Foreword

One of the major advances in cardiac electrophysiology in the last decade or so has been the ‘discovery’ that the inward depolarizing current has two components: the fast sodium current which is blocked by tetrodo-toxin and local anesthetics and the slow inward current mediated essentially by calcium ions and blocked selectively by manganese and cobalt ions. When the fast current is inactivated, depolarization may occur exclusively via the slow channel. About 10 years ago, it was found that the selective inhibition of the slow channel in either normal tissue or in those solely dependent on the slow channel for depolarization can also be achieved by a large number of chemically heterogeneous compounds. Thus, they have come to be known as ‘calcium antagonists’ or ‘calcium influx blockers’. Verapamil is a prototype, as is its methoxy derivative – gallopamil or Dôoo. Some of the other compounds are nife-dipine and diltiazem. Such compounds have also been shown to competitively block the transmembrane influx of calcium in smooth muscle cells. Thus, as a class, calcium antagonists produce a complex interplay of simultaneous changes in systemic and coronary hemodynamics as well as those in electrophysiological parameters due to direct, indirect and reflex effects in the heart and the circulation. Such effects have been found to be of therapeutic significance in a number of cardiocirculatory disorders including cardiac arrhythmias, various myocardial syndromes, coronary vasospasm, hypertension, and obstructive cardiomyopathies, among others. Interest in calcium antagonists has burgeoned in recent years in the wake of the appreciation that these compounds have a spectrum of therapeutic action which may rival that of β-blockers, that in certain clinical situations they may have advantages over β-blockers and that in others they may be administered in combination with them to achieve optimum clinical results in a number of major cardiovascular disorders.

Tiapamil (Ro 11-1781) is a new slow channel inhibitor which has undergone experimental and clinical evaluation largely on the continent of Europe. On April 9 and 10, 1981, the First International Tiapamil Symposium was held at the Hotel Beau Rivage, Ouchy, Lausanne in Switzerland to evaluate the current knowledge about the pharmacology, pharmacokinetics, electrophysiology and the preliminary clinical experiences with this new calcium antagonist. The proceedings reported in this supplement, based on the presentations at that meeting, clearly suggest a significant role for this compound in cardiovascular therapeutics. Bramah N. Singh, Professor Singh, MD, DPhil (Oxon), FRACP and FRCP (Lond), Los Angeles, Calif, is Professor of Medicine at the UCLA School of Medicine and Director of the Cardiovascular Research Laboratory, Wadsworth V.A. Medical Center, Califòrnia.