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Subtle changes

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Jonathan B Weitzman
Email: jonathanweitzman@hotmail.com

Rett syndrome, a severe mental retardation disorder, is associated with mutations in the gene encoding methyl-CpG-binding protein-2 (MECP2). In the Early Edition of the Proceedings of the National Academy of Sciences Tudor *et al.* describe transcriptional profile analysis of brains from mice with a brain-specific deletion of the *Mecp2* gene. *Mecp2* deficiency was predicted to result is dramatic changes in global gene expression, but this turns out not be the case. Extensive statistical analysis of the microarray data revealed very few changes in gene expression, even in mutant mice displaying overt physiological symptoms. RNase protection experiments confirmed that a small number of genes change only slightly in mutant mouse brains. Tudor *et al.* speculate that neurons may be sensitive to relatively subtle changes in gene expression, or that the *Mecp2* deletion affects a small subset of cells in the brain, or that there is a functional redundancy with other methyl-binding proteins.

References

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