

KLCR Research Area Emphases

Awarded Grants -- Cycles 1-10

Research Area Emphases/Funded Scientists List/KLCR

Principal Investigator	Funded Project Title
Behavioral/Psychosocial Studies	
Michael Andrykowski, PhD	Disparities in Mental Health Outcomes Between Rural and Nonrural Lung Cancer Survivors
Kenneth Kirsh, PhD	Testing a strategy for early intervention and prevention of depression in lung cancer patients: Impact on multiple symptoms and quality of life
Catherine Martin, MD	Breaking the cycle: Smoking intervention with youth in families dealing with lung cancer
Mitzi Schumacher, PhD	The comprehensive support protocol: Providing psychological assistance to lung cancer patients and their families
Sandra Sephton, PhD	Psychosocial effects in lung cancer outcomes
Jamie Studts, PhD	Behavioral, cognitive, and affective responses to lung cancer screening
Jamie Studts, PhD	Attitudes and beliefs regarding nicotine vaccines as treatment and prophylaxis for nicotine dependence
Thomas Tucker, PhD, MPH	Youth Smoking Prevention and Cessation Pilot
Epidemiology	
Timothy Aldrich, PhD	Lung cancer in Kentucky--environmental and occupational factors
Anita Fernander, PhD	Examination of the Breathe Free for Women stop smoking program among African-American women: A pilot study
Ellen Hahn, PhD, RN	Lung cancer prevention: Reducing home exposure to Radon and second-hand smoke
Claudia Hopenhayn, PhD	Lung cancer survival in Kentucky: A multifactorial approach
Claudia Hopenhayn, PhD	Expanded Multifactorial Assessment of Early Stage Lung Cancer Survival in Kentucky
Carolyn Klinge, PhD	Mechanisms for gender differences in lung adenocarcinoma
Early Detection	
Susanne Arnold, MD	Early detection of lung cancer in a high-risk population defined by pulmonary function testing, biomarker identification, and computerized tomography scanning

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Andre Baron, PhD	Evaluating low dose computed tomography and serum biomarkers for lung cancer screening
Eric Bensadoun, MD	The non-invasive evaluation of solitary pulmonary nodules using contrast-enhanced CT, PET scan, and Depreotide scan
Biomarkers	
Andre Baron, PhD	Evaluating low dose computed tomography and serum biomarkers for lung cancer screening
Cicek Gercel-Taylor & Goetz Kloecker	Exosomal microRNA Profiles for Differential Diagnosis for Differential Diagnosis and Disease Monitoring
Ramesh Gupta, PhD	Etiology and prevention of lung cancer: Biomarker development in clinical studies
Steven Myers, PhD	Biomarkers of maternal and fetal tobacco smoke exposure
Douglas Taylor, PhD	Exosomal microRNA in the detection and diagnosis of lung cancer
Drug Development	
Bradley Anderson, PhD	Anti-topoisomerase I aerosols for lung cancer therapy
Younsoo Bae, PhD	Mixed polymer nanoassemblies for tunable combination drug delivery to lung cancer tumors
Younsoo Bae, PhD (UK) & Jason Chesney, MD, PhD (UL)	Controlled Inhibition of the Glycolytic Pathway for Lung Cancer-Targeted Therapy
Paula Bates, PhD	An innovative approach for the discovery of novel therapeutics and molecular targets in lung cancer
Paula Bates, PhD	Evaluation of XB05 as a novel agent for the treatment of lung cancer
Peter Crooks, PhD	Parthenolides as potential treatments for lung cancer
Jurgen Rohr, PhD	Novel gilvocarcin-type natural products against lung cancer by combinatorial biosynthesis
Jurgen Rohr, PhD	Understanding and manipulation of the biosynthetic pathway of Gilvocarcin V to generate novel, more efficient drugs against lung cancer
Stephen Testa, PhD	Repairing RNA transcripts linked to lung cancer
John Trent, PhD	Design of nucleolin inhibitors
John Trent, PhD	Development of antimetastatic CXCR4 inhibitors
Vaclav Vetvicka, PhD	Inhibition of procathepsin D secretion in lung cancer treatment
Brian Wattenberg, PhD	Identification of novel inhibitors of the oncogenic enzyme sphingosine kinase as potential anti-cancer therapeutics

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Targets	
Susanne Arnold, MD	Multidrug resistance in lung cancer
Paula Bates, PhD	Nucleon: A novel marker and therapeutic target for lung cancer
Rolf Craven, PhD	A novel approach for targeting the epidermal growth factor receptor (EGFR) in lung cancer
Louis Hersh, PhD	A gene therapeutic approach for the treatment of lung cancer
David M. Kaetzel, PhD	PDGF as a gene therapy taraget in lung cancer
Jeffrey Moscow, MD	Drug transport genes as novel targets in lung cancer
Daniel Noonan, PhD	Targeting retinoic acid treatment of lung cancers
Jill Suttles, PhD	Targeting TRAFs as an anti-tumor strategy
John Trent, PhD	Development of antimetastatic CXCR4 inhibitors
Wolfgang Zacharias, PhD	The lysosomal pathway of apoptosis as a target for lung cancer therapy
Oncogenes/Oncoproteins/Tumor Suppressor Genes/Gene Profiling	
Douglas Andres, PhD	Novel RAS-related GT phase in lung cancer
E Penni Black, PhD	Dusp4 activity in non-small cell lung cancers: An opportunity for intervention?
Geoffrey J. Clark, PhD	The role of Nore1a inactivation in the development of lung cancer
Steven Ellis, PhD	LAMR1, a potential lung cancer tumor suppressor gene in chromosomal region 3p21.3
H. Leighton Grimes, PhD	Involvement of the GF11 oncoprotein in human lung cancer
H. Leighton Grimes, PhD	The growth factor independence-1 oncoprotein as a modifier of small cell lung carcinogenesis
Sham Kakar, PhD	Molecular mechanisms of PTTG in llung cancer
Yong Li, PhD	MicroRNAs target p53 in lung cancer
Martha Peterson, PhD	Modifying lung cancer apoptosis through alternativce RNA splicing
Vivek Rangnekar, PhD	Suppression of Lung Cancer Progression by Extracellular Par-4/SAC Protein
Vivek Rangnekar, PhD (UK), C. Gary Gairola, PhD (UK Co-PI) & Ramesh C. Gupta, PhD (UL)	Activation of the Par-4 Extrinsic Pathway for Suppression of Lung Cancer
Peter Spielmann, PhD	Pre-clinical studies of novel Ras function inhibitors to treat lung cancer
Peter Spielmann, PhD	Development of anti-prenylated protein therapies for lung cancer

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Zhigang Wang, PhD	A transgenic mouse model for understanding Rev1 and lung cancer
James Wittliff, PhD	Gene expression profiling of human lung cancer cells isolated by laser capture microdissection
Immunology	
Haribabu Boddulurri, PhD	Role of chemoattractant mediated inflammation in development and progression of lung cancer
Haribabu Boddulurri, PhD	Decoy receptors as probes for the function of inflammatory chemokines in lung cancer development
J. Scott Bryson, PhD	Allogenic cell therapy of lung cancer
J. Scott Bryson, PhD	Allogeneic Immunotherapy of Lung Cancer
Donald Cohen, PhD	Deviation of anti-tumor immunity via IL-10 production by non-small cell carcinomas
Donald Cohen, PhD	Hypoxia-driven, macrophage-mediated immunotherapy of lung cancer
John Eaton, PhD	Pro-inflammatory and clastogenic actions of smoke-borne free fatty acids
Edward Hirschowitz, MD & John Yannelli, PhD	Therapeutic investigation of dendritic cell vaccines in NSCLC
Edward Hirschowitz, MD (UK), John Yannelli, PhD (UK) & Goetz Kloecker, MD (UL), Jun Yan, MD (UL)	Combined Orally Administered Yeast derived β -Glucan with 1650 Tumor Vaccine in the Treatment of NSCLC
Edward Hirschowitz, MD	Detection of tumor markers in peripheral blood of non-small cell lung cancer patients
Edward Hirschowitz, MD	Identification of novel lung tumor proteins using tumor-infiltrating B cells
Woojin Lee, PhD	Immunoproteasome in lung cancer
Heinz Kohler, PhD	Second generation antibody against HER-2/neu: Preclinical studies on lung cancer cells
Joseph P. McGillis, PhD	Genetic Regulatory Network Control of Tumoricidal and Tumor Promoting Macrophage Phenotypes
Robert Mitchell, PhD	Prevention of lung cancer with embryonic stem cell vaccine
Thomas Mitchell, PhD	T cell function in nicotine-treated mice
Gordon Ross, PhD	Oral adjuvant immunotherapy of lung carcinoma
Carolina Salvador, MD & Jun Yan, PhD	Lung cancer bio-immunotherapy using particle B-glucan in combination with anti-VEGF monoclonal Bevacizumab
Haval Shirwan, PhD	A novel approach to tumor vaccination

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Haval Shirwan, PhD	Modulation of tumor stroma for immunotherapy
Robert Stout, PhD	Functional polarization of tumor-infiltrating macrophages
Jun Yan, MD, PhD	Development of a novel immunotherapy for lung carcinoma
John Yannelli, PhD	Use of dendritic cells (DCs) to present non-small cell lung cancer (NSCLC) associated antigens
John Yannelli, PhD	Characterization of two newly described lymphocyte defined antigens in NSCLC
John Yannelli, PhD	Combined immunotherapy and nonmyeloablative chemotherapy in the treatment of non small cell lung cancer: A pilot study
John Yannelli, PhD	Generation of cytotoxic T lymphocytes (CTL) against the cisplatin resistant phenotype displayed by non small cell lung cancer
Toxicology/Mutagenesis/Carcinogenesis	
Susanne Arnold, MD	Multi-drug resistance in lung cancer: The role of P-glycoprotein in mediating resistance in non-small cell lung cancers
Gary Gairola, PhD	Genetic polymorphisms and lung cancer: Animal models of tobacco carcinogenesis
Howard Glauert, PhD & Brent Spear, PhD	Antioxidants, NF-betaB and cigarette smoke
Ramesh Gupta, PhD	Effect of estrogen on polycyclic aromatic hydrocarbon (PAH)-mediated lung cancer
David Hein, PhD	Environmental genomics and molecular epidemiology of lung cancer: Functional characterization of N-acetyltransferase-1 and -2 genetic polymorphisms
Carolyn Klinge, PhD	Interaction of carcinogens with estrogen receptor beta signaling in lung cancer
Andrew Lane, PhD	Biophysical characterization of the CXCR4 receptor and interactions with ligands
Lu-Yuan Lee, PhD	Cellular mechanisms underlying pulmonary stresses in small cell lung cancer
Guo-Min Li, PhD	Alterations of DNA mismatch repair genes in lung cancer
W. Glenn McGregor, MD	Mechanisms of BPDE-induced mutagenesis and mutation avoidance
Isabel Mellon, PhD	Inhibition of nucleotide excision repair by cigarette smoke

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David Orren, PhD	Responses of replication, recombination, and checkpoint signaling pathways to unrepaired polycyclic aromatic hydrocarbon adducts in DNA
Andrew Pierce, PhD	The Gene Cluster Instability Assay as Clinical Lung Cancer Biomarker
Zhigang Wang, PhD	Targeting REV1 for the prevention of lung cancer
Zhigang Wang, PhD (UK) & W. Glenn McGregor, MD (UL)	Rev1 and Carcinogen-Induced Lung Cancer
Motility/Invasion/Metastasis/Angiogenesis	
Haribabu Boddulurri, PhD	Role of G-protein coupled receptor mediated motility in lung cancer
Haribabu Boddulurri, PhD	Role of chemoattractant mediated inflammation in development and progression of lung cancer
Xiao-Feng Li	Visualization of Hypoxia and Angiogenesis in Lung Cancer Metastasis
Robert Mitchell, PhD	Promotion of non-small cell lung cancer signaling and development by MIF
Mariusz Ratazczak, PhD	The role of microparticles in lung cancer progression, angiogenesis and metastasis
Thomas Roszman, PhD	Calpain dependant lung cancer cell migration and invasion
Thomas Roszman, PhD	Inhibition of lung cancer cell migration/invasion by cell penetrating peptides
Craig W. Vander Kooi, PhD	Physical mechanisms of VEGF receptor activation and novel modes of inhibition
Wolfgang Zacharias, PhD	Tumor microenvironment as determinant of protease-mediated malignancy in lung cancer
Stephen Zimmer, PhD (deceased)	E1F-4E and metastasis in lung cancer
Signaling Pathways	
Mansoor Ahmed, MD	TGF-beta signaling and radiation response in lung carcinoma
Rolf Craven, PhD	PTEN and Akt regulation by a novel pathway in lung cancer
Howard Donninger	The Role of the Novel Ras Effector, RASSF2, in Ras mediated Lung Cancer
Venkatakrisna Jala	Role of GPR30, A Novel Estrogen Receptor G-protein Coupled Receptor in the Development of Lung Cancer
Kuong-Bo Kim, PhD	Molecular mechanism of an apoptosis-inducing estrogen metabolit 2-methoxyestradiol
Sham Kakar, PhD	Molecular mechanisms of PTTG in lung cancer
Charles Lutz, MD, PhD	Differential expression of NKG2D ligands in airway SCC

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Daniel Tai, PhD	Prostaglandin dehydrogenase and lung cancer
Craig Vander Kooi, PhD	Physical mechanisms of VEGF receptor activation and novel modes of inhibition
Brian Wattenberg, PhD	Identification and Testing of Small Molecule Inhibitors of Sphingosine Kinase-1 as Therapeutic Agents in Lung Cancer
Treatment Protection	
Stephen Brown, PhD	Radioprotective agents in NSCLC therapy
Metabolism	
Jason Chesney, MD, PhD	Glycolysis and lung cancer
Jason Chesney, MD, PhD	Targeting choline kinase in lung cancer
Rolf Joseph Craven, PhD (UK) & Teresa W. M. Fan, PhD (UL)	Stable isotope-derived metabolomics to elucidate the mechanism of a tumor-associated cytochrome in lung cancer growth and metabolism
Woojin Lee, PhD	Immunoproteasome in lung cancer
Sucheta Telang, MD	Targeting 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase-4 (PFKFB4) in lung cancer
Clinical Trials	
Susanne Arnold, MD	Low-dose fractionated radiation plus docetaxel and cisplatin as induction therapy for stage II and IIA non-small cell lung cancer
Brian F. Clem	Novel Small Molecule Inhibitors of Choline Kinase as a Therapeutic Strategy against Lung Cancer
Chemotherapy/Radiation Resistance/ Sensitization	
Barbara J. Clark	STARD5 Expression and Chemoresistance of Lung Adenocarcinoma Cells
Marcos Oliveira, PhD	A novel chemo/radio sensitizing target: PARP-1 activation.domain
Symptom Management/Palliative Care	
Mark P. Peifer, MD	Aggressive symptom management in lung cancer patients using a telehealth device
Other	
Michael Tseng, PhD & Sam Zhou, PhD	Cell structural and cycle alterations related to cancer killing virus