

Congratulations to the 2020 WCBR Pioneers. Thank you for your contributions in the field of neuroscience and your dedication to the Winter Conference on Brain Research!



**Dr. Eliot L. Gardner** was born and raised in Boston, and learned to ski at age 7 on local hills (wooden skis, bear-trap bindings, real old-school). Originally a mathematics major at Harvard College, he enrolled in a psychopharmacology course at Harvard Medical School in his junior year, and was captivated by the subject. He spent his last two years at Harvard learning psychopharmacology in depth – as a research assistant in the Psychopharmacology Research Unit, and making morning psychopharmacology rounds of patients with the senior members of the Unit. After receiving his A.B. from Harvard in 1962, he moved to Montreal to further his studies in psychopharmacology and neuroscience at McGill University, the Queen Elizabeth Hospital, the Royal

Victoria Hospital, and the Montreal Neurological Institute. He received an M.A. degree from McGill in 1964, and a Ph.D. in 1966. From 1966 to 1969, he served as a medical research officer (Captain, Biomedical Sciences Corps) in the U.S. Air Force – serving as a branch chief at the U.S. Air Force School of Aerospace Medicine’s enormous non-human primate research center at Alamogordo (White Sands), New Mexico. In 1969, he embarked upon a 2-year postdoctoral fellowship in pharmacology, followed by a second 2-year postdoctoral fellowship in neurology, at Albert Einstein College of Medicine in New York City. He was then offered a junior faculty appointment at Albert Einstein, and remained on faculty there for 33 years – in the Departments of Pharmacology, Neurology, Psychiatry, and Neuroscience. In 2000, he was recruited to the Intramural (in-house) Research Program at the National Institute on Drug Abuse of NIH, where he is Chief of the Neuropsychopharmacology Section in the Molecular Targets and Medications Discovery Research Branch.

Eliot has devoted his research career to studying brain reward mechanisms and the neurobiology of addiction. He was one of the first to propose that dopamine is the essential neurotransmitter of the brain’s principal reward pathway from ventral tegmental area to nucleus accumbens. He was also the first to show that delta-9-tetrahydrocannabinol activates brain reward mechanisms – deriving its addictive potential therefrom. And that highly selective cannabinoid CB1 antagonists and CB2 agonists have potent anti-addiction potential. He was also the first to show that highly selective dopamine D3 receptor antagonists have potent anti-addiction efficacy against a remarkably wide range of addictive substances in a remarkably wide range of preclinical animal models with arguably high translational relevance.

Eliot has received numerous awards and honors for his work – including the Newton Society Prize, Fellow of the American Psychological Association, Career Scientist Award of the Health Research Council of New York, Distinguished Basic Science Scholar for the Year 2000 by the American Academy of Addiction Psychiatry, and the NIH Director’s Merit and Honor Awards.

Eliot has attended WCBR for more than 50 years – from its inception at the first 1968 meeting at Lake Tahoe. He has organized and participated in panels and workshops, and competed in the Smitty Stevens

race (never matching Chuck O'Brien's times, an unfulfilled – and unrealistic – long-time desire). He has also participated in WCBR's local school outreach program, and in Brain Talk Town Meetings. When George Koob's son Cameron was 4 years old, Eliot put the young lad on skis for the first time at a WCBR meeting. Cameron now leaves George, Eliot, and virtually everyone else in his dust on the slopes. Eliot has exceptionally fond memories of skiing with Chuck O'Brien, Conan Kornetsky, Tom Crowley, Roy Wise, Dave Kline, Kyle Frantz, Bert Weiss, Fritz Henn, Jim McElligott, Bart Hoebel, and far too many others to mention. He treasures the friendships, networking, and research collaborations formed on the slopes and in the scientific sessions. He has also brought his students and postdocs to WCBR meetings, helping to foster new generations of attendees.



**Dr. Fritz Henn** is a psychiatrist and neuroscientist and received his BA from Wesleyan University in 1963, a PH.D. in biochemistry from Johns Hopkins University in 1967 and an MD from the University of Virginia in 1971. His postdoctoral training was at Washington University in Psychiatry and in Goteborg Sweden in neurobiology. His initial faculty appointment was at the University of Iowa in Psychiatry and he left as a full Professor to assume the chair in Psychiatry and Director of the Long Island Research Institute in 1980. He began attending WCBR while in Iowa and one of his first experiences was to take some beautiful wooden cross country ski's to his first meeting at Keystone in the 70's and go with some experts from British Columbia to ski above Leadville where he developed mild pulmonary edema, they got him off the mountain and there was an uneventful recovery. After assuming the Chair at Stony Brook, Harvey Karten got him not only to attend regularly but to become involved on the board and at the 25<sup>th</sup> anniversary of the meeting he was President and led us to wet Whistler. Following Jill Becker down a trail at Whistler I

ended up falling into a 6 ft tree hole which took work to get out of, I'm not sure she noticed. I really learned to ski at WCBR over the years often with Conan giving me tips. In 1977 as president I worked with Bill Greenough to move the meeting organization from the group which had founded the meeting at UCLA into a University affiliated meeting with the U. of Illinois. This was a difficult transition but appears to have been the right one for WCBR.

Dr. Henn's work beginning in Iowa was centered understanding depression and on defining the role of astrocytes. An early PNAS paper was the basis for the idea of a tripartite synapse, with astrocytes playing a role in glutamate transmitter uptake and recycling back to neurons. Following this work he focused on understanding depression using the animal model learned helplessness. In 1994 he made the decision to leave Stony Brook and accepted the Directorship of the Central Institute of Mental Health (ZI) and a Professorship at Heidelberg Germany. ZI became the leading psychiatric research center in Germany and initiated the first substance abuse program in a University, under much protest. Here both Chuck O'Brien and Nora Volkow were invaluable. The work on learned helplessness progressed with the development of inbred helpless and non helpless lines. This led to a new circuit being proposed for depression involving the I. habenula. This work was done after his return to the United States at

Brookhaven National Lab and later at Cold Spring Harbor Lab. The circuit has been tested in cases of intractable depression and although the DBS target is a very difficult target patients who failed all treatment including ECT have responded. Dr. Henn is a member of the German Academy of Science and received the Distinguished Service Cross of Germany upon his retirement there. He is a fellow of the AAAS in neuroscience and was a Professor at CSHL and Mt. Sinai until his retirement from lab work 2 years ago. The clinical studies of DBS are ongoing at Baylor with Dr. Gooden.