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[Lab. of Pharmacognosy]

**Flavanones with Potent Antibacterial Activity against
Methicillin-resistant *Staphylococcus aureus*.**

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With the therapic concept of using the defensive ability of plants against microbial infections, phytoalexin, an antimicrobial phytochemical was studied for its ability to inhibit the growth of MRSA. Extracts from *Sophora exigua* were fractionated by serial chromatography and the anti-MRSA activity of each fraction was determined by the agar-plate method. Among the active isolates, exiguaflavanone D completely inhibited the growth of all the MRSA strains. The compound is expected to be a phytotherapeutic agent for MRSA infections as an alternative to conventional antibiotics with unwanted side-effects.

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[Lab. of Pharmacognosy]

**Inhibition of the Growth of Cariogenic Bacteria in Vitro by Plants
Flavanones.**

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Phytoalexins, defensive compounds produced by plant against microbial infection, were purified from *Sophora exigua* and their growth inhibitory effects on oral cariogenic bacteria were determined in vitro. Among three isolated compounds, sophoraflavanone G completely inhibited the growth of oral bacteria including primarily cariogenic mutants streptococci, other oral streptococci, actinomycetes and lactobacilli.

[Pharmazie, 49, 756-758 (1994)]

[Lab. of Pharmacognosy]

Anti-*Candida* Activity of Synthetic Hydroxychalcones.

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The antifungal activity of different synthetic hydroxychalcones was determined against *Candida* species. It was revealed that the presence of hydroxy groups at C-2, 4 and 2' in chalcone was essential to inhibit *Candida* growth. Among the chalcone derivatives examined, 2,4',2'-trihydroxy-5'-methylchalcone showed the most intensive anti-*Candida* activity, suggesting that it could be a potential therapeutic agent for candidosis.