Gastroenterology, Hepatology and Nutrition

Craig J. McClain, M.D., Professor Chief of Research, division of GI, Hepatology and Nutrition Departments of Medicine, Pharmacology and Toxicology Associate Vice President for Translational Research Associate Vice President for Health Affairs/Research Louisville VA Medical Center University of Louisville

Jewish Hospital

UL Health



Mary Kristine J. Krueger MD, Professor Chief of academic and clinical affairs, division of Gastroenterology, Hepatology and Nutrition Vice Chair Clinical Operations Department of Medicine, University of Louisville Nancy Middleton Smith Professorship





The Team

Physician Clinical Experts



































Research Experts

















Gatroenterology Clinical Services

• General GI: Drs. Parajuli, Omer, Krueger (Open access, colon cancer screening, complementary and alternative medicine







• Therapeutic Endoscopy – Drs. Liu, Krueger, Barve, Omer, McClave, Parajuli





Nutrition – Drs. McClave, McClain and Omer







Gastroenterology Clinical Services

Motility– Drs. Abell, Stocker, Rogers, Mathur



• Inflammatory Bowel Disease – Drs. Dryden, Wuerth



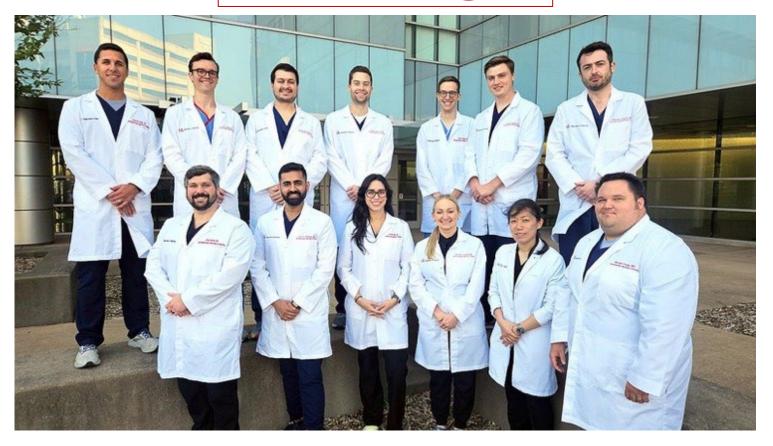
 Hepatology and Liver Transplant- Drs. Marsano (Transplant Medical Director), Cave, Barve, McClain, Singal, and Rob Tatum (PA)



Service Sites

- University hospital
- VA hospital
- Jewish downtown
- Norton downtown
- HCOC clinics and endoscopy
- OCC (motility center)
- Jewish East (clinics and endoscopy)
- Mary and Elizabeth (endoscopy)
- Future opportunity at Jewish South (and others)

Training

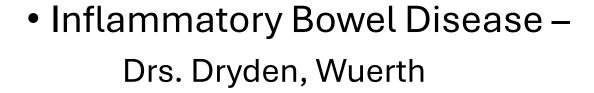


16 Gastroenterology Fellows, multiple summer students, residents, graduate students and post-doctoral associates, and home to the Nestle Nutrition Scholars Program

INNOVATION and RESEARCH

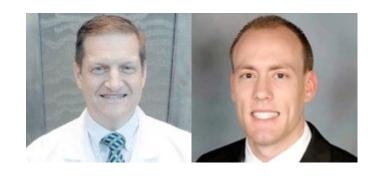
Gastroenterology

 Motility– NIH designated center – UO1 -Drs. Abell/Stocker/Rogers



Device Development –
 Drs. Abell, Dryden



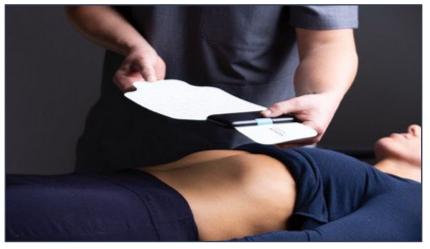






Motility Research

- NIH PBGFD—First in US
- NIH GpR 4—First in US
- NIH BSM—First in US
- NIH HEAL—First in US
- Industry/Enterra Medical—Respite study—First in US





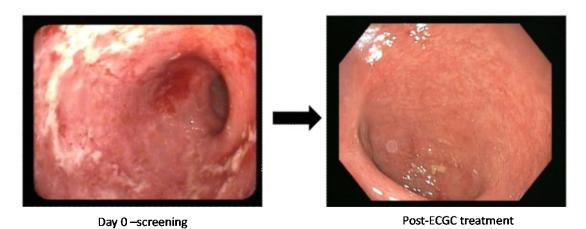
Gastroparesis UO1

IBD Drug Development: Green tea extract (EGCG) improves

Minimal edema or erythema remain, compatible with resolving colitis

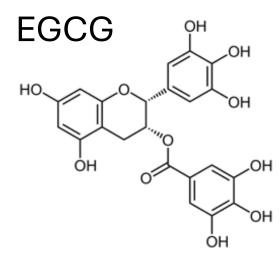
IBD

Colon



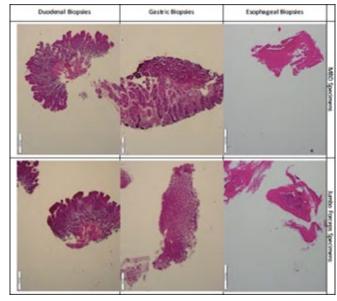
Diffuse, continuous erythema, edema and friability in

rectum and distal sigmoid colon



Device Research





- Multiple Biopsy Device (MBD)
- One pass = unlimited specimens
 - Time/Money savings
 - 100% specimen retention

Hepatology Research

- Alcohol UO1 on AH
- •MASH
- •TASH
- Viral
- •HCC
- Drug-induced





















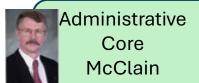






Hepatobiology and Toxicology COBRE

Center is supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under NIH Centers of Biomedical Research Excellence (COBRE) grant number P20GM113226





Analytical Core Barve



Animal Model and **Biorepository Core** Cave



Omics Core Zhang/Merchant



Pilot

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Project 1 Yan Li NASH and HCC



Project 2 Hood **HCC** and extracellular vesicles



Project 3 Song Fructose and gut dysbiosis



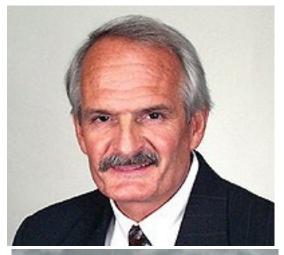
Project 4 Ghare Histone modifications in CCL2 and CXCL2 chemokine expression



Pilot

Nutrition

- Steve McClave, MD, Past President of the American Society for Enteral and Parenteral Nutrition (ASPEN)
- Craig McClain, MD, Past President of the American College of Nutrition (ACN)
- Nutritional Education—Nestle Scholars Program (McClave)

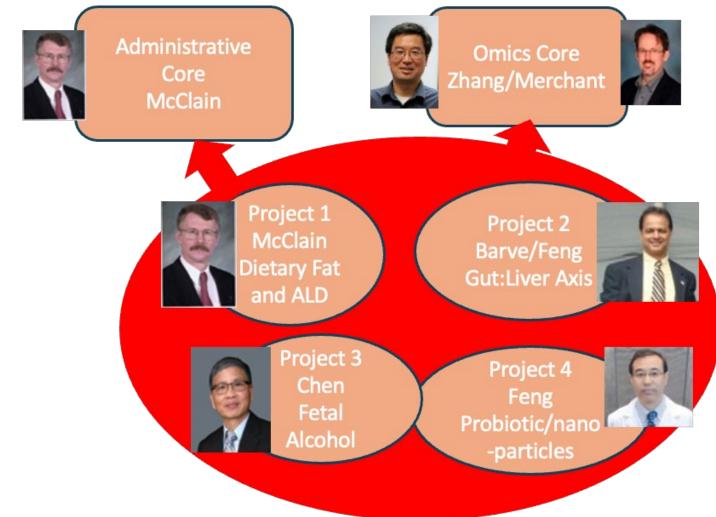




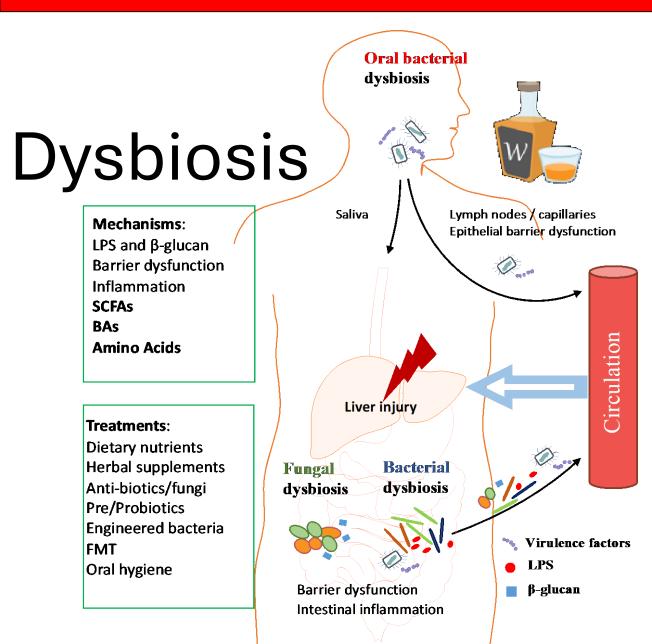


Alcohol Research Center (ULARC)Alcohol:Nutrient Interactions

Center is supported by the National Institute On Alcohol Abuse And Alcoholism of the National Institutes of Health under Award Number P50AA024337



UofL Institute for Nutritional and Metabolic Therapies



Selected UofL Nutritional Therapies

- 1. Zinc
- 2. LGG
- 3. Tributyrin
- 4. Omega-3/Resolvins
- 5. Green Tea Polyphenols
- 6. Plant/milk exosomes
- 7. Vegan diet
- 8. Taurine
- 9. Engineered Bacteria
- 10. Urolithin

Conclusions: GI, Hepatology, Nutrition Impact

- Research ~\$10 M/year federal grants, > 100 abstracts, manuscripts, chapters, 2 NIH centers, 1 Institute
- Education Nestle Scholars, 16 GI Fellows, >20
 Summer/Graduate students, multiple resident and student learning opportunities
- Service Liver inpatient service, Motility service, IBD, Liver Transplant, HCV and HCC clinic, Community Outreach, Therapeutics, Open Access Endoscopy, General GI, Endobariatrics and Nutrition