PREFACE

This volume presents the contribution of the fifteenth seminar of the French Society of Theoretical Biology held in St Flour (France), on June 12-14 1995. The proposed theme of the meeting was the complexity of biological systems: from chaos to equilibrium.

The selected papers have been grouped in the following (more or less arbitrary) sections.

The first section contains two contributions dealing with the very bases of the approach of integrated biological systems. According to Mikulecky significant changes in the way we do and view science are emerging: the article is focused on the development of the concept of 'complexity' from the point of view of its usefulness for the study of living systems. From that point, a large assessment concerning many epistemological questions of the present science is presented. The article by Norris discusses the question of unifying theory of biology and what should be its elements.

Sections 2-4 are defined according to the level of organization of the living systems under study. Four papers (Prideaux, Costalat, Dulos, Mazat) deal with properties of chemical and biochemical systems. Two papers concerning cell cultures. Three papers (Auger, Jarry, Chalvet-Monfray) relate to populations.

The last section contains two articles taking methodological problems in particular consideration.

P. CRUIZIAT Guest Editor