

Chromosomes Today

Volume
13

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Birkhäuser Verlag
Basel • Boston • Berlin

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A CIP catalogue record for this book is available from the Library of Congress,
Washington D.C., USA

Deutsche Bibliothek Cataloging-in-Publication Data

Chromosomes today : volume 13 / Ettore Olmo ; Carlo Alberto Redi, ed.. - Basel ; Boston ;
Berlin : Birkhäuser, 2000
ISBN 3-7643-5799-1

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ISBN 3-7643-5799-1 Birkhäuser Verlag, Basel - Boston - Berlin

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© For the book title ("Chromosomes Today, Volume 13") and the series title ("Chromosomes
Today Series"): The Organizing Committee of the 13th International Chromosome Conference,
Numana, Ancona, Italy 1998

© 2000 Birkhäuser Verlag, P.O. Box 133, CH-4001 Basel, Switzerland

Printed on acid-free paper produced from chlorine-free pulp. TFC

Cover design: gröflin. Graphic Design, Basel. www.groeflin.ch

Printed in Germany

ISBN 3-7643-5799-1

9 8 7 6 5 4 3 2 1

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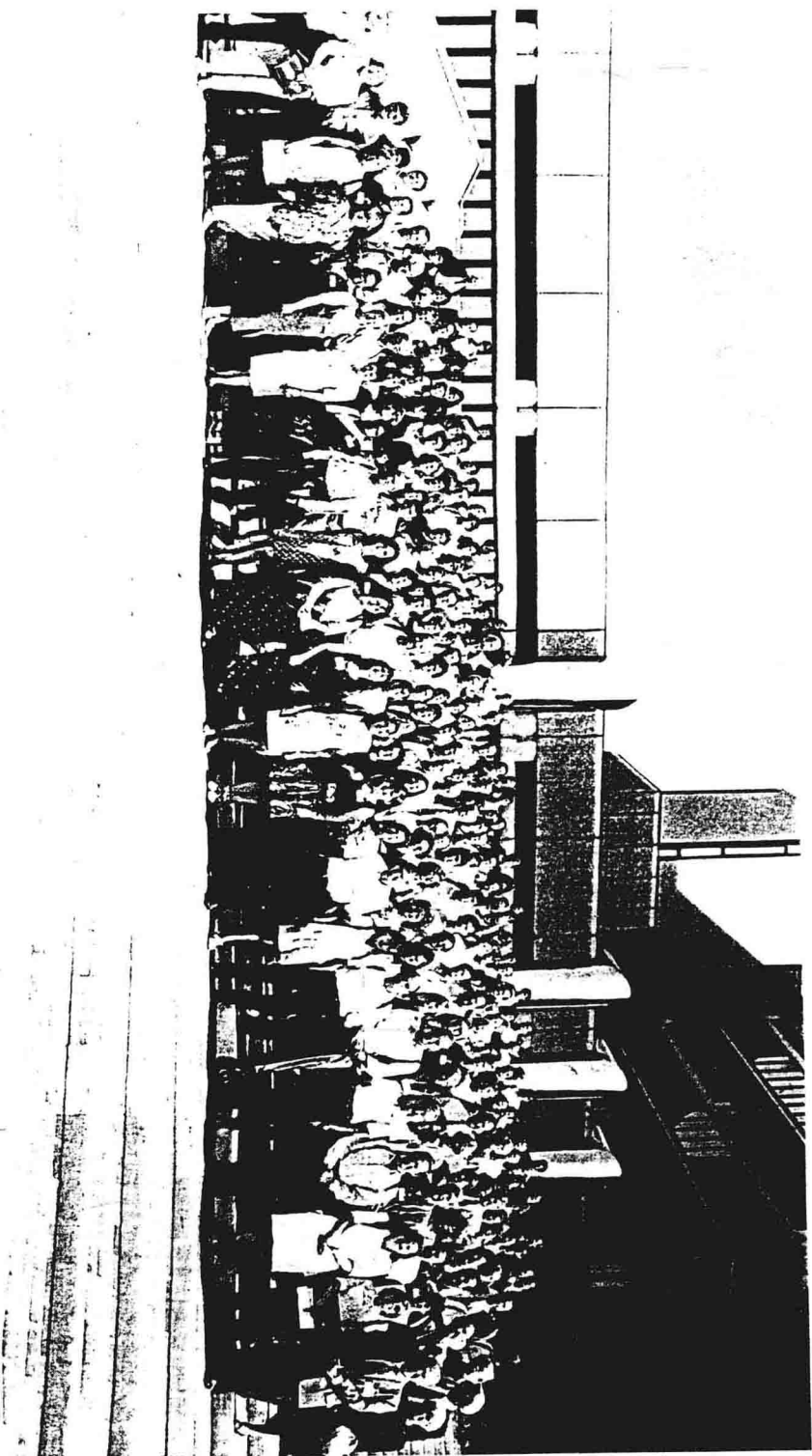
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Group photo of the members of the 13th International Chromosome Conference at the University of Ancona.

Dedication

In the months that have preceded and followed the 13th Conference, three outstanding Italian cytogeneticists have disappeared.

Mario Benazzi, a pioneer of Evolutionary Cytogenetics, died in December 1997 after a long and fruitful life mainly devoted to the study of Plathelminthes cytogenetics.

Alessandro Morescalchi, the outstanding and respected student of Amphibian cytogenetics, with whom E. Olmo shared work and friendship for many years, died untimely in March 1997.

Marco Milani-Comparetti, an outstanding medical cytogeneticist and expert in bioethics, a member of the local Organising Committee, died in May 1999.

We wish to dedicate to them this 13th volume of Chromosomes Today.

Preface

The 13th International Chromosome Conference that was held in Ancona and Numana from 8th to 12th September 1998 was the last of this century and offered a unique opportunity to draw a balance of more than one hundred years of chromosome research.

The participation of over 300 researchers and the high scientific quality of the contributions represent a significant index of the important results obtained so far and of the ever growing interest raised by cytogenetic studies. This also helped us to understand the importance of the insight that led C.D. Darlington to found, in Oxford in 1964, what developed into the International Chromosome Conference so that scientists working on different aspects of chromosome research would have the opportunity of "discussing the fundamental problems of chromosomes with one another".

The present volume of the series *Chromosomes Today* contains all but one of the invited lectures given at the 13th International Chromosome Conference. The programme, the poster presentations, the poster abstracts and the full list of the organisers and of the members of the Advisory Committee have been published in *Cytogenetics and Cell Genetics* vol. 81 (2): 91-168, September 1998.

In the previous volume of the series it was observed that molecular biology has become definitively incorporated into cytogenetics. The articles collected in this volume are a witness to the fruitfulness of this integration.

A new, important aspect that emerged from the 13th International Chromosome Conference are the advances made in the new, powerful methods for studying chromosomes derived from the amazing synergy of molecular biology, optical science and computing technology. However, the important methodological developments and the new applicative opportunities that have occurred in our field have not diminished the attention towards some essential issues such as the composition and organisation of the interphase nucleus, the interaction of homologous chromosomes in meiotic events, the regulation of chromosome distribution during division, or the role of genome structural and molecular variations during evolution. The relevant recent advances in all these issues are represented and discussed in this volume of *Chromosomes Today*.

The organisation of the 13th International Chromosome Conference has been a demanding undertaking repaid by great satisfaction. For their hard work and their commitment we are grateful to the Standing Committee, the International Scientific Advisory Committee, the local Organising Committee,

many volunteer helpers, the University of Ancona and several other bodies which provided both financial and organisational support.

The 14th International Chromosome Conference will be held at Wuerzburg University, Germany, under the guidance of Michael Schmid. We are looking forward to the further advances that will have been made in chromosome studies at the beginning of the third millennium and hope that the International Chromosome Conference will continue to be one of the most important opportunities for scientists from the different fields of cytogenetics to meet and to discuss and exchange data.

The Editors

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