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Title:	Stochastic Modelling of the Stock Market
Authors:	M Kor, Soham (/jspui/browse?type=author&value=M+Kor%2C+Soham)
Keywords:	Stochastic Modelling Stock Market
Issue Date:	May-2023
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Abstract:	<p>This study on <i>Drosophila melanogaster</i> found a paradoxical need for sleep that was caused by an immunological response. Sleep deprivation prior to immune response resulted in lower death rates over time, indicating that the link between sleep and immunological response is complex. Acute sleep deprivation increased immune response, protecting against subsequent bacterial infection, but agents lowering sleep exhibited complicated and inconsistent effects on immunological response and survival, implying the possibility of compensatory signaling pathways. These findings have implications for understanding the role of sleep in the immune response as well as the possibility of therapeutic therapies. The research sheds insight on the complex interaction that exists between sleep and the immune system. It calls into question the previously held belief that immune response-induced sleep is time-dependent and emphasizes flies' paradoxical need for sleep. The findings also imply that acute sleep deprivation may result in the activation of immune-related genes, which may protect against subsequent bacterial infection. The effects of substances that inhibit sleep on immunological response and survival, on the other hand, are complex and inconsistent in the literature, indicating the presence of compensatory signaling pathways. Because behavioral reactions to illness and stress are widely conserved across species, including mammals, the components found in flies may have homologues with analogous functions in other species. The study's findings are significant in expanding our understanding about the link between sleep and immunity.</p>
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