Dr. Eli Capilouto,
President of the University of Kentucky
Alumni Endowed Professor Arturo Sandoval’s, “Confluence River Reflections” hangs in the grand foyer of the Owensboro Convention Center.
Professor Frank X Walker is Kentucky’s Poet Laureate and author of the acclaimed, “Turn Me Loose: The Unghosting of Medgar Evers” as well as other renowned literary pieces and works of poetry.
The Kentucky P20 Innovation Lab, hosted by the UK College of Education, is leading the way to help schools in Kentucky transform education to deliver next generation learning and, ultimately, increase the number of students who are ready to succeed in college and career.
UK’s Center for Applied Energy Research (CAER) is advancing Kentucky’s energy economy, including: carbon sequestration, solar and coal-to-liquid processing. CAER is piloting technology in an active power-plant and is conducting research in China. Dr. Rodney Andrews, Director, is PI on a $24 million, multi-institution EPSCoR grant.
Dr. Greg Luhan and Dr. David Biagi are helping revitalize manufacturing in Kentucky. The House Boat to Energy Efficient Residence (HBEER) initiative is creating jobs lost during the 2008 recession. Dr. Luhan and Dr. Biagi are hoping to rebuild communities (West Liberty) destroyed by natural disasters using the HBEER model.
Dr. Ellen Hahn is a professor in the College of Nursing and the College of Public Health. She is the director of the Kentucky Center for Smoke-free Policy, leads UK’s tobacco-free campus effort and is an authority on the harmful effects of tobacco use.
Dr. Stephen Dobson, developed a technology that uses male mosquitoes to effectively sterilize females through a naturally occurring bacterium. The company, MosquitoMate, is gathering data for the EPA to demonstrate the technology’s effectiveness.
Dr. Suzanna Smith is PI on a multi-institution NASA grant to conduct colloid research aboard the International Space Station. The research requires a microgravity environment to explore the distribution of particles suspended within another. The research can have implications for energy, aerospace material and electronic displays.
Dr. Jon Thorson is the Director of the Center for Pharmaceutical Research and Innovation. Currently, the Center is turning to Kentucky coal mines for unique organisms that produce natural products that could potentially be used to develop new drugs for treatment of cancer, infectious disease and inflammation.
Dr. James Ziliak recently published research explaining that while programs like the Supplemental Nutrition Assistance Program (SNAP) have proven successful in terms of reducing food insecurity, applying for and receiving SNAP benefits may be difficult for parents, especially those who are working or those with disabilities. Likewise, school feeding programs are sometimes incomplete, exposing children to a host of health and cognitive issues. His research outlines potential policies to address shortfalls.
The UK School of Music offers the state’s first and only graduate degree program in **Music Therapy**. Clinical training opportunities in physical and mental health care are available within the UK HealthCare system, and additional opportunities are available within the Lexington community.
The Green Dot Program and the Center for Research on Violence Against Women are working to improve the quality of life of those affected by forms of power-based personal violence. Green Dot is an intervention-based prevention program that enables people to prevent violence in our community. UK’s model has been replicated in K-12 schools across Kentucky.
Dr. Thomas Hunt Morgan, an 1886 graduate from the University of Kentucky, was the first Kentuckian to win a Nobel Prize. Having earned the prestigious honor in 1933, he is broadly considered the father of Genetics.
## UK’s Investment in Creativity

**Bucks for Brains**

<table>
<thead>
<tr>
<th>College</th>
<th>Endowed Positions</th>
<th>College</th>
<th>Endowed Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Food and Environment</td>
<td>11 positions</td>
<td>Graduate School</td>
<td>3 positions</td>
</tr>
<tr>
<td>Arts and Sciences</td>
<td>18 positions</td>
<td>Health Sciences</td>
<td>2 positions</td>
</tr>
<tr>
<td>Business and Economics</td>
<td>21 positions</td>
<td>Law</td>
<td>10 positions</td>
</tr>
<tr>
<td>Communication and Information</td>
<td>4 positions</td>
<td>UK Libraries</td>
<td>1 position</td>
</tr>
<tr>
<td>Dentistry</td>
<td>2 positions</td>
<td>Medicine</td>
<td>86 positions</td>
</tr>
<tr>
<td>Design</td>
<td>4 positions</td>
<td>Nursing</td>
<td>3 positions</td>
</tr>
<tr>
<td>Education</td>
<td>5 positions</td>
<td>Pharmacy</td>
<td>8 positions</td>
</tr>
<tr>
<td>Engineering</td>
<td>26 positions</td>
<td>Public Health</td>
<td>5 positions</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>2 positions</td>
<td>Social Work</td>
<td>3 positions</td>
</tr>
</tbody>
</table>
## UK’s Investment in Creativity

### Faculty Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction</td>
<td>31%</td>
<td>30%</td>
<td>1%</td>
</tr>
<tr>
<td>Research</td>
<td>29%</td>
<td>20%</td>
<td>9%</td>
</tr>
<tr>
<td>Service</td>
<td>10%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Administration</td>
<td>8%</td>
<td>7.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Professional Development</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Clinical</td>
<td>17%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>88.5%</strong></td>
<td><strong>11.5%</strong></td>
</tr>
</tbody>
</table>
NATIONAL ENVIRONMENT FOR RESEARCH
EXTERNAL PRESSURES

• Competing demands for state resources
• Downward pressure on tuition and fees
• Flat or declining federal support for research
• Big investments made by other institutions
No whining!

Kentucky Spending Trends, 1999-2014

- K-12 Edu.: 56%
- Hum. Services: 29%
- Medicaid: 138%
- Corrections: 78%
- All Other: 49%
- Gen. Fund: 58%
- Higher Edu.: 24%
What should we do?
Where should we focus?
How do we achieve our goals?
CLOSING KENTUCKY HEALTH GAPS

LIFE EXPECTANCY

Life Expectancy, Females, 2010
Life Expectancy, Males, 2010
Annual number of deaths observed and potentially preventable for the 5 leading causes of death for persons aged <80 years, KY-05, 2009-2011
THE UNIVERSITY FOR KENTUCKY

Why Health Outcomes?
CLOSING KENTUCKY HEALTH GAPS
HIGH UTILIZATION

Overall Performance on Potentially Avoidable Hospital Use and Cost Dimension

Potentially Avoidable Hospital Use & Cost Performance
- Top Quartile
- Second Quartile
- Third Quartile
- Bottom Quartile
- Not Populated
CLOSING KENTUCKY HEALTH GAPS
FACTORS AFFECTING HEALTH

Smallest Impact

Largest Impact

Socioeconomic Factors

Changing the Context

Long-lasting Protecting Interventions

Clinical Interventions

Education & Counseling

Eat healthy, be physically active

Medications for high blood pressure, high cholesterol, diabetes

Immunizations, brief intervention for tobacco, alcohol, colonoscopy

Fluoridation, iodization, 0g trans fat, smoke-free laws

Poverty, education, housing, inequality
### Active Projects

<table>
<thead>
<tr>
<th>Topic</th>
<th>#</th>
<th>Multiple Year Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Abuse</td>
<td>80</td>
<td>$117,949,707</td>
</tr>
<tr>
<td>Poverty</td>
<td>21</td>
<td>$31,829,995</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>99</td>
<td>$131,067,807</td>
</tr>
<tr>
<td>Diabetes</td>
<td>50</td>
<td>$51,600,776</td>
</tr>
<tr>
<td>Obesity</td>
<td>57</td>
<td>$86,431,999</td>
</tr>
<tr>
<td>Appalachia</td>
<td>125</td>
<td>$138,072,518</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>331</strong></td>
<td><strong>$349,075,542</strong></td>
</tr>
</tbody>
</table>
THE UNIVERSITY FOR KENTUCKY
UNIQUELY POSITIONED TO SERVE THE STATE

Physical presence in all 120 Kentucky counties through our extension network and clinical outreach programs.

Seventeen colleges and professional schools supported by a comprehensive research library system.

170 clinical outreach practices and linkages to some 4,300 beds.

One of eight institutions with programs in Agriculture, Pharmacy, Engineering and Medicine on a contiguous campus.

One of 22 institutions with: NCI-designation, Clinical Translational Science Award and Alzheimer’s Disease Center.

Physical presence in all 120 Kentucky counties through our extension network and clinical outreach programs.
The University for Kentucky