

TOBACCO SETTLEMENT REVENUE OVERSIGHT COMMITTEE

Co-Chaired by:

Senator Cisco McSorley

Representative John L. Zimmerman



Richard S. Larson, MD, PhD
Executive Vice Chancellor
Vice Chancellor for Research





UNM Health Sciences Center
plays a critical role in delivering
healthcare services, training of
health professionals, and
contributing
to New Mexico's economy.

Employs over **10,000** individuals



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Executive Vice Chancellor

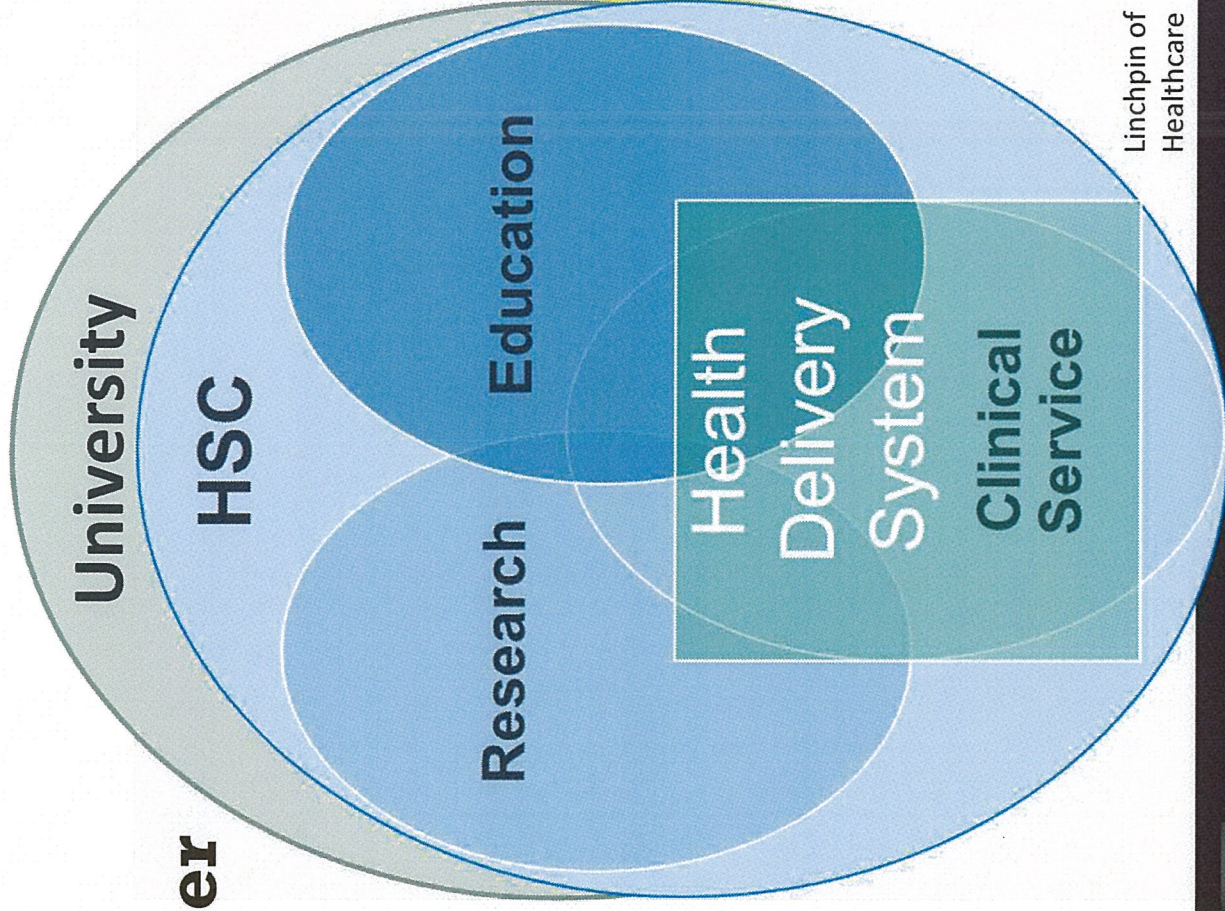
UNM HSC: An Academic Health Center

Neither purely **academic institution**
or **health care providers**

Compete in **health** and **marketplace**

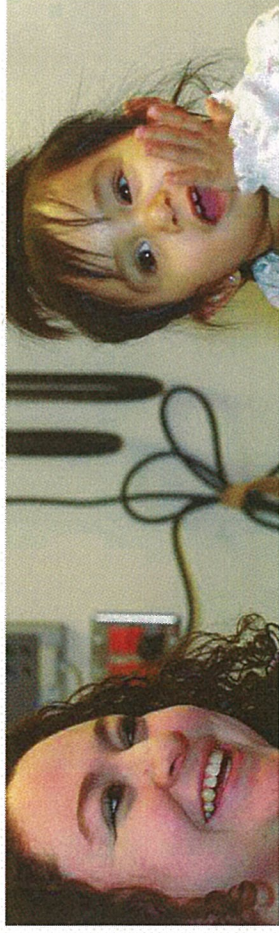
Engage in **biomedical research**

Extensive **educational activities**



Linchpin of
Healthcare

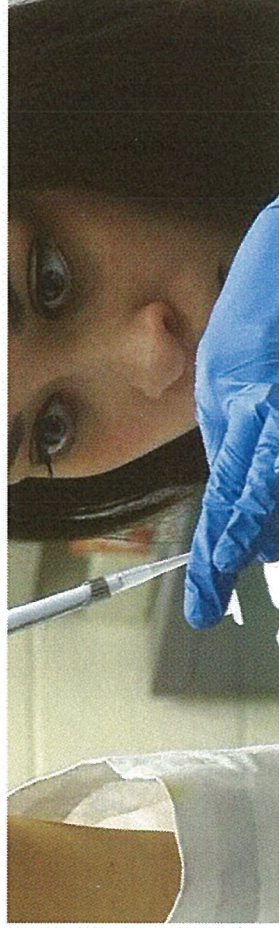
UNM HSC: Critical Needs Programs for New Mexico



Patient Care
Delivery of **comprehensive**
and **unique** patient care



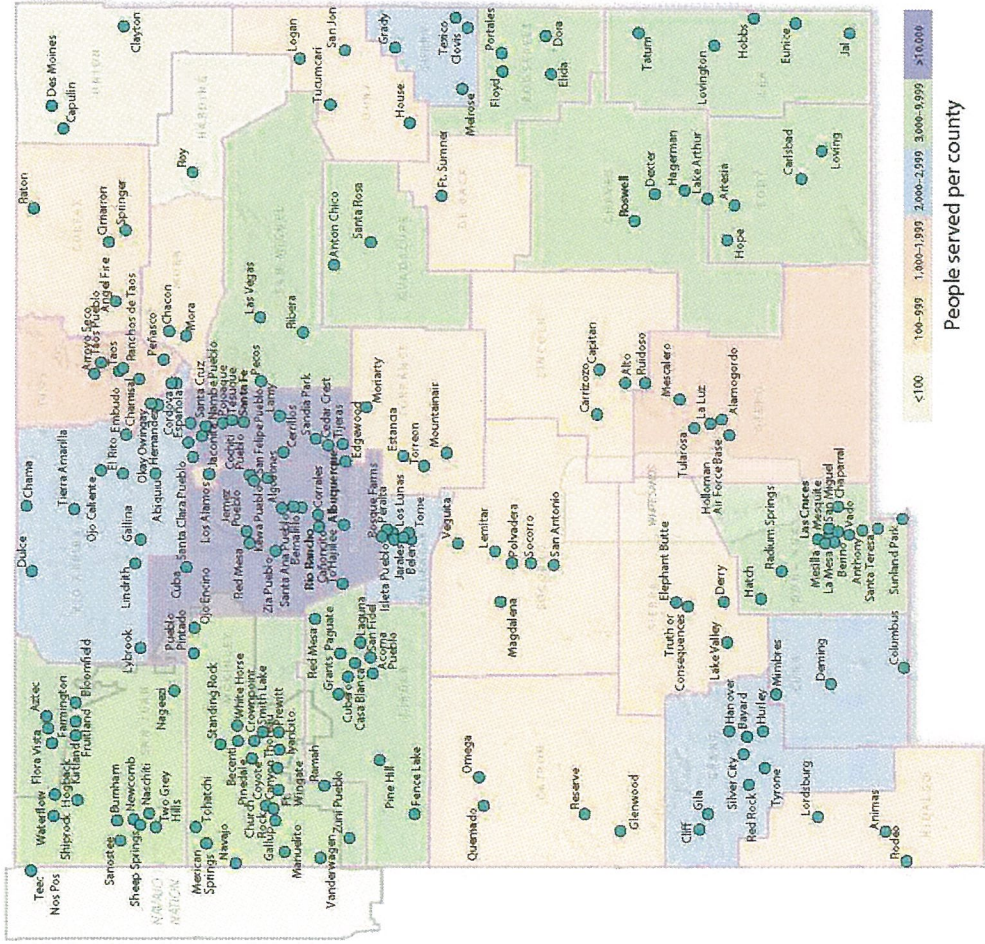
Education
Growing the **next generation** of
Health Care Professionals Workforce



Research
Creating new **knowledge** to increase the
quality of life for New Mexicans



Activities in New Mexico Counties

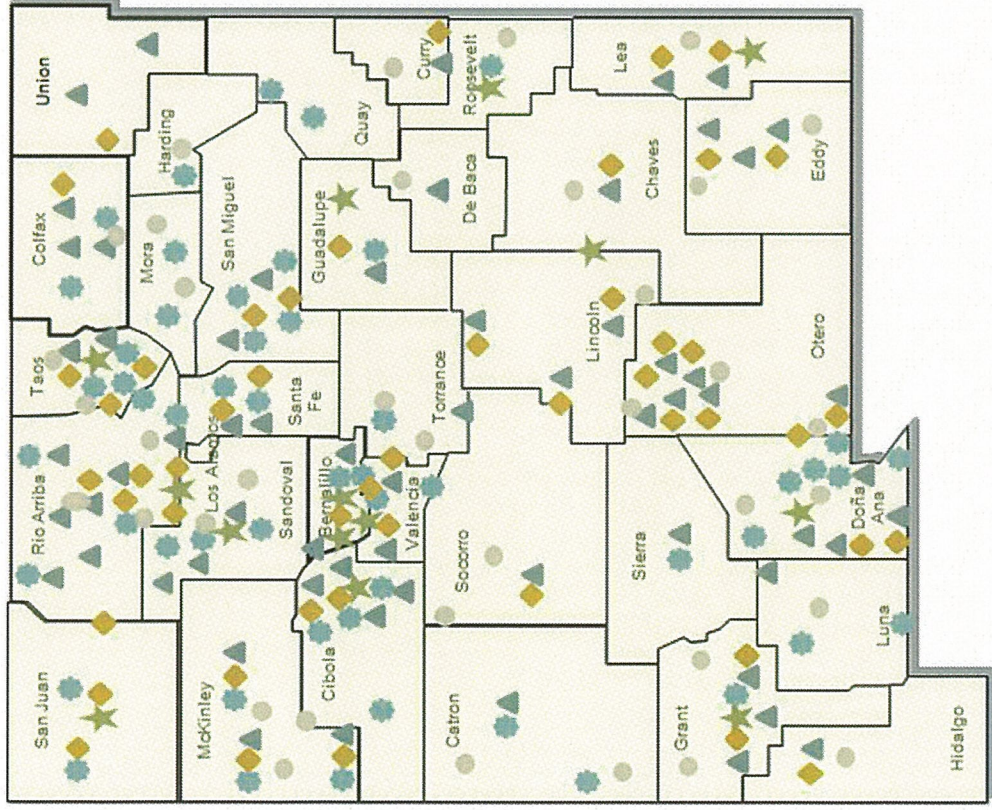


579 Activities in 246 Communities

Activities include:

- Education
- Patient care
- Community research
- Telehealth sites

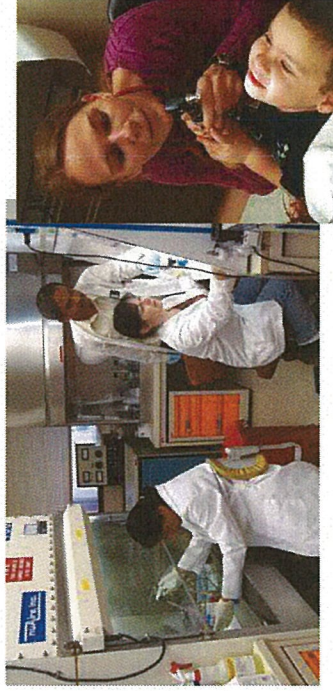
Research in New Mexico Counties



- Provides statewide support services for research
 - ★ Health Extension Rural Offices (HEROs)
 - ◆ Investigator-led community-based programs
- Provides access to other research programs
 - ▲ Project ECHO
 - ★ Practice-based research network
- Establishing recruitment network
 - CHS/CHW Network

Tobacco Settlement Statute

- Supports **clinical care, education, and research** into tobacco related illnesses
- Support of **biomedical research** with tobacco settlement funds
- Funded **other needed** health-related programs



Cigarette Tax vs. Tobacco Settlement

- Tobacco Settlement supports **tobacco-related research and clinical care** at the entire UNM HSC
- Cigarette Tax (0.83%) supports **clinical care, education, and research** at the UNM Cancer Center



Tobacco Related Illnesses

Cancer

- Lung Cancer
- Esophagus Cancer
- Laryngeal Cancer
- Kidney Cancer
- Cervical Cancer
- Colorectal Cancer
- Leukemia/Lymphoma

Infectious Disease and Immunity

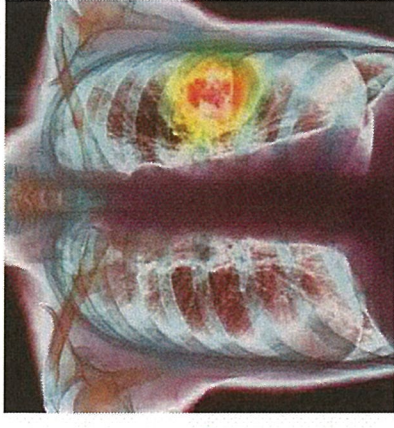
- Osteoporosis
- Delayed wound bleeding
- Palmoplantar pustulosis
- Psoriasis
- Increased incidence of back injury and broken bones

Brain & Behavioral Illnesses

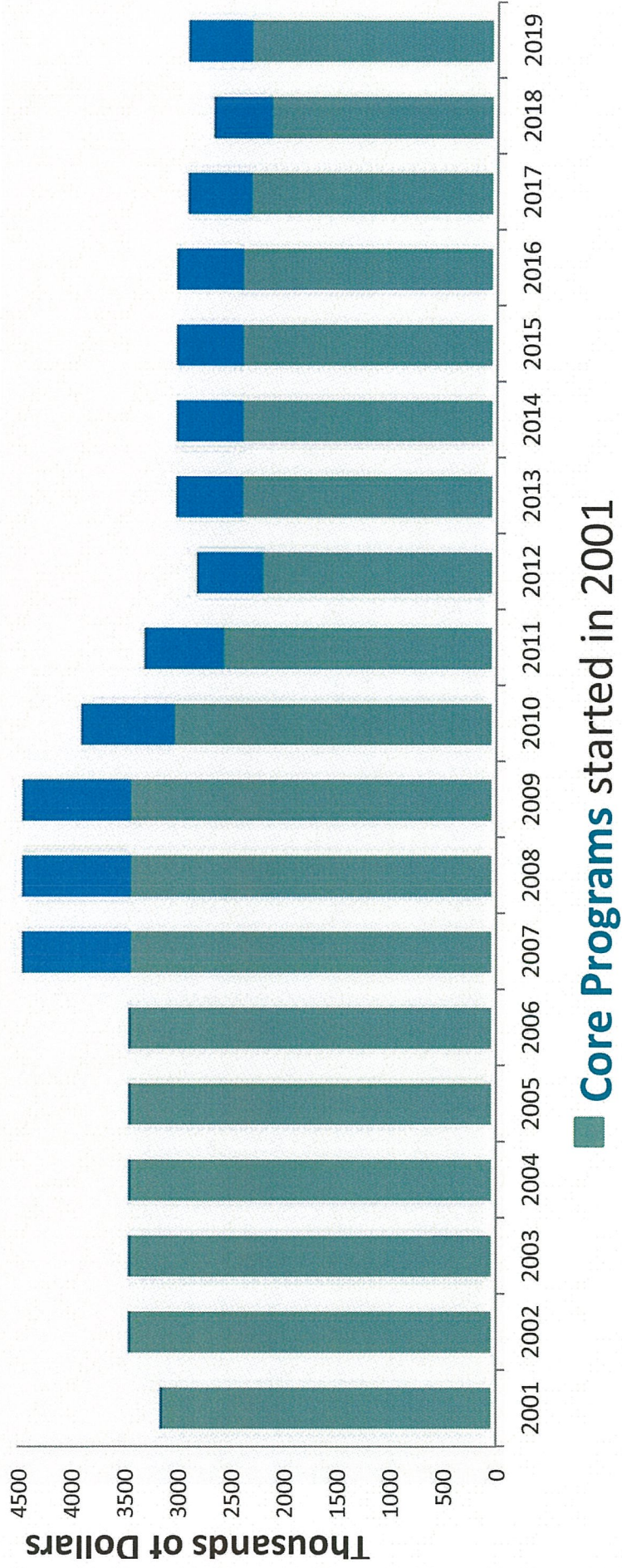
- Addiction
- Fertility in Women
- Impotence in Men
- SIDS
- Toxic Exposures

Diabetes and Vascular Diseases

- Coronary Heart Disease
- High Cholesterol
- Stroke
- Diabetes
- Emphysema
- Asthma
- Atherosclerosis



Changes Over the Last Decade



Instruction & General funding in 2007

Programs Supported by Tobacco Settlement Funds

Core Projects

- NM Poison & Drug Information Center (FY20 Request: \$590,200)
- Pediatric Oncology Program (FY20 Request: \$261,400)
- UNM HSC Biomedical Research (Genomics, Biocomputing & Environmental Health Research) (FY20 Request: \$979,800)



Instruction & General (I&G) Funds

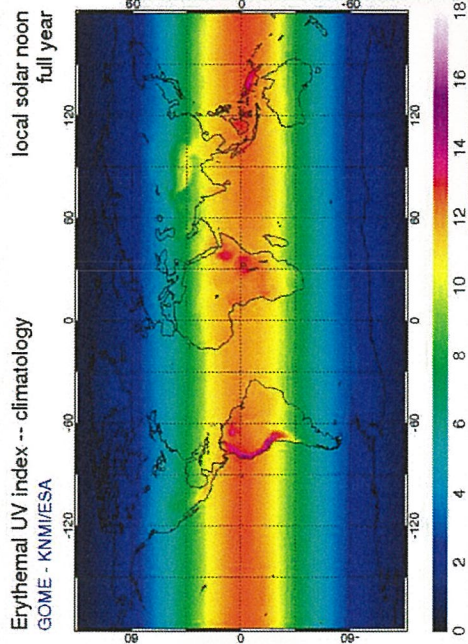
- Specialty Education Trauma (FY20 Request: \$261,400)
- Specialty Education Pediatrics (FY20 Request: \$261,400)
- Instruction and General Line Item (added in 2007) (FY20 Request: \$607,900)

Ultraviolet Light and Immunosuppression in Melanoma

Vitamin D's role regulating the immune system may be a key to understanding melanoma.



Marianne Berwick, PhD



Dr. Berwick and her collaborators will examine UV exposure, vitamin D status, and immune response markers in melanoma patients to understand how the immune system might be harnessed to fight the disease.

Pediatric Oncology Program



Benefit

- The center of excellence for diagnosis & care of children with cancer
- The only provider of tertiary care for children with cancer in New Mexico
- Consults on young adults with pediatric cancers
- Over 450 active patients with 4,900 visits



Use of Funds

- Provides support to patients and their families via counseling
- Faculty positions are supported as well

History of I&G Funding from Tobacco Settlement Funds

- Began in 2007
- Legislature funded HSC I&G General Fund requests from TSF
- Supports trauma care, primary care, and faculty retention



With faculty compensation rates below the national average, the School of Medicine (SOM) is having difficulty retaining faculty physicians due to salary compaction. The SOM must be able to hire and retain quality faculty physicians as they are the key to educating our medical students, while simultaneously providing care to New Mexicans.

Funds Committed to I&G Supplement

Benefit

- Support additional faculty positions in pediatrics and trauma medicine
- Ensure that faculty members have sufficient time to continue teaching despite and ever-increasing clinical patient load



Programs

- Specialty Education in Pediatrics
- Specialty Education in Trauma HSC
- I&G Support for Education and Retention

UNM HSC Biomedical Research Genomics & Environmental Health



Benefit

- Pilot funds
- “Core” support
- Accelerating the translation of basic research into clinical practice

FY19 Amount: \$937,400

FY20 Request: \$979,800

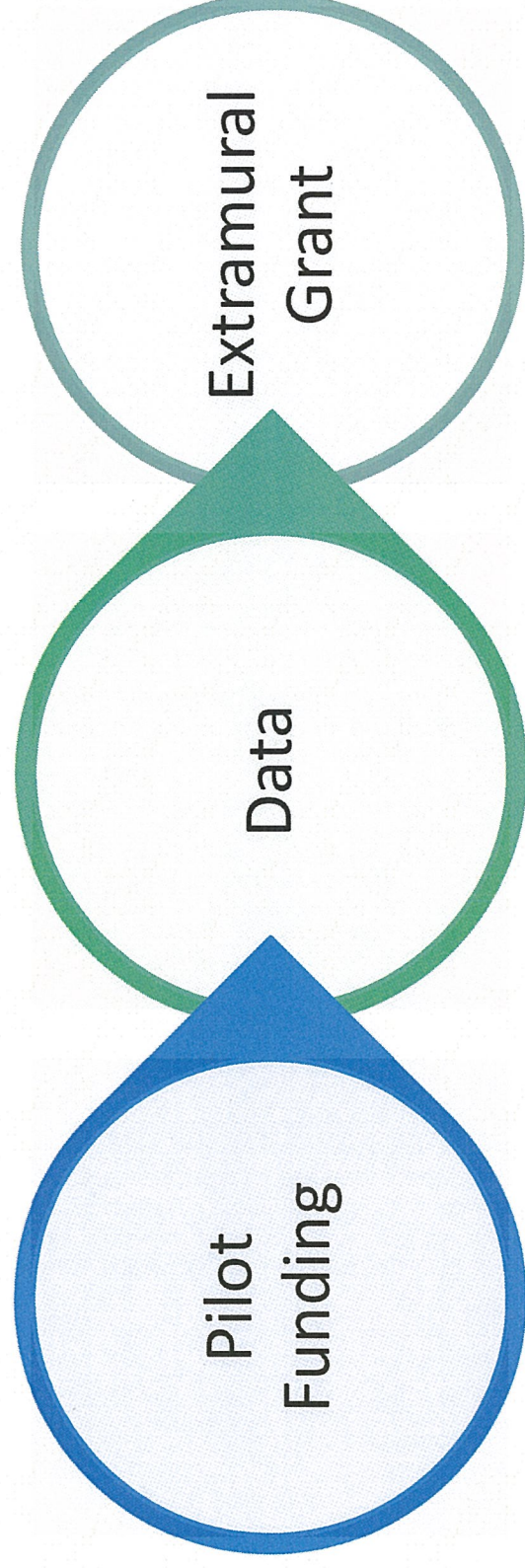
(Now known as UNM Comprehensive Program for Clinical and Basic Research, and Prevention of Tobacco-Related Illnesses in New Mexico)



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Pilot Funding

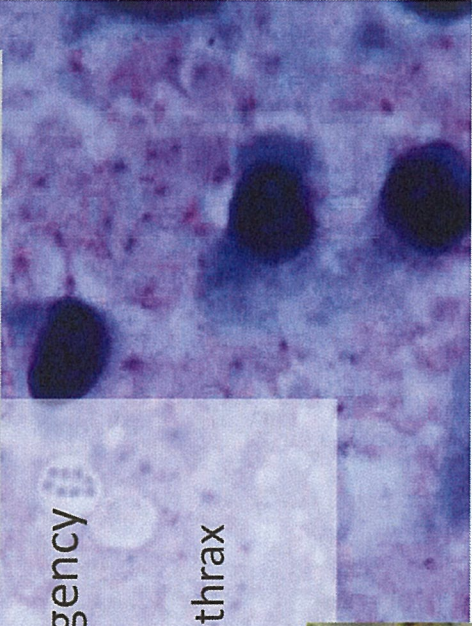
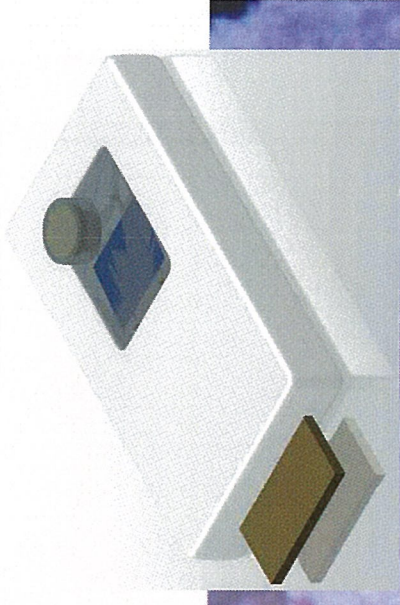
- Pilot funding is the primary mechanism for obtaining federal support



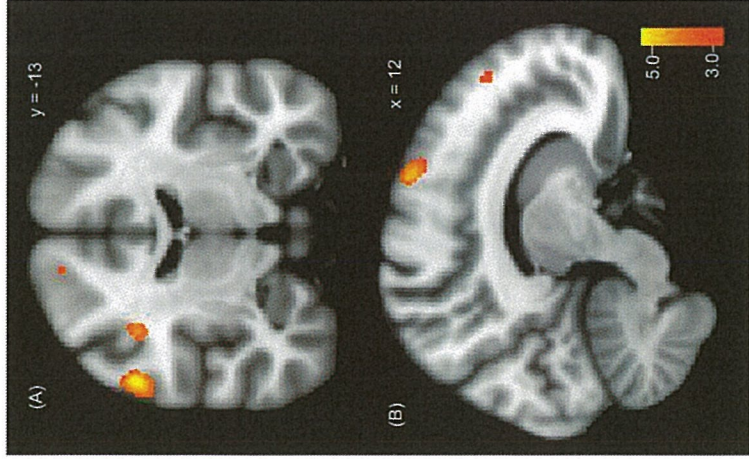
- Pilot funding returns \$8 – \$20 per \$1 invested.

Example of Pilot Funding

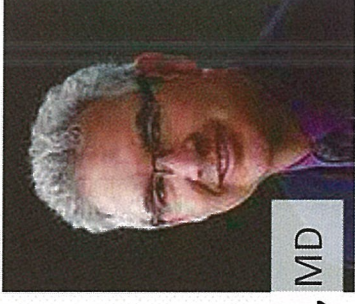
- Idea
 - Can we develop a handheld device to rapidly diagnose disease?
- Required Investment
 - \$50K Pilot funds (2003)
 - Core facilities supported by Tobacco Settlement
- Result
 - Initial data obtained with Sandia National Laboratories
 - Grant application (\$1.3M for 8yr; supports 10 jobs/yr)
- Chief Scientist Award from the Defense Intelligence Agency
- Public-Private Partnership
 - Adapted for hepatitis B and C, HIV, sin nombre virus, anthrax
 - Potential to save tens of thousands of lives



Neurocognition in PTSD



Juan Bustillo, MD



A greater understanding of PTSD is urgently needed.

Dr. Bustillo and his team will use brain imaging to understand how differences in regulating emotions and brain function are related to posttraumatic stress disorder and substance use problems.

Paws and Stripes image by US Air Force, via Wikimedia Commons



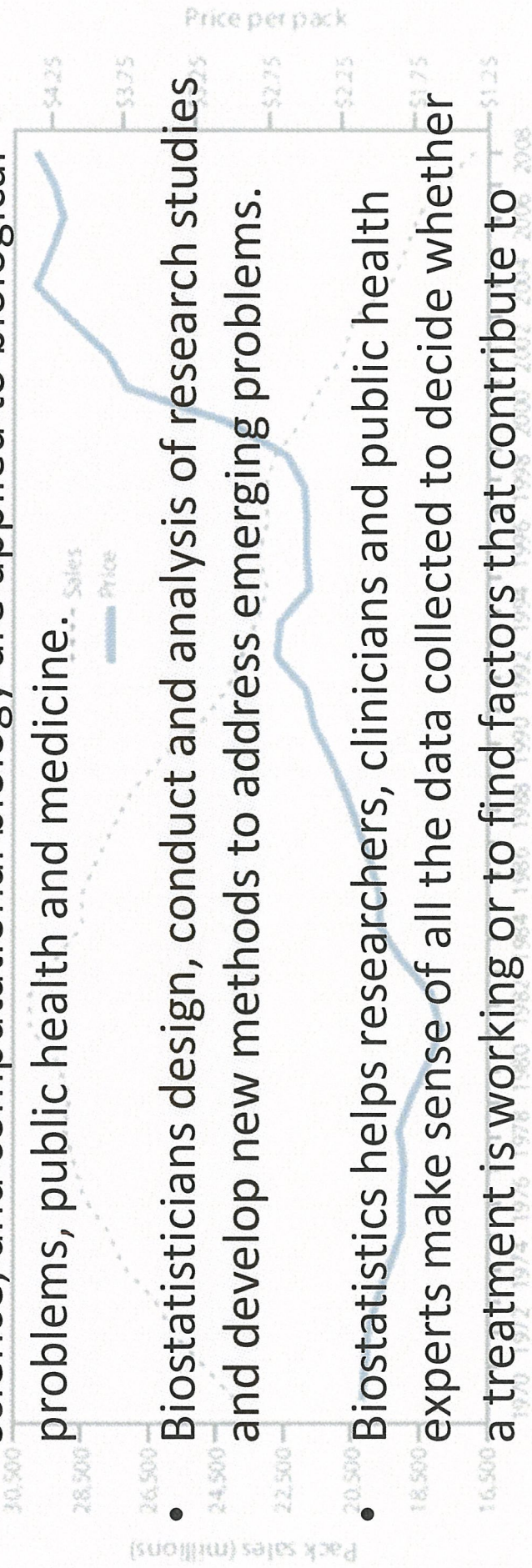
Core Facilities

- Shared facilities that provide service to entire HSC community (genomics and biostatistics)
- Provide access to equipment that is otherwise unavailable
- **Research that would otherwise be impossible**



Core Facilities: Biostatistics

- Biostatistics is an exciting field where mathematics, computer science, and computational biology are applied to biological problems, public health and medicine.



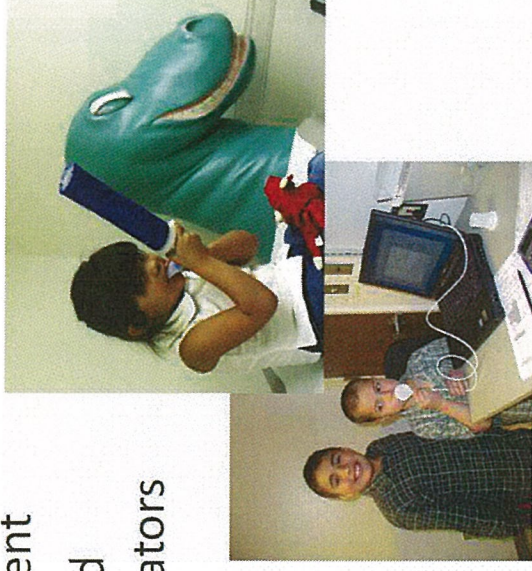
- Biostatisticians design, conduct and analysis of research studies and develop new methods to address emerging problems.
- Biostatistics helps researchers, clinicians and public health experts make sense of all the data collected to decide whether a treatment is working or to find factors that contribute to diseases.

Clinical and Intervention Trials

- Brings latest treatments and technologies to New Mexico
- **If trial not available, treatment not available in New Mexico**
- Each trial provides new treatment at no cost to patient
- Since 2001 Tobacco settlement funding has provided infrastructure support to 300 trials and 131 investigators

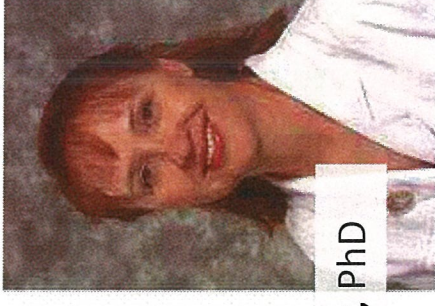
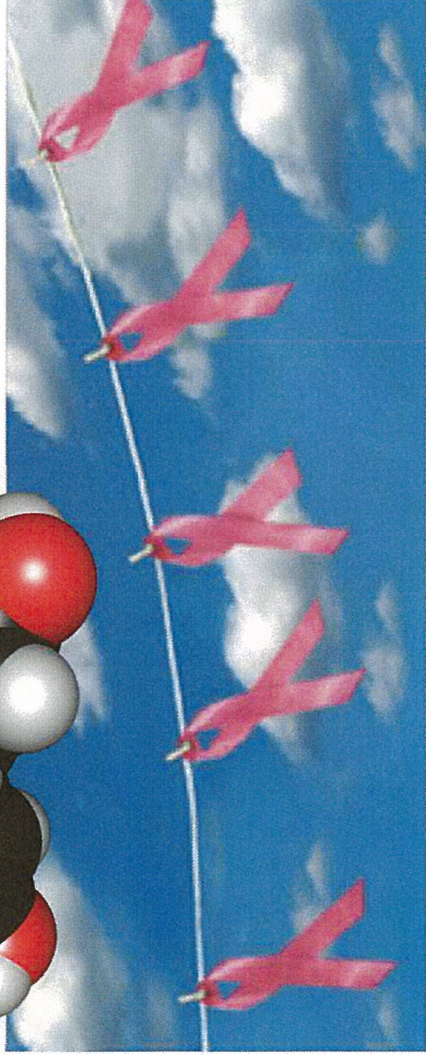
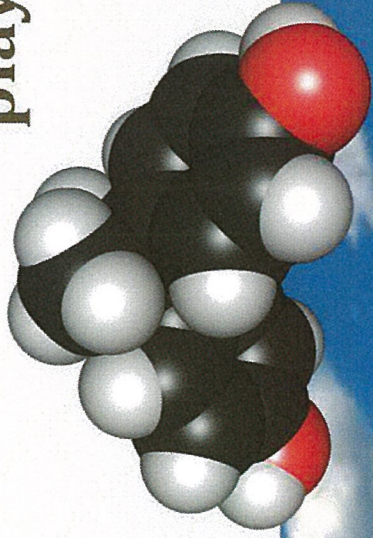
Examples in Clinical Trials Center

- 50 studies involving diabetes
- 21 pediatric and adult asthma studies
- 15 studies involving cystic fibrosis
- 10 studies involving MS
- 11 studies involving pediatric and adult kidney disease
- 12 studies involving pulmonary hypertension
- And studies involving heart disease, eye disease due to diabetes, Autoimmune diseases, orthopedic surgeries, and children with cerebral palsy.



BPA and Breast Cancer Risk

An estrogen receptor, GPER, may play a role in breast cancer risk following BPA exposure.

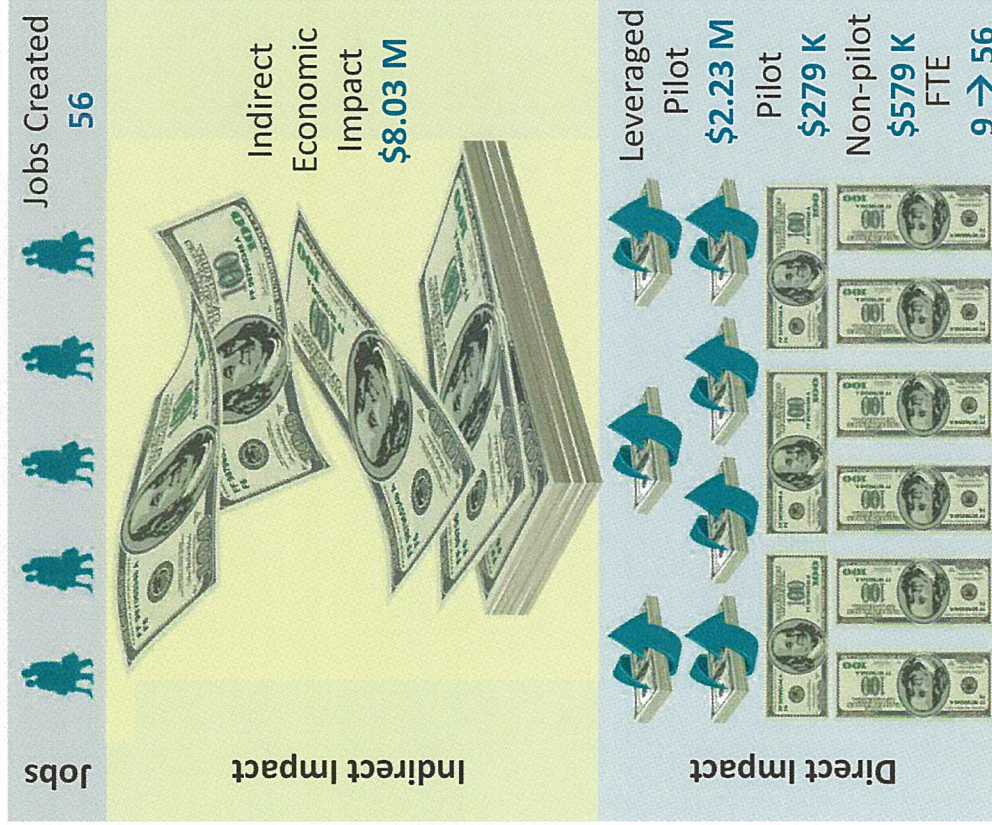


Helen Hathaway, PhD

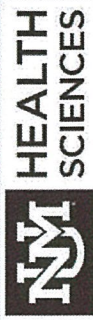
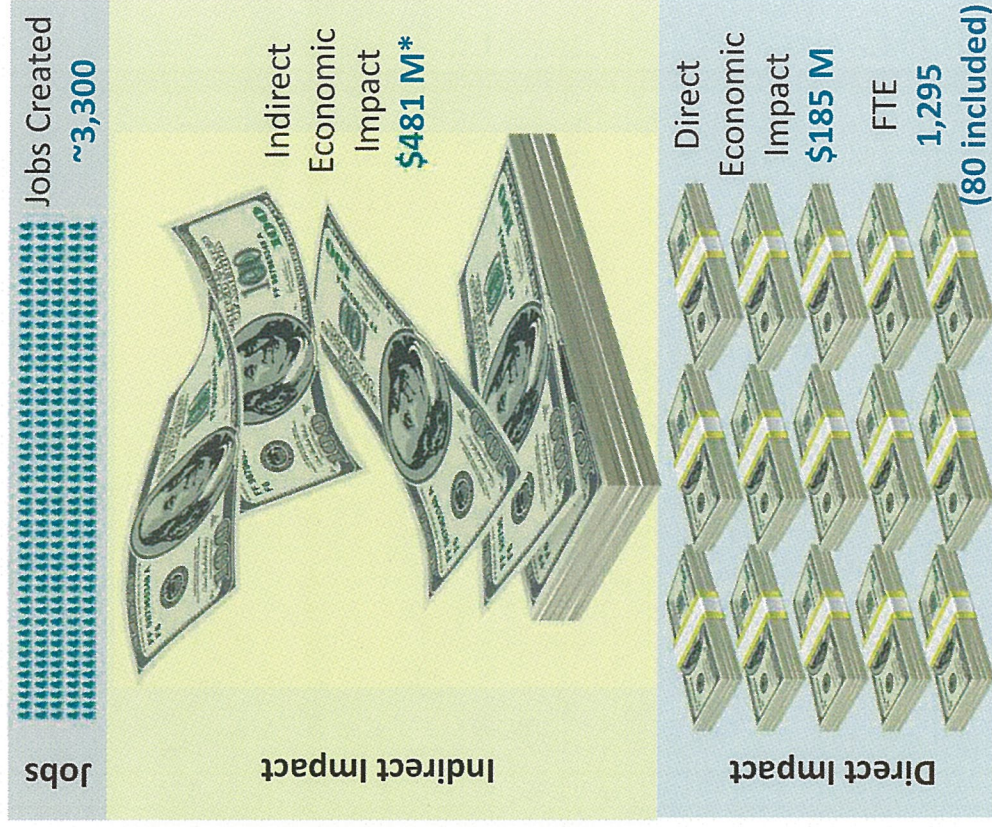
In animals, exposure to bisphenol A (BPA) around the time of birth increases breast cancer risk. To find out how, Dr. Hathaway and her team are investigating the cellular action of GPER, an estrogen receptor, in breast cancers driven by chemicals like BPA.

Estimated Economic Impact

Tobacco Settlement Funding



Total Research Funding



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31

25 of



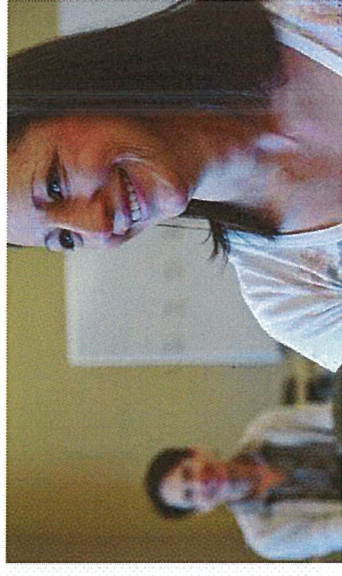
Commercialization

- Since 2004, 25 new NM private companies were either spun off from the university or used university technology to start up.
- A total of 52 new private companies in the US and abroad (1)



What Loss of Tobacco Settlement Means to New Mexico

- Risk of pending arbitration
- Loss of patient care services
- Loss of technology to provide services and conduct research
- Loss of jobs (leveraged)
- Loss of economic activity
- Progressive shift to general fund



FY20

Tobacco Settlement Request

Tobacco Settlement Funds	FY19 Amount	FY20 Request
HSC Instruction & General	581,500	607,900
Research in Genomics and Environmental Health	937,400	979,800
Pediatric Oncology	250,000	261,400
New Mexico Poison & Drug Information Center	590,200	590,200
Specialty Education in Trauma	250,000	261,400
Specialty Education in Pediatrics	250,000	261,400
Total	2,859,100	2,962,100



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Questions?

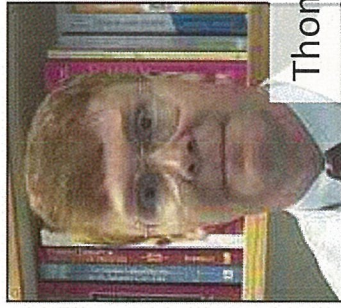


E-Cigarettes

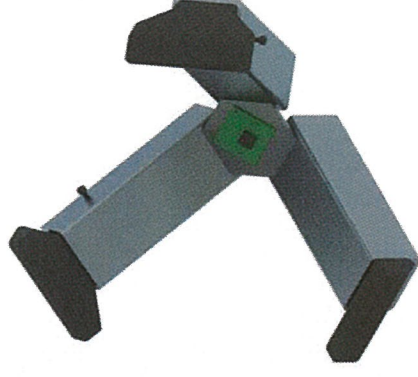
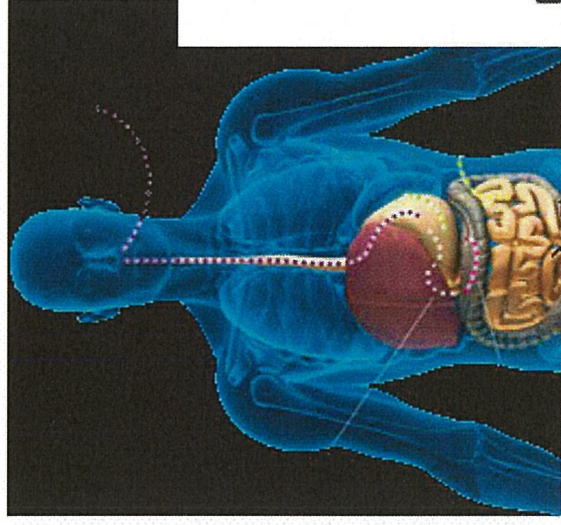
Not a Healthy Alternative

- Not a smoking cessation device
 - Risk of addiction for those who don't already smoke
 - Continuation of addiction for smokers
 - Majority of e-cigarette users continue to smoke cigarettes
- Complete health effects unknown
 - Lack of regulation compared to traditional nicotine replacement
 - E-Liquid contains known carcinogens
 - Unknown long-term effects from inhalation of carrier liquid (propylene glycol, glycerine, polyethylene glycol)
- Other risks
 - E-Liquid toxicity
 - Exposure to e-liquid makes up an increasing proportion of nicotine-related calls to poison centers
 - E-Liquid exposures associated with adverse health effects more often than cigarettes
 - Containers required to be child-proof by federal Child Nicotine Poisoning Prevention Act of 2015

Innovation in Feeding Tube Visualization



Thomas Howdieshell, MD



**In the ICU, rapid
and accurate
placement of a
feeding tube can
mean life or death.**

Dr. Howdieshell and his collaborators will develop 3D imaging technology that takes advantage of the metal tip on nasogastric feeding tubes currently in use. Their new device will allow medical professionals to see the tube's position in real time without harmful ionizing radiation.