DOWNLOAD MOUSE HEMATOLOGY FREE

Mouse Hematology

Accompanying DVD-ROM includes short video demonstrations of the laboratory techniques.

Atlas of Comparative Diagnostic and Experimental Hematology

A vital resource on blood and bone marrow cell morphology in laboratory animal medicine. This fully revised new edition is an essential reference for clinical pathologists in diagnostic laboratories, and medical or veterinary research. The atlas contains over 400 color images of cells from the peripheral blood and bone marrow from a variety of animals encountered in laboratory animal medicine, in health and disease. Key features: New chapter on flow cytometry and its application in terms of routine analyses as a means of identifying abnormalities in cell marker expression, which is of particular relevance for pre-clinical safety assessment Covers the most recent developments in laboratory animal hematology, including parameters measured by the latest generation of analyzers Coverage of a wide range of laboratory animal species, as well as those used in clinical veterinary trials Photomicrographs present normal and abnormal blood cells from a variety of hematological conditions along with descriptive text

Experimental Hematology

The world's leading reference in hematopathology returns with this completely updated second edition. Authored by international experts in the field, it covers a broad range of hematologic disorders -- both benign and malignant -- with information on the pathogenesis, clinical and pathologic diagnosis, and treatment for each. Comprehensive in scope, it's a must-have resource for both residents and practicing pathologists alike. Authored by the chief architects of the WHO classification in neoplasms of hematopoietic and lymphoid tissue. Covers the newest diagnostic techniques, including molecular, immunohistochemical, and genetic studies. Confirm or challenge your diagnostic interpretations by comparing specimens to over 1,000 high-quality color images. Boasts detailed, practical advice from world leaders in hematopathology. Places an emphasis on pathologic diagnoses, including molecular and genetic testing. Updated with the most current WHO classifications of hematologic disease, including lymphoma and leukemia and peripheral T-cell lymphomas. Covers hot topics in hematopathology, such as the latest genetic insights into lymphoma and leukemia; the new nomenclature for myelodysplastic syndromes; new developments on the subject of Grey zone lymphoma; and much more.

Acute Radiotoxicity of (Ba-La)140 in Rats and Mice

Mice have long been recognized as a valuable tool for investigating the genetic and physiological bases of human diseases such as diabetes, infectious disease, cancer, heart disease, and a wide array of neurological disorders. With the advent of transgenic and other genetic engineering technologies, the versatility and usefulness of the mouse as a model in biomedical research has soared. As a result, mouse colonies everywhere are expanding, and scientists who previously focused on other models are turning their attention to the mouse. Revised to reflect advances since the first edition, The Laboratory Mouse, Second Edition continues to be the most accessible reference on the biology and care of the laboratory mouse. This guide presents basic information and common procedures in detail to provide a quick reference source for investigators, technicians, and caretakers in the humane care and use of the mouse in the laboratory setting. Expanded, updated, and now in color, this new edition includes coverage of the biological features,

husbandry, management, veterinary care, experimental methodology, and resources applying specifically to the mouse.

Hematopathology E-Book

Comprehensive in scope and thoroughly up to date, Wintrobe's Clinical Hematology, 15th Edition, combines the biology and pathophysiology of hematology as well as the diagnosis and treatment of commonly encountered hematological disorders. Editor-in-chief Dr. Robert T. Means, Jr., along with a team of expert section editors and contributing authors, provide authoritative, in-depth information on the biology and pathophysiology of lymphomas, leukemias, platelet destruction, and other hematological disorders as well as the procedures for diagnosing and treating them. Packed with more than 1,500 tables and figures throughout, this trusted text is an indispensable reference for hematologists, oncologists, residents, nurse practitioners, and pathologists.

Immunodeficient Mice in Oncology

Hematology encompasses the physiology and pathology of blood and of the blood-forming organs. In common with other areas of medicine, the pace of change in hematology has been breathtaking over recent years. There are now many treatment options available to the modern hematologist and, happily, a greatly improved outlook for the vast majority of patients with blood disorders and malignancies. Improvements in the clinic reflect, and in many respects are driven by, advances in our scientific understanding of hematological processes under both normal and disease conditions. Hematology - Science and Practice consists of a selection of essays which aim to inform both specialist and non-specialist readers about some of the latest advances in hematology, in both laboratory and clinic.

The Hematology of Mice Exposed to Nitrogen Dioxide

Transcription Factors Normal and Malignant Development of Blood Cells Katya Ravid and Jonathan Licht The role of transcription factors in activating specific genes in blood cells is an important facet of hematopoiesis. Equally important, however, is the pursuit of genes rearranged and aberrantly activated in leukemias (blood malignancies). Transcription Factors: Normal and Malignant Development of Blood Cells focuses on those major transcription factors involved in activation of lineage-specific gene expression during normal versus malignant development of specific blood lineages, as revealed from gene promoter studies, knockout of transcription factors in mice models, and the identification and characterization of chromosomal rearrangement in human blood leukemias. This complete digest of current transcription factor data offers comprehensive coverage of the myriad of transcription factors in blood cell development, composed by established experts in the field. In addition to updating the reader on the connection between chromosomal translocations involving transcription factors and cellular transformation leading to leukemia, Transcription Factors also reviews such subjects as: * Transcription factors and the megakaryocytic, myeloid, and erythroid lineages * Leukemias due to chromosomal translocations involving gene encoding transcription factors * Oncogenesis and hematopoiesis * In vivo studies of transcription factors implicated in hematopoiesis * And much more Appealing to both the researcher and the clinician in the field of hematology, Transcription Factors is a timely presentation of cell lineage development and sheds light on the processes involved in the development of specific leukemias. Providing insight into the study of transcription factors, readers will gain an understanding of mechanisms that lead to normal lineage commitment and terminal differentiation.

The Laboratory Mouse, Second Edition

Experimental Hematology Today - 1989 comprises selected papers presented at the 18th Annual Meeting of the International Society for Experimental Hematology, July 16-20, 1989, Paris, France. Four major areas of research are explored: present aspects of stem cell transplantation; control of hemopoiesis; hemopoiesis in malignancies; and gene transfer. The role of autologous bone marrow transplantation in acute leukemia and

in Hodgkin lymphoma, properties of the murine interleukin-3 receptor, effects of Ubenimex on proliferation and differentiation of human bone marrow cells and leukemic cell lines, immune system stimulation for the therapy of advanced stage neuroblastoma, and retro-viral gene transfer of human adenosine deaminase into hematopoietic cells are some of the topics considered. ^ ***BUCHHÄNDLERTEXT-E*** Selected papers from the 18th Annual Meeting of the International Society for Experimental Hematology. The proceedings are published annually and report on the latest experimental and clinical research.

Wintrobe's Clinical Hematology

Extensively revised, comprehensive content from leading global contributors ensures that Hematology, 8th Edition, remains your #1 choice for expert guidance in all areas of this rapidly advancing subspecialty. This edition reflects the numerous advances that are redefining the field and dramatically influencing new approaches to diagnosis, treatment, and outcomes. Well-illustrated and clinically focused, it details the basic science and clinical practice of hematology and hematopoietic cellular therapy—covering virtually all aspects of hematology in one definitive resource. Covers all hematologic disorders, including comprehensive discussions of hematologic malignancies, individualized patient care, cell-based therapies, transplantation, transfusion medicine, hemostasis, thrombosis, and consultative hematology—in one convenient volume. Provides state-of-the-art guidance from global experts at the forefront of the latest research and clinical practice. Provides extensive updates throughout on basic science research, advances in molecular diagnostics, new drugs, immunotherapies, personalized medicine, laboratory medicine, transfusion medicine, stem cell transplantation, and clinical treatment for all hematologic malignancies and non-malignancies Contains new chapters on gene editing; the impact of mitochondria on hematopoiesis; myelodysplastic syndrome/myeloproliferative neoplasm overlap syndromes; immunotherapy and management of its toxicities; transfusion medicine in sickle cell disease; principles of radiation therapy; and COVID-19, including complications of vaccination and its impact on the hematologic system. Discusses many new advances in the field, including details and the future of gene therapy for hemophilia, gene editing for sickle cell disease and thalassemia, the evolution of cellular therapy, use of cells, transfusion medicine vs. protein therapy, gene sequencing, immunotherapy, and new targeted drugs. Includes more decision-making algorithms for formulating diagnoses and personalized treatment plans for those highly complex disorders that require individualized approaches. Addresses the effects of aging on hematopoiesis and on the manifestations of a variety of hematologic disorders. Discusses cardio-oncology and its impact on the treatment of patients with hematologic disorders. Presents relevant basic science as background for clinical application in later sections.

Immunodeficient Mice in Oncology

The Hematology: Diagnosis and Treatment eBook is the ideal mobile resource in hematology! It distills the most essential, practical information from Hematology: Basic Principles and Practice, 6th Edition - the comprehensive masterwork by Drs. Hoffman, Benz, Silberstein, Heslop, Weitz, and Anastasi - into a concise, clinically focused resource that's optimized for reference on any e-reader. Focusing on the dependable, state-of-the-art clinical strategies you need to optimally diagnose and manage the full range of blood diseases and disorders, this eBook is a must-have for every hematologist's mobile device! Apply the latest know-how on heparin-induced thrombocytopenia, stroke, acute coronary syndromes, hematologic manifestations of liver disease, hematologic manifestations of cancer, hematology in aging, and many other hot topics. Get quick, focused answers on the diagnosis and management of blood diseases - in a portable digital format that you can carry and consult anytime, anywhere. View abundant images that mirror the pivotal role hematopathology plays in the practice of modern hematology. Count on all the authority that has made Hematology: Basic Principles and Practice, 6th Edition, edited by Drs. Hoffman, Benz, Silberstein, Heslop, Weitz, and Anastasi, the go-to clinical reference for hematologists worldwide. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability. Compatible with Kindle®, nook®, and other popular devices.

Hematology

This leading text reflects both the new direction and explosive growth of the field of hematology. Edited and written by practitioners who are the leaders in the field, the book covers basic scientific foundations of hematology while focusing on its clinical aspects. This edition has been thoroughly updated and includes ten new chapters on cellular biology, haploidentical transplantation, hematologic manifestations of parasitic diseases, and more. The table of contents itself has been thoroughly revised to reflect the rapidly changing nature of the molecular and cellular areas of the specialty. Over 1,000 vivid images, now all presented in full color for the first time, include a collection of detailed photomicrographs in every chapter, selected by a hematopathology image consultant. What's more, this Expert Consult Premium Edition includes access to the complete contents of the book online, fully searchable and updated quarterly by Dr. Hoffman himself. - Publisher.

Transcription Factors

It is perhaps not too much of an exaggeration to claim that experimental hematology as it flourishes today originated largely from the pioneering attempts to protect lethally radiated animals (1) by shielding of hemopoietic tissues by L.O. Jacobson (9), and (2) by treatment with bone marrow suspensions by E. Lorenz and his col laborators (12). The site chosen for this annual meeting of the International Society for Experi mental Hematology is given a special historic sig nificance by the fact that it was 25 years ago that the first publication on this subject by Lorenz ap peared from his laboratory at the National Insti tutes of Health. Lorenz's discovery marked the beginning of a period which lasted until 1956, during which the protection afforded by hemopoietic cell suspensions was confirmed by many. This soon led to an intensive scientific de bate on the mechanism of this protective effect: was it due to a humoral factor produced and pro vided by the bone marrow-as Lorenz The Appearance of postulated-or to transplantation and subsequent proliferation of hemop- etic cells? This question was defini- 1 the Multipotential tively answered in 1956 by evidence from three different laboratories (7, 15, 26), which demonstrated the origin of the cells Hemopoietic in the repopulated tissues using a variety of cellu lar and immunologic markers. By the same token, these contributions marked the birth of radiation Stem Cell chimeras.

Experimental Hematology Today—1989

Get the expert guidance you need to offer your patients the best possible outcomes with Hematology: Basic Principles and Practice, 7th Edition. This thoroughly up-to-date text contains both unparalleled scientific content and must-know clinical guidance, so you can enhance your problem-solving skills and make optimal use of the newest diagnostic techniques and therapeutic options in this fast-changing field. Delivers state-of-the-art information and guidance from editors and global contributors who are at the forefront of their respective subspecialty areas Features sweeping content updates throughout, including basic science research which serves as a foundation for modern hematology, recent advances in stem cell transplantation, clinical advances in the treatment of each of the hematologic malignancies, immune checkpoint inhibitors, molecular diagnostics, transfusion medicine, and much more Includes several new chapters including Epigenetics and Epigenomics, Stem Cell Model of Hematologic Diseases, Multiple Myeloma, IND Enabling Processes for Cell-Based Therapies, and Immune Checkpoint Blockade in Hematologic Malignancies New Virtual Microscope with the ability to zoom in on high-quality digital hematopathology slides and frequent content updates accessible anywhere, any time on your favorite digital device Expert ConsultTM eBook version included with purchase. This enhanced eBook experience allows you to search all of the text, figures, Q&As, and references from the book on a variety of devices Delivers state-of-the-art information and guidance from editors and global contributors who are at the forefront of their respective subspecialty areas. Features sweeping content updates throughout, including basic science research which serves as a foundation for modern hematology, recent advances in stem cell transplantation, clinical advances in the treatment of each of the hematologic malignancies, immune checkpoint inhibitors, molecular diagnostics, transfusion medicine, and much more. Includes several new chapters including Epigenetics and Epigenomics, Stem Cell Model of Hematologic Diseases, Multiple Myeloma, IND Enabling Processes for Cell-Based Therapies, and Immune

Checkpoint Blockade in Hematologic Malignancies. New Virtual Microscope with the ability to zoom in on high-quality digital hematopathology slides and frequent content updates accessible anywhere, any time on your favorite digital device. Expert ConsultTM eBook version included with purchase. This enhanced eBook experience allows you to search all of the text, figures, Q&As, and references from the book on a variety of devices.

Hematology

Normative Biology, Husbandry, and Models, the third volume in the four volume set, The Mouse in Biomedical Research, encompasses 23 chapters whose contents provide a broad overview on the laboratory mouse's normative biology, husbandry, and its use as a model in biomedical research. This consists of chapters on behavior, physiology, reproductive physiology, anatomy, endocrinology, hematology, and clinical chemistry. Other chapters cover management, as well as nutrition, gnotobiotics and disease surveillance. There are also individual chapters describing the mouse as a model for the study of aging, eye research, neurodegenerative diseases, convulsive disorders, diabetes, and cardiovascular and skin diseases. Chapters on imaging techniques and the use of the mouse in assays of biological products are also included.

Hematology: Diagnosis and Treatment

Fulfilling the void with a Hematopathology book that integrates clinical and experimental studies with diagnostic criteria, Neoplastic Hematopathology: Experimental and Clinical Approaches provides an overview of the discipline of hematopathology that connects the field with recent advances in immunology research and current clinical practice in the treatment of lymphomas and leukemias. Designed for both trainees and specialists in pathology and hematology-oncology, Neoplastic Hematopathology: Experimental and Clinical Approaches has separate sections on laboratory techniques, diagnostic hematopathology, treatment and stem cell transplantation. Expert chapter authors address both myeloid and lymphoid tumors, and provide much needed coverage in transplant biology. A study guide highlights key chapter points, making the text suitable for boards review in hematopathology and hematology-oncology.

Hematology

Following its highly successful and well-respected first edition, this thoroughly revised edition offers much more! Edited and authored by leading authorities in hematology, this scientific reference textbook now comes with a CD-ROM. Additional features include some of the more salient standard and current therapeutics and an easily accessible appendix that provides great reference. The CD-ROM contains 100 of the most critical illustrations from the text—great for quick consultation from your computer.

Experimental Hematology Today

Publisher's Note: Products purchased from 3rd Party sellers are not guaranteed by the Publisher for quality, authenticity, or access to any online entitlements included with the product. This extensive title, which combines scientific principles with up-to-date clinical procedures, has been thoroughly updated for the fourteenth edition. You'll find in-depth material on the biology and pathophysiology of lymphomas, leukemias, platelet destruction, and other hematological disorders as well as the procedures for diagnosing and treating them.

Hematology

Comparative Mammalian Haematology: Cellular Components and Blood Coagulation of Captive Wild Mammals presents a critical review of the hematology of the vertebrates. It discusses the characteristics of blood components of primates; the features of the red cells of carnivores; and the different species of canine.

The book covers the blood components of cats, monkeys, bears, mouse, horse, rhinoceros, pig, llama, boars, camels, and deer. The book can provide useful information to hematologists, biologists, students, and researchers.

The Mouse in Biomedical Research

The book covers the functional significance and properties of erythrocytes, their generation, senescence, and suicidal death. It further summarizes knowledge about hormones influencing erythrocyte formation including erythropoietin as well as disorders affecting and involving erythrocytes such as anemia, malaria, and sepsis. This seminal work forms a unique reference on the most abundant cell type in mammals and will be an invaluable resource for students in the life sciences.

Neoplastic Hematopathology

Experimental Hematology Today-1985 is a memento to the superb 14th Annual Meeting of the International Society for Experimental Hematology, held in Jerusa lem, Israel in July 1985. It represents a selection of the best presentations at the meeting. The manuscripts were selected by the local scientific committee and care fully reviewed by the editors. The yearbook is divided into five parts and represents the most recent advances in the basic sciences and clinical applications. Part I, under the leadership of Dr. L.A. Rozenszajn, is entitled \"Hematopoietic Regulators.\" Papers in this section discuss the most recent discoveries on the phys iological regulation of hematopoiesis. Part II, \"Hematopoietic Microenvironment,\" introduced by Dr. J.S. Greenberger, deals with the involvement ofthe hematopoietic microenvironment in the control of hematopoiesis. Dr. M. Saito leads Part Ill, \"Dif ferentiation of Normal and Leukemic Cells,\" while Part IV, \"Leukemic Cells in Leukemogenesis,\" is introduced by Dr. A. Raghavacher. The important discussions on recent advances in \"Bone Marrow Transplantation,\" Part V, are headed by Dr. M.M. Bortin. Recent findings in many disciplines in experimental and clinical hematology are presented in this yearbook. It should be of considerable value to experimental and clinical scientists. The Editors v Contents Part I. Hematopoietic Regulators L.A. Rozenszajn 1. Role of T-Lymphocyte Colony Enhancing Factor, TLCEF, in the Induction of CFU -TL L.A. Rozenszajn, 1. Goldman, H. Poran, M.M. Werber, D. Shoham, and 1. Radnay ...

Blood

Drs Richard Champlin, Jerome Ritz, Willem Fibbe, Per Ljungman, and Malcom K. Brenner join Kerry Atkinson as editors of this definitive reference on the clinical practice and underlying science of hematopoietic stem cell transplantation. This third edition text is significantly revised and updated with 124 chapters balancing scientific explanations with practical information on patient care for all aspects of autologous, syngeneic, and allogeneic transplantation. This edition includes 18 new chapters on significant topics such as plasticity of stem cells, embryonic stem cells, and nonmyeloablative conditioning regimens. Thoroughly referenced through 2003, the chapters are divided into 15 sections, including biological background and practical procedures, clinical results, transplant-related and organ-specific complications, laboratory aspects, and developing areas, with a final 'breaking news' chapter from this rapidly evolving field. Over 170 internationally-recognized experts contributed to this authoritative and practical text that is an essential resource for hematologists, oncologists, and transplant specialists.

Experimental Hematology Today 1979

The Laboratory Mouse, Second Edition is a comprehensive book written by international experts. With inclusions of the newly revised European standards on laboratory animals, this will be the most current, global authority on the care of mice in laboratory research. This well-illustrated edition offers new and updated chapters including immunology, viruses and parasites, behavior, enrichment and care standards of laboratory mice across the life sciences, medical and veterinary fields. Features four-color illustrations with

complete instruction on mouse surgery, anatomy, behavior and care of the mouse in laboratory research Offers additional chapters on new mouse strains, phenotyping of strains, bacteria and parasites, and immunology Includes the newly revised EU standards on care, as well as, comparisons to standards and regulations in the US and other countries

Wintrobe's Clinical Hematology

This issue of Hematology/Oncology Clinics, guest edited by Dr. Elliott Vichinsky, is devoted to Sickle Cell Disease, and focuses on pathophysiology of hemoglobinopathies, therapeutic targets, and new approaches to correcting ineffective erythropoiesis and iron dysregulation. Articles in this issue include Polymerization and red cell membrane changes; Overview on reperfusion injury in the pathophysiology of SCD; Regulation of ineffective erythropoiesis in iron metabolism; Altering oxygen affinity; Cellular adhesion and the endothelium; Arginine therapy; Role of the hemostatic system on SCD pathophysiology and potential therapeutics; Adenosine signaling and novel therapies; New approaches to correcting ineffective erythropoiesis and iron dysregulation; New approaches to correcting ineffective erythropoiesis and iron dysregulation; Fetal hemoglobin induction; Gene therapy for hemoglobinopathies; and Oxidative injury and the role of antioxidant therapy.

Comparative Mammalian Haematology

Now available in a thoroughly revised Twelfth Edition, Wintrobe's Clinical Hematology continues to be an industry leader with its ability to correlate basic science with the clinical practice of hematology. With the first edition of Wintrobe's Clinical Hematology published in 1942 clearly establishing hematology as a distinct subspecialty of Internal Medicine, the latest edition continues the influence of the Wintrobe name and helps to set this book apart from the competition.With its strong focus on the clinical aspects of hematology, the book has generated a strong following among internists and general practitioners who want a single resource to consult for their patients who present any blood related disorder. The Twelfth Edition is in full color for the first time, boasts a new editorial team, and includes expanded coverage of new medications and four new chapters on Newborn Anemias, Pathology of LHC, Spleen Tumors, and Myeloproliferative Disorders and Mast Cell Disease. A companion Website will offer the fully searchable text and an image bank.

Proceedings of the ... International Congress of the International Society of Hematology

In 1868, Ernst Neumann recognized that blood cells re quire continuous replenishment during postnata1life. Before him, the assumption was that cells of the blood, like nerves once formed in the embryo, remain in the body throughout life. Neumann also recognized that this process occurred within the bone marrow, because this tissue provided a fa vorable environment for proliferation and differentiation of blood cell precursors. Vera Danchakoff, the Russian embryologist working in the US, in 1916 made an analogy to the soil and the seed. Bone marrow forms the soil, providing a favorable environment for the growth of seed, the hemopoietic stem cell, and other progenitor cells. Imagine in the remote past a heap of similar tree seeds. These seeds develop in our moderate climate into a tall and many branched tree. Suppose the wind bears a part of the seeds away and brings them to a land possessing different environmental conditions, we will say the arc tic lands. There the seeds may develop but they may pro duce trees no higher than our moss.

Erythrocytes

The ability to highly purify and characterize hematopoietic stem cells (HSC) from mice and humans has opened up an exceedingly rich field of basic science research with enormous clinical potential. Many of the techniques used in st- ies of HSC biology have become more standardized over the last several years, which makes it possible to compile a set of methods that can be used by both seasoned investigators and novices in the stem cell field. We have attempted to be as comprehensive as possible and yet focus on what we perceive

to be the most widely used approaches for studies of murine and human HSC. This first edition of Hematopoietic Stem Cell Protocols will therefore have some obvious omissions that were dictated by contemporary circumstances. It is our hope that readers will feel free to contribute their personal suggestions for further chapters as well as on how existing chapters can be improved for future editions. We certainly expect that old approaches will be refined, new assays will be developed, and other animal model and vector systems will be described that will become the new gold standards for future work. Our s- cere thanks goes out to all of the contributors and to those in the stem cell field that have enlarged our thinking and provided new tools to further understand this fascinating cell type.

Experimental Hematology Today—1985

This issue of Hematology/Oncology Clinics will focus on Gene Therapy. Topics include, but are not limited to Historical Perspective and Current Renaissance, Integrating Vectors, Nonintegrating Vectors, Gene Editing, Conditioning Therapies for Autologous HSCT, Approaches to Immunodeficiency, Approaches to Hemoglobinopathy, Approaches to Hemophilia, Hematopoietic Gene Therapies for Neurologic and Metabolic Disease, Gene Therapy Approaches to HIV and other Infectious Diseases, HSC Approaches to Cancer, and Gene Modified T Cell Therapies for Cancer.

Hematologic Reviews

Hematopoiesis, or the process of blood formation, has been extensively studied at both basic and clinical levels. Human diseases such as thalassemia, immunodeficiency, and leukemia represent defects in this process. Approaches to treat these disorders have required a basic understanding of the biology of blood cells. For instance, hemapoietic stem cell replacement or bone marrow transplantation has been used to ameliorate disease. This volume focuses on hematopoiesis at a cellular and molecular level, and establishes the basis for clinical manipulation of hematopoietic cells for therapeutic benefit. In Part I, the cellular characteristics of progenitors and stem cells are explored. Emphasis is placed on purification of stem cells and both in vitro and in vivo assays. The regulation of normal and leukemis stem cells is illustrated. An excellent discussion of potential use of these cells for gene therapy concludes this section. Hemapoiesis is easily studied during embryogenesis. Part II develops the concept of the waves of hemapoiesis during development. Comparative hematology is making a major comeback as a field in the 1990's. One hope is that general principles of hematopoiesis will be established by studying many models and systems. Part III delves into critical factors that regulate hematopoiesis, including both intracellular and extracellular signals. Part IV and V describe lineage programs for myeloid and lymphoid lineages. These chapters are meant to be illustrative of the different cell fates, but are not exhaustive. Part VI examines the genetics of hematopoisis, particularly in animal models. The hematopoietic system is in constant contact with stromal cells and endothelial cells during development and in the adult. Evidence suggests that endothelial cells and blood cells may arise from a common progenitor, the hemangioblast. Part VII and VIII discuss the stromal and endothelial cells with the emphasis on their interaction with hematopoietic cells.

Clinical Bone Marrow and Blood Stem Cell Transplantation

Welcome to the City of Groningen, the center of the North of the Netherlands. Groningen is proud of the long lasting tradition of scientific symposia organised by the Sanquin Blood Bank. These Sanquin International Symposia on Blood Transfusion have become a true traditional event in Groningen, marking the early academic year and have contributed to the specific reputation of Groningen and its University in the scientific field of Transfusion Medicine. The growing tradition has also contributed to initiatives of both University, Province and the City of Groningen to bring science and industry together - BioMedCity Groningen. Such repu- tion does not just happen, but is the result of creative and scientific leadership, of vision and an open mind, to explore in a team spirit horizons. Groningen is particularly proud of this reputation thanks to its leadership, the Sanquin Blood Bank North-East. This year in particular the theme chosen some two years ago is extremely timely as it illustrates the activities and scientific interest of an

integrated team which includes our regional Sanquin Blood Bank North-East and fits in the City initiatives within the concept of BioMedCity, Groningen.

Hematology

This issue of Hematology/Oncology Clinics is guest edited by Dr. Christoph Klein and focuses on the topic of Neutropenia. Article titles include: Homeostasis and migration of neutrophil granulocytes,Granulocyte-colony Stimulating Factor (G-CSF) receptor signaling,New Granulocyte-colony Stimulating Factor (G-CSF) Receptor Signaling Pathways ,Neutrophil elastase (ELANE) – Genetics and Pathophysiology,Autosomal recessive variants of Severe congenital neutropenia (SCN),Leukocyte Adhesion Deficiency (LAD), and Genotype-phenotype correlations in Severe congenital neutropenia (SCN).

The Laboratory Mouse

Emerging Therapies Targeting the Pathophysiology of Sickle Cell Disease, An Issue of Hematology/Oncology Clinics,