Clinical Research Mentors

CI MED is where impactful research opportunities thrive! We are delighted to introduce you to the CI MED Clinical Research Mentors within our academic community.

As part of our unwavering commitment to fostering research excellence, we are excited to announce the addition of 10 CI MED Clinical Research Mentors from Carle Foundation Hospital. These mentors have been meticulously selected for their expertise in identifying clinically relevant, student-centricresearch projects. Each project can accommodate 2-3 students, ensuring personalized attention and collaborative exploration, allowing students to select projects of interest to them.
These projects will delve into clinically relevant research topics, ideally suited for exploration through chart review or literature review processes, with a timeline of less than 6 months. Furthermore, these projects are crafted to yield publishable outcomes, be it in the form of a poster, abstract, or paper.

At CI MED, we wholeheartedly believe in the transformative power of research in healthcare, and we are thrilled to embark on this journey of discovery with our dedicated mentors and students alike.

Please note that the Clinical Research mentors complement the array of clinicians and professors you'll be joining for longer-term projects or in different specialty areas of interest. All our clinicians, CI MED, and UIUC Faculty who mentor our students are invaluable to us. They serve as resources supporting medical student participation in research and contribute to a community of scholars. Our Faculty Members support students through various mechanisms, including providing encouragement and support for student participation not only in research but also in entrepreneurship, design, and innovation. They can help students directly identify opportunities on campus or can assist students in networking with appropriate mentors outside of this group.

Whether you participate in research identified by these clinical research mentors or other professors or clinicians… Let's make a difference together!

MEETTHE CLINICALRESEARCH MENTORS
AvailableProjectsyoucanjoin

Sinisa Stanic, MD,
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Clinical outcomes of SBRT for stage I non-small cell lung cancer from academic hospitals are well known and well published; however, there is a lack of data from small community programs in the US. This National Cancer Database analysis will focus on comparing demographics, number of treatment fractions and clinical outcomes: progression free survival and disease-free survival. The analysis can provide information about patient outcomes in the community setting that often has fewer resources, such as a single radiation therapy unit and limited medical physics support and it may assist the Commission on Cancer (CoC) with monitoring the quality for the accredited CoC community oncology programs in the US.

Sinisa Stanic, MD,
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Uterine cancer is the most common gynecological cancer in the US. Radiation therapy plays an important role in reducing the incidence of cancer recurrence after surgery – hysterectomy. All major clinical trials predominantly included patients with the most common endometroid histology and women with the high risk histologies were usually the minority in the published trials. This poses a challenge to a patient and radiation oncologist to choose between a long course of external beam radiation therapy (EBRT) to the pelvis in 25 treatments (5 weeks) and a short course of radiation therapy in 3-5 treatments with internal vaginal radiation (brachytherapy). The US national cancer treatment guidelines by NCCN still says ""EBRT
+/- vaginal brachytherapy". making the treatment decisions very challenging. This analysis would include demographics and clinical outcome analysis between two patient cohorts: EBRT and brachytherapy from the NCDB.

Sinisa Stanic, MD,
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Despite radiation therapy being utilized to treat millions of patients with pelvic and abdominal malignancies for decades, dose tolerance of the ureter is not well established and not given in many treatment protocols. Radiation therapy has expanded for the past two decades with utilization of larger fraction size (higher daily radiation therapy dose) in an effort to provide a better tumor control and shorten treatment duration. Consequences of ureter injury can be serious from hydronephrosis necessitating ureter stent placement and stent replacement every 3 months for a long period of time to surgical re-implantation of the ureter in the bladder. Proposing a radiation dose tolerance of the ureter may assist radiation oncologists with minimizing the risk for these serious complications.

Kalika Sarma, MD,
Radiation Oncology
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Following publication of the prime II study results NCCN has now recommended the omission of radiotherapy following breast conservation surgery in patients with pN0,pT <3cm HR positive Her2 neg disease, in women above 65 years of age where hormone therapy has been planned..
This study aims to look at how often practicing radiation oncologists are implementing the updated NCCN guideline for consideration of RT omission in the above age group.
This would be conducted as a survey of Practicing Radiation oncologists gathered from ASTRO membership database from academia as well as from the community setting using their emails to communicate using a questionnaire :
Do you consider omitting RT in women over 65Yrs who have low risk breast cancer pN0, pT<3cm HR+ Her2 Neg in whom endocrine therapy is being considered.
If not what are your reservations?

Priyank Patel, MD,
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Tammay Sahai, MD,
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Incidence and etiology of anemia in patients undergoing TAVR is not well established. We plan to look at the incidence of anemia in patients post TAVR, evaluate the etiologies of anemia whether nutritional deficiency, hemolytic anemia etc.

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Metastatic prostate cancer is a very heterogeneous disease. Some patients with prostate cancer will have oligometastatic disease defined by metastatic areas to less than 5 or 6 locations. With advent of very sensitive imaging modality such as PSMA PET-CT scan, earlier diagnosis of metastatic disease which otherwise would be undetectable on traditional CT scans and bone scans has led to increased use of metastasis-directed therapy usually with stereotactic body radiotherapy (SBRT) for such patients. Whether metastasis-directed therapy improves patient outcomes in terms of progression-free and overall survival is not clear. Data from community oncology center is meager. We want to evaluate community oncology experience for metastatsis directed therapy for prostate cancer.

Priyank Patel, MD,
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Accuracy of diagnosis of subsegmental pulmonary embolism and to understand treatment trends in patients with subsegmental embolism in the community.

Diagnosis of subsegmental pulmonary embolism which is usually identified incidentally is radiographically challenging and there can be interobserver variability from diagnostic radiology standpoint. We want to evaluate incidence of SSPE in patients at Carle, evaluate for interobserver variability among diagnostic radiologists and to understand treatment patterns in such cases.

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Tammay Sahai, MD,
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Evaluation of Next generation Sequencing of stage IV Lung Adenocarcinomas to better understand mutation trends in Central Illinois Almost 15-20% of lung adenocarcinomas have targetable mutations and even a higher percentage have mutations that are not targetable. Aim is to review lung adenocarcinoma next generation sequencing (Standard of care) for all stage IV lung adenocarcinomas to identify mutation patterns in Central Illinois

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Tammay Sahai, MD,

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Assessing if time to treamtent interval impacts OS amoung head and neck cancers with variables including race, socioeconomic status, insurance, stage of disease etc.

Neil Mashruwala, MD
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Loose primary closure using skin substitute vs standard of care (wet to dry dressing, negative pressure vacuum assisted closure therapy) for necrotizing soft tissue/ fasciitis wounds. Review outcomes including pain, patient satisfaction, duration of wound care, complications such as recurrent abscess or need for additional debridement, cost and length of stay. Necrotizing soft tissue infection/fasciitis is a common pathology seen on the acute care surgery service. Would like to compare outcomes of loose primary closure using skin substitute compared to current standard of care at Carle in order to provide data to help guide practice change.

Carle Illinois
COLLEGE OF MEDICINE

Carle | UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Neil Mashruwala, MD
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Single dose antibiotic vs multi dose antibiotic in patients with acute appendicitis, simple or complicated. Comparison of use of ertapenem (Invanz) vs piperacillin and tazobactum (zosyn) on admission from the emergency room. Often times, due to its dosing, patients miss a dose of antibiotic prior to the operating room. One dose antibiotic eliminates confusion and need for antibiotics prior to operative intervention—if it happens in the first 24 hours. Want to review if there are any differences in surgical site infection, overall infectious complications, length of stay and readmission needing a secondary procedure. Would like to demonstrate, hypothesis, that single dose is not inferior to multi dose antibiotic. This is a common pathology seen on the acute care surgery service.

Neil Mashruwala, MD
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Quality improvement project. Timing of DVT prophylaxisin thetraumapatient withpolytrauma. Our institution is an outlier with respect to venous thromboembolism according to TQIP—trauma quality improvement project. There is very good data that supports starting chemical DVTprophylaxis within 24 hours of solid organ injuryand pelvicfracture whenthe hemoglobin is stable and within 24 hours of a stable head CT in a patient with a traumatic brain injury. Currently there is no protocol at our institution. Would like to review patients in the last 5 years from the trauma data base who were diagnosed with venous thromboembolism or PE and when chemical DVT prophylaxis was started— if it was started at all. Goal is to identify whether there was an opportunity to start sooner and if thiswould have affected overall clinical outcome—progression of a clinically significant brain bleed?

James Egner
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Present day status of proband family in reference to:

1) Falk: VS : Familial Polyposis of Colon Arch Surg 45 123-128 (july) 1942

2) With further follow-up Falk VS, Arch Surgery 967 – 969 Vol 96 June 1968

Drs Falk and Rogers were Carle physicians.

James Egner
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Address GIS conversion from postal zips for tumor registry data. Geographic information systems representing people by location can vary with time.

It has well developed uses however for business and government. Property tax information is on a GIS map. Health is another matter, Illinois dept of public health reports cancer by zip code.
5 digits are used except for Chicagowhich uses 9.
Present cancer registry uses a Post Office address for analyzing data.

James Egner
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Effects of hospital policies on treatment of cancer.
Example: Hospitals are paid by DRG (for the most part). All tests and all drug treatment costs come from that. Length of stay is another driver of cost.

PET-CT scans are expensive (and that is not just the chargemasterprice).Policytriestosteertheseto outpatient status. Many chemotherapy medicines are extremely expensive. They are not on the Hospital formulary. Insurance triestogetthingsdoneasin inpatient tolimit theirfinancial expenditures and place burden on the hospitals.

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Yet anotherEffectsof specialty clustering. Examples:to have a surgery practice involving stomach or pancreas EGD with ultrasound is needed. Dialysis needs vascular surgery or a population of diabetics.

Kendrith Rowland
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Data mining of NCI protocol DCP – Carle data set of 3000 pts who were eligible for a NCI protocol – collected pt data to include -> age, education, type of protocol (screen vs not), income, insurance, protocol #, smoking hx, marital status, race, rural vs not, sexual orientation, comorbidities, enrolled or declined, and more - Large data set to explore a number of
possible correlates. On excel spread sheet.

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IRB approved protocol–Patient Perception of Hospice Care– pt surveys collected at presentation of Hospice transition – need chart reviews and analysis - ?30 pt so far accrued – still open to enrollment.

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Betsy Barnick
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IRB approved protocol – Quantitative Histopathology for cancer prognosis using quantitative phase imaging on stained tissue. Histo path data complete by late Dr Popescu – U of I Bioengineer - but waiting for someone to perform chart reviews, collate data and analyze. Data currently "owned' by Betsy Barnick Manager Carle Cancer Research Dept.

Kendrith Rowland
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IRB approved protocol – Prospective Serial Analysis of the Cognitive Effect of Neoadjuvant therapy in Breast Cancer Pts using 7T MRI – just starting to accrue – will need help with chart reviews/data collection and analysis.

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IRB approved protocol - Early Detection of Head and Neck Cancer Through Saliva Based Screening – still accruing - 30 pts so far. PCR analysis in Dr Hergenrother's lab – will need help with chart reviews/data collection and analysis.

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IRB approved protocol - Serial microRNA Levels during Neoadjuvant Therapy for Early Breast cancer – 20 pts accrued – samples analyzed in Dr Cummings lab at U of I – will need help with chart reviews/data collection and analysis.

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IRB approved protocol – Pancreatic Cancer Perturbs the Microbiome – surgical samples collected on 15 pts being analyzed in Dr Irudayara's lab – will need chart review/data collection and analysis – study initiated by Dr Lowe and no longer accruing – limited by low number of pts/samples.

Kendrith Rowland
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Data mining of 3000+ pts enrolled at Carle on the NCI TMIST trial – 2d vs 3 d screening mammography. Will need to write up a proposal and clear with PI of study and NCI.

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IRB approved protocol - Neoadjuvant TCHP Cardiotoxicity at Carle – already 2 med students on board looking at data of over 100 pts treated with such at Carle.

Victor Stams, MD,
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This retrospective chart review aims to evaluate the influence of acellular dermal matrix (ADM) thickness on postoperative outcomes in breast reconstruction patients. By comparing different thicknesses used in reconstructions at Carle Health, the study intends to determine if there is a significant correlation between the ADM thickness and the rate of complications or revisions, offering potential insights for optimizing surgical materials and techniques.
Research Institution: Carle Foundation and Clinic, Urbana, IL
Title
23CRU3947: Effect of Biologic Mesh Thickness on Clinical Outcomes After Breast Reconstruction
Principal Investigator: Stams, Victor
Internal Reference Number
23CRU3947

Victor Stams, MD,
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This retrospective study will evaluate the impact of a single intraoperative IVdoseof tranexamicacid (TXA)on outcomesin two-stage breast reconstruction surgeries. It will assess whether TXA administration can reduce the time between tissue expander implantation and removal,decreasethe volumeoffluid in post-operative drains,and lowertheincidenceof complications. By analyzing patient records, the study aims to provide insights that could improve postoperative care and potentially reduce the duration of drain use, thus enhancing patient recovery and outcomes.

Research Institution Carle Foundation and Clinic, Urbana, IL Title
23CRU3831:One-time,intraoperativeIVinjectionoftranexamic acid and its effect on the duration of time between tissue expander implantation and removal, post-operative suction-drainage bulb fluid volume, and incidence and type of post-operative complications in patients receiving two-stage breast-reconstruction surgeries

Principal Investigator; Stams,Victor, MD
Keywords: breast reconstruction
Internal Reference Number
23CRU3831

Victor Stams,MD,Department of Plastic Surgery, Carle Foundation Hospital,
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This preparatory research aims to assess the efficacy of drain-free progressive tension sutures in reducing seroma formation in female-to-male gender affirmation mastectomies. The study will examine patient records to identify instances of seroma and the utilization of progressive tension sutures, aiming to inform future surgical best practices and potentially establish a new standard of care that enhances patient outcomes and recovery.

Research Institution: Carle Foundation and Clinic, Urbana, IL
Title
22CRU3722: Drain-free Progressive Tension Sutures and Seromas in Female-to-Male Gender Affirmation Mastectomies- Case Series
Principal Investigator: Stams, Victor , MD Keywords: seromas
Internal Reference Number
22CRU3722

Georgina Cheng,
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Objective: To compare perceptionofshareddecisionmaking and rates of patient satisfaction withandwithout the use of a novel, standardized, patient-centered questionnaire for contraception. This allows for increased information and education on contraceptive options, as well as a more personalized approach of counseling. With improved patient understanding and individualized consultation, we hope for higher rates of contraception initiation, continuation, andsatisfaction. This is a resident project that is looking for 1 additional medical student for data analysis and statistical help

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Georgina Cheng,
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Objective: to identify VUS in GynOncologicmalignancies in patient'sthat were referredto genetics and underwent testing.

Daniel Barnett, MD, PhD,
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Recent advances in detection and treatment of prostate cancer have led to increasing discussion and use of metastasis-directed therapies (MDT) for oligometastatic prostate cancer without substantial Level I evidence for use. The overall utilization of MDT, along with additional therapies (e.g. systemic therapies) may utilized in isolation or various combinations, highlighting a need to evaluate usage and related outcomes. This National Cancer Database (NCDB) analysis will compare demographics, treatment modality, and clinical outcomes such as progression free survival, disease-free survival to provide guidance for patient care in the community cancer care setting, as well as guide additional trials for prospective studies of MDT. Importantly as a NCDB-based study, this may assist the Commission on Cancer (CoC) with monitoring of quality of care in CoC-based cancer care programs throughout the US.

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Locally advanced endometrial cancer may treated with systemic therapies alone, with adjuvant radiotherapy alone in select cases, combined systemic therapy and radiotherapy in sequence or concurrently. While systemic therapy may be a backbone of care, the optimal use of systemic therapies (e.g. doublet chemotherapy or immunotherapy), with our without radiotherapy is not fully examined. This National Cancer Database (NCDB) analysis will compare demographics, treatment modalities, and clinical outcomes such as progression free survival, disease-free survival, and overall survival to provide guidance for patient care in the community cancer care setting, as well as guide additional trials for adjuvant treatment of advanced endometrial cancer. Importantly as a NCDB-based study, this may assist the Commission on Cancer (CoC) with monitoring of quality of care in CoC-based cancer care programs throughout the US.

Daniel Barnett, MD, PhD,
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MRI-based imaging is now widely adopted as a standard for evaluation of rectal cancers at initial diagnosis and staging, evaluation of treatment response after standard of care neoadjuvant therapies prior to definitive surgery, and essential for ongoing surveillance in the non-operative setting after definitive chemoradiotherapy or immune-checkpoint inhibitors. Radiomic-based signatures will be developed and utilized more widely for both prognostic and predictive use in these settings. Literature review here we will provide an overview of radiomics in the evaluation and treatment of rectal cancer for wider audience, will provide guidance of future MRI-based radiomics projects here at CIMED.