Symposium on Pharmacology of Nicotine : Session scheduled for 13.30 hrs on Friday 4th September 1987

During this brief session of one hour, Dr. Holmstedt is due to review the toxicity of nicotine and related compounds and then Dr. Hoffmann will discuss the biochemistry, pharmacokinetics and carcinogenicity of nicotine-derived nitrosamines.

It probably goes without saying that any agent which exhibits pharmacological activity is also potentially toxic. As Paracelsus pointed out - it is simply a matter of dose! So when Dr. Holmstedt addresses us, I shall be hoping to hear whether he considers there to be an adequate safety margin between the doses of nicotine required by smokers for the benefits they perceive or require and doses that may give rise to toxicity in the short or long term.

I expect that Dr. Hoffmann will be trying to persuade us that nicotine is the most important pro-carcinogen in tobacco smoke. The fact that nitrosamines derived from nicotine are present in smoke and the fact that they are capable of producing cancers, including lung cancers, in experimental animals are beyond dispute. However, it is a giant step from these facts to the conclusion that the nicotine content of tobacco is the main source of the carcinogenicity of tobacco smoke. Nor is this issue merely an academic one. The fate of attempts to develop safer cigarettes and alternative nicotine-delivery systems depends on whether Hoffmann's view is right or wrong.

This said, without more ado, I will call upon Dr. Holmstedt to present his paper,