The field of gastroenterology encompasses the diagnosis and treatment of numerous multisystem diseases that primarily or secondarily affect the gastrointestinal tract. In the early days, prior to the creation of the subspecialty of gastroenterology, when discussing health and disease, people referred to divine influences such as the sun, the moon and the stars. Subsequently, since the days of Hippocrates (460–370 B.C.) who is credited with the initial description of dyspepsia much has been learned about these varied disorders. Our knowledge in gastroenterology has increased at an exponential rate. Most gastroenterologic disorders have a worldwide distribution and spare no age, racial, ethnic or socioeconomic group. Because the field of gastroenterology has emerged as a subspecialty we have made significant progress in many different areas. We are now able to effectively diagnose and treat the majority of gastroenterologic disorders and accordingly improve the quality of life of the afflicted individuals.

This issue of the Medical Clinics of North America has assembled a highly distinguished group of sophisticated physician-scientists to present an updated guide to the current status of selected important topics in gastroenterology from the bench to the bedside. The articles highlight many of the advances made to date and also demonstrate the enthusiasm generated by current work in each of the areas presented. As you read this issue, you will not only learn about significant advances to date but you will also prepare yourself for the future.

The subject matter in this issue is wide ranging and it is thus difficult to cover every aspect of gastroenterology in extreme depth. The articles address the magnitude of the specific problem(s) discussed and the natural history of these diseases. Other areas of focus include current theories on the etiology of these disorders as well the medical and surgical therapy of these disorders. Conventional and newer novel medical therapies on the horizon are reviewed along with medical therapies for specific clinical presentations.

*Helicobacter pylori* may affect over 50% of Americans during their lifetime. This agent has been linked with the development of gastric ulcers and duodenal ulcers. A section is thus included on *Helicobacter pylori*. Another focus includes hepatology since viral hepatitis such as hepatitis B and C and other hepatic
disorders are quite prevalent and may be quite difficult to treat. At present there are 1.25 million people chronically infected with HBV in the United States, with an annual infection rate of 335,000. Similarly there is an estimated 2.7 million Americans chronically infected with Hepatitis C virus, accounting for 8,000 to 10,000 annual deaths. The role of screening and surveillance for colorectal cancer and a recommended approach to perform surveillance for individuals is discussed in detail. At present, colorectal cancer has a 6% lifetime prevalence in the United States. It is now the fourth most prevalent carcinoma in the United States and the second-most cancer killer. A special section on the management and diagnosis of constipation is reviewed. Constipation accounts for an estimated 2.5 million physician visits in the United States alone. Inflammatory bowel disease is discussed as well. It is currently estimated that up to a million Americans are afflicted with inflammatory bowel disease, and approximately 30,000 new cases are diagnosed each year. Estimates of the medical costs of these chronic idiopathic disorders in the United States from calculations nearly a decade ago alone totalled $1.4 to $1.8 billion dollars annually. Surgery and inpatient care accounted for approximately half of these costs. Indirect costs such as lost labor productivity were estimated to be $0.4 to $0.8 billion dollars; making the total annual estimated cost of IBD to be $1.8 to $2.6 billion dollars yearly. Novel therapeutics have recently been developed and are currently in use for treatment of patients afflicted with these potentially debilitating disorders.

Also, the role of nutrition is discussed. Physicians are faced almost on a daily basis with nutritional decisions. In 1993 it was estimated that nearly 5 million patients receive some form of nutritional therapy every year in the United States alone. Acute gastrointestinal bleeding is an area encountered by surgeons, gastroenterologists, internists, family practitioners, and other specialists alike. Upper gastrointestinal bleeding has been reported to occur quite frequently, at a rate of approximately 100 cases per 100,000 adult population at risk per year with significantly lower rates of lower gastrointestinal bleeding estimated to occur at 20 to 27 per 100,000 adult population at risk. Diagnostic and therapeutic options will be discussed in detail. Additionally, an article entitled "Advances in Diagnostic and Therapeutic Endoscopy" is presented. It addresses the state of the art and looks into the future to focus on developments that are likely to substantially alter the practice of gastroenterology in the near future. Another commonly encountered topic is gastroesophageal reflux and Barrett's esophagus. This topic has not only been in the spotlight of the medical community but also by the public at large. These prevalent disorders are discussed in detail and treatment algorithms are presented.

Irritable Bowel Syndrome (IBS) is the most common functional gastrointestinal disorder. It afflicts 15% of Americans based upon recent estimates. The most recent diagnostic and therapeutic modalities for IBS are reviewed in this article. Similarly, diarrhea is a commonly encountered symptom in adults. Over 450,000 admissions annually are due to gastroenteritis and there is an approximately 5% prevalence of chronic diarrhea in the United States. An approach to diagnosis and management of patients is presented. Additionally, "Psychologic and Psychiatric Aspects of Gastrointestinal Disease" are reviewed. Their role in patients with gastrointestinal disorders is reviewed and their diagnosis and treatment are discussed.

Finally, many different medications are taken on a daily basis in the form of prescription and nonprescription medication. Nonsteroidal anti-inflammatory drugs (NSAIDs) represent one of the most commonly used medications in the United States. In the United States it is estimated that 70 million prescriptions and more than 30 billion over the counter preparations are sold annually. The
effects of NSAIDs on the gastrointestinal tract and prophylaxis as well as treatment of ensuing symptoms and the intestinal tract damage is reviewed in this section. In the article entitled “Drug-Induced Liver Disease” the diagnosis, mechanisms, risk factors, clinical and pathologic presentation, natural history, prognosis, and treatment of liver disease subsequent to multiple different medications is reviewed.

It is anticipated that this issue will serve as a summary of the current basic scientific and clinical knowledge for investigators in the field. We hope we have provided a review of the pathophysiology for the practicing physician/health care deliverer and a clinical framework for assessment and treatment of these specific gastrointestinal disorders.

I am indebted to my fellow contributors for providing uniformly superb, detailed critical reviews amid their already busy schedules. My gratitude is also extended to Ms. Heather Cullen for her outstanding editorial assistance and superb guidance in this issue. Lastly, I am most appreciative and extend thanks to all my colleagues, patients, and those who have supported research in the field and have helped me uncover and extend the boundaries of my knowledge of inflammatory bowel disease.

GARY R. LICHTENSTEIN, MD
Guest Editor

Gastroenterology Division
Department of Medicine
Hospital of the University of Pennsylvania
University of Pennsylvania School of Medicine
University of Pennsylvania Health System
3rd Floor Ravdin Building
3400 Spruce Street
Philadelphia, Pennsylvania 19104-4283