

Guest Editorial

"Characterization of Macromolecules used as Pharmaceutical Excipients" was the theme of a symposium arranged by the Swedish Academy of Pharmaceutical Sciences in Gothenburg March 7–9 1990. This was a truly interdisciplinary meeting with scientists representing all the disciplines that are involved in the construction of modern drug delivery systems.

The advances within modern drug formulation have, to a large extent, been based on the use of macromolecular materials as excipients. Such components often serve as regulators of the diffusion or permeation of the drug from the formulation to the surrounding fluids in the body.

Many macromolecular materials have been described in our pharmacopoeias, although the tests are very often rather vague regarding the characterization power. Viscosity could well be the oldest of those. Modern techniques have sometimes been used to indicate differences in substitution degree. Technical properties, on the other hand, are considered to be related to the construction of the formulation and is more like a property of the manufacturer.

The development of new powerful physico chemical techniques and instrumental analytical methods has been tremendous over the last 10 to 15 years and we can now obtain information on the composition of or show differences between various kinds of macromolecular materials. Spectroscopic and thermal methods have established their position in this area. Now also chromatographic techniques could be of great interest in as much as they can supply other kinds of information. If the chromatographic techniques are combined with detectors that give information on, molecular weight for instance, the power of the information will increase substantially. It is of great importance that all this physico chemical information is correlated with the behaviour of the polymeric or macromolecular material in the formulation.

Accordingly, the aim of this symposium was to bring experts together from the analytical chemical and physico chemical fields with those working in the fields of pharmaceuticals and polymer chemistry. Therefore in addition to discussions on various techniques useful for characterization purposes, presentations were given on pharmaceutical applications in a series of lectures discussing various polymeric materials, more or less tailor-made for drug release and drug delivery purposes. Emphasis was also put on the technical properties of the materials used in the pharmaceutical process.

The pharmacopoeias are the final stage in the standardization process for various raw materials. They are especially important from the point of

harmonization of methodology as well as safety aspects. To make the program complete presentations by scientists representing the pharmacopoeias and the authorities were included.

It is the belief of the organizers that this interdisciplinary character of the meeting was most valuable to the participants. Some of the papers presented at the meeting are published in this volume.

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Chairman of the Organizing Committee