University of Oklahoma
Health Sciences Center
Research Strategic Plan
2005-2010
Research Strategic Plan

Previous plans in 1974, 1977, 2000
• Highly Successful!

OUHSC Research Roadmap to 2010
• Interdisciplinary/Multidisciplinary
• Translational Research - Bench to Bedside to Community Advances
• Regional/National Prominence
• Promote economic development
• Meet health needs of Oklahoma
Guidelines for the Plan

- Keep it short
- Keep it simple
- Capture the “what” or “end state”
- Bold
- Not a slogan
- Don’t wordsmith
Methodology

• Initial group of over 100 faculty and constituents met in September, 2004.
• Faculty surveys and SWOT analysis completed in December, 2004.
• Focal groups selected for presentation of capabilities and goals (Jan. - June, 2005).
• Formulation of strategic goals, July-Aug., 2005.
Research Strategic Plan
2005-2010

The overall goal for the next 5 years:

• Double federal and total biomedical research funding

To achieve this will require:

• Permanent funding for 100 new faculty positions
Initial Research Foci

- Comprehensive Cancer Center
- Heart Disease/Cardiovascular Disease/Vascular Biology
- Infectious Diseases/Bioterrorism
- Diabetes, Obesity, and Metabolic Disorders
- Neurosciences and Vision research
- Health Services, Policy, and Prevention
The Research Strategic Plan was formulated following a SWOT analysis and selection of initial research foci by designated faculty leaders. The plan addressed the SWOT analysis in the following ways:
Capitalizes on Strengths

• Solid core of basic and clinical researchers with documented achievements.
• Largest biomedical infrastructure in Oklahoma.
• Cutting edge core laboratory facilities.
Addresses Weaknesses

• Provides a vision for research that will drive funding and space allocation.
• Increases state-funded research faculty positions.
• Builds a critical mass of scientists in focus areas.
Builds Upon Opportunities

- Selects 3-4 major research targeted goals/initiatives for directed funding.
- Strategic research efforts organized around thematic health disease approaches - not around scientific (or departmental) specialties.
- Links faculty recruitment in each college to the strategic plan, thereby increasing critical mass in support of targeted goals/initiatives.
Minimizes Threats

• Concentrates on strategic goals for targeted institutional investment - not a shotgun approach.
• Targets initiatives to state and national priority foci.
• Increases overall institutional support for research.
Enhances Opportunities with our Strategic Partners

- **OU Cancer Center** - Tobacco Tax revenue for $75 million new building and OU fund raising campaign to raise $$ for 20 new endowed chairs.

- **Presbyterian Health Foundation** – Focus on supporting OUHSC recruitment of more senior, NIH-funded faculty

- **Children’s Medical Research Institute** - $30 million campaign: *National Excellence Programs in Pediatric Research* for 8 endowed chairs plus start-up funds in Pediatric Diabetes and Pediatric Cancer
Enhances Opportunities with our Strategic Partners

- **Donald W. Reynolds Foundation** - $8 million proposal for 6 new endowed chairs and additional research support for aging research in the Department of Geriatrics

- **Dean McGee Eye Institute** - $25 million campaign for a new building with 20,000 sq.ft. of new research space to support vision research

- **Hospital Authority/Trust** - already provided $18.6 million for BRCII and committed to research enterprise.
Selection of Four Focal Areas

<table>
<thead>
<tr>
<th></th>
<th>Cancer</th>
<th>Diabetes</th>
<th>Infectious Diseases</th>
<th>Vision/Neuroscience</th>
</tr>
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<tbody>
<tr>
<td>Core Support</td>
<td>P20</td>
<td>Institutional</td>
<td>COBRE</td>
<td>COBRE; P30 Core</td>
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<td>Principle</td>
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<td>NIH</td>
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<td>Foundation</td>
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<td>Research Faculty</td>
<td>Clin/Basic</td>
<td>Clin/Basic</td>
<td>Clin/Basic</td>
<td>Basic/Clinical</td>
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<td>Faculty</td>
<td>Focused</td>
<td>Focused</td>
<td>Focused</td>
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<tr>
<td>Leadership</td>
<td>Strength in Areas</td>
<td>Strong</td>
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**Overlap of the Focal Areas With Unique Institutional Strengths of the OUHSC**

- Geriatrics
- Glycobiology
- Health Services and Prevention
- Genetics
- GCRC
- Native American
- Primate Center
- CMRI

**Areas For Collaborative Research and Appointments Within the Focal Areas**

- Nutritional Sciences
- Rehabilitation Sciences
- Pharmaceutical Sciences
Strategic Research Focal Areas*

• Cancer
• Diabetes
• Neurosciences/Vision
• Infectious Diseases/Immunology

*Core research facilities enhancement included
Strategic Research Plan is in Concert with:

• Research!America poll results of public health research priorities in Oklahoma.

• Oklahoma City Chamber of Commerce study by Battelle of Bioscience Future in Greater OKC.
Oklahoma Health Research Priorities

In your opinion how much of a priority for Oklahoma should public health research focused on each of these problems be?

(\% Saying top/somewhat high priority)

- Cancer: 98\%
- Heart disease and stroke: 97\%
- Diabetes: 94\%
- Respiratory diseases/asthma: 93\%
- Alzheimer's disease: 93\%
- Infectious disease: 90\%

Source: Oklahoma, 2005
Harris Interactive for Research!America
Developing a Regional Bioscience Strategy: Core Competency Analysis and Discussion of Vision, Strategies and Actions

Technology Partnership Practice
Battelle
September, 2005
Figure 3: Greater Oklahoma City Region
Criteria for Selecting Technology Platforms for Development

- Builds on existing strengths
- Has a base of related emerging or established commercial activity
- Provides opportunity to leverage region’s comparative advantages
- Has significant product market potential
- Links or reinforces other strengths
Figure 10: Linkage between Core Competencies and Technology Platforms

Core Competencies Identified by Qualitative and Qualitative Research

Established Strengths
- Plant/crop sciences & genetics
- Immunology & autoimmune disorders
- Glycobiochemistry & carbohydrates
- Cardiology & cardiovascular biology
- Vision research & Ophthalmology
- Microbiology & Infectious Diseases

Significant Presence
- Food Quality and Nutrition
- Animal sciences & livestock
- Diabetes, Obesity & Metabolic Disorders
- Agricultural production & agronomy
- Neuroscience & neurodegenerative diseases
- Cancer
- Aging & free-radical biology

Emerging
- Tissue engineering & bio-implants
- Sensor technologies
- Nanotechnology
- Bio-imaging

Near-term Platforms
- Autoimmune Diseases and Immunology
- Cardiology and Cardiovascular Research
- Glycobiochemistry & Glycomics
- Infectious Disease Microbiology
- Plant Genetics and Genomics
- Vision Research & Ophthalmic Neuroscience
- Aging & Geriatrics (including free-radical biology)
- Bioscience Applications of Advanced Sensor Technologies
- Cancer Suppression & Metastasis Control
- Obesity, Metabolic Disorders & Food Science

Longer-term Platforms
# Bioscience Road Map Recommended by Battelle

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Action</th>
<th>Priority</th>
<th>Time Frame</th>
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<tbody>
<tr>
<td><strong>Strategy One:</strong></td>
<td><strong>Action One:</strong> Adequately fund Oklahoma’s public higher education system, and create and fund the proposed EDGE research endowment.</td>
<td>High</td>
<td>Short-Term</td>
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<td><strong>Action Two:</strong> Create an Oklahoma Bioscience Opportunity Fund.</td>
<td>Critical</td>
<td>Immediate</td>
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<td><strong>Action Three:</strong> Continue to build and strengthen university tech transfer and commercialization capacity.</td>
<td>High</td>
<td>Short-Term</td>
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http://www.okbio.org
OUHSC Action Plan

Roadmap and timeline:

• 40 new faculty positions will be available within 5 years.
• Remaining 60 positions to come when:
  • OSRHE funding formula for OUHSC is changed to provide more positions.
  • EDGE funding from legislative action to provide new positions.
  • Increased private funding for new faculty positions.
## First 40 Positions

<table>
<thead>
<tr>
<th></th>
<th>Cancer</th>
<th>Diabetes</th>
<th>Neurosci/Vision</th>
<th>Infec. Disease</th>
<th>Core Lab/Space</th>
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<td>2005-06</td>
<td>3</td>
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<tr>
<td>2006-07</td>
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<td>2011-12</td>
<td>2</td>
<td>_____</td>
<td>1</td>
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<tr>
<td>Total</td>
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<td>8</td>
<td>6</td>
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<td>Study Area</td>
<td>Base</td>
<td>Start-up</td>
<td>Core/ Renov.</td>
<td>Total</td>
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<tr>
<td>Cancer Research</td>
<td>2,731,122</td>
<td>5,700,000</td>
<td>112,000</td>
<td>8,543,122</td>
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<td>Diabetes/Obesity/Met. Disease</td>
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<td>2,400,000</td>
<td>500,000</td>
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<td>Neuroscience/Vision</td>
<td>663,306</td>
<td>1,800,000</td>
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<td>2,463,306</td>
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<td>Infectious Diseases</td>
<td>442,204</td>
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<td>1,642,204</td>
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<td>Core Labs/Res. Infrastructure</td>
<td>290,000</td>
<td></td>
<td>1,500,000</td>
<td>1,790,000</td>
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<td><strong>GRAND TOTAL</strong></td>
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<td><strong>11,100,000</strong></td>
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