

A photograph of the Baylor St. Luke's Medical Center building at dusk. The building is a modern, multi-story structure with a glass facade that reflects the sky and surrounding environment. The name "Baylor St. Luke's Medical Center" is visible on the upper left side of the building. A dark blue rectangular box is positioned in the upper right corner of the image.

Baylor
College of
Medicine

Baylor St. Luke's
Medical Center

DEPARTMENT OF MEDICINE

2022 ANNUAL REPORT

The Margaret M. and Albert B. Alkek
DEPARTMENT OF MEDICINE
ACADEMIC ANNUAL REPORT 2022

Baylor College of Medicine

CHAIR'S MESSAGE

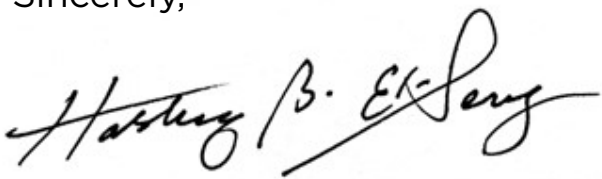
Dear Colleagues:

It is my pleasure to present to you the Department of Medicine's annual report for the year 2022. I am proud to say that we have achieved many significant milestones in the past year.

In the past year, we have made strategic investments in research, clinical care programs, medical education and training. These investments have allowed us to expand our capabilities and improve our offerings, which has resulted in a stronger competitive position for our patients, trainees and workers.

Looking ahead, we are optimistic about the future and are confident in our ability to continue delivering value to our patients and shareholders. We remain committed to innovation, integrity and excellence in our business practices and we are excited about the opportunities that lie ahead.

Sincerely,

A handwritten signature in black ink, reading "Hashem B. El-Serag". The signature is fluid and cursive, with the first name "Hashem" and last name "El-Serag" being the most prominent parts.

Hashem B. El-Serag, M.D., M.P.H.



Hashem B. El-Serag
M.D., M.P.H.

2022 ORGANIZATIONAL OVERVIEW

CHAIR

Hashem B. El-Serag, M.D., M.P.H.

OFFICE OF THE CHAIR

Vice Chair for Clinical Affairs

Vice Chair for Education

Vice Chair for Faculty and Staff Development

Vice Chair for Harris Health System/Ben Taub Hospital

Vice Chair for Quality Improvement and Innovation

Vice Chair for Research

Vice Chair for Veterans Affairs

Mandeep Bajaj, M.B.B.S.

Richard J. Hamill, M.D.

Sandra Haudek, Ph.D.

Hemant Roy, M.D.

Kyler Godwin, Ph.D.

Rolando Rumbaut, M.D., Ph.D.

Biykem Bozkurt, M.D., Ph.D.

SECTIONS

Cardiology

Cardiovascular Research

Endocrinology, Diabetes, and Metabolism

Epidemiology and Population Sciences

Gastroenterology and Hepatology

General Internal Medicine

Geriatrics and Palliative Medicine

Health Services Research

Hematology and Oncology

Immunology, Allergy, and Rheumatology

Infectious Diseases

Nephrology

Pulmonary, Critical Care and Sleep Medicine

Transition Medicine

Chief of Section

Christie Ballantyne, M.D.

Christie Ballantyne, M.D.

Mark Herman, M.D.

Christopher Amos, Ph.D.

Fasiha Kanwal, M.D., M.S.H.S.

Joslyn Fisher, M.D., M.P.H.

Aimee Garcia, M.D.

Laura Petersen, M.D., M.P.H., F.A.C.P.

Martha Mims, M.D.

Rashmi Maganti, M.D.

Thomas Giordano, M.D., M.P.H.

Wolfgang Winkelmayr, M.D., Sc.D.

Ivan Rosas, M.D.

Cynthia Peacock, M.D.

The Department of Medicine at Baylor College of Medicine is the professional home to over 1,800 professionals distributed across 14 sections. We have campus sites at Baylor St. Luke's Medical Center, the McNair Campus, Michael E DeBakey VA Medical Center, Harris Health System, Texas Children's Hospital, and the Pavilion for Women. We also have strong associations with numerous centers, programs, and organized research units. Our team is thrilled to celebrate our departmental achievements in research, patient care, and medical education and training.

THE DEPARTMENT OF MEDICINE

RESEARCH

In 2022, the research efforts of our department faculty were supported by \$120.3M in total extramural research funding including:

- \$77.2M from the NIH
- \$8.5M from the Veteran's Administration
- \$12.2M from other federal agencies
- \$17.7M from state and other non-federal sources
- \$4.7M from industry support

Two of our sections have NIH T32 grants to support research training in the fields of gastroenterology and infectious diseases.

CLINICAL CARE

Our physicians practice in Baylor St. Luke's Medical Center, the McNair Campus, Ben Taub Hospital, Michael E. DeBakey VA Medical Center and Houston Methodist Hospital. Many specialty and subspecialty services provided at these locations are nationally recognized as sites of premier clinical quality.

Patients receive state-of-the-art consultations, diagnoses and compassionate care from our world-renowned clinical staff. Our doctors specialize in diagnosing and treating various diseases ranging from heart disease, diabetes and allergies to breast cancer and cystic fibrosis. Teens with developmental disabilities transitioning into adult care receive personalized, quality care and social services through our unique Transition Medicine group.

EDUCATION

The Department of Medicine's education efforts train the next generation of leaders in medicine through medical school, graduate medical training, fellowships and internships. The Department of Medicine provides undergraduate medical education (UME) students a balance of training, exposure, and experience, which prepares them for graduate programs. Our faculty teaches two-thirds of the UME courses. Students first attend foundational sciences curriculum courses and then their clinical curriculum courses. Students choose one sub-internship, seven core clerkships and five or six clinical electives.

Students within the Internal Medicine sub-internship develop skills required for their internship. During these rotations, medical students experience increased autonomy, acting as interns supervised directly by senior residents and the attending physician. Students hone in on their history and physical skills, write orders and independently develop diagnostic and therapeutic plans. They expand their medical knowledge by using experiential and self-directed learning.

Our residencies are authorized by the Accreditation Council for Graduate Medical Education and its respective Residency Review Committees. We enroll highly competitive applicants each year and continue to match outstanding residents. Our graduates become leaders in Internal Medicine and its specialties, both academically and in clinical practice.

Beyond residency training, the Department of Medicine offers fellowships for two to four years of training in each major subspecialty, such as gastroenterology, cardiovascular disease, etc. This experience allows physicians to learn unique concepts, information and procedures for a particular subspecialty, with an opportunity to research if desired. Our department has more than 220 residents and more than 150 fellows.

Affiliations with leading research and healthcare institutions in the Texas Medical Center provide access to diverse people and resources. Our students and trainees can access numerous patients during these clerkships in various settings through our affiliation with eight leading healthcare institutions—all located in the world's largest medical center.

SECTION OF HEMATOLOGY AND ONCOLOGY

SECTION ACCOMPLISHMENTS

- The Hematology and Oncology section has 41 grants (totaling \$6,898,590.00 in Direct Costs) and 150 clinical trials (totaling \$7,621,932.67).
- The BCM Hematology/Oncology 1st year Fellows completed the ASCO resiliency training.
- We published the 3rd edition of Tumor Board Review: Evidence-Based Case Reviews and Questions textbook, along with faculty and fellows at the University of Michigan and the University of California, Davis.
- We held the fourth annual Hematologic Malignancies symposium.
- We held our first Pilot Hematology Oncology Fellowship Bootcamp.
- The section was selected as one of 11 sites in the U.S. for the American Society of Clinical Oncology Summer Internship program for rising second-year Medical Students for those underrepresented in medicine.
- Dr. Pavan Reddy, the new Dan L. Duncan Comprehensive Cancer Center joined the section.



SECTION CHIEF

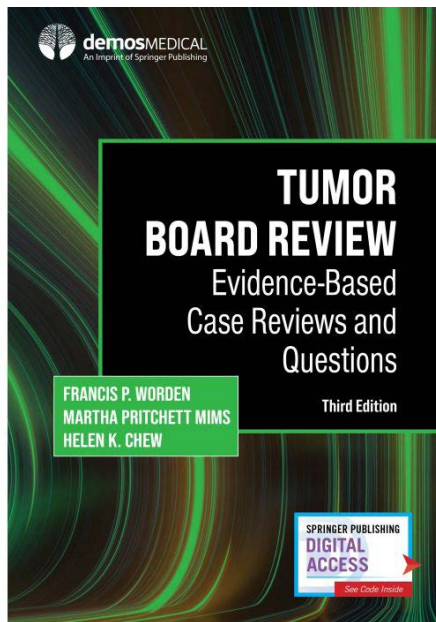
Martha P. Mims, M.D., Ph.D.



The ASCO OSI students with Dr. Karen Riggins.



The ASCO OSI students with Dr. Miller-Chism and Dr. Udden along with Chief Fellow, Gerardo Rosas.



The Third Edition of our Tumor Board textbook was published.



BCM Hematology/Oncology 1st year Fellows completed the ASCO resiliency training which aims to improve physician wellness in oncology. It was facilitated by Dr. Charu Agrawal on June 24.

FACULTY

Section Leadership

- Martha P. Mims, M.D., Ph.D., Section Chief, BCM
- Weei-Chin Lin, M.D., Ph.D., Deputy Chief of Research
- Anita Sabichi, M.D., Michael E DeBakey VAMC Division Chief
- Sravanti Teegavarapu, M.D. Hematology, Medical Director, McNair Campus
- Benjamin L. Musher, M.D., B.A. Medical Oncology Medical Director, McNair Campus
- Courtney Miller-Chism, M.D. Hematology/Oncology Fellowship Director

FACULTY

Professor

- Malcolm Brenner, M.D., Ph.D.
- George Carrum, M.D.
- Gary Chamness, M.D.
- Jenny Chang, M.D.
- Chad Creighton, Ph.D.
- Matthew Ellis, M.D., Ph.D.
- Suzanne Fuqua, Ph.D.
- Helen Heslop, M.D.
- Susan Hilsenbeck, Ph.D.
- Rammurti Kamble, M.D.

- Weei-Chin Lin, M.D., Ph.D.
- Martha P. Mims, M.D., Ph.D.
- Charles K. Osborne, M.D.
- Carlos Ramos, M.D.
- Motthaffar Rimawi, M.D.
- Perumal Thiagarajan, M.D.
- Mark Udden, M.D.

Professor Emeritus

- Teresa Hayes, M.D.
- Joel Moake, M.D.

Associate Professor

- Alan R. Davis, M.D., BA.
- Natalie Lapteva, Ph.D.
- Fang-Tsyr Lin, M.D., Ph.D.
- Premal Lulla, M.D.
- Nicholas Mitsiades, M.D., Ph.D.
- Benjamin L. Musher, M.D.
- Julie Nangia, M.D.
- Arpit Rao, M.D.
- Gustavo Rivero, M.D.
- Sarvari Yellapragada, M.D.

Assistant Professor

- Charu Agrawal, M.D.
- Effrosyni Apostolidou, M.D.
- Tannaz Armaghany, M.D.
- Sita Bushan, M.D.
- Akiva Diamond, M.D.
- Gloria Echeverria, Ph.D.
- Paige Farinholt, M.D.
- Charles Foulds, Ph.D.
- Demetria Smith-Grazianim M.D.
- Jahnvi Gollamudi, M.D.
- LaQuisa Hill, M.D., B.S.
- Valentina Hoyos, M.D.
- Quillan Huang, M.D.
- Aparna C. Jotwani, M.D.

- Mamta Kalidas, M.D.
- Salma Kaochar, Ph.D., B.S.
- Meghashyam Kavuri, Ph.D.
- Jan Kemnade, M.D., Ph.D.
- Ang Li, M.D., M.S., B.A.
- Shalini Makawita, M.D.
- Maksim Mamonkin, Ph.D.
- Courtney Miller-Chism, M.D.
- Charles Minard, Ph.D.
- Meera Patel, M.D.
- Yvonne Sada, M.D.
- Masataka Suzuki, Ph.D., MS., B.S.
- Sravanti Teegavarapu, M.D.
- Daniel Wang, M.D., B.A.
- Aihua (Edward) Yen, M.D.

Instructor

- Michael Byrd, N.P.
- Margaret Crawford, N.P.
- Ramon Jin, M.D., Ph.D., B.S.
- Manila Kumar, N.P.
- Karen Riggins, M.D., Ph.D.

Adjunct

- Powel H. Brown, M.D., Ph.D.
- Elizabeth Rogg, M.D.

HONORS AND ACHIEVEMENTS

Charu Agrawal, M.D.

- Top Doctor, *Houstonia Magazine*

Sara Taveras Alam, M.D.

- Participant, American Society of Hematology, Medical Educators Institute

Helen Heslop, M.D.

- Member, National Academy of Medicine

LaQuisa Hill, M.D.

- Participant, 7th Annual Immuno-Oncology Young Investigators' Forum

Valentina Hoyos, M.D.

- Recipient, Clinician Scientist Distinguished Young Investigator Research Award
- First place Recipient, Immuno-oncology Young Investigators' Forum, in recognition of exceptional work studying the role of TRAIL-R2 enhancing CAR-T cell efficacy in breast cancer

Ramon Jin, M.D.

- Presenter, "The Role of SOX2 in Barrett's Esophagus Development" FASEB GI Tract XX: Making and Breaking the Gut Steamboat

Aparna Jotwani, M.D.

- Recipient, Early Career Faculty Award for Excellence in Patient Care

Natalie Lapteva, Ph.D.

- GMP re-accredited by the Foundation for Accreditation of Cellular Therapy

Ang Li, M.D.

- Section Editor, Hematology the ASH Education Program Special
- Recipient, NIH KO8 Award

Shalini Makawita, M.D.

- Recipient, DLDCCC-Barry Stephen Smith Memorial Pancreatic Cancer Research Pilot Award

Martha Mims, M.D., Ph.D.

- Top Doctor, *Houstonia Magazine*
- Harris Health Champion, Fourth Quarter 2021 & First Quarter 2022
- Super Doctor, *Texas Monthly*
- Member, ASH Scholar Study Section
- Member, ASH Bridge Program Study Section

Benjamin Musher, M.D.

- Top Doctor, *Houstonia Magazine* Super Doctor, *Texas Monthly* Recipient, Baylor Hematology-Oncology fellows Outstanding Oncology Teaching Award
- Recipient, Star Award for Excellence in Patient Care

Carlos Ramos, M.D.

- Member, Lymphoma Steering Committee, National Cancer Institute

Karen Riggins, M.D.

- Co-Chair, BCM Health Equity in Translational Science and Healthcare Delivery SIG
- Co-Chair Committee Member, BCM, ASCO Oncology Summer Internship
- Committee Member, Dan L Duncan Comprehensive Cancer Clinical Trials Diversity Task Force

Gustavo Rivero, M.D.

- Recipient, Norton Rose Fulbright Award

Anita Sabichi, M.D.

- Top Doctor, *Houstonia Magazine*

Yvonne Sada, M.D.

- Top Doctor, *Houstonia Magazine*

Rachel Schiff, Ph.D.

- Invited Speaker, “ESR1 mutations in estrogen receptor positive breast cancer,” Innovation in Breast Cancer Symposium, Madrid, Spain
- Section Chair, CTRC-AACR-San Antonio Breast Cancer Symposium (SABCS), Tumor Biology II, Abstract Selection Committee
- Chair, CTRC-AACR-San Antonio Breast Cancer Symposium (SABCS), Scientific Session: “Spotlight on Endocrine Resistance: Novel mechanisms and emerging new therapies”
- HER2+ Breast Cancer: Deep Dive into the Science Behind the Treatment. SHARE, New York, NY

Mark Udden, M.D.

- Top Doctor, *Houstonia Magazine*

Aihua Edward Yen, M.D.

- Top Doctor, *Houstonia Magazine*

Sarvari Yellapragada, M.D.

- Recipient, Outstanding Inpatient Subspecialty Attending, Internal Medicine Resident
 - Recipient, Outstanding Service Award, Hematology and Oncology Fellowship, VA Hematology
 - Top Doctor, *Houstonia Magazine*
 - Committee Member, National VA, Clinical Care Pathways in Hematology
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RESEARCH ACTIVITIES

Grants

Tannaz Armaghany, M.D.

- IPSEN Bioscience inc/ (Subsidiary France); An open-label, randomized, multicentre, phase III study of irinotecan liposome injection, oxaliplatin, 5-fluorouracil/leucovorin versus nab-paclitaxel plus gemcitabine in subjects who have not previously received chemotherapy for metastatic adenocarcinoma of the pancreas; \$50,439.85

George Carrum, M.D.

- Astellas pharma global development; A randomized, double-blind, placebo-controlled phase 3 trial to evaluate the protective efficacy and safety of a therapeutic vaccine, asp0113, in cytomegalovirus (CMV)-seropositive recipients undergoing allogeneic hematopoietic cell transplant; \$2,998.87
- NIH; Composite health assessment model for older adults: applying pre-transplant comorbidity, geriatric assessment, and biomarkers to predict non-relapse mortality after allogeneic transplantation protocol #1704; \$12,642.00
- NIH; Rider to master agreement in 54785-i: Administration of HIV specific T cells to HIV + patients receiving high dose chemotherapy followed by autologous stem cell rescue auto-resistant ctn protocol #1903; \$11,742.97
- NIH; Seamless phase II-phase III randomized clinical trial to identify and confirm the most promising novel intervention to alleviate morbidity and mortality after allogeneic hematopoietic cell transplantation among older, medically infirm or frail patients with hematological diseases; \$18,982.00
- NIH; Seamless phase II-phase III randomized clinical trial to identify and confirm the most promising novel intervention to alleviate morbidity and mortality after allogeneic hematopoietic cell transplantation among older, medically infirm or frail patients with hematological diseases; \$4,314.00

Gary Chamness, M.D.

- NSABP Foundation; A randomized, double-blind, phase III trial of paclitaxel/pertuzumab with atezolizumab or placebo in first line her2-positive metastatic breast cancer (the “br004 project”); \$35,346.19

Chad Creighton, M.D.

- United states army medical research acquisition activity (Department of Defense); Exploit dimethyl fumarate to uncover druggable vulnerabilities and prevent recurrence of er+ breast cancers; \$28,341.00
- NCI; Genomic and functional characterization of a panel of neuroblastoma patient derived xenografts and cell lines; \$32,000.00
- National Institutes of Health (NIH); Regulation of lung cancer survival and metastasis by an actionable driver of vesicle biogenesis in the Golgi; \$130,090.00

Gloria Echeverria, Ph.D.

- Cancer Prevention & Research Institute of Texas (CPRIT); RR200009 - First time tenure track faculty; \$404,928.00
- Breast Cancer Alliance; Characterizing and targeting mitochondrial metabolism in chemo-resistant triple negative breast cancer; \$62,500.00

Matthew Ellis, M.D.

- Department of Defense Congressionally Directed Medical Research Programs; Proteogenomic approaches for finding therapeutic vulnerabilities to treat breast tumors expressing transcriptionally active ESR1 fusions; \$583,333.00
- Department of Defense Congressionally Directed Medical Research Programs; WS00571659 - BC 201666 - optimizing treatment for nf1-deficient metastatic er+ breast cancers (expansion award); \$384,865.00
- Department of Defense Congressionally Directed Medical Research Programs; BC200589P1 - Therapeutic targeting of nuclear hormone receptors in neurofibromin/nf1-depleted breast cancer (WS00442303); \$256,00.00
- Adrienne Helis Malvin Medical Research Foundation; Kinase inhibition for ESR1 fusion-driven breast cancer; \$200,000.00
- National Institutes of Health (NIH); Leidos Ssf Only - Cptac Analysis of C40601; \$61,521.00

Suzanne Fuqua, M.D.

- NIH; Targeting constitutively active sumo modified androgen receptors in endocrine therapy resistant breast cancer; \$43,920.00
- National Cancer Institute (NCI); Year 21: Replication Stress and DNA Damage Response Drives ESR1 Mutant Metastasis Assist# 974868; \$342,000.00

Demetria Smith-Graziani, M.D.

- American Society of Clinical Oncology; Endowed Young Investigator Award; \$50,000.00

Helen Heslop, M.D.

- National Cancer Institute (NCI); Administrative supplements for the NCI P30 Cancer Center Support Grant to support research to understand and address organizational factors that contribute to disparities in outcomes among childhood cancer survivors overall project title: assist no. 999630 - clinical benefit and cost-efficacy of risk-stratified survivorship navigation to overcome structural barriers to long-term follow-up care; \$458,377.00

LaQuisa Hill, M.D.

- NIH; A randomized, multicenter, phase III trial of tacrolimus/methotrexate versus post-transplant cyclophosphamide/tacrolimus/mycophenolate mofetil in reduced intensity conditioning allogeneic peripheral blood stem cell transplantation; \$7,111.00
- NIH: Clinical transplant-related long-term outcomes of alternative donor allogeneic transplantation (ctrl-alt-d) bmt ctn protocol #1702; \$ 29,087.00

Valentina Hoyos, M.D.

- The V Foundation for Cancer Research; Selectively targeting myeloid derived suppressor cells (M.D.scs) through trial receptor 2 to enhance the efficacy of CAR T cell therapy for the treatment of breast cancer; \$200,000.00
- Astrazeneca (UK); First Prize Clinician Scientist Award; \$10,000.00

Ramon Jin, M.D., Ph.D.

- United States Army Medical Research Acquisition Activity (Department of Defense); CA200914-The role of sox2 in Barrett's esophagus development and progression to esophageal adenocarcinoma; \$210,313.00
- Conquer Cancer Foundation; The role of sox2 in Barrett's esophagus and esophageal adenocarcinoma; \$50,000.00

Salma Kaochar, Ph.D.

- United States Army Medical Research Acquisition Activity (Department of Defense); Pc200304 ws00538719- identification of novel biomarkers in African American prostate cancer for parp inhibitor sensitivity beyond the canonical homologous recombination genes; \$354,274.00

Natalie Lapteva, Ph.D.

- Athenex Inc GD2 Specific Chimeric Antigen Receptor and Interleukin- 15 Expressing Autologous Natural Killer T-CELLS to treat children with Neuroblastoma and CD19 CAR Modified NKT Banks; \$1,477,382.00

Ang Li, M.D., Ph.D.

- NIH; Epidemiology and biomarkers in transplant associated thrombotic microangiopathy (ta-tma): a prospective validation cohort study assists #1031029; \$174,669.00
- Association Of University Centers on Disability; Understanding risk factors and burden of covid-19 related thrombosis and or bleeding complications; \$71,256.00

Bora Lim, M.D.

- NIH; Systematic characterization of small nucleolar RNAs in cancer; \$9,882.00

Fang-Tsyr-Lin, Ph.D.

- Department of Defense Breast Cancer Research Program Expansion Award; Novel Synthetic Lethal Therapies for Triple-Negative Breast Cancer; \$500,000.00

Weei-Chin Lin, M.D., Ph.D.

- United States Army Medical Research Acquisition Activity (Department of Defense); BC210863-WS00783126: Novel synthetic lethal therapies for triple-negative breast cancer; \$266,666.00

Premal Lulla, M.D., Ph.D.

- TESSA Therapeutics Pte. Ltd. (Singapore); A multicentre, randomized, open-label, phase III clinical trial of gemcitabine and carboplatin followed by Epstein Barr virus-specific autologous cytotoxic t lymphocytes versus gemcitabine and carboplatin as first line treatment for advanced nasopharyngeal carcinoma patients; \$32,7396.64
- Marker Therapeutics, LLC. (US); Assessing the highest tolerated dose of donor derived MTAA T cells for patients with AML or M.D.S; \$431,182.60
- Celgene corporation (US, BMS Subsidiary); EAP for CD19CAR T Cells (JCAR017);\$9,348.47

- Allovir (An elevatebio company) (US); Banked ANTI-SARS COV-2 T Cell infusions for treatment of COVID 19; \$369,980.44
- Marker Therapeutics, LLC. (US); Efficacy of mt-401 in patients with aml following stem cell transplant; \$8,300.71
- Cancer Prevention & Research Institute Of Texas (CPRIT); CPRIT Early Career Clinical Investigator Award For Applicant; \$313,733.00

Martha P. Mims, M.D., Ph.D.

- Cancer Prevention & Research Institute Of Texas (CPRIT); YR 1 RP210143: Dan L. Duncan Comprehensive Cancer Center (DLCCCC) Harris Health Clinical Trials Financial Support Project; \$410,839.00

Nicholas Mitsiades, M.D., Ph.D.

- National Institutes of Health (NIH); Combating highly aggressive prostate cancer: development of novel patient derived xenograft models and application in preclinical studies of novel selective androgen receptor degraders; \$120,000.00

Benjamin Musher, M.D.

- Lokon Pharma (Sweden); Phase I/IIa trial evaluating safety of load703 an armed oncolytic adenovirus for pancreatic cancer; \$841,582.63
- Fibrogen, inc (US); A phase 3, randomized, double-blind study of pamrevlumab or placebo in combination with gemcitabine plus nab-paclitaxel as neoadjuvant treatment in patients with locally advanced, unresectable pancreatic cancer; \$9,536.30

Julie Nangia, M.D.

- Zeno Pharmaceuticals, INC. (US); H- 43419: ZN-C5-001: A phase I open label, multicenter study to assess the safety, tolerability, pharmacokinetics, and anti-tumor activity of zn-c5 alone and in combination with palbociclib in subjects with previously treated estrogen-receptor positive, human epidermal growth factor receptor-2 negative advanced breast cancer ; \$61,170.38

Maryam Nemati Shafaei, M.D.

- Mirati therapeutics, INC. (US); Clinical trial for drug sitravatinib; \$53,480.38
- Astrazeneca (UK); A phase 3, randomized, multicenter, open-label study of trastuzumab deruxtecan (t-dxd) versus investigator's choice chemotherapy in her2-low, hormone receptor positive breast cancer patients whose disease has progressed on endocrine therapy in the metastatic setting (destiny-breast06; \$41,423.29

Carlos Ramos, M.D., Ph.D.

- KUUR Therapeutics (UK); Anchor: Allogeneic natural killer t-cells expressing cd19 specific chimeric antigen receptor and interleukin-15 in relapsed or refractory b-cell malignancies; \$256,957.95
- TESSA Therapeutics PTE. LTD. (Singapore); Allogeneic cd30 chimeric antigen receptor ebv-specific t lymphocytes (besta); \$324,276.81
- TESSA Therapeutics PTE. LTD. (Singapore); Vista (virus specific t cells and adenovirus): a first in human phase I trial of binary oncolytic adenovirus in combination with her2-specific car vst cells in patients with advanced her2 positive solid tumors; \$481,830.06

Arpit Rao, M.D.

- Alliance for clinical trials in oncology; Response-adaptive imaging strategy in metastatic castration resistant prostate cancer (MCRPC); \$79,071.00

Karen Riggins, M.D., Ph.D.

- American Society Of Clinical Oncology; ASCO Oncology summer internship 2022 program; \$26,400.00

Mothaffar Rimawi, M.D.

- Pfizer, inc. (us); H-39113 NSABP Protocol B-57-i: Pallas: Palbociclib Collaborative Adjuvant Study: a Randomized Phase III Trial Of Palbociclib With Standard Adjuvant Endocrine Therapy Versus Standard Adjuvant Endocrine Therapy Alone For Hormone Receptor Positive (Hr+) / Human Epidermal Growth Factor Receptor 2 (Her2)-negative Early Breast Cancer; \$10,792.71
- Breast cancer research foundation; h-44362: (tbcrc 045): a randomized, phase II study comparing trastuzumab and vinorelbine in combination with avelumab or avelumab and utomilumab (41bb/cd137 agonist) in patients with her2-positive metastatic breast cancer who have progressed on prior trastuzumab and pertuzumab; \$6,557.81
- NSABP foundation; H-44246: fb-13 nsabp protocol (master in 10779-c1): an assessment of the biological and clinical effects of palbociclib (pd 0332991) with ovarian suppression and letrozole in the neoadjuvant treatment of patients with premenopausal estrogen- receptor positive/her2-negative primary breast cancer; \$3,600.00
- Genentech, inc. (Subsidiary Roche - Switzerland); NASABP B-59/gbg 96-gepar douze: a randomized, double-blind, phase III clinical trial of neoadjuvant chemotherapy with atezolizumab or placebo in patients with triple-negative breast cancer followed by the adjuvant continuation of atezolizumab or placebo; \$43,676.01
- National Institutes Of Health (NIH); NRG Oncology member institution clinical trial fixed price subaward agreement \$24,900.00
- Orinove, inc. (Subsidiary of Fosun Orinove, China); ORIN1001-001: A phase 1, Open Label, Dose-escalation And Expansion Study Of Oral Orin1001 With And Without Chemotherapy In The Treatment Of Subjects With Solid Tumors \$7,861.43
- Seattle Genetics; sgntuc-016 clinical trial; \$17,229.81
- F. Hoffmann-LaRoche Ltd (switzerland); a phase III randomized, double-blind, placebo-controlled, multicenter study evaluating the efficacy and safety of gdc-9545 combined with palbociclib compared with letrozole combined with palbociclib in patients with estrogen receptor-positive, her2-negative locally advanced or metastatic breast cancer; \$72,143.28
- Translational breast cancer research consortium (TBCRC); TBCRC BCRF 2021; \$37,500.00

Gustavo Rivero, M.D.

- Delta Fly Pharma Inc. (Japan); phase III randomized trial of dfp-10917 vs. non-intensive reinduction (lodac, azacitidine, decitabine) or intensive reinduction (high and intermediate dose cytarabine regimens) for acute myelogenous leukemia patients in second or third salvage; \$84,863.06
- Gilead Sciences, Inc. (US); enhance: a randomized, double-blind, multicenter study comparing magrolimab in combination with azacitidine versus azacitidine plus placebo in treatment-naïve patients with higher risk myelodysplastic syndrome; \$28,711.11

Rachel Schiff, Ph.D.

- Breast Cancer Research Foundation (BCRF); Mechanisms of Resistance to HER2 and ER-Targeted Therapies and Novel Therapeutic Strategies; \$158,333
- DOD BCRP Level 1; New Mechanism and Therapeutic Role of DNA Replication Licensing in Anti-CDK4/6 Resistance; \$449,661

Daniel Wang, M.D.

- LOKON PHARMA AB (SWEDEN); Lokon003, a phase I/II trial evaluating safety of load703 in combination with atezolizumab in malignant melanoma; \$45,111.70
- EXICURE INC (US); H-48659: AST-008-102: A phase 1b/2 study of cavrotolimod combined with pembrolizumab or cemiplimab in patients with advanced solid tumors; \$37,714.81

Sarvari Yellapragada, M.D.

- ACOS/R (506/100/151)VA Ann Arbor Healthcare System; Providing Comprehensive Home-based Cancer Therapy in Multiple Myeloma (PCHAT-MM);
- VA-ORD Rehabilitation R&D (RR&D); Feasibility of a tele-game-based exercise (Tele-Exergame) program to prevent deconditioning in hospitalized COVID-19 patients; \$229,713
- ASCO/R/Veterans Health Administration; BCCMA: understanding the impact of military exposures, race and genomics on Clinical feature and outcome in U.S. Veterans with plasma cell neoplasms; \$40,000

Publications (58)

- Acta Physiol (IF **6.311**): 2
- Advanced Science (IF **17.521**): 2
- American Journal of Hematology (IF **13.265**): 1
- Ann Gastroenterol (IF **12.969**): 1
- Annals of Surgery:2022 (IF **12,969**)
- Biomedicines (IF **5.612**): 1
- Blood (IF **22.113**): 11
- Blood Advances (IF **5.486**): 10
- BMC Medicine (IF **8.775**): 2
- Bone Marrow Transplant (IF **5.843**): 12
- Breast Cancer Research and Treatment (IF **4.845**): 5
- Cancer 2022 (IF **6.86**): 1
- Cancers (IF **6.102**): 1
- Cancer Cell (IF **31.743**)
- Cancer Discovery (IF **8.03**): 1
- Cancer Letters (IF **8.679**): 4
- Cancer Medicine: (IF **4.452**): 2
- Cancer Research (IF **12.701**): 4
- Carcinogenesis (IF **4.603**): 1
- Cell Reports (IF **8.109**): 2
- Cellular and Molecular Gastroenterology and Hepatology 2022 (IF **9.225**): 1
- Clinical Cancer Research (IF **12.531**): 12
- Clinical Gastroenterology and Hepatology (IF **11.382**): 1
- Current Opinion in Immunology (IF **6.54**): 1
- Endocrinology (IF **4.736**): 1
- Endocrine-Related Cancer (IF **5.678**): 4
- FASEB Journal (IF **5.191**): 1
- Frontiers in Immunology (IF **8.786**): 1
- Genes and Development (IF **11.361**):1
- Gynecologic Oncology (IF **4.56**): 1
- Haematologica (IF **6.3**): 1
- Hematology Oncology (IF **5.271**)
- Infect Control Hospital Epidemiol (IF **2.938**): 1
- JCI Insight (IF **9.08**): 1
- Journal of Biological Chemistry: (4.238): 2
- Journal of Clinical Oncology (IF **44.544**): 8
- Journal of the American Medical Association (IF **31.777**): 3
- Journal of Experimental Medicine (IF **14.13**): 1
- Journal of the National Cancer Institute (IF **11.816**): 2
- Modern Pathology (IF **7.59**): 1
- Molecular Therapy (IF **11.454**): 1
- NAR Cancer (IF **4.8**): 2
- Nature Communications (IF **14.919**): 11
- Nature Reviews Clinical Oncology (IF **66.67**): 2
- Nature Review Cancer (IF **27.46**): 1
- Neoplasia (IF **6.02**): 3
- New England Journal of Medicine (IF **5**): 1
- NPJ Breast Center (IF **5.706**): 1
- Nucleic Acids Research (IF **19.160**): 1
- Oncogene (IF: **9.867**): 2
- PLoS Computational Biology (IF **4.475**): 2
- Prostate Cancer and Prostatic Disease (IF **5.554**): 1
- Scientific Reports (IF **4.996**): 2
- Seminars in Cancer Biology (IF **15.707**): 1
- The Lancet Haematology (IF **18.959**): 1
- Therapeutic Advances in Medical Oncology (IF **5.02**): 4
- Transplant Cell Therapy (IF **5.609**): 9
- Virchows Arch (IF: **4.064**): 2

Books and Book Chapters

Charu Agrawal, M.D.

- Constipation & Diarrhea. *Textbook of Palliative Medicine & Supportive Care Third Edition*

Tannaz Armaghany, M.D.

- Neuroendocrine Cancer in *Tumor Board Review: Evidence Based Case Reviews and Questions, Third Edition*

Akiva Diamond, M.D.

- Non-Hodgkin Lymphoma in *Tumor Board Review: Evidence-Based Case Reviews and questions, Third Edition*

Paige Farinholt, M.D.

- The End of Therapy: Building the Psychosocial and Spiritual Bridges to Survivorship

LaQuisa Hill, M.D.

- Cell Therapy: cGMP Facilities and Manufacturing; *Commercialization of Investigational Cell Therapy Products*

Quillan Huang, M.D.

- Non-Small Cell Lung Cancer in *Tumor Board Review: Evidence Based Case Reviews and Questions, Third Edition*

Natalie Lapteva, Ph.D.

- cGMP Facilities and Manufacturing 2021 Springer Nature Switzerland AG; *Quality Management Software-Q Pulse*

Julie Nangia, M.D.

- Hormone Receptor-Positive Breast Cancer in *Tumor Board Review: Evidence Based Case Reviews and Questions, Third Edition*

Shalini Makawita, M.D.

- Pancreatic Cancer in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition*

Martha P. Mims, M.D., Ph.D.

- Editor, *Tumor Board Review: Guideline and Case Reviews in Oncology, Third Edition*
- Acute Lymphoblastic Leukemia in *Tumor Board Review: Guideline and Case Reviews in Oncology, Third Edition*
- Lymphocytosis, Lymphopenia, Hypergammaglobulinemia, Hypogammaglobulinemia in *Hematology: Basic Principles and Practice, Seventh Edition*

Benjamin Musher, M.D.

- Pancreatic Cancer in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition*

Carlos Ramos, M.D.

- Clinical Manifestations and Treatment of Marginal Zone Lymphomas (Extranodal/MALT, Splenic, and Nodal). In *Hematology: Basic Principles and Practice, 8th ed.*

Aprit Rao, M.D.

- Prostate cancer in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition*

Karen Riggins, M.D.

- Gastric Cancer in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition.*

Gustavo Rivero, M.D.

- Acute Myelogenous Leukemia in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition.*

Sravanti Teegavarapu, M.D.

- Non-Hodgkin Lymphoma in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition*
- Lymphocytosis, Lymphopenia, Hypergammaglobulinemia, Hypogammaglobulinemia in *Hematology: Basic Principles and Practice, Seventh Edition*

Aihua (Edward) Yen, M.D.

- Prostate Cancer in *Tumor Board Review: Evidence-Based Case Reviews and Questions, Third Edition*

CENTERS

Lester and Sue Smith Breast Center

The Lester and Sue Smith Breast Center at Baylor College of Medicine study almost every aspect of breast health and disease and are focused entirely on strategies to prevent, diagnose and treat all breast cancer. We are a multidisciplinary center with an emphasis on translational research. The Breast Center is committed to the education and training of our students. We focus on community outreach and fostering a collaborative research environment.

The Cell and Gene Therapy Center

The Center for Cell and Gene Therapy interacts with basic research and clinical departments at Baylor College of Medicine and affiliated hospitals to discover and develop novel therapies for a various diseases including cancer, HIV and cardiovascular diseases. The approach brings a variety of scientists and clinicians together to develop strategies. We intend to have the capability of moving basic preclinical discoveries into the clinical phase of development for an initial evaluation in our patients. We have the resources to manufacture a range of viral and non-viral vectors to transfer genes of interest and the capability of separating and manipulating human cells. These combined genetic and cellular therapies should enable us to treat a range of conditions, both congenital and acquired, in almost every system of the body.



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