

monoclonal antibodies
and human blood
platelets

john louis mcgregor editor

MONOCLONAL ANTIBODIES AND HUMAN BLOOD PLATELETS

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In the last week of September 1985 an ETRO (European Thrombosis Research Organization) meeting was held in Lyon to present new data and review different aspects of research using monoclonal antibodies to study human blood platelet membrane glycoproteins. Participants to this meeting came from laboratories member of ETRO and from other laboratories in Europe and the U.S. The members of the scientific committee for this meeting were: J.L. McGregor, K.J. Clemetson, M. Dechavanne and A. Nurden. The meeting was organised by J.L. McGregor with the assistance of Lilian McGregor, P. Clezardin, H. Boukerche, B. Catimel, A. Sayegh, Dominique Cabanne and Denise Pichon. This meeting took place at the Faculty of Medicine Alexis Carrel, University Claude Bernard Lyon I and was sponsored by ETRO, AHS/France, Boehringer-Ingelheim, F. Hoffman-La Roche & Co. Ltd, Hoechst-Behring, Flow S.A., Immunotech, Pharmacia, Pointet Girard S.A., Fondation Merieux, Millot-Solac, Oris Industrie S.A., Sanofi, Diagnostic Stago.

This book on monoclonal antibodies and human blood platelets contains contribution from authors who were present at this meeting and from others who were not. I am very grateful to the authors for their excellent papers on this new and very important subject.

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J.L. McGregor

PREFACE

In the past six years an extensive number of monoclonal antibodies have been produced, characterised and used to study the structure and functions of a number of human blood platelet membrane glycoproteins. These monoclonal antibodies have tremendously enhanced our understanding on the role played by membrane glycoproteins in human blood platelet functions. The aim of this book is to review important aspects of this expanding new field.

This book has been organized into six sections. The first section is an introduction to human blood platelets and monoclonal antibodies. The next section deals with monoclonal antibodies directed against glycoprotein Ib, a major glycoprotein necessary for platelet adhesion and the use of crossed immunoelectrophoresis to study this glycoprotein. The third section deals with monoclonal antibodies directed against two major membrane glycoproteins, IIb and IIIa, that play a major role in platelet aggregation. The fourth section deals with monoclonal antibodies directed against membrane glycoproteins that may regulate platelet calcium influx and the interaction of these or other glycoproteins with the cytoskeleton. The fifth section deals with monoclonal antibodies directed against adhesive proteins such as FVIII:vWF or thrombospondin. The sixth section deals with the use of monoclonal antibodies in the diagnosis of certain disease states.

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