Roles for the methyl-DNA binding protein MeCP2 in Addictive-Like Behaviors

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Research abstract:
The methyl-DNA binding protein MeCP2 is emerging as an important regulator of drug reinforcement processes. Psychostimulants induce rapid and transient phosphorylation of MeCP2 at Ser421, suggesting a mechanism to couple changes in MeCP2 function with psychostimulant exposures. Our data show that the phosphorylation of MeCP2 at Ser421 functions to limit the circuit plasticities in the nucleus accumbens that underlie the development of addictive-like behaviors. I will present these data and discuss how identification of pMeCP2-dependent processes in the NAc may reveal new insights into cellular and molecular mechanisms that limit vulnerability to addiction.

Three publications:

