

# Fellowship in Gastroenterology



## Introduction

The Fellowship in Gastroenterology at The Wake Forest University School of Medicine is a 3 year program of clinical and research training which is available to individuals who have completed 3 years of postdoctoral training in Internal Medicine. Our program is fully accredited by the American Board of Internal Medicine and the Accreditation Council for Graduate Medical Education. Two positions will be offered each year.

The goal of our program is to develop independent, critical thinking; clinical skills necessary to care for those suffering from digestive disease; proficiency in the utilization of basic endoscopic technology; and a thorough knowledge of the most current medical literature of our specialty. We also seek to provide each Fellow with an opportunity to develop a clinical or research niche which could serve as the foundation for an academic career.

### **Clinical Training Program**

The Section of Gastroenterology has a long and proud heritage of excellence in clinical care and medical education. The cornerstone of the Fellowship is extensive clinical experience in our in-patient Consultation Service, Outpatient Clinics, and GI Endoscopy Suite.

### **Gastroenterology Consultation Service**

The Section receives over 1000 requests a year from all units of the North Carolina Baptist Hospital for assistance in the care of patients with digestive disease. Under the supervision of the Faculty, Fellows play a central role in the evaluation and treatment of these patients. Interaction with the Pediatric GI Service furnishes an important exposure to gastroenterological problems in childhood. A newly created Nutrition Consult Service provides experience with nutrition assessment, enteral and parenteral nutrition support, and nutritional deficiency diseases.

### **Outpatient Clinics**

The section's outpatient practice is located primarily in a spacious, brand new, state-of-the art facility housed in the Digestive Health Center. This facility is fully equipped and staffed for the outpatient management of digestive diseases. Fellows see new patients on a weekly basis under the supervision of the GI Faculty. As the trainees' skill and knowledge advance, they are given progressive autonomy in the management of these patients. A Fellows' continuity clinic allows longitudinal follow-up of patients with the Fellows serving as the primary health care provider with Faculty supervision. The collaborative spirit that exists at Wake Forest has allowed a joint venture between the Infectious Disease Department-namely Dr. Marina Nunez and GI in establishing a Hepatitis Clinic.

## **The Gastrointestinal Endoscopy Suite**

In The Gastrointestinal Endoscopy Suite is a state-of-the-art facility with over 25,000 square feet of space, including video endoscopy suites, prep and recovery areas, physicians' offices, examination rooms, a video conference room, and computerized record and image management systems. A fluoroscopy suite provides facilities for performing esophageal dilations, colonoscopy, ERCP, EUS, and invasive biliary procedures. Currently, over 16,000 procedures are performed in the GI Endoscopy Unit each year.

In the first year of Fellowship, training is provided in upper GI endoscopy, sigmoidoscopy, biopsy procedures, and colonoscopy. In the second and third years, Fellows are exposed to advanced procedures such as polypectomy, ERCP, sphincterotomy, lithotripsy, biliary stenting, and diagnostic EUS.

## **Gastrointestinal Neuromuscular Disorders Center**

The Section maintains a nationally-recognized neuromuscular disease unit started in 2003 by Dr. Kenneth Koch and currently under the direction of Dr. John Long and Dr. Nyree Thorne. This unit is equipped with constant-infusion pressure monitors and computerized pH monitoring hardware, and is staffed by a nurse and technician. Over 1000 neuromuscular diagnostic studies are performed each year, including esophageal and anorectal manometry, 24-hour esophageal pH/impedance monitoring, and electrogastrography (EGG). A breath hydrogen analyzer allows diagnosis of carbohydrate malabsorption and small intestinal bacterial overgrowth. Fellows will become thoroughly familiar with the techniques of esophageal and anorectal pressure monitoring, and the application of these techniques to the diagnosis of gastrointestinal disorders.

## **Conferences**

The conference schedule is thorough, consistent, and ever changing to meet the educational needs of our fellows. The Chief Fellow assists in devising the conference schedule for every academic year. All Fellows are expected to attend all conferences, regardless of the rotation they are on that month. All Fellows are expected to be on time for each conference. The Chief Fellow is responsible for having the conference room ready with operational computer and sign up sheets at 4:15 facilitating the conference.

**Core Curriculum Conference:** Takes place at 7 AM every 2nd and 4th/5th Wednesday of the month. This conference aims to cover all aspects of the core curriculum and is given entirely by faculty- Adult GI, Peds GI, Radiology, Pathology, Epidemiology and outside speakers. This conference is geared toward the GI Boards with question/answers. Of note, a core curriculum topic is discussed on a weekly basis, either at the Wednesday AM conference, or at the GI Grand Rounds conference on Tuesdays at 4:30 PM.

**GI Grand Rounds/Case Conference:** Takes place on the first and third Tuesday of the month at 4:30 PM. This conference is a clinical exercise, in which interesting and instructive cases are presented and discussed in detail, focusing on diagnostic and treatment issues. The specific Fellow responsible for organizing this conference will be determined on a rotating basis. He or she will decide which cases will be presented, choosing from the consult service and clinic setting. It is important that the cases presented over the course of each year represent a broad spectrum of inpatient and ambulatory GI problems. The case conference focuses on one clinically challenging case that highlights an important teaching point. Faculty lectures on didactic topics will supplement lectures not covered in the core curriculum conference.

**Journal Club:** Takes place on the last Thursday of each month at 4:30 PM. The purpose of this conference is to review the current medical literature as it applies to gastroenterology and hepatology, and to learn the process of critical appraisal. Two articles will be presented at each conference (one by a Faculty member, the other by a Fellow). The Fellows will take turns selecting and presenting articles. The articles will be selected with the

following attributes in mind: new information of significant clinical or basic research relevance, pertinence to the care of our patients, and controversial topics with conclusions that need to be affirmed or discredited. The types of studies presented should include those pertaining to etiology, diagnosis, treatment, harm, prognosis and cost analysis. This conference will focus on original clinical or basic research, rather than review articles. Once a fellow has selected an article, he or she will discuss that article with Dr. Bloomfeld at least 2 weeks prior to the date of the Journal Club. Dr. Bloomfeld will assist in the selection of articles and in defining the focus of the discussion. The Fellows responsible for each Journal Club will see that all Faculty, Fellows, Residents, and Physician Extenders receive a copy of the selected articles no later than the Monday morning preceding the Thursday conference. The Fellow will be expected to make a 5-10 minute presentation summarizing the methods, results, and conclusions of the article. The Fellow will then offer a 5 minute critique of the article, including critical appraisal of the design and execution of the research, the appropriateness of the conclusions, and a comparison of the results to previously published information regarding the same topic. An informal discussion involving everyone participating in the conference will occupy the remaining time in the 30 minutes allotted to each article.

**GI Pathology Conference:** Takes place on the second Tuesday of each month at 4:30 PM. The purpose of this conference is for the Fellows to achieve significant experience in reading luminal and liver biopsies. The E1 Fellow will be responsible for submitting a list of pathology cases for review to Dr. Geisinger on the preceding Monday, one week prior to each conference. These cases should be selected from recent endoscopic or surgical procedures. The Fellow involved with each case should be prepared to provide a one or two sentence summary of the patient's clinical presentation and endoscopic or surgical findings. Dr. Geisinger will also bring cases from his teaching file, so that during the course of the year, the entire scope of gastroenterology and hepatology is covered. At least 1 liver biopsy will be discussed at each session.

**GI Surgery Conference:** Takes place on the last Tuesday of each month at 4:30 PM. This conference is a clinical exercise, in which interesting and instructive cases involving GI surgery are presented and discussed in detail, focusing on diagnostic and treatment issues. Faculty and Residents in the Department of Surgery are responsible for organizing this conference and selecting which cases will be presented, choosing from both the inpatient service and outpatient clinic setting.

**GI Radiology Conference:** Takes place on the third Thursday of each month at 4:30 PM. This conference will combine an interdisciplinary approach supervised by a Faculty radiologist and provide fundamental knowledge in interpreting plain films as well as cross-sectional imaging. The cases will be compiled by alternating Fellows with GI Faculty guidance. Radiologic abnormalities will be discussed. Approximately 6-8 radiology conferences will be held each year.

**Basic Science Conference:** Takes place on the second Thursday of each month at 4:30 PM. It is the purpose of this conference to improve our understanding of the basic science knowledge which underlies our current practice of gastroenterology and hepatology. It will be a goal of this conference to demonstrate the clinical implications of the basic science information being discussed and incorporate aspects of the Fellow's research subjects. Each Fellow will be responsible for 1 basic science lecture that is comprehensive during each academic year.

**Morbidity and Mortality Conference:** Takes place quarterly on the second Thursday of the month in September, December, March, and June. The purpose of this conference is to review cases of patients under our care who have had undesirable outcomes. This will include, but not be limited to, cases of endoscopic complications. The format will consist of case presentations followed by discussion of optimum management strategies, utilizing evidence from peer-reviewed publications when pertinent. Cases with the most learning potential will be selected. It is the goal of this conference to learn from our past experiences, so as to improve the quality of patient care for the future.

**Research Conference:** Takes place on the first Wednesday of the month at 6:30 PM at a restaurant away from the medical center under the direction of Dr. Paul Dawson. This conference will provide an opportunity for Faculty and Fellows to present their ongoing basic and clinical research to the section. The goals of this conference are not only educational, but also to increase awareness and facilitate ongoing research efforts and new research opportunities. For the Fellows, this conference will provide an overview of research opportunities in the section, assist in designing projects to fulfill their research requirement, and help to monitor research progress. For the Faculty, this conference will provide a forum to describe their research opportunities for Fellows and to present their ongoing or new research projects. The conference will focus on the research process (project feasibility, how to initiate and fund the project, patient recruitment or tissue procurement, what assistance is needed to complete this project, what is the next step, etc.) rather than on simply presenting data. Visiting Faculty and Faculty from other areas of the University will present research relevant to gastroenterology at this conference. The purpose of this conference is to present information from Faculty members outside the section which is pertinent to gastroenterology. In the past, this has included Faculty from Pediatric GI, Surgery, Radiology, Infectious Disease, and Public Health Science.

**Nutrition Conference:** This conference is led by Dr. Richard Weinberg, a noted authority on nutrition and metabolism. This interdisciplinary conference meets every other month at noon and consists of a round-table discussion with nutritionists, PharmD, dietitians. Topics such as short gut, malabsorption, vitamin deficiencies will be discussed with relevant literature handed out ahead of time.

## **Teaching**

The Section is actively involved in the education of the medical students of The Wake Forest University School of Medicine and the housestaff of the North Carolina Baptist Hospital. Gastroenterology Fellows participate in these important teaching activities throughout their training.

## **Research Training Program**

### **Scholarly Activity**

Introduction: A scholarly activity such as research is an important part of the Fellows' intellectual development and training. As such, the Fellows must have satisfactorily and successfully finished six months of research within their three years of training in order to sit for the boards. Included in this requirement is the submission of two manuscripts with a minimum of one first author manuscript. Acceptable manuscripts include regular articles, case reports, review articles, and chapters.

- The Research (R) Fellow will have protected time for their scholarly activity, and will not be pulled to endoscopy or consult service except in the case of unusual circumstances.
- A minimum of six months will be protected in blocks for research during the course of the Fellowship. Most of this time will be during the first two years of training. It is also expected that there will be significant time for research and other scholarly activity during the Advanced Endoscopy rotations, since the Fellow has limited clinical duties during those blocks of time. If the Fellow is interested in additional research time, and if the project is deemed worthy by the Faculty, additional time may be protected for research during the third year.
- Each Fellow is expected to design, execute, and publish a research project during the course of his Fellowship. During his or her R rotations in the second half of the year, each first year Fellow is expected to lay the groundwork for such a research project. This includes identification of a single primary mentor and the formulation of a specific plan for a research project. This will be accomplished with the help of their mentor and

the Fellow Research Committee. The first year Fellow will be assigned a slot in the conference schedule to present their project plan in order to get preliminary advice on their project. This presentation will also serve to make the Faculty and other Fellows aware of the project. This may be particularly helpful in the recruitment of patients in the setting of a clinical project.

- There will be significant protected time during the second year of Fellowship to allow execution of the project and data analysis.

- It is expected that this research project will be presented as a poster or presentation at a scientific meeting. These presentations would typically occur in the second or third years of the Fellowship.

- In addition, the project is expected to result in a publication in a peer-reviewed journal as part of the Fellows' requirement of two publications in order to satisfactorily complete their Fellowship training and sit for the boards.

- The role of the primary mentor is to directly supervise the Fellow's research progress. However, other GI Faculty members are expected to participate in the Fellows' research training such as assisting with the IRB approval process, providing scientific and statistical guidance, providing opportunities for the Fellows to write reviews and chapters, assisting with the preparation of abstracts and manuscripts, and providing feedback for presentations at regional and national meetings.

- General Timetable for the Fellows Scholarly Activity/ Research Project

**Year 1:**

<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
Identify Potential Research Mentors.	Select Primary Research Mentor.	Present potential project at Conference.	Start IRB approval process.

**Year 2:**

<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
IRB approval. Subject recruitment. Review or chapter preparation.	Subject recruitment. Data analysis. Review or chapter preparation/submission.	Subject recruitment. Data analysis. *Abstract for NC Gut Club	Subject recruitment. Data analysis. *Abstract for ACG or AASLD

**Year 3:**

<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
Data Analysis. Manuscript preparation.	Data Analysis. *Abstract for DDW Manuscript preparation.	Manuscript submission. *Abstract for NC Gut Club	Complete any manuscript revisions.

# **Facilities**

Additional facilities available to the Fellows include: computers for data processing, data base management, and performing MEDLINE searches; The Coy Carpenter Library, which is fully computerized and contains over 100,000 volumes; a Health Club located within the Medical School building; tennis courts and swimming pool at the Graylyn Conference Center; and a comprehensive day care facility located directly within the Medical Center.

## **Winston-Salem**

Winston-Salem is a thriving, sophisticated university town located in the Piedmont region of North Carolina. Its historical roots date back to the 1750's when a group of religious refugees from Europe, the Moravians, settled in the region. Their high regard for education, the arts, and music persist to this day, and are evidenced by the Reynolda House Museum of American Art, the Southeastern Center for Contemporary Art, the Museum of Early Southern Decorative Arts, the North Carolina School of the Arts, the Piedmont Opera, the North Carolina Dance Theater, and the Winston-Salem Symphony. Winston-Salem is also home to Wake Forest University, one of the oldest institutions of higher education in North Carolina, as well as one of the most prestigious universities in the United States. From Winston-Salem, there is easy access to the Blue Ridge Parkway, National Parks, and the beaches of the North Carolina outer banks.

## **The Wake Forest University Baptist Medical Center**

The Wake Forest University School of Medicine and the North Carolina Baptist Hospital together comprise the Wake Forest University Baptist Medical Center. The Wake Forest University School of Medicine was founded in 1902, and moved to Winston-Salem in 1941 to become affiliated with The North Carolina Baptist Hospital. The North Carolina Baptist Hospital opened its doors to patients in 1923 and has grown continually since that time. Currently, Baptist Hospital has 800 beds, including three intensive care units, a 15 story inpatient tower, and a comprehensive out-patient clinic facility. The Medical Center is a major regional center, which sees patients referred from all over the Southeast for the diagnosis and treatment of difficult and unusual medical problems.

**WAKE FOREST UNIVERSITY SCHOOL OF MEDICINE  
FACULTY OF SECTION ON GASTROENTEROLOGY**

**Kenneth L. Koch, MD, Head of Section**

Professor of Internal Medicine, Director, Digestive Health Center

University of Iowa, MD, 1975

Fellowship: University of Florida

Clinical and Research Interests: Unexplained Nausea, Gastroparesis, Esophageal Disorders, Motility Disorders, Gastric Dysrhythmias

**John Baillie, MB ChB, FRCP, FACC**

Professor of Internal Medicine, Director Hepatobiliary & Pancreatic Disorders Service

University of Glasgow, MB ChB, 1977

Fellowship: University of Minnesota

Clinical and Research Interests: Techniques of Diagnostic and Therapeutic Endoscopy, Investigation/Treatment of Pancreatic and Biliary Disease, Inflammatory Bowel Disease

**Richard S. Bloomfeld, MD**

Associate Professor of Internal Medicine, Director, Inflammatory Bowel Disease Service

Washington University School of Medicine, MD, 1994

Fellowship: Duke University

Clinical and Research Interests: Inflammatory Bowel Disease, Gastroenterology, Colorectal Cancer Screening

**Joel T. Bruggen, MD**

Associate Professor of Internal Medicine, Associate Program Director of Internal Medicine Residency and Gastroenterology

Fellowship

University of Kansas, MD, 1983

Fellowship: University of California at San Francisco

Clinical and Research Interests: General Gastroenterology and Hepatology, Geriatrics, Evidence-based Medicine

**Jason D. Conway, MD, MPH**

Assistant Professor of Internal Medicine

University of North Carolina School of Medicine, MD, 1999

University of North Carolina School of Public Health, MPH, 2005

Advanced Fellowship in Endoscopic Ultrasound: Medical University of South Carolina

Fellowship: University of North Carolina Hospitals

Clinical and Research Interests: Therapeutic Endoscopic Ultrasound

**Paul A Dawson, PhD**

Professor of Internal Medicine and Comparative Medicine

State University of New York, Stony Brook, PhD, 1986

Post-doctorate Work: University of Texas Southwestern

Research Interests: Molecular Biology of Lipid Transport, Hepatic and Intestinal Cholesterol and Bile Salt Metabolism

**John Alfred (Jerry) Evans, MD, MMSc**

Assistant Professor of Internal Medicine

University of Tennessee College of Medicine, MD, 1998

Harvard Medical School, MMSc, 2005

Advanced Fellowship in Interventional and Therapeutic Endoscopy, University of Pennsylvania, 2006

Fellowship: Massachusetts General Hospital

Clinical and Research Interests: ERCP, EUS, and endoscopic approaches to complications from bariatric operations

**John H. Gilliam, MD**

Associate Professor of Internal Medicine

Medical College of Virginia, MD, 1970

Fellowship: Emory University

Clinical and Research Interests: Liver Disease, Therapeutic Endoscopy, Endoscopic Treatment of Biliary Calculi

**John D. Long, MD**

Associate Professor of Internal Medicine, Director, GI Neuromuscular Disorders Center

Eastern Virginia Medical School, MD, 1989

Fellowship: Tulane University School of Medicine

Clinical and Research Interests: Esophageal Disorders, Motility Disorders, Gastroesophageal Reflux Disease, Barrett's Esophagus

**Girish Mishra, MD, MS**

Associate Professor of Internal Medicine, Director of Endoscopy

Program Director, Gastroenterology Fellowship

University of Missouri, MD, 1992

Fellowship: Medical University of South Carolina

Clinical and Research Interests: Endoscopic Ultrasound, Therapeutic Endoscopy, Pancreatitis

**Walter M. Roufail, MD**

Professor of Internal Medicine, Topic Director of Gastroenterology for Medical Student Education

Cairo University Medical School, MD, 1957

Fellowship: Duke University

Clinical and Research Interests: General Gastroenterology, Healthcare Policy

**Nyree K. Thorne, MD**

Assistant Professor of Internal Medicine

SUNY Upstate Medical University at Syracuse, MD, 2001

Fellowship: Winthrop University Hospital

Clinical and Research Interests: Irritable Bowel Syndrome, Incontinence, Pelvic Floor Dysfunction

**Richard B. Weinberg, MD**

Professor of Internal Medicine

Johns Hopkins, MD, 1975

Fellowship: University of Chicago

Clinical and Research Interests: Clinical Nutrition, Biophysics and Biochemistry of Intestinal Apolipoproteins, Human Lipoprotein Metabolism, Effect of Diet on Human Lipoprotein Metabolism

**John E. Fortunato, Jr. (Pediatric Gastroenterology)**

Assistant Professor of Pediatric Gastroenterology and Nutrition

Tufts University, 1995

Fellowship: Johns Hopkins University

Clinical and Research Interests: Pediatric Gastroenterology and Nutrition, Motility Disorders

**Michael S. Glock, MD (Pediatric Gastroenterology)**

Associate Professor of Pediatric Gastroenterology and Nutrition

Medical College of Virginia, MD, 1985

Fellowship: University of Minnesota

Clinical and Research Interests: Pediatric Gastroenterology and Nutrition, Liver Transplantation and Rejection

**Ivor D. Hill, MD (Pediatric Gastroenterology)**

Professor of Pediatric Gastroenterology and Nutrition, Head of Section

University of Cape Town, South Africa, MD, 1982

Fellowship: University of Cape Town

Clinical and Research Interests: Pediatric Gastroenterology and Nutrition, Pediatric Liver Disease

**Joseph A. Skelton, MD (Pediatric Gastroenterology)**

Assistant Professor of Pediatric Gastroenterology and Nutrition

University of Tennessee, MD, 1999

Fellowship: Medical College of Wisconsin

Clinical and Research Interests: Childhood Obesity

**Fellows 2007 - 2008**

Rizwan Ahmed, MD, Third Year

Samer Charbel, MD, Third Year

Colin Gallahan, MD, Second Year

Nathan Shores, MD, Second Year

Henry Johnson, MD, First Year

Sean Lynch, MD, First Year