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[Treatment-resistant depression might be in the genes](#)

Variation in the gene coding for the potassium channel TREK1 may explain why some patients with depression do not respond to commonly prescribed antidepressants. If confirmed, this finding, reported online this week in the journal *Neuropsychopharmacology*, could lead to better ways of identifying and treating patients unlikely to benefit from conventional drug regimens.

Roy Perlis and colleagues studied the genes of patients who did not respond to an initial trial of selective serotonin reuptake inhibitors (SSRIs). Of these patients, they found that those with a common variation in the gene for TREK1, often failed to respond to one or two subsequent treatments. SSRIs are known to inhibit TREK1 and mice lacking this channel are resistant to depression. These results suggest TREK1 could regulate one's response to antidepressants.

While further research is necessary to determine how these variations interfere with treatment, this study is one of the first to examine the genetic underpinnings of treatment resistant depression, a prevalent and costly disease with a poor prognosis.

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