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#### Targets of dimethyl fumarate: a novel predictive method based on concepts of network theory and machine learning

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(Article begins on next page)

# Targets of Dimethyl Fumarate: a Novel

# **Predictive Method Based on Concepts of**

### **Network Theory and Machine Learning**

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#### INTRODUCTION

Dimethyl fumarate (DMF)-based drug products have been approved for use as oral treatments for psoriasis and relapsingremitting multiple sclerosis in recent years. The adduction of DMF to certain cysteine residues in proteins (P), resulting in the appearance of the corresponding dimethyl succinated (DMSu)-P, is thought to underlie the effects of this drug.



To date, only a few targets for these compounds have been discovered using proteomic methods. This study proposes a novel method by which to consistently classify (class prediction) cysteine sites in proteins in terms of their reactivity towards DMF.



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P.279

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