charides, held September 1–6, 1991 in Uppsala, Sweden. The chapters cover the range of current investigations in heparin and related glycosaminoglycans. Beginning with a historical perspective, structural studies encompassing analytical techniques and chemical synthesis of glycosaminoglycans, cellular composition, protein interactions, metabolism, and newly identified mechanisms of in vivo activities (e.g., release of TFPI) are discussed. Heparan sulfate is emphasized throughout. The more classical antithrombotic mechanisms associated with antithrombin III and heparin cofactor II mediated prothrombinase formation/inhibition and pharmacokinetics are touched upon. Comprehensive reviews of the current clinical trials are given, and new focal areas are discussed including neovascularization and metastasis, anti-inflammatory effects, viral interactions, interactions with growth factors, adhesive proteins and other effector molecules, genetic regulation of glycosaminoglycan synthesis and expression of glycosaminoglycans during embryonic development.

The book is well organized in a progressive manner delineated by section in the table of contents. Although each article is typed by the individual authors, using their own format and referencing style, this does not detract from the scientific quality of the proceedings. The authors are generally the leaders in the field with an assortment of several bright, upcoming highly qualified scientists added. Referencing is up-to-date and the indexing is adequate.

Overall, this volume represents a state of the art source book for heparin/glycosaminoglycans useful to the specialist. These articles show that various glycosaminoglycans are expressed in different cells and membranes and that these substances are associated with great functional diversity. Increased knowledge of this potentially important area which has previously been neglected may lead to the increased understanding of the pathobiology of cardiovascular disorders and future drug development. Only the photo of the symposium participants as described in the Preface is missing in this high quality volume.

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Association News and Announcements

EIGHTH ANNUAL PHARMACOKINETICS COURSE FOR PHARMACEUTICAL SCIENTISTS

The Department of Pharmacy of the University of California, San Francisco, School of Pharmacy announces its eighth annual, five-day fundamental course on Pharmacokinetics for Pharmaceutical Scientists, January 30–February 3, 1995 in San Francisco. This highly rated course will emphasize up-to-date information on physiological conceptualization of and problem solving approaches to pharmacokinetics. Presentation will be delivered via lectures and multiple small-group workshops throughout. Please contact Dr. Leslie Z. Benet, Department of Pharmacy, School of Pharmacy, University of California, San Francisco, CA 94143-0446; tel. (415) 476-1680; fax (415) 476-2744.

ONE-WEEK WORKSHOP ON ADVANCED METHODS IN PHARMACOKINETICS

This workshop, to be held Sunday, April 2–Friday, April 7, 1995, in San Francisco, California, will present advanced aspects and applications of pharmacokinetics, pharmacodynamics, and kinetic/dynamic data analysis in the medical and pharmaceutical sciences. The workshop is designed for those who have a good working knowledge of basic concepts in pharmacokinetics, pharmacodynamics, and data analysis, and who wish to extend their knowledge further. Emphasis will be placed on new approaches and concepts relating pharmacokinetics to underlying physiological processes and to pharmacodynamics, and on the analysis and modeling of pharmacokinetic/dynamic data using both assumption-rich (parametric) and assumption-poor (non-parametric) methods. The workshop is organized by Professor Lewis B. Sheiner, University of California, San Francisco and Professor Malcolm Rowland, University of Manchester. For further information, address inquiries to Eilish Nagle, Adv. PK Course Coordinator, University of California, San Francisco, Department of Pharmacy, Box 0446, San Francisco, CA 94143-0446 tel. (415) 476-1680; fax (415) 476-2744; E-mail: barbara@c255.ucsf.edu.