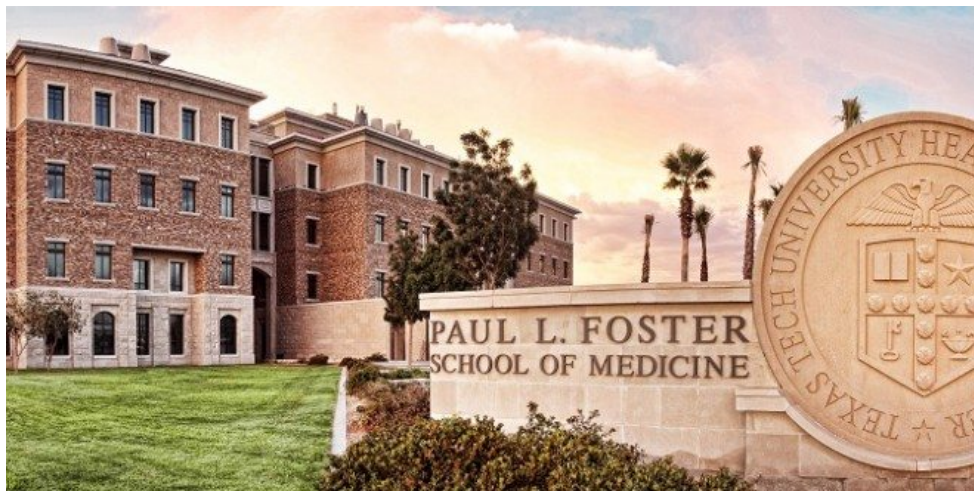


Annual Research Productivity Report



TEXAS TECH UNIVERSITY
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Paul L. Foster School of Medicine
Department of Internal Medicine



Department of Internal Medicine

2021 Academic Year

1 July 2020 – 30 June 2021



Prepared by: Sean M. Connery

Dear Friends—

I am very pleased to bring to you the **Department of Internal Medicine's Annual Research Productivity Report** for 2021.

First of all, let me take this opportunity to thank our faculty, residents and fellows for their hard work and clinical service during the ongoing COVID-19 pandemic. Our research efforts did not escape the challenges that came with COVID-19, but we weathered the storm well by shifting priorities and working remotely as needed. The Department had another productive year with **76** peer-reviewed publications (an increase of 18 over last year), **19** textbook chapters and a number of regional and national presentations. While the number of publications remains impressive and is an important metric, what impresses me is the quality of the articles and the high-impact journals they are published in. Let me take this opportunity to congratulate our faculty, residents and fellows, who despite an extremely busy clinical workload these past several months, continue to excel in other academic endeavors, namely teaching and research. I would also like to thank Dr. Jerzy Sarosiek for his tireless efforts to promote research amongst our faculty, residents and medical students and being a resource to them. I am also delighted to welcome **Dr. Deborah Clegg**, Vice President for Research, as a new member of our Department. She has already contributed significantly to this scholarly productivity report with her high-tier articles.

I am happy to note that our house staff remain very productive and reflect their commitment, enthusiasm and also mentoring/guidance by our program directors. Our faculty received research funding from both public and private sources, and the clinical research enterprise continues to grow under the stewardship of Mr. Sean Connery.

I hope next year Internal Medicine will be even more productive, and each and every one of us will need to put in the effort to make this possible. Of note, a **QR** code on the front of this report will take you to the electronic version of this report.

Finally, I wish all of you a fun and productive COVID (Delta variant) -FREE fall season!



Debabrata Mukherjee, M.D., M.S.
Chair, Department of Internal Medicine

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IM Faculty Member

*Citation format – Uniform requirements for manuscripts submitted to biomedical journals:
International Committee of Medical Journal Editors

PUBMED PEER REVIEW PUBLICATIONS

JOURNAL ARTICLES, ORIGINAL INVESTIGATIONS

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- 3) Cruz Rodriguez JB, **Lange RA, Mukherjee D.** **Gamut of cardiac manifestations and complications of COVID-19: a contemporary review.** *J Investig Med* 2020 Dec;68(8):1334-1340. PMID: [33077488](#)
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- 12) Khan AA, Khalid MF, Ayub MT, Murtaza G, Sardar R, White CJ, **Mukherjee D, et al.** **Outcomes of Percutaneous Coronary Intervention Versus Optimal Medical Treatment for Chronic Total Occlusion: A Comprehensive Meta-analysis.** *Curr Probl Cardiol.* 2021 Mar;46(3):100695. PMID: [33010951](#)
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- 19) Palmer BF, **Clegg DJ**. [Salicylate Toxicity.](#) *N Engl J Med.* 2020 Jun 25;382(26):2544-2555 . PMID: [32579814](#)
- 20) Palmer BF, **Clegg DJ**. [A Universally Accepted Definition of Gender Will Positively Impact Societal Understanding, Acceptance, and Appropriateness of Health Care.](#) *Mayo Clin Proc.* 2020 Oct;95(10):2235-2243. PMID: [32448588](#)
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LETTER TO THE EDITOR

- 1) Porres-Aguilar M, Anaya-Ayala JE, **Mukherjee D**, Tapson VF. [Pulmonary embolism response teams in the challenging era of venous thromboembolism associated with COVID-19.](#) *J Vasc Surg Venous Lymphat Disord.* 2020 Sep;8(5):898-899. PMID: [32497628](#)

BOOKS/BOOK CHAPTERS

BOOKS

- I. **McCallum R**, Parkman H. (Eds). [Gastroparesis: Pathophysiology, Clinical Presentation, Diagnosis and Treatment.](#) Academic Press; 1st edition (October 14, 2020)

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Resident & Fellow Research (PGY 1-6)
Internal Medicine, Med/Psychiatry, and Preliminary (Neurology) Residents
Fellows Gastroenterology and Cardiology
Residents/Fellows (PGY 1-6) – Faculty Mentor

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OPEN, ACTIVE, ONGOING RESEARCH

Investigator Initiated Research Studies

GRANT FUNDED FY21

- **New Concepts for Advancing Knowledge in Basic Science, Clinical, and Therapeutic Aspects of Gastroparesis** Co-PIs- **Richard McCallum, MD and Irene Sarosiek, MD**

National Institutes of Health - National Institute of Diabetes and Digestive and Kidney Diseases (NIH/NIDDK). 09/25/2016 - 08/31/2021 \$1,870,531

FY17	\$382,500
FY18	\$378,366
FY19	\$374,151
FY20	\$369,887
FY21	\$365,627
	=====
	\$1,870,531

- **Administrative Supplement to Gastroparesis Consortium.** Co-PIs- **Richard McCallum, MD and Irene Sarosiek, MD** National Institutes of Health - National Institute of Diabetes and Digestive and Kidney Diseases (NIH/NIDDK). 09/30/2020 - 08/31/2021 \$147,930
- **Effects of COVID-19 in Patients with Gastroparesis: A GpCRC Supplement.** Co-PIs- **Richard McCallum, MD and Irene Sarosiek, MD** National Institutes of Health - National Institute of Diabetes and Digestive and Kidney Diseases (NIH/NIDDK). Sub-Award Temple University – 09/01/2020 – 08/31/2021 \$26,325
- **Evaluation of mutation and gene expression profiles in breast cancers derived from Hispanic women -** **Alexander Philipovski, MD** – UTEP Border Biomedical Research Center. (BBRC) Sub-Award- National Institute on Minority Health and Health Disparities (NIH). 03/01/2020 – 05-31-2021 \$40,000

Department of Internal Medicine Pilot Small Projects Funded - Cycle 11.

Dr. Harsha S. Nagarajarao: **A 5-Year Retrospective Analysis for Congenital Coronary Artery Anomalies in Adult Patients of Hispanic Origin at the University Medical Center of El Paso**

Dr. Alexander Philipovski: **Study of the relationship between the tumor gene-expression profiles and the response to neoadjuvant chemotherapy in patients with local or locally advanced breast cancer**

Dr. Irene Sarosiek: **Endocannabinoid gene polymorphisms in diabetic gastroparesis: a case control study**

Dr. Marc Zuckerman: **The epidemiology of functional gastrointestinal disorders on the U.S Mexico Border based on Rome IV criteria**

Pharmaceutically Sponsored Clinical Research Studies Open, Active Clinical Trials

- **A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Phase 2b Study to Evaluate the Efficacy and Safety of Twice-Daily Oral Administration of a Peripherally Acting Dopamine Receptor D2/D3 Antagonist, TAK-906 for the Treatment of Adult Subjects With Symptomatic Idiopathic or Diabetic Gastroparesis.** Pharmaceutical Sponsor: Takeda (Millennium Pharmaceuticals, Inc.) Site Investigators: **Richard McCallum, MD** Site Sub-Investigator - Irene Sarosiek, MD.

- **A Phase III, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Efficacy and Safety of GDC-0077 Plus Palbociclib and Fulvestrant Versus Placebo Plus Palbociclib and Fulvestrant in Patients with PIK3CA-Mutant, Hormone Receptor Positive, HER2-Negative Locally Advanced or Metastatic Breast Cancer.** Pharmaceutical Sponsor: Genentech, Inc. Roche Group, Syneos Health, LLC, F. Hoffmann-La Roche Ltd. Site Investigator: **Alexander Philipovskiy, MD**

- **Phase IIa Trial Evaluating the Safety of Intratumoral Injection of NanoPac in Subjects with Locally Advanced Pancreatic Adenocarcinoma.** Pharmaceutical Sponsor: US Biotest, Inc. Site Investigator: **Antonio Mendoza Ladd, MD.** Site Sub-Investigator: Sumit Gaur, MD.

- **A Trial Evaluating Escalating Doses and the Safety of Intracystic Injection of NanoPac® in Subjects with Mucinous Cystic Pancreatic Neoplasms.** Pharmaceutical

Sponsor: US Biotest, Inc. Site Investigator: **Antonio Mendoza Ladd, MD**. Site Sub-Investigator: Sumit Gaur, MD.

- **A Phase 1, Single Dose PK And Safety Study With Ni-03 Followed By A Phase 2, Randomized, Double-Blind, Parallel-Group Dose-Ranging Study To Evaluate The Safety And Efficacy Of Ni-03 Compared To Placebo In Subjects With Chronic Pancreatitis.** Pharmaceutical Sponsor: Stason Pharmaceuticals, Inc. Site Investigator: **Antonio Mendoza Ladd, MD**. Site Sub-Investigator: Marc Zuckerman, MD.

- **MoPill Gastrointestinal Pill Study (MoPill-GPS).** Pharmaceutical Sponsor: Rock West Medical Devices, LLC. Site Investigator: **Richard McCallum, MD**. Site Sub-Investigator: Irene Sarosiek, MD.

- **A Phase 3b, Randomized, Double-blind, Placebo-controlled, Parallel-group Trial of Linaclotide 290 µg Administered Orally for 12 Weeks Followed by a 4-week Randomized Withdrawal Period in Patients with Irritable Bowel Syndrome with Constipation.** Pharmaceutical Sponsor: Ironwood Pharmaceuticals. Site Investigator: **Marc Zuckerman, MD**. Site Sub-Investigator: Antonio Mendoza Ladd, MD

- **A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Trial of Oral IW-3718 Administered to Patients with Gastroesophageal Reflux Disease while receiving Proton Pump Inhibitors.** Pharmaceutical Sponsor: Ironwood Pharmaceuticals. Site Investigator: **Marc Zuckerman, MD**. Site Sub-Investigator: Antonio Mendoza Ladd, MD.

- **A Phase 2, Randomized, Double-blind, Placebo-controlled, Parallel-group, Dose-range finding Study of MD-7246 Administered Orally for 12 Weeks to Treat Abdominal Pain in Patients with Diarrhea-predominant Irritable Bowel Syndrome.** Pharmaceutical Sponsor: Ironwood Pharmaceuticals. **Site Investigator: Marc Zuckerman, MD** Site Sub-Investigator: Antonio Mendoza Ladd, MD.

- **A Phase 3, Randomized, Double-Blind, Two-Phase, Multicenter Study to Evaluate the Efficacy and Safety of Vonoprazan 20 mg Compared to Lansoprazole 30 mg for Healing in Patients with Erosive Esophagitis and to Evaluate the Efficacy and Safety of Vonoprazan (10 mg and 20 mg) Compared to Lansoprazole 15 mg for the Maintenance of Healing in Patients with Healed Erosive Esophagitis.** Pharmaceutical Sponsor: Phathom Pharmaceuticals, Inc. **Site Investigator: Marc Zuckerman, MD** Site Sub-Investigator: Antonio Mendoza Ladd, MD., Sherif Elhanafi, MD.

- **A Phase 3 Randomized Multicenter Study to Evaluate the Efficacy and Safety of Open-Label Dual Therapy with Oral Vonoprazan 20 mg or Double-Blind Triple Therapy with Oral Vonoprazan 20 mg Compared to Double-Blind Triple Therapy with Oral Lansoprazole 30 mg Daily in Patients with Helicobacter Pylori Infection.** Pharmaceutical Sponsor: Phathom Pharmaceuticals, Inc. **Site Investigator: Marc Zuckerman, MD** Site Sub-Investigator: Antonio Mendoza Ladd, MD., Sherif Elhanafi, MD.