



## Purine compounds possessing anticancer activity

**PI :** Prof. Pan-Chyr Yang (Department of Medicine, College of Medicine, National Taiwan University)

### Experience:

**Current**      Academician, Academia Sinica, Taipei, Taiwan  
 Distinguished Professor, Department of Medicine, College of Medicine, National Taiwan University  
 Adjunct Researcher, Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan  
 Vice President, Institute for Biotechnology and Medicine Industry

**Education**    M.D., College of Medicine, National Taiwan University (1979)  
 Ph.D., Graduate Institute of Clinical Medicine, National Taiwan University (1986-1990)

**Experiences:** President, National Taiwan University  
 Dean, National Taiwan University College of Medicine  
 Deputy Dean, National Taiwan University Hospital  
 Director, Advisory Office, Ministry of Education, ROC  
 Chief Investigator, National Science and Technology Program of Biotechnology and Medicine  
 Standing member, Medical Education Committee, Ministry of Education  
 Director, NTUH National Clinical Trial and Research Center

### Market Needs: Anti-cancer drugs

### Our Technology and Strengths:

By selection from a 2-million entry chemical library based on the efficacy and safety, we identified purine-type compounds that were active against lung small cell lung cancer (NSCLC). The purine compound, GRC0321, is a microtubule targeting agent (MTA) with good effects against NSCLC. Lung cancer cells treated with GRC0321 could induce microtubule fragmentation, leading to G2/M cell cycle arrest and intrinsic apoptosis. GRC0321 directly targeted katanin and regulated the severing activity of katanin, which cut the cellular microtubules into short pieces and activated c-Jun N-terminal kinases (JNK). Microtubule targeting agents (MTAs) constitute a class of drugs for cancer treatment. Despite many MTAs have been proven to significantly improve the treatment outcomes of various malignancies, resistance has usually occurred. The microtubule fragmenting effect of GRC0321 is a unique mechanism in MTAs. It might overcome the resistance problems and also reduce severe side effects that most of the MTAs have faced.

### Competing Products:

### Intellectual Properties:

US provisional pattern: US 62/069, 270; 62/291, 794; Pattern application in Taiwan and Us are on-going.

### Contact (do not need to fill out):

Center for Industry-Academia Collaboration, NTU  
 Tel: 02-3366-9945, E-mail: ordiac@ntu.edu.tw

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