biochemistry to become an orthodontist

but later switched his major to psychology (thanks, Bob). He was right at home at UC Berkeley because his mother worked at the university and his father at the nearby Berkeley Co-op grocery store. His father moved to the U.S. from Ecuador as a child in the 1930s, and his mother came to the U.S. from West Germany after having escaped East Germany with her family after World War II.

After earning his bachelor's degree in psychology at Berkeley, Dr. Brandon's next academic step led him to the University of Wisconsin-Madison, where he came under the instructional wing of Dr. Timothy Baker, a clinical psychologist and psychology professor and a pioneer in tobacco research. Dr. Baker played a central and inspirational role in Dr. Brandon's development as a research psychologist and in his choice of a career path researching addictive substances.

Dr. Brandon received his Ph.D. in 1990 following his clinical psychology internship at Indiana University Medical Center in Indianapolis. During that year, he also taught psychology at Indiana University-Purdue University, Indianapolis.

While in graduate school, Dr. Brandon met another psychology student named Karen Obremski when both worked in Dr. Baker's lab at the University of Wisconsin. Karen went on to earn her Ph.D. in psychology at Indiana University- Bloomington. They eventually married and quickly shuffled off to the State University of New York at Binghamton, where they both landed their first full-time faculty positions. The Brandons stayed at Binghamton until 1997, when they left for Tampa and the University of South Florida to join the faculty of the USF Department of Psychology.



Helping Smokers Kick The Habit

Studying the role of tobacco in cancer — and not only its role in <u>lung cancer</u> — has been a research emphasis for several decades in disciplines as diverse as public health, psychology and biochemistry. Tobacco research spans the chemical nature and addictive qualities of

tobacco to finding ways to break the nicotine addiction. The goal: spare the lives of smokers who may be destined to get cancer, and reduce the billions of health care dollars spent treating the growing list of smoking-related cancers. At Moffitt, Dr. Thomas Brandon was charged with establishing the Tobacco Research and Intervention Program (TRIP), a research group dedicated to understanding and treating tobacco addiction.

"Tobacco research, with a sharp focus on helping people quit smoking, has been a priority at Moffitt from the beginning," Dr. Brandon explains. "Originally, our treatment research at TRIP focused on bringing people into the smoking cessation clinic for face-to-face counseling. That mission changed when the nicotine gum and patch, and then other smoking-cessation medications, became available, and fewer people sought one-on-one counseling to quit smoking."

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TRIP expanded its research to developing and testing "self-help" methods to quit smoking. The program produced booklets and other educational materials to assist people who were trying to quit on their own. The new emphasis on "self-help" led to the development of innovative materials that translated cutting-edge smoking cessation counseling into a written format that could reach far more people in a cost-effective manner.

Forever Free®, TRIP's self-help booklet series aimed at tobacco cessation, was so effective that the National Cancer Institute adopted it to assist in its national efforts to help people quit smoking. Since its first edition, Forever Free has had many variations to meet the needs of different populations of smokers. Spanish-language versions have encouraged Spanish-speaking smokers to quit. Versions for expectant mothers have helped them to quit smoking and have healthier babies. The booklets have been used with state tobacco quitlines and cancer hospitals around the country, and a British version was developed with researchers in the United Kingdom. A unique emphasis of the booklets is their focus on preventing smoking relapse among people who have already quit smoking.

"Past studies had shown that up to 95 percent of smokers who have quit will relapse within a year," Dr. Brandon explains. "About 50 percent of expectant mothers quit smoking while they are pregnant, but the relapse rate after they have had their babies is extremely high. Sustained quitting is what is important, and that is what we have emphasized in all of our intervention efforts."

TRIP's staff of researchers has worked diligently in designing, carrying out and evaluating smoking cessation programs, Dr. Brandon says. Many TRIP studies have enrolled hundreds, or even thousands, of smokers to test the effectiveness of their interventions and find ways to further improve them and to reach even more smokers.

The success of TRIP has not been due to his efforts alone, of course, and Dr. Brandon cites as critical the work carried out by:

• David Drobes, Ph.D., TRIP associate director whose research focuses on tobacco craving and environmental cues to smoke, interactions between nicotine and alcohol, neurocognitive effects of nicotine use and withdrawal, and genetic markers of smoking risk;

- Vani Simmons, Ph.D., an associate member at TRIP with research interests in the development of smoking cessation and relapse prevention interventions for special populations, including college students, cancer patients and ethnic minorities; and
- •David Evans, Ph.D., an assistant member at TRIP who focuses on understanding how nicotine affects cognitive processes such as attention, and how this contributes to tobacco addiction.

"The success of TRIP is based on the combined efforts of the dedicated team of faculty researchers, support staff, and students we have assembled," Dr. Brandon says.

Promoted to chair and program leader of Moffitt's Department of Health Outcomes and Behavior Program (HOB) in 2012, Dr. Brandon remains at the helm of TRIP, but he has donned an additional hat. As HOB program leader, he directs Moffitt's efforts to contribute to the prevention, early detection and control of cancer through the study of health-related behaviors, health care practices and health-related quality of life. It's a good fit since what Dr. Brandon has been fighting for over his whole career — freedom from the destructive clutches of tobacco — has emerged as one of the best ways to avoid getting cancer.

"HOB research seeks to understand and alter behaviors that affect the onset or detection of cancer, such as smoking, sun protection, diet, and HPV vaccinations and cancer screenings," Dr. Brandon says. "We also aim to improve the quality of life of cancer patients and reduce health disparities in cancer incidence, treatment, and outcomes."

He credits Moffitt's Paul B. Jacobsen, Ph.D., psychologist and professor, as a long-time mentor. It was Dr. Jacobson's position that Dr. Brandon moved into in 2012 when Dr. Jacobson was named associate center director, Division of Population Science.

A New Cloud On The Research Horizon

The newest research challenge for Dr. Brandon and his TRIP colleagues comes with the emergence of e-cigarettes. Unlike conventional cigarettes, e-cigarettes vaporize a liquid. Vapers (a slang term for people who use e-cigarettes) inhale a flavored aerosol cloud that may or may not contain nicotine.

While the popularity of e-cigarettes has exploded in the past few years, research is way behind their emergence into the marketplace, says Dr. Brandon, and many questions about e-cigarettes need answers. Seeking answers, Moffitt recently received a five-year, \$3.6 million grant from the National Institutes of Health to study e-cigarette use, understand patterns of use and determine if they can be an effective tool for quitting traditional smoking.

"There are roughly 500 brands of e-cigarettes and probably thousands of available flavors," Dr. Brandon explains. "Most researchers believe that using e-cigarettes must be far less dangerous than smoking traditional cigarettes because the aerosol produced by e-cigarettes does not include the known carcinogens, carbon monoxide or tars that kill smokers, but the aerosol probably is not completely benign."

The new research effort is expected to provide valuable data about the long-term use of ecigarettes and their potential value for quitting smoking. Do e-cigarettes help tobacco smokers to quit? Or do they make it easier to continue smoking tobacco? Are some smokers who are trying to quit "stuck" using both cigarettes and e-cigarettes?

"Millions of smokers are using e-cigarettes to try to quit smoking," Dr. Brandon says. "But because there is a lack of data, we are unable to advise them whether e-cigarettes actually present an effective smoking cessation strategy. We want to learn how e-cigarettes are used over time and whether users are eventually successful at quitting tobacco. We will be interviewing e-cigarette users to learn about their experiences and their perceptions of the pros and cons of e-cigarettes."

In the study, Moffitt will enroll 2,500 e-cigarette users throughout the nation who will be followed for 24 months. The study will include sending surveys every three months to the e-cigarette users. Although most e-cigarette users report that they started the products as a way to quit or cut down on their smoking, current research is unclear about whether e-cigarettes are really useful in this way. "We're still in the early stages of research on these devices," says Dr. Brandon, "but I am cautiously optimistic that they will turn out to be beneficial for quitting smoking. However, it may be a decade or more before we learn about their long-term safety."

Work And Play

Concerning his career, Dr. Brandon says he is able to look back at the long trail of published studies carried out at TRIP, the similarly long list of graduate students passing through on their way to professional careers, and the many smokers who have "kicked the habit," and feel great satisfaction that his three-decade career, like a research study with a positive outcome, has been successful and effective.

He enjoys the occasional foreign travel to professional meetings and symposia that comes with his job. When not attending sessions, he likes to immerse himself in local culture, walk the city streets, talk with people, and visit shops and important sites. Recent trips have taken him to Spain, the Netherlands and England.

Dr. Brandon and his wife Karen, who also is an addiction researcher, have one daughter, Clara, a biology major at the University of Florida, who is eyeing a career as a biology field researcher. The Brandon family enjoys life in Tampa, especially canoeing or kayaking out on the Hillsborough River where they can enjoy breathing fresh air, commune with nature and spot wildlife such as the rare, pink-tinged roseate spoonbill birds and alligators lurking along the riverbanks.



Teaching and the Moffitt Culture

"I am most proud of the fact that the graduate students who have worked with us do so well in their professional lives," says Dr. Brandon. "I benefited from my mentors and role models, and I take great pleasure in mentoring our graduate students who go on to have successful research careers."

Dr. Brandon, who was named Moffitt Cancer Center's Educator of the Year in 2012, says that educating the next generation of cancer researchers has always been a priority, one that Moffitt has placed on a par with research.

When asked about his close to two decades at Moffitt and what keeps him here (The weather's great!), Dr. Brandon talks about the "culture" of Moffitt and the respect that behavioral scientists have been given at Moffitt.

"Generally, behavioral science is treated as an afterthought, if a thought at all, at many medical centers around the country," he says. "That is not true at Moffitt. Leadership at Moffitt has always been very supportive of behavioral science, giving us 'an equal place at the table' befitting the critical role that behavior plays in either promoting or preventing cancer."

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