

Scuola di Dottorato di Scienze Ingegneria Medicina

## "Neural Mechanisms of Cognitive Control: Theoretical Considerations and translational Implication"

Seminar

## June 8, 2011

## Prof.ssa Marie T. Banich

Director, Institute of Cognitive Science Executive Director, Intermountain Neuroimaging Consortium Dept. of Psychology & Neuroscience University of Colorado (USA)

Abstract

In this talk I will present a model of the prefrontal mechanisms involved in cognitive control that has resulted from the large body of research on the Stroop task performed in my laboratory. I will then show how this theoretical model can be informative in understanding deviations in cognitive control in clinical populations, for development during adolescence, and for individual differences. In the second part of the talk, I will discuss how this model can be extended to control over memory processes, providing one example from long-term memory and one from working memory. This work will demonstrate how brain imaging can be particularly helpful in providing a window into this issue. In general, the research presented will demonstrate how parallel research programs on neurologically-normal individuals and clinical populations can work synergistically to advance theory as well as translation of that theory for understanding variations in cognitive control.

The lecture will take place at 15:30 in the Room F of Istituti Biologici – Faculty of Medicine and surgery

Local organization and contact:

Prof. Carlo Alberto Marzi carloalberto.marzi@univr.it