Adolescent Substance Use and Abuse

Addiction is a chronic brain disorder with both genetic and environmental risk factors. In teenagers and young adults, drug and substance use is associated with failure in school, social alienation and stigmatization, depression, and risky sexual activity. Teenage drug use is linked to all the leading causes of death among adolescents - suicide, homicide and automobile accidents. Although drug use at any age can lead to addiction, evidence demonstrates that the earlier the initiation the more likely it is to progress to abuse and addiction. Adolescents are particularly disposed to trying legal and illegal substances as their brains are still developing in the areas that govern decision-making, judgment and self-control. This also means that it is easier for drugs to cause changes in brain chemistry, plasticity and function, which can critically affect adult behavior. While the seriousness of the situation is recognized there is less progress made in understanding the biological factors underlying the problem or effective prevention, intervention and treatment for teen substance abuse. We propose four new faculty hires one each in the departments of Pharmacology and Psychiatry in the Medical School, one in the Department of Health Behavior and Health Education in the School of Public Health and one in the School of Social Work, to address questions from a multidisciplinary perspective. For example: Why are adolescents so susceptible? What does drug exposure do to the adolescent brain and are these effects permanent? How can we improve education and policy towards adolescent drug abuse? What interventions and or treatments are most appropriate for the adolescent brain? These new hires will integrate with the already strong group of epidemiologists at the University who continue to study the extent of adolescent drug use and abuse, and with the existing community of scholars across many disciplines that work on other aspects of drug use and abuse, all under the interdisciplinary umbrella mechanism provided by the University’s Substance Abuse Research Center. In addition to increasing the research portfolio of the University this initiative has the potential to bring health and social benefits to society and provide an important addition to graduate and undergraduate education.