

Arzneim.-Forsch./Drug Res., 51, 67-71 (2001).

### Antimicrobial Activity of New Coumarin Derivatives

Masami Kawase(河瀬雅美)<sup>1</sup>, Bharat Varu<sup>2</sup>, Anamik Shah<sup>2</sup>, Noboru Motohashi<sup>3</sup>, Satoru Tani(谷 覺)<sup>1</sup>, Setsuo Saito(齋藤節生)<sup>1</sup>, Sanchayita Debnath<sup>4</sup>, S. Mahapatra<sup>4</sup>, Sujata G. Dastidar<sup>4</sup> and A. N. Chakrabarty<sup>5</sup>

<sup>1</sup>Faculty of Pharmaceutical Sciences, Josai University, Saitama, Japan; <sup>2</sup>Department of Chemistry, Saurashtra University, Rajkot, India; <sup>3</sup>Meiji Pharmaceutical University, Tokyo, Japan; <sup>4</sup>Division of Microbiology, Department of Pharmaceutical Technology, Jadavpur University, Calcutta, India; <sup>5</sup>Department of Medical Microbiology and Parasitology, Calcutta University College of Medicine, Calcutta, India

A preliminary exploration of coumarin analogs as novel antimicrobial agents was carried out to determine the basic features of the structure responsible for the observed biological activity. The substituents ester or carboxylic acid on the coumarin ring were needed to have potent inhibitory activity against both Gram-positive and Gram-negative bacteria. The presence of phenolic hydroxyl group and/or carboxylic acid was necessary to possess higher activity against *Helicobacter pylori*.

