

## Role of the hsp70 cochaperone BAG1 in glucocorticoid receptor function and stress-related diseases

The article by Maeng *et al.* (1) reports on the role of the hsp70 cochaperone BAG1 in manic-like and depression-like behavioral phenotypes in mice. The authors discuss their results in connection with the established role of BAG1 in regulating the function of the glucocorticoid receptor (GR). They highlight this role of BAG1 because mania and depression are widely considered to be stress-related diseases. GR, rendered malfunctioning by BAG1, fits nicely into this model. However, the authors used a mouse model that overexpresses the short isoform of BAG1 (2). This isoform has been shown by two groups to not inhibit GR (3, 4). We are not aware of any study that shows an inhibitory function of BAG1S on the transcriptional activity of GR, and the authors do not provide evidence for this. Instead, the longer isoform BAG1M has

been demonstrated to exert an inhibitory influence on GR (3, 4). Thus, there is no evidence that phenotypes related to mania and depression observed in their model of BAG1 overexpression can be correlated to a disturbed GR and stress system. Therefore, it is likely that these mice model the GR- and stress-independent aspects of mania and depression.

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The authors declare no conflict of interest.

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