

UNIVERSITY OF NEVADA, LAS VEGAS

**Schools of Nursing and
Allied Health Sciences**

RESEARCH



UNLV | *School of*
NURSING

UNLV | ALLIED HEALTH
SCIENCES

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CURRENT RESEARCH

INFRASTRUCTURE

Clinical and translational research infrastructure network IDeA-CTR

The primary goal is to provide infrastructure and centralized services in support of 13 Mountain West partner universities that have successful programs in basic science, but little or no tradition or capacity in clinical or translational research.

Principal Investigator: Robert Langer, MD, MPH

Contact information: robert.langer@unlv.edu

Director (CREMCoD): Jillian Inouye, APRN, PhD, FAAN (responsible for clinical research, education, mentoring and career development)

Contact information: jillian.inouye@unlv.edu

Funded: National Institutes of Health

Current collaborations: University of Nevada, Las Vegas; University of Nevada, Reno; University of Nevada School of Medicine; University of Alaska, Anchorage; University of Alaska, Fairbanks; University of Hawaii at Manoa; Boise State University; Idaho State University; University of Idaho; Montana State University; University of Montana; University of New Mexico; New Mexico State University; and University of Wyoming.

Additional information: The Clinical Translational Research Infrastructure Network (CTR-IN) will expand the capacity of partner institutions across seven states to put clinical research into practice to address regional health concerns including access to care, cancer, obesity, diabetes, and cardiovascular and infectious diseases.

CHRONIC PAIN

Predictors of effective self-management in chronic low back pain

Clinical Practice Guidelines identify self-management as a valuable strategy in chronic pain. However, it is likely that self-management programs are most effective in certain subgroups of the adult population. This study continues data collection from among adults evaluating variables that are best predictors of self-management in individuals with chronic low back pain. Findings provide essential information to healthcare providers to identify patients who will likely respond more to self-management programs in order to maximize its effectiveness. Subsequently, other strategies need to be identified for those who do not respond effectively to self-management strategies.

Principal Investigator: Jennifer Kawi, PhD, MSN, APRN, FNP-BC, CNE

Contact information: jennifer.kawi@unlv.edu

Collaboration opportunity: Data collection from physical therapists, psychologists, and pharmacists, as well as bench researchers on proteomics and genomics, in the area of pain.



Hundreds of millions of adults in the United States report having chronic pain, and many identify lower back pain as the primary complaint.

EDUCATION

Simulating teamwork and observation for procedural safety (STOPS)

This study tests the hypothesis that a standardized training program of simulated central venous catheter (CVC) insertion with enhanced education regarding checklist utilization will enhance team dynamics, improve physician and nursing competency for CVC insertion, and reduce the incidence of uncorrected safety risks.

Principal Investigator: Jessica Doolen, PhD, RN

Contact information: jessica.doolen@unlv.edu

Collaboration opportunity: Would like to team with respiratory therapists, social workers, physical therapists, occupational therapists, dentists, and speech therapists. I would like to team up with the Nurse Educator Department at local hospitals to get a grant for a practice academic partnership to provide ongoing simulation education for safe and effective nursing practice. These would be identifying problems in professional nursing (failure to rescue, failure to recognize a patient in decline, and failure to communicate findings) in hospitals.

Funded: UNLV School of Nursing Interdisciplinary Award

EDUCATION

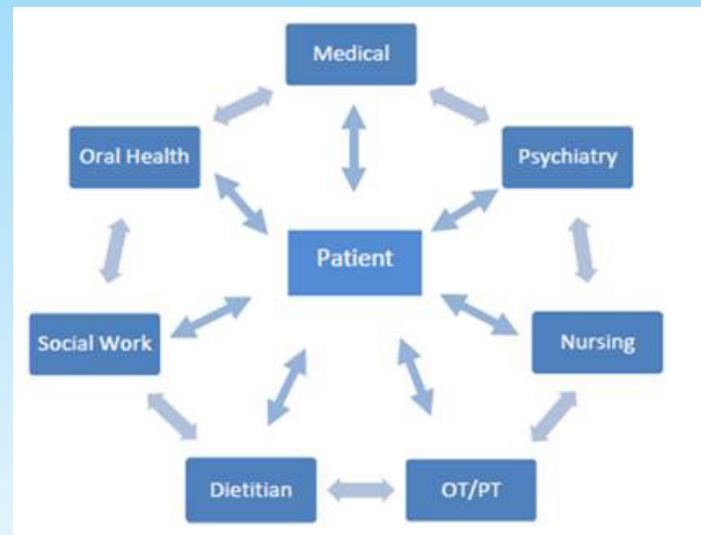
Nevada GEC consortium 2010-2015

Develop a diabetes management training program for interdisciplinary faculty with emphasis on team/patient bidirectional communication, prevention of co-morbidities, and cultural sensitivity; (b) Develop an evaluation model for interprofessional team and patient management of co-morbidities; (c) Present three one-day diabetes management training programs annually using standardized patients as well as mannequins in the UNLV simulation center; and (d) Examine, modify and disseminate interprofessional curricula that addresses chronic disease assessment and management of comorbidities among older people with diabetes.

Co-Project Director: Susan VanBeuge, DNP, APRN

Contact information: susan.vanbeuge@unlv.edu

Funded: Health Resources and Services Administration Geriatric Education Center (HRSA GEC) (UNLV School of Dental Medicine)



Interprofessional team patient care and bidirectional communication model.

HEALTH PROMOTION

Severity of type 2 diabetes, cognition and self-care

The purpose of this study is to explore relationships among severity of type 2 diabetes, cognition, executive function and diabetes self-care in middle-age and older adults with type 2 diabetes while simultaneously testing a portion of Orem's Self-Care Deficit Nursing Theory.

Primary Investigator: Tricia Gatlin, PhD, RN

Contact information: tricia.gatlin@unlv.edu

Funded: UNLV School of Nursing Interdisciplinary Award

Theoretical Model to Test the Concepts of WM and Self-Care in Type 2 Diabetics



Research Hypothesis

- An inverse association will be noted between severity of type 2 diabetes and working memory and executive function.
- An inverse association will be noted between working memory and executive function and diabetes self-care.
- Working memory and executive function will mediate the effects of severity of type 2 diabetes and diabetes self-care.

HEALTH PROMOTION

The impact of interactive video games on underserved children's health

This three year intervention and evaluation project aims to provide a better understanding of the long-term effectiveness of interactive video games on physical activity, multiple aspects of health-related fitness, gross motor skill competence and perceived competence.

Principal Investigator: Du Feng, PhD

Contact information: du.feng@unlv.edu

Collaboration opportunity: Would like to seek collaborations to submit an R01 on the topic of childhood obesity.

Funded: National Institutes of Health (subcontract with Texas Tech University)



Each week, students participate in a 75-minute exergaming program.

CARDIOVASCULAR

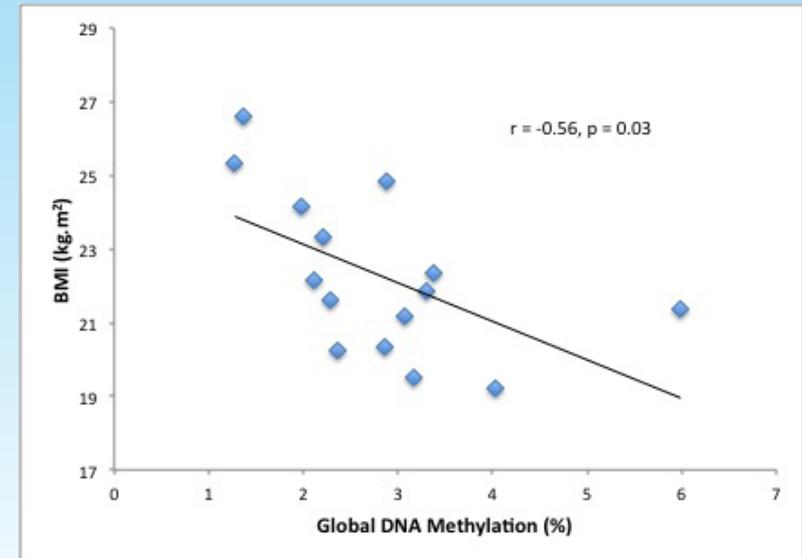
Relationship of global DNA methylation with body composition and cardiovascular fitness measures

The aim of this investigation is to evaluate whether the epigenetic marker, global DNA methylation, is correlated with specific measures of body composition obtained through DXA scan, or aerobic fitness as assessed through maximal exertion exercise testing.

Principal Investigator: James Navalta, PhD

Contact information: james.navalta@unlv.edu

Collaboration opportunity: This area of interest represents a fertile opportunity for further research. Potential collaborations include investigating the consequences of methylation on specific genes associated with the control of body composition and/or cardiovascular fitness measures.



Early data shows a significant correlation between global DNA methylation and BMI in females.

STEM CELL

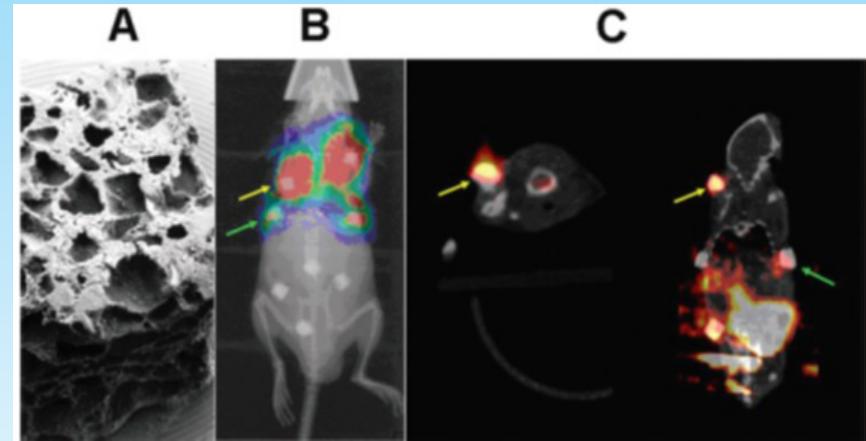
Biomedical imaging of stem cells using reporter genes

The purpose of this study is to provide a means for noninvasive, repeated, and quantitative tracking of stem cell implant or transplant in stem cell-based cell therapy.

Co-investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Supporting published work: Wang, F., Eid, S., Solchaga, L., Kuang, Y., Corn, D., Auletta, J., ... Lee, Z. (2009). Imaging MSCs applied to the mouse model of GVHD. Presented at the MSC 2009 Regenerative Medicine and Adult Stem Cell Therapy, Cleveland, OH.



Imaging cube implants of stem cell in a mouse model using the triple fusion reporter. (A) ceramic cube for cell loading and implant; (B) Bioluminescence imaging of 8-cube implants (Preclinical validation); (C) micro PET (hot metal) and CT (grey scale) images for clinically translational validation.

INJURY PREVENTION AND TREATMENT

Effectiveness of a novel therapeutic technique on improving gait characteristics among children with cerebral palsy

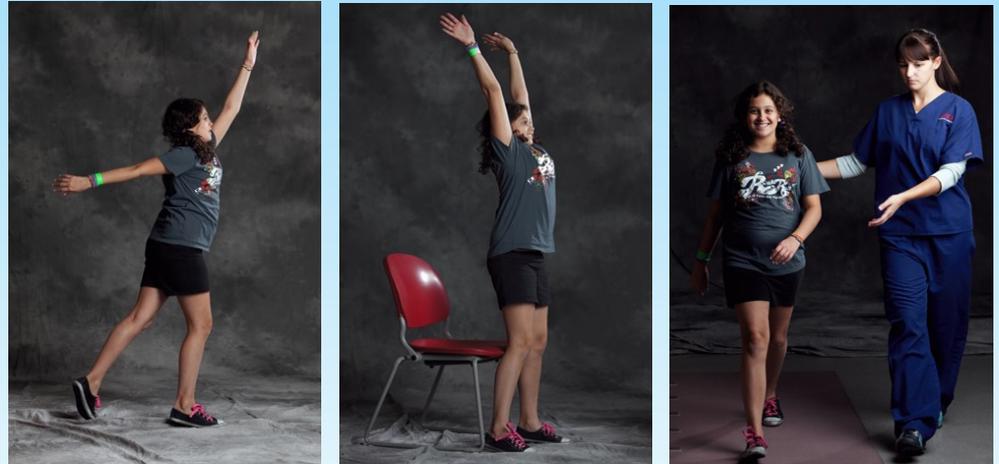
The purpose of this study is to test the concept of adapting large amplitude, whole body movements, modeled after those used in Lee Silverman Voice Training BIG® in order to improve gait characteristics among children with CP.

Principal Investigator: Robbin Hickman PT, DSc, PCS

Contact information: robbin.hickman@unlv.edu

Current collaborations: University of Hawaii, Chung Yuan Christian University, Taiwan.

Collaboration opportunity: Data collection and enrolling ambulatory children with cerebral palsy in the clinical trial.



The study uses whole body movement training as an intervention for ambulatory children with cerebral palsy aged 6-17 years.

INJURY PREVENTION AND TREATMENT

Validation of a clinical prediction rule to identify patients with neck pain likely to benefit from cervical spine manipulation

The purpose of this randomized clinical trial is to collect data from among patients with neck pain and validate the clinical prediction rule.

Principal Investigator: Emilio Puentedura, PT, DPT, PhD, GDMT, OCS, FAAOMPT

Contact information: louie.puentedura@unlv.edu

Collaboration opportunity: Data collection from skilled cervical spine manipulators with access to patients suffering from neck pain.

Supporting published work: Puentedura, E. J., Cleland, J. A., Landers, M. R., Mintken, P., Louw, A., & Fernandez-de-las-Penas, C. (2012). Development of a clinical prediction rule to identify patients with neck pain likely to benefit from thrust joint manipulation to the cervical spine. *Journal of Orthopaedic & Sports Physical*, 42, 577-592. [Winner – 2013 Rose Excellence in Research Award]



Cervical spine manipulation demonstrated as part of a study to validate a clinical prediction rule that identifies patients with neck pain who respond favorably to this type of manipulation.

INJURY PREVENTION AND TREATMENT

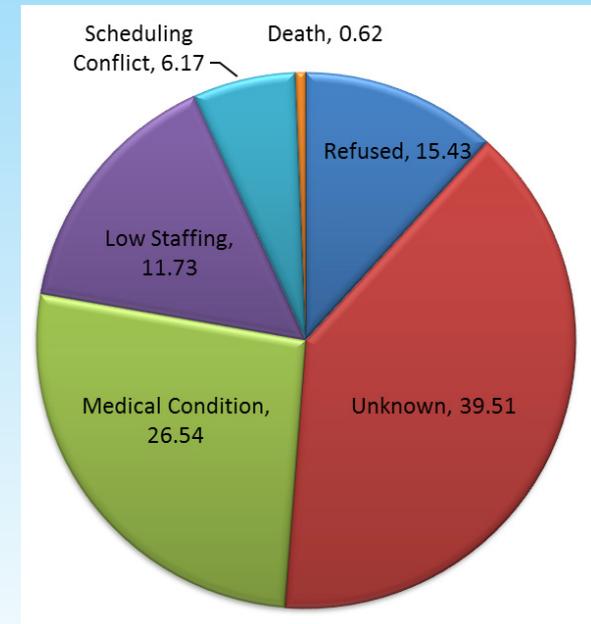
Rates and reasons for patient non-participation in physical therapy in the acute care setting

Not all scheduled physical therapy treatment sessions result in actual treatment in the acute care hospital. The purpose of this study is to describe rates and reasons for patient non-treatment in physical therapy in an acute care hospital. An outpatient clinic study is also underway.

Principal Investigator: Daniel Young, PT, DPT

Contact information: daniel.young@unlv.edu

Collaboration opportunity: Data collection from physical therapy departments in acute hospitals of non-treatment rates and associated variables.



The average non-treatment rate was 15.3 percent. The most common reasons are shown in this graph.

INJURY PREVENTION AND TREATMENT

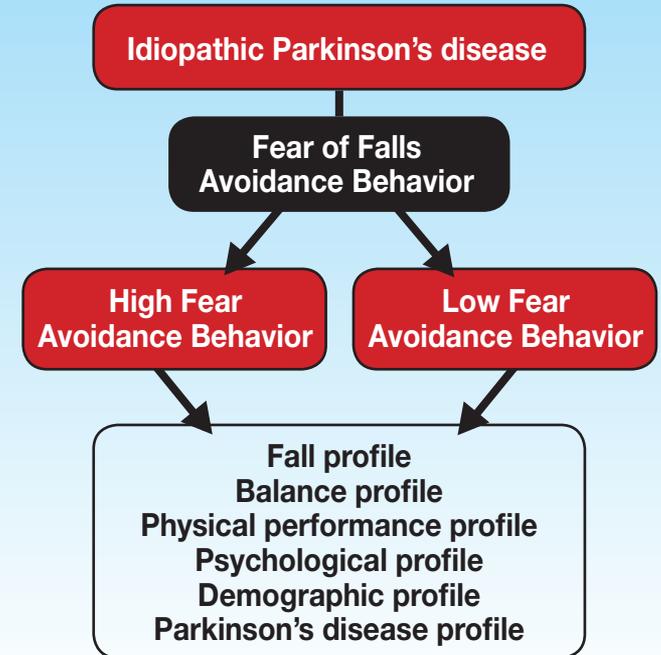
Psychological and physical characteristics of subjects who avoid activity and participation due to a fear of falling in Parkinson's disease

The goal of this study is to identify characteristics and differences between people with Parkinson's disease who exhibit a high fear of falling avoidance behavior and those who exhibit a low fear of falling avoidance behavior.

Principal Investigator: Merrill Landers, PT, DPT, PhD, OCS

Contact information: merrill.landerson@unlv.edu

Supporting published work: Landers, M. R., Durand, C., Powell, S., Dibble, L., & Young, D. (2011). Development of a scale to assess fear-avoidance behavior due to falling: The fear of falling avoidance behavior questionnaire (FFABQ). *Physical Therapy*, 91, 1253-1265.



INJURY PREVENTION AND TREATMENT

Development of an injury severity prediction model among pediatric hospital patients

The goal of this study is to develop a quantifiable tool that assesses the severity of falls among in-patient, pediatric patients and identifies recommended follow-up care after hospital discharge.

Principal Investigator: Janet S. Dufek, PhD

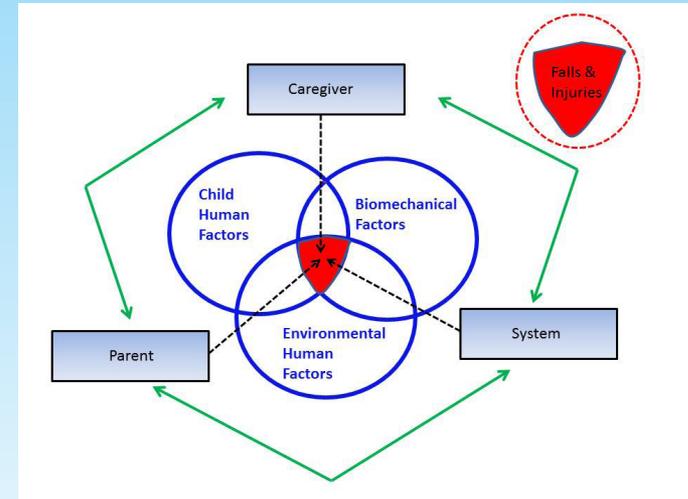
Contact information: janet.dufek@unlv.edu

Current collaborators: Nationwide Children's Hospital

Collaboration opportunity: Case record review of adverse events among pediatric patients who fall during hospital stays.

Funded: UNLV Faculty Opportunity Award; American Nurses Foundation

Supporting published work: Ryan-Wenger, N. A., & Dufek, J. S. (2013). An Interdisciplinary momentary confluence of events model to explain, minimize and prevent pediatric patient falls and fall-related injuries. *Journal for Specialists in Pediatric Nursing*, 18, 4-12.



Interdisciplinary momentary confluence of events model.

INJURY PREVENTION AND TREATMENT

Estrogen effects after a crush muscle injury and acute exposure to hypobaric hypoxia

The primary goal is to expand knowledge regarding the role of hypoxia in enhancing inflammatory responses in healing tissue. This improved understanding may result in the development of new therapies that expedite recovery after a crush muscle injury.

Primary Investigator: Barbara St. Pierre Schneider, DNSc, RN

Contact information: barbara.stpierreschneider@unlv.edu

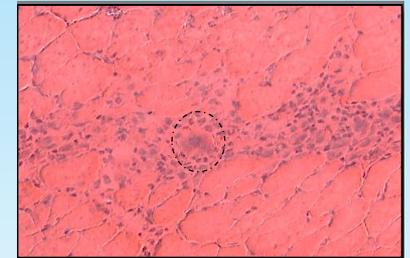
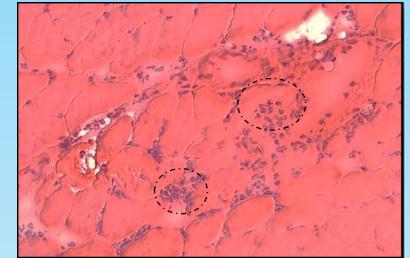
Current collaborations: University of Washington, University of Cincinnati, and University of Nebraska, Lincoln

Funded: Department of Defense

Supporting published work: Dobek, G., Fulkerson, N., Nicholas, J., & Schneider, B. S. (2013). Mouse model of muscle crush injury of the legs. *Comparative Medicine*, 63, 227-232.

Schneider, B. S., Moonie, S., Fulkerson, N., Nicholas, J., & Voss, J. (2013) Simulated flight, muscle genetics, and inflammatory indicators in mice, *Aviation, Space, and Environmental Medicine*, 84, 840-844.

This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001, case number 88ABW-2013-5241. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.



Top image: Muscle injury is evident by multiple nuclei (purple) present deep within muscle fibers (see circled fibers). **Bottom image:** About four days later, muscle regeneration is evident by centrally-located nuclei (purple) within muscle fibers (see circled fiber).

ONCOLOGY

Parametric MR/PET fusion imaging to differentiate aggressive from indolent prostate cancer with application for image-guided prostate cancer biopsies

The primary goal of this study is to improve prostate cancer detection and classification with multimodal imaging.

Principal Investigator: Bing Ma, PhD

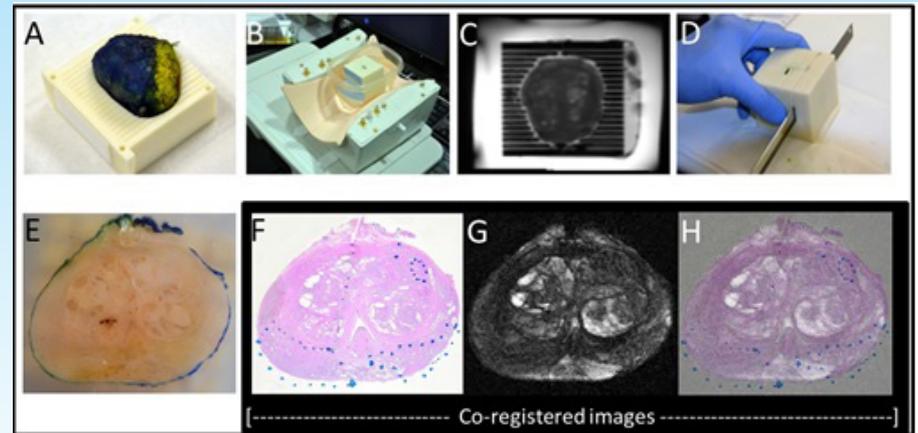
Contact information: bing.ma@unlv.edu

Current collaborations: University of Michigan

Collaboration opportunity: Assistance with patient data collection and access to imaging equipment will further the study's progress.

Funded: Department of Defense

Supporting published work: Meyer, C., Ma, B., Kunju, L. P., Davenport, M. S., & Piert, M. (2013). Challenges in accurate registration of 3D medical imaging and histopathology in primary prostate cancer. *European Journal of Nuclear Medicine and Molecular Imaging*, 40, S72-78.



To validate fusion of in vivo MR and PET images in differentiating prostate tumors, specimen's ex vivo MRI and tissue block face photos are aligned with histology.

ONCOLOGY

Early detection of hepatocellular carcinoma using positron emission tomography imaging

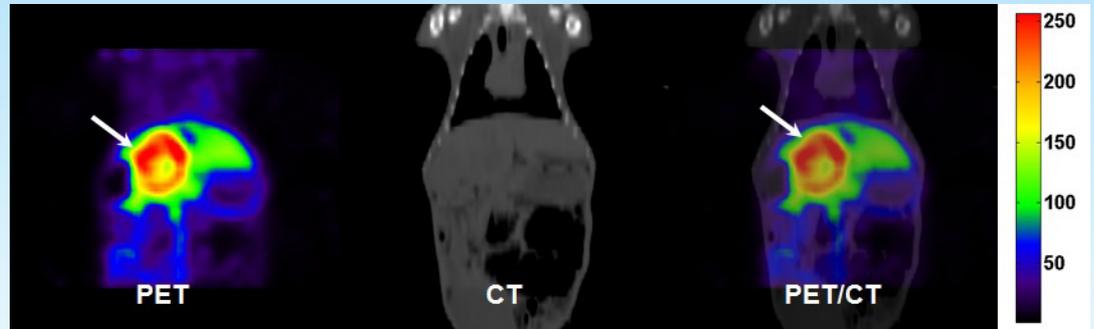
The purpose of this study is to develop and validate a clinically-translatable molecular imaging technique for the early detection of liver cancer in vivo.

Co-investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Funded: Pilot grant through Clinical Translational Research Infrastructure Network

Supporting published work: Kuang, Y., Salem, N., Tian, H., Kolthammer, J. A., Corn, D. J., Wu, C., & Lee, Z. (2011). Imaging lipid synthesis in hepatocellular carcinoma with [methyl-11c]choline: Correlation with in vivo metabolic studies. *Journal of Nuclear Medicine*, 52, 98-106.



PET/CT image of hepatocellular carcinoma (HCC) using L-[methyl-11C]-Met as probe. The nodule of HCC is indicated by the white arrow (red region).

ONCOLOGY

Development of XFCT imaging strategy for monitoring the spatial distribution of platinum drugs: instrumentation and phantom validation

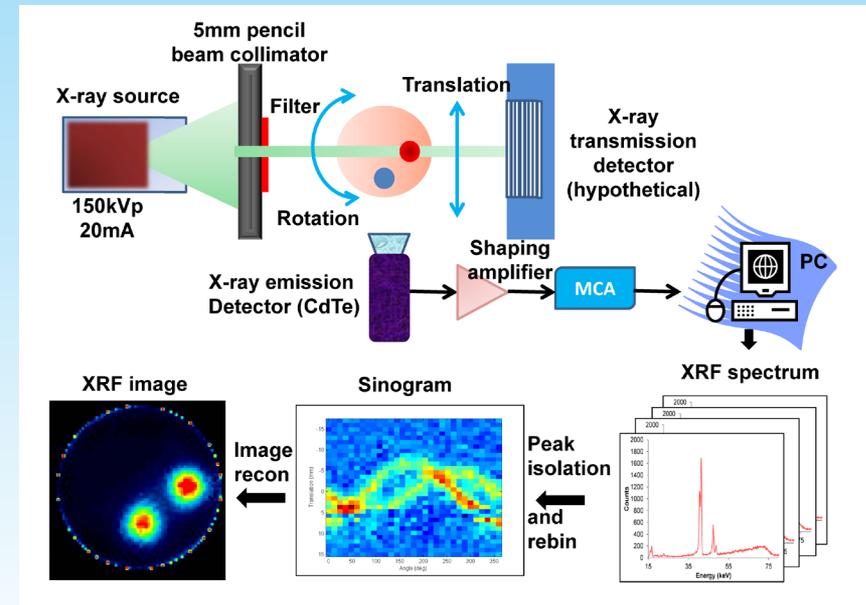
The purpose of this phantom study is to investigate the feasibility of imaging platinum based drug distribution using X-ray fluorescence (XRF, a.k.a. characteristic X-ray) CT (XFCT).

Principal Investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Supporting published work: Kuang, Y., Pratz, G., Qian, J., Meng, B., Bazalova, M., & Xing, L. (2013). Development of XFCT imaging strategy for monitoring the spatial distribution of platinum drugs: Instrumentation and phantom validation. *Medical Physics*, 40, 030701.

(2012 Best in Physics Award (Imaging and Joint Imaging-therapy Categories) in American Association in Physicists of Medicine (AAPM); 2012 Basic Science Award (Physics Category) in American Society for Radiation Oncology (ASTRO))



The design scheme of a prototype of XFCT system.

ONCOLOGY

Molecular imaging of therapeutic response in sarcoma

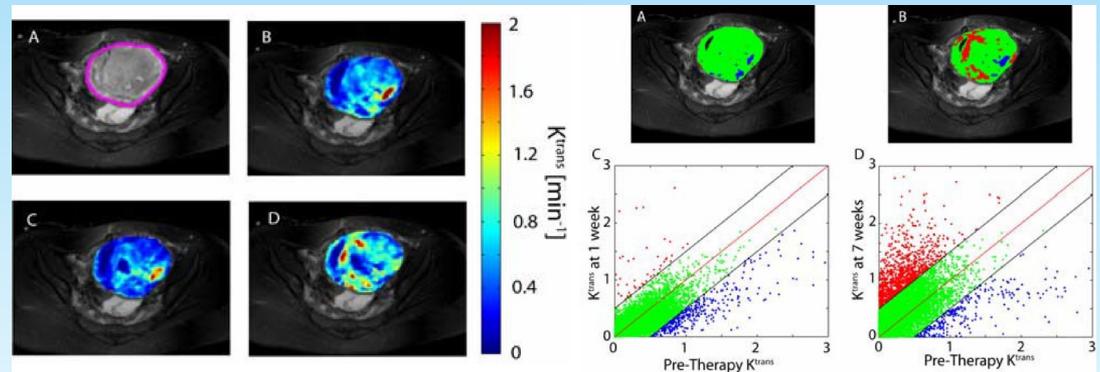
The purpose of this study is to establish that the effectiveness of therapeutic interventions can be determined prior to tumor shrinkage via diffusion/perfusion weighted MR and PET imaging biomarker in sarcoma patients.

Principal Investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Funded: National Institutes of Health Institutional Development Award

Collaboration opportunity: Sharing results of using novel therapies, as well as new imaging biomarkers, that report on key molecular events in therapeutic response.



Left: Dynamic-contrast enhanced MRI in a patient with sarcoma before and after 1 and 7 weeks of neoadjuvant chemotherapy. **Right:** Parametric Response Mapping analysis of voxel-by-voxel K^{trans} changes before and after treatment.

ONCOLOGY

GATE Monte Carlo simulation in a cloud computing environment

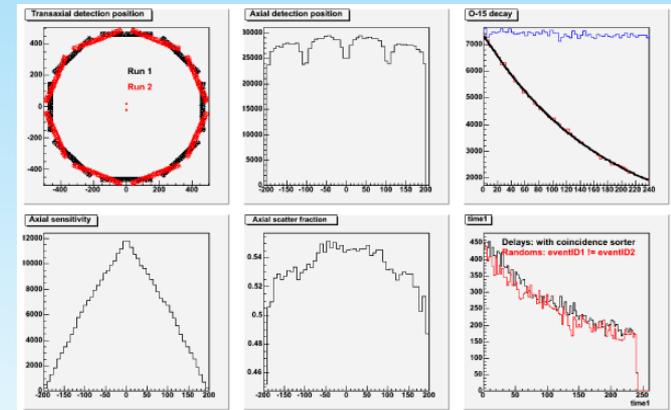
The purpose of this study is to investigate the use of a commercial cloud compute service to achieve time-efficient Monte Carlo simulations without sacrificing reliability or affordability in the clinical setting.

Principal Investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Collaboration opportunity: Seek assistance with using the novel cloud computing platform to speed up the Monte Carlo calculation to a level that is clinically practical.

Supporting published work: Rowedder, B., & Kuang, Y. (2013). Monte Carlo simulation in a cloud computing environment. *Medical Physics*, 40, 206-207.



Graphical output of PET Simulation on 15-node cluster.

ONCOLOGY

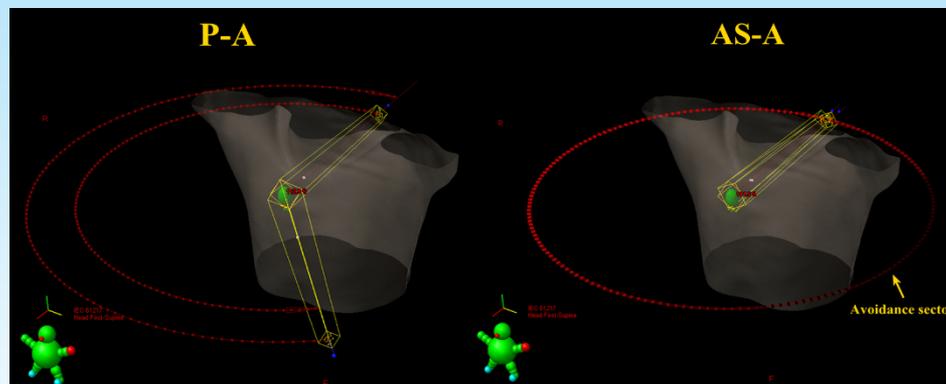
Development of personalized treatment planning strategy in hypofractionated stereotactic lung radiotherapy

The purpose of this study is to investigate different treatment strategies between partial arc (P-A) and avoidance sector arc (AS-A) with FFF beams for lung cancer with single peripheral lesion no larger than 5cm.

Principal Investigator: Yu Kuang, PhD

Contact information: yu.kuang@unlv.edu

Collaboration opportunity: Assistance with developing novel treatment planning strategies of cancer for personalized medicine.



Schematic diagrams of P-A and AS-A.

ONCOLOGY

The use of photochemical internalization to enhance the efficacy of chemotherapeutic agents

Principal Investigator: Steen Madsen, PhD

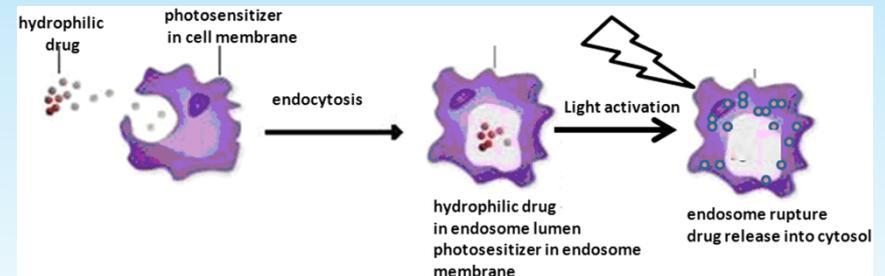
Contact information: steen.madsen@unlv.edu

Collaboration opportunity: Access to small animal imaging equipment will further the study's progress.

Funded: Norwegian Radium Hospital Research Foundation; Nevada IDeA Network of Biomedical Research Excellence; Tony and Renee Marlon Charitable Foundation

Supporting published work: Hirschberg, H., Zhang, M. J., Gach, H. M., Uzal, F. A., Peng, Q., Sun, C-H., ... Madsen, S. J. (2009). Targeted delivery of bleomycin to the brain using photo-chemical internalization of Clostridium perfringens epsilon prototoxin. *Journal of Neuro-Oncology*, 95, 317–329.

Madsen, S. J., & Hirschberg, H. (2010). Site-specific opening of the blood-brain barrier. *Journal of Biophotonics*, 3(No. 5–6), 356–367.



Endosomal escape of drug by photochemical internalization. Photosensitizer accumulates in endosome membrane and light exposure causes the membrane to rupture thus releasing the drug into the cytosol where it's free to diffuse to the target.

ONCOLOGY

Macrophage-mediated delivery of nanoparticles for photothermal ablation of brain tumors

This study tests the feasibility of using macrophages as delivery vehicles for nanoparticles to treat brain tumors.

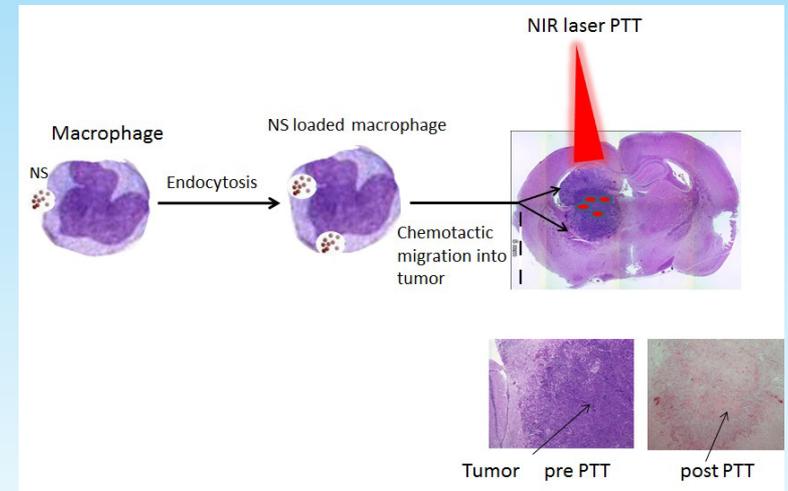
Principal Investigator: Steen Madsen, PhD

Contact information: steen.madsen@unlv.edu

Collaboration opportunity: Access to small animal imaging equipment will further the study's progress.

Funded: Tony and Renee Marlon Charitable Foundation; Nevada IDeA Network of Biomedical Research Excellence

Supporting published work: Madsen, S. J., Gach, H. M., Hong, S. J., Uzal, F. A., Peng, Q., & Hirschberg, H. (2013). Increased nanoparticle-loaded exogenous macrophage migration into the brain following PDT-induced blood–brain barrier disruption. *Lasers in Surgery and Medicine*, 45, 524–532.



Tumor ablation by photothermal therapy (PTT). Nanoshell-loaded macrophages migrate to the brain tumor. Nanoshells absorb near-infrared laser light resulting in thermal destruction of the tumor.

ONCOLOGY

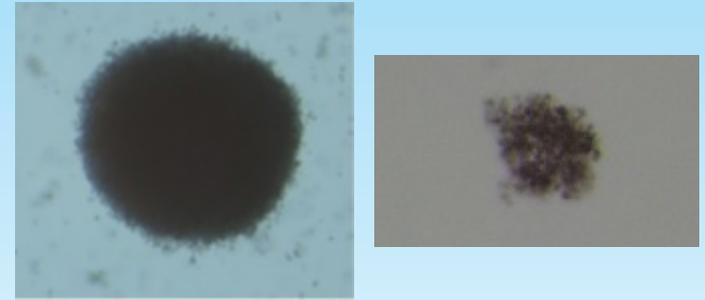
The use of low energy (keV) x-rays and gold-based nanoparticles for the treatment of brain tumors

Principal Investigator: Steen Madsen, PhD

Contact information: steen.madsen@unlv.edu

Collaboration opportunity: Access to small animal imaging equipment will further the study's progress.

Funded: Tony and Renee Marlon Charitable Foundation; Nevada IDeA Network of Biomechanical Research Excellence



Untreated 0.5 mm dia. human glioma spheroid (left).
Gold nanosphere-loaded glioma spheroid (0.2 mm dia.) subjected to 12 Gy, 130 keV x-rays (right).

ONCOLOGY

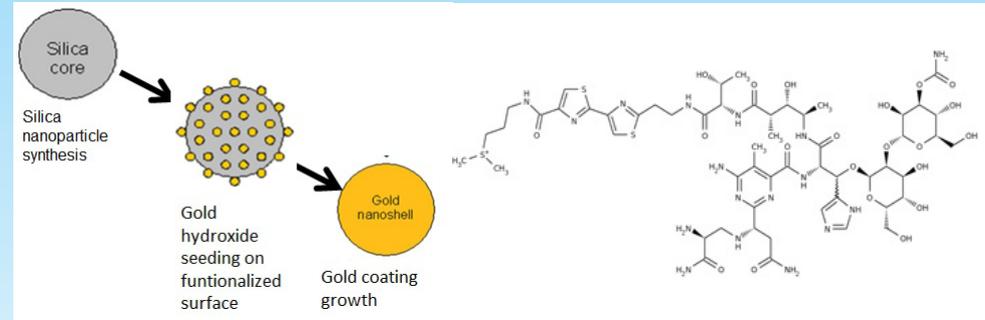
The effects of combined nanoparticle-induced hyperthermia and chemotherapy for the treatment of brain tumors

Principal Investigator: Steen Madsen, PhD

Contact information: steen.madsen@unlv.edu

Collaboration opportunity: Access to small animal imaging equipment will further the study's progress.

Funded: Tony and Renee Marlon Charitable Foundation; Nevada IDEa Network of Biomechanical Research Excellence



Gold-silica nanoshell-induced hyperthermia combined with bleomycin-based chemotherapy.

RESEARCH IN DEVELOPMENT

Title: Effects of 3 Month Dance Intervention Using Mobile Dance Apps

Aim: To (a) measure the predictors of pre-HTN among Filipino American adults, and (b) test the efficacy of a dance intervention using mobile phone apps and pedometers in enhancing physical activity levels and reducing the risk of HTN among Filipino American adults with pre-HTN.

PI: Alona Angosta, PhD, APRN, FNP, NP-C

Email: alona.angosta@unlv.edu

Title: Coping Strategies to Reduce Caregiver Depression using Team-Based Learning

Aim: To evaluate the (a) feasibility and structure of a TBL program to maximize caregiver completion, attendance, and satisfaction; and (b) effect on depression when caregivers participate in TBL, addressing their unique burdens and autonomy and sociotropy needs.

PI: Michele Clark, PhD, RN

Email: michele.clark@unlv.edu

Title: COPD Sleep Quality After Using Supplemental O2 and Symptom Management

Aim: To (a) identify variations in O2 saturation and in factors affecting sleep patterns among COPD participants during sleep in their home environment; and (b) determine the results of in-home supplemental oxygen and a symptom management program on differences in quality of sleep, EEG Stage 4 REM sleep, time to fall asleep, dyspnea, fatigue, daytime sleepiness, nighttime, and daytime activity levels.

PI: Bruce Leonard, PhD, RN, APRN, FNP-BC, NP-C

Email: bruce.leonard@unlv.edu

Title: Subset Lymphocytopenia Response and Recovery to Exercise in CMV+ Individuals

Aim: To (a) quantify the response of naïve, central memory, effector memory cells, and terminally differentiated helper T lymphocytes and cytotoxic T cells; and naïve, memory, and plasma B-lymphocytes before, during, and following treadmill exercise in CMV+ and CMV- individuals; and (b) determine the relative contribution of cell death and cellular migration to potential immune suppression following exercise in CMV+ individuals.

PI: James Navalta, PhD

Email: james.navalta@unlv.edu

Title: Home Based Chronic Low Back Pain Self Management Program for Underserved

Aim: To (a) identify SM program characteristics targeted to the underserved CLBP population from the perspectives of stakeholders (patients, significant others, healthcare professionals, payers/insurers); and (b) implement LIFE REGAINED after developing a novel, innovative, and comprehensive, home-based CLBP SM program using interactive, multimedia DVD, and then evaluate the effectiveness of the intervention.

PI: Jennifer Kawi, PhD, MSN, APRN, FNP-BC, CNE

Email: jennifer.kawi@unlv.edu

Title: Postural Balance & Behavior Avoidance in Lap Sleeve Gastrectomy Patients

Aim: To (a) establish the extent to which weight loss is related to postural balance changes in obese individuals post-LSG, (b) determine the extent to which vitamin B12 and or vitamin D deficiency and the presences of ketones mediate the effect of weight loss on postural balance changes in obese individuals post- LSG, and (c) assess the relationship of postural balance impairment and physical activity avoidance for individuals post-LSG.

PI: Patricia Alpert, DrPH, MSN, APRN, FNP-BC, PNP-BC, CNE, FAANP

Email: patricia.alpert@unlv.edu

Title: Impact of Peer Walking on Executive Function in Minorities with Type 2 Diabetes

Aim: To (a) determine if a structured peer walking program improves executive function (EF) and self-care in underserved ethnic minorities with type 2 diabetes (T2DM); (b) examine whether the severity of T2DM on self-care and clinical outcomes is mediated by EF in underserved ethnic minorities with T2DM; and (c) explore the perceptions and attitudes of underserved ethnic minorities with T2DM about exercise, specially, the structured peer walking program, and to identify factors that motivate people to start and maintain a walking program.

PI: Tricia Gatlin, PhD, RN

Email: tricia.gatlin@unlv.edu

Title: Equipment for Warfighter Casualty Care and Management Research

Aim: The primary goal is to purchase a combined cell sorter/flow cytometer to enhance UNLV's research capabilities to achieve the goal of increasing casualty survival and UNLV's Science, Technology, Engineering, and Mathematics (STEM) program. STEM students will have the opportunity to practice scientific methods within the context of a real world issue, warfighter protection, and advance their scientific career preparation. Findings will expand our understanding of cells and may lead to the development of immunologically based therapies that can promote recovery after combat casualty.

PI: Barbara St. Pierre Schneider, DNSc, RN

Email: barbara.stpierreschneider@unlv.edu



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OFFICE OF RESEARCH SUPPORT

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