

CANCER PREVENTION RESEARCH

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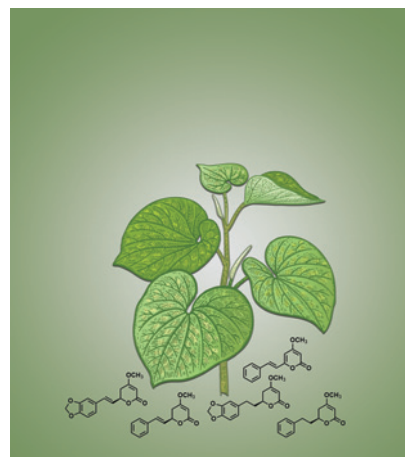
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## ABOUT THE COVER

Tobacco smoke is the primary risk factor for lung cancer. Both smoking cessation and detoxification of tobacco-associated carcinogens effectively reduce cancer risk. According to epidemiology studies in the South Pacific Islands, traditional kava beverage consumption to reduce stress and improve sleep quality is associated with a lower incidence of lung cancer. Based on these observations and extensive *in vivo* research, Wang and colleagues performed a pilot clinical trial (starting on page 483) to evaluate the effects of a 7-day course of kava capsules on the metabolism of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) and usage of tobacco among active smokers. Mechanism-based biomarker quantitative analyses showed that kava increased urinary excretion of NNK metabolites and decreased urinary 3-methyladenine, suggesting that kava could detoxify NNK. Participants taking kava capsules also had a lower level of urinary total nicotine equivalents, indicating less smoking. Plasma cortisol and urinary total cortisol equivalents were also decreased, which may contribute to reductions in nicotine craving and tobacco use. These data suggest that kava may facilitate smoking cessation and lower toxicity of carcinogens found in tobacco. The cover depicts a kava plant and the major kava-specific lactones responsible for its dual benefits among smokers.



# Cancer Prevention Research

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