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Preclinical and Clinical Studies on Naltrexone: What Have They Taught Each Other?

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Abstract:

Proceedings of a symposium at the 2002 RSA/ISBRA Meeting in San Francisco, California; organized and co-chaired by Janice C. Froehlich and Stephanie O'Malley. The presentations were (1) Introduction, by Janice C. Froehlich and Stephanie O'Malley; (2) Preclinical studies on naloxone: genetics and site of action, by Petri Hyytiä; (3) Clinical studies on naltrexone for treating hazardous drinkers, by Dena Davidson; (4) Clinical studies on naltrexone and sertraline in the treatment of alcohol dependence, by Conor Farren; and (5) Discussion by Janice D. Froehlich, Stephanie O'Malley, and Rainer Spanagel. Both preclinical and clinical studies are critical in the development of effective pharmacotherapeutic approaches for the treatment of alcoholism. Nowhere has this been more evident than in the development of naltrexone for the treatment of alcohol relapse. As research continues on the optimal use of naltrexone for modifying alcohol intake, a number of factors have emerged that are likely to determine the efficacy of naltrexone as a pharmacotherapeutic agent for the treatment of alcoholism. Some of these factors include dose, frequency and duration of treatment, pattern and severity of alcohol drinking prior to initiation of naltrexone treatment, genetic aspects of responsive subpopulations, degree of alcohol craving, and susceptibility to adverse effects of naltrexone. New, as well as established, animal models are being used to determine the parameters that optimize the ability of naltrexone to modify alcohol drinking in acute and chronic alcohol access paradigms, under conditions of intermittent versus continuous alcohol intake, and in populations that vary in genetic predisposition toward alcohol drinking. Current clinical studies are exploring the ability of naltrexone to alter alcohol drinking when delivered in combination with pharmacotherapeutic agents that act on nonopioid transmitter systems and the difference in efficacy of naltrexone when administered in populations that differ in drinking frequency and intensity, family history of alcoholism, and alcohol craving. This symposium presented new research findings from both preclinical and clinical studies with the aim of facilitating the development of treatment regimens that optimize the therapeutic potential of naltrexone in the treatment of alcoholism.