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**ROLL-OUT OF THE**  
**“MIZZOU ADVANTAGE”**

by  
BRIAN FOSTER  
Provost

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SEPTEMBER 25, 2009

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# I – Cover document/plan

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## BACKGROUND: ADVANTAGES, INITIATIVES, INVESTMENTS

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Approximately three years ago, MU began an exercise to define “strategic advantages” that could place the University within higher education in an extremely strong, competitive position. The idea was to identify MU’s competitive advantages that are uniquely strong and would position MU such that other major universities would be unable to compete successfully. In other words, identify the competitive advantages that would allow the University to compete with other major, internationally preeminent universities on OUR terms, not theirs.

A task force was formed, composed primarily of prominent faculty, and was chaired jointly by Provost Brian Foster and Chancellor Emeritus Richard Wallace. After stimulating discussions and many public forums with faculty, students, and others, and after considering input from hundreds of other parties by email and other channels, the task force identified a set of strategic advantages (Attachment I).

With the list of strategic advantages in hand, the task force set out to identify “strategic initiatives”: program initiatives based on the “foundation stones” of the strategic advantages. Again, following a set of focus group discussions and extremely lively and insightful discussions in faculty forums, the task force identified a set of five “strategic initiatives” (Attachment II). These initiatives will be the core element of MU’s strategic planning and will be the basis for the University’s approach to strategic investments in the next few years as we emerge from the very difficult fiscal circumstances that plague the country—and higher education.

What follows is the “plan” for rolling out the strategic initiatives: educational, research, service, and economic development programs to move the University forward in these trying times. A broad conceptual approach to this “strategic investment plan” can be found in Attachment III. It is important to note that the implementation of the strategic initiatives converges with several other projects that were undertaken at MU in the past two or three years: especially, efforts to bring 30,000 visitors to town for conferences and other academic events and a systematic approach to networking with members of the National Academies, Pulitzer Prize winners, and other extremely distinguished scholars.

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## THE PLAN

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I. A name is important - what do we call it?

“Strategic Initiatives” is an unfortunate term—a kind of “planning jargon” that will not have good resonance with constituents. We have to find a “new face” for the “strategic initiatives,” as we have discussed. We need to make the effort attractive—even exciting—for the public, the business community, the curators, the university community (especially faculty and deans), and the higher education community. There seem to be three necessary parts of this “new face”:

- A term to identify the specific initiatives when we talk about them (in this document they are referred to as “Initiatives”)
- Something like the “four words” Ken Dean proposed to characterize the initiatives:  
Dream. Grow. Sustain. Change.

## Building Missouri's Future at MU

- A name for the collective strategic initiatives has been suggested by Chris Koukola: “The Mizzou Advantage”

### II. A well-articulated set of broad goals.

MU's overarching goal is to increase visibility, reputation, and stature of the University in (a) higher education, (b) with federal agencies and foundations, (c) with donors, (d) with the business sector, (e) state policy makers, (f) Missouri citizens, and (g) and with other key constituencies. Increased stature will in turn feed back to enhance quality of faculty, quality of students, effectiveness of instructional programs, success rates for grant proposals, fundraising results, placement of graduates, economic development collaborations, and other marks of a premier institution.

To achieve this high quality, high stature, the following measures will be taken.

#### A. Increase funded research

1. Develop network of potential collaborators for mega-grants and contracts—national labs, Ft. Leonard Wood, major corporate partners, beltway bandits, and others who are generally engaged in federal mega grants and contracts (\$100 million plus) (Making this network is Annie Sobel's main objective for the campus part of her job)
2. Work with UM government relations people to connect with major federal and state initiatives that promise major funding
3. Develop relations between the Initiatives and federal agencies—NIH, NSF, DOE, etc.—to help shape the agencies' agendas and, accordingly, funding priorities
4. Increase strength of interdisciplinary networks (co-investigators, co-authors, cross-disciplinary membership on doctoral committees, etc.) as measured by a network model created by the Office of Institutional Research
5. Net growth in research awards
6. Net growth in research publications (using Academic Analytics data)
7. Increase in number of graduate students, dissertations in the Initiative areas
8. Increase number of IP disclosures in the Initiative areas
9. All of the above (and other measures for increased funding) are central to the portfolio of the five Facilitators (described below)

#### B. Create strong instructional programs for each initiative (see Attachments 4 and 5)

1. Develop instructional certificate programs for each initiative that:
  - a. Add value to the traditional “certifications”
  - b. Position graduates in more “traditional” programs for professional success in the volatile business and social environments of today's world, allow our graduates to be more nimble in the market
2. Develop courses for the certificate programs and for complementing the more traditional majors/professional credentials
3. Provide matching funds for graduate assistant awards (see Attachment 5)
  - a. Some awards to Teaching Assistants who support the Certificate programs
  - b. Some awards to Research Assistants who support interdisciplinary research programs in the initiative areas

4. Provide undergraduate “research intern” awards (matching funds) in the initiative areas for students working in faculty projects (Attachment 5)
- C. Create strong drivers of economic development efforts
1. Anchor a major Research Park development in Blue Springs (concept paper attached; Attachment 6)
    - a. Builds on alignment of MU’s strategic initiatives with KC area industrial clusters (especially Animal Health and Sustainable Energy)
    - b. Gives MU a significant presence in the KC area
  2. Partner with REDI and CORE to make the strategic initiatives a central part of the marketing strategy of these groups
  3. Continue aggressive development of Discovery Ridge and the Incubator at Monsanto Place
    - a. Goals?? (e.g., full occupancy of the Incubator by ?)
  4. Align academic programs with workforce needs of employers (P-20 and Outside In projects)
  5. Increase number of IP disclosures (see A-8)
- D. Create strong programs that serve the communities and businesses across the state of Missouri
1. Provide high-level consulting services for small businesses
  2. Provide local healthy life-style programs through MU Extension programs
  3. Deliver strong youth development programs throughout the state (especially 4H)
  4. Through MU Extension, align programs with Strategic Initiatives (see Attachment 7)
- E. Enhance research, instruction, economic development, service, and fund-raising activities built around the five Strategic Initiatives
1. Hire very strong faculty in the areas of the initiatives. Hire five faculty per year using the hiring match; at least half of the hires should be interdisciplinary
  2. Increase cross-disciplinary collaboration as measured by network models being developed by IR (see A-4; also A-13)
  3. Dramatically increase number of visitors to campus for scholarly events, systematically developing relationships based on their visit to campus/Columbia (concept paper attached; see Attachment 8, and E-4)
  4. Hire event coordinator who will be point person for working with deans and faculty to engage them in attracting events to campus
    - a. Number of visitors phased in over five years: 2,000 yr. 1; 5,000 yr 2; 10,000 yr. 3; 20,000 yr. 4; 30,000 yr. 5
    - b. Build data base and systematically assure at least two contacts per year for every visitor
    - c. By year 5, aim for 5,000 faculty visits from Missouri institutions of higher education attending conferences and other events
  5. Greatly increase the number of MU faculty who are members of the NAS, are Pulitzer winners, and recognized in other highly prestigious ways
    - a. Develop infrastructure to support NAS project, event organization support from the Conference Office, and other operational parts of the initiatives (concept paper and memo to deans attached; see Attachment 8)
    - b. Increase our interactional networks with members of the NAS, Pulitzer winners, and others of similar status (see A-13)

- c. Host NAS and Pulitzer prospects for our networking at meetings for dinner, cocktails, etc. to be funded by Strategic Initiatives budget: 15 in yr. 1; 30 in yr. 2; 50 in out years
- d. Visits of NAS and Pulitzer prospects to campus: 4 in yr. 1; 8 in yr. 2; 10 in 2011; 20 in out-years (many as participants and key-note speakers in conferences)
- e. Hire four NAS and Pulitzer contacts: one every third year
- f. Use the NAS project to initiate hiring efforts for the four NAS hires in the Strategic Initiative Plan
- g. Closely articulate the NAS project with the conference initiative, bringing distinguished scholars as key note speakers, etc.
- 6. Set goals for philanthropic fundraising for the initiatives
  - a. Develop plans for cultivating donors for very large, transformational gifts
  - b. Make the initiatives central to planning for the new capital campaign
  - c. Develop prospecting strategy (will be very different than college-based strategies, which are often alumni driven)
  - d. Build functional relations among collegiate and program development officers and new officer for strategic initiatives—also Initiative area facilitators and deans and directors
  - e. Hire development officer for the Strategic Initiatives (memo to Vice Chancellor David Housh; Attachment 10)

III. Develop budget pro formas projected out five years

- A. Spread sheet attached, showing how various budget items phase in over eight years (Item III)
  - 1. Reallocation of GO funds for base of Strategic Initiative hires is indicated in the spreadsheet (see Item III)
  - 2. Development will add \$4M per year in endowed professorships, scholarships, program support, and other parts of the initiatives; also shown on spreadsheet
  - 3. Current \$4M budget to be increased to \$6M by FY2015

IV. Develop process for putting administrative structure in place (see attachments)

- A. Identify suite of offices to house 5 facilitators, support staff (reception, fiscal, etc.), educational officer, and development officer
- B. First hires to be the Facilitators, hired by provost with truncated internal hiring process (job concept paper attached; Attachment 12)
  - 1. Support staff to be hired by Facilitators
- C. Appoint and charge “advisory group” of prominent faculty for each initiative (facilitators with Provost)
- D. Appoint and charge an oversight faculty council for all initiatives
  - 1. Most likely a slightly adjusted/expanded composition of the original Task Force for Strategic Advantages
- E. Appoint Education Coordinator (Provost)

**MU Strategic Initiatives  
Roll-Out Budget**

	<u>Each</u>	<u>Number</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Total to Date</u>	<u>Annual Budget</u>
<b>Centrally Budgeted Expenditures</b>												
Central Match: Faculty Hires	50,000	25	-	250,000	500,000	750,000	1,000,000	1,250,000	1,250,000	1,250,000	6,250,000	1,250,000
NAS/Pulitzer Hires - Match	250,000	4	-	250,000	250,000	250,000	500,000	500,000	500,000	750,000	3,000,000	1,000,000
											-	
Project for Networking with Prominent Scholars			50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	400,000	50,000
											-	
Administrative Costs:												
Stipends for Faculty Facilitators	40,000	5	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,600,000	
E&E for each Initiative	40,000	5	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,600,000	
Staff Support Group for all Facilitators	40,000	4	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	1,280,000	
E&E for Support Functions			50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	400,000	
Faculty Coordinator Ed Program Stipend	40,000	1	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	320,000	
E&E Ed Programs			25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	200,000	
Subtotal Administration			675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	5,400,000	675,000
											-	
Educational Expenses:												
TA/RA - Match	10,000	20	100,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,500,000	
UG Intern- Match	3,600	30	54,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	810,000	
Student Travel - Match	500	100	-	-	50,000	50,000	50,000	50,000	50,000	50,000	300,000	
Subtotal Education			154,000	308,000	358,000	358,000	358,000	358,000	358,000	358,000	2,610,000	358,000
											-	
Enhanced Conferencing efforts:												
Director/Event Coordinator			60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	480,000	
E&E for Seeding Events	50,000	5	100,000	150,000	200,000	250,000	250,000	250,000	250,000	250,000	1,700,000	
Subtotal Conferencing			160,000	210,000	260,000	310,000	310,000	310,000	310,000	310,000	2,180,000	310,000
Faculty Professional Development	2,000	100	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,600,000	200,000
											-	
Development/Fundraising			75,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	824,000	107,000
											-	
Flexible Recurring Funds			250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,000,000	250,000
Total Recurring			1,564,000	2,300,000	2,650,000	2,950,000	3,450,000	3,700,000	3,700,000	3,950,000	24,264,000	4,200,000
Start Up Equipment			-	1,000,000	1,000,000	1,200,000	1,400,000	1,600,000	1,800,000	1,800,000	9,800,000	1,800,000
Subtotal Central Expenditures			1,564,000	3,300,000	3,650,000	4,150,000	4,850,000	5,300,000	5,500,000	5,750,000	34,064,000	6,000,000
Total Available			4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,500,000	5,000,000	5,500,000	35,000,000	6,000,000
To (From) Cash Reserve			2,436,000	700,000	350,000	(150,000)	(850,000)	(800,000)	(500,000)	(250,000)	936,000	-
Cash Reserve			2,436,000	3,136,000	3,486,000	3,336,000	2,486,000	1,686,000	1,186,000	936,000		

**MU Strategic Initiatives  
Roll-Out Budget**

	<u>Each</u>	<u>Number</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Total to Date</u>	<u>Annual Budget</u>
<b>Departmental Expenditures on initiatives</b>												
Current Development - Rate	\$4M endow/yr		-	200,000	400,000	600,000	800,000	1,000,000	1,200,000	1,400,000	5,600,000	1,400,000
Base Salary - Faculty Hires	120,000	25	1,200,000	1,800,000	2,400,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	17,400,000	3,000,000
Base Salary - Chairs, Chancellor's Fund	150,000	5	150,000	300,000	450,000	600,000	750,000	750,000	750,000	750,000	3,750,000	750,000
Base Salaries - NAS Members	200,000	4	-	200,000	200,000	200,000	400,000	400,000	400,000	600,000	2,400,000	800,000
Base Salaries - Faculty Facilitators	150,000											
TA/RA - Match	10,000	20	100,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,500,000	200,000
Student Intern Match	2,500	40	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	750,000	100,000
Student Travel - Match	1,500	100	-	-	50,000	50,000	50,000	50,000	50,000	50,000	300,000	50,000
Subtotal departmental Expenditures			<u>150,000</u>	<u>2,050,000</u>	<u>3,050,000</u>	<u>4,000,000</u>	<u>5,150,000</u>	<u>5,500,000</u>	<u>5,700,000</u>	<u>6,100,000</u>	<u>31,700,000</u>	<u>6,300,000</u>
Total Initiative Spending			<u>1,714,000</u>	<u>5,350,000</u>	<u>6,700,000</u>	<u>8,150,000</u>	<u>10,000,000</u>	<u>10,800,000</u>	<u>11,200,000</u>	<u>11,850,000</u>	<u>65,764,000</u>	<u>12,300,000</u>
<b>Increased Resources From Initiatives</b>												
Increase in Fundraising			2,000,000	4,000,000	6,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	52,000,000	
Increase in Research Funding			5,000,000	10,000,000	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000	
Chairs funded by Chancellor's Fund for Excellence	55,000	5	-	55,000	110,000	165,000	220,000	275,000	275,000	275,000	1,375,000	275,000
Total Increased Resources			<u>-</u>	<u>7,055,000</u>	<u>14,110,000</u>	<u>21,165,000</u>	<u>30,220,000</u>	<u>35,275,000</u>	<u>35,275,000</u>	<u>35,275,000</u>	<u>178,375,000</u>	<u>275,000</u>
<b>GRAND TOTAL: S.I. RESOURCES</b>			1,714,000	12,405,000	20,810,000	29,315,000	40,220,000	46,075,000	46,475,000	47,125,000	244,139,000	12,575,000

# Template for Performance Indicators

(Preliminary values for discussion only)

Reference	Original Goal Statement	Specific Goal Description	Year 1 Goal	Year 3 Goal	Year 5 Goal	Year 7 Goal
IIA.	<b>Increase Funded Research</b>					
1	Develop network of potential collaborators for mega-grants and contracts—national labs, Ft. Leonard Wood, major corporate partners, beltway bandits, and others who are generally engaged in federal mega grants and contracts (\$100 million plus) (Making this network is Annie Sobel’s main objective for the campus part of her job)	MU’s share of large, collaborative projects in areas of the strategic initiatives	-	\$5,000,000	\$7,000,000	\$15,000,000
2	Work with UM government relations people to connect with major federal and state initiatives that promise major funding					
3	Develop relations between the Initiatives and federal agencies—NIH, NSF, DOE, etc.—to help shape the agencies’ agendas and, accordingly, funding priorities	Create roster of MU faculty and administrators participating in key federal funding agencies’ policy discussions		Roster complete	Updated	Updated
		Increase number of MU people in Washington funding/policy discussions		10% above base	10% above Yr 3	10% above Yr 5
4	Increase strength of interdisciplinary networks (co-investigators, co-authors, cross-disciplinary membership on doctoral committees, etc.) as measured by a network model created by the Office of Institutional Research	Establish base numbers; increase by amounts indicated	Establish base	20% increase over Yr 1	20% above Yr 3	30% above Year 5
				120% of 2009	144% of 2009	174% of 2009
5	Net growth in research awards in initiative areas			10% above Yr 1	15% above Yr 3	20% above Yr 5
6	Net growth in research publications (using Academic Analytics data)			20% above Yr 1	20% above Yr 3	30% above Yr 5
7	Increase in number of graduate students, dissertations in the Initiative areas			10% above Yr 1	20% above Yr 3	20% above Yr 5

Reference	Original Goal Statement	Specific Goal Description	Year 1 Goal	Year 3 Goal	Year 5 Goal	Year 7 Goal
8	Increase number of IP disclosures in the Initiative areas			Under discussion		
<b>II.B.</b>	<b>Create strong instructional programs for each initiative</b>					
1	Develop instruction certificate programs for each initiative that:			To be developed		
	a. Add value to the traditional “certifications”					
	b. Position graduates in more "traditional" programs for professional success in the volatile business and social environments of today's world, allow our graduates to be more nimble in the market					
		New Certificate Programs	1	6	10	
2	Develop courses for the certificate programs and for complementing the more traditional majors/professional credentials (cumulative)		3	21	40	
3	Provide matching funds for graduate assistant awards					
	a. Some awards to Teaching Assistants who support the Certificate programs					
	b. Some awards to Research Assistants who support interdisciplinary research programs in the initiative areas		10	20	20	
4	Provide undergraduate “research intern” awards (matching funds) in the initiative areas for students working in faculty projects		15	30	30	
<b>II.C.</b>	<b>Create strong drivers of economic development efforts</b>					
1	Anchor a major Research Park development in Blue Springs					
	a. Builds on alignment of MU’s strategic initiatives with KC area industrial clusters (especially Animal Health and Sustainable Energy)				Base established, to be developed	
	b. Gives MU a significant presence in the KC area					

Reference	Original Goal Statement	Specific Goal Description	Year 1 Goal	Year 3 Goal	Year 5 Goal	Year 7 Goal
	2	Partner with REDI and CORE to make the strategic initiatives a central part of the marketing strategy of these groups		In place		
	3	Continue aggressive development of Discovery Ridge and the Incubator at Monsanto Place				
		Full occupancy of the Incubator by:		75%	100%	
	4	Align academic programs with workforce needs of employers (P-20 and Outside In projects)		In collaboration with System initiatives		
	5	Increase number of IP disclosures	10% over FY2009	10% over Yr 1	10% over Yr 3	10% over Yr 5
<b>IID.</b>	<b>Create strong programs that serve the communities and businesses across the state of Missouri</b>					
	1	Provide high-level consulting services for small businesses				
	2	Provide local healthy life-style programs through MU Extension programs				
	3	Deliver strong youth development programs throughout the state (especially 4-H)				
	4	Through MU Extension, align programs with Strategic Initiatives		See Attachment 7 for template		
<b>III.E.</b>	<b>Enhance research, instruction, economic development, service, and fund-raising capacity for the five Strategic Initiatives</b>					

Reference	Original Goal Statement	Specific Goal Description	Year 1 Goal	Year 3 Goal	Year 5 Goal	Year 7 Goal
1	Hire very strong faculty in the areas of the initiatives. Hire five faculty per year using the hiring match; at least half of the hires should be interdisciplinary	Faculty Hired In Imitative Areas Percent "Interdisciplinary"	5 50%	15 50%	25 50%	
2	Appoint five chairs with funds from Chancellor's Fund for Excellence			2	4	5
3	Increase cross-disciplinary collaboration as measured by network models being developed by IR					
4	Dramatically increase number of visitors to campus for scholarly events, systematically developing relationships based on their visit to campus/Columbia					
5	Hire event coordinator who will be point person for working with deans and faculty to engage them in attracting events to campus	Number of visitors Contacts (2 Per visitor) Faculty visits from Missouri institutions of higher education attending conferences and other events	complete hire 4,000 1,000	10,000 20,000 3,000	20,000 40,000 5,000	30,000 60,000 5,000
6	Greatly increase the number of MU faculty who are members of the NAS, are Pulitzer winners, and recognized in other highly prestigious ways	Under development Hire members of NAS - one every 3 years			1	3



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ATTACHMENT 10

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July 24, 2009

**TO:** David Housh, Vice Chancellor for Advancement

**FROM:** Brian Foster, Provost

**SUBJECT:** Strategic Initiatives

David, I would like to talk with you about initiating a search for a development officer for the Strategic Initiatives. Significant funding will come from the Strategic Initiatives budget. As we have discussed, this will be a rather different kind of development approach than the College-based efforts that have been so prominent in the past. These efforts will be focused on very large, transformational gifts aligned with the strategic initiatives. Of course, there will be smaller gifts, too, but there will be a major focus on the mega-gifts for programs that will “shake the world.”

I’d like to talk about this matter and initiate a search/hire in the near future. I do not know what level of salary would be necessary, nor do I know in any level of detail what kinds of support funds (e.g., travel, entertaining prospects, etc.) would be needed. Can we talk in the near future?

I’ll ask Teresa to arrange a meeting. I hope this will be an attractive project for you. I look forward to discussing the matter in the very near future.

BLF:td

cc: Brady Deaton  
Teresa Davis  
Sheila Wieman

**NOTES ON THE ROLE OF FACULTY FACILITATORS  
OF UNIVERSITY INITIATIVES**

The organizational form of the five University Initiatives has been discussed at length in many venues. Several principles have emerged from those discussions:

- The Initiatives will NOT be organizational units with well-defined boundaries, membership, and goals
- The list of participants will be fluid: partners' participation in grants and other activities will come and go—e.g., a corporate partner or a faculty Co-investigator engages strongly in a grant, then engagement lapses for some time until engaging in another appropriate grant-based collaboration
- Participants/collaborators will be very diverse, ranging from individual faculty at MU or elsewhere and university departments or centers to corporate partners, national labs, Ft. Leonard Wood, and non-profits
- Collaborations will occur for diverse kinds of activities ranging from grants, contract work, and conferences to commercializing intellectual property, launching start-up companies, and large public service projects
- The Initiatives' main focus will be on creativity in research, education, and service, bringing together diverse participants in interdisciplinary interaction

The “structure” will be dynamic—a network rather than an organizational unit. The Facilitator will not have line responsibility for the network, but will facilitate interactions, relationships, and creative dialogues that lead to innovative projects. Each initiative's continuity will emerge from cumulative project successes and from the continuing dialogues and the robust relationships that come from successful projects. The main anchors of the Initiatives will be very large projects, often involving off-campus collaborators—projects with transformational outcomes and very high international visibility.

Accordingly, the Facilitator will not be a line administrator—e.g., “director” or “chair”—but rather will function as a “team captain,” displaying the following characteristics/qualifications:

- be especially strong in making relationships, bringing people together in productive dialogue,
- have the capability of working with foundations, granting agencies, and other funding sources,
- be adept in forging relations with corporate and other non-university partners,
- have a very large vision for the field and facility to see linkages and projects from the “forty-thousand foot level,”
- have a good understanding of the academic world,
- be committed to creative activity in doing scholarship, educating scholars and practitioners, and accommodating wildly diverse disciplinary perspectives,
- be stimulated by the broad social, cultural, political, policy, educational, ethical, and other dimensions of the Initiatives' broad topics: food, health, energy, media, business models,
- and must be passionate about making the world a better place through research, education, and service.

**PROCESS FOR APPOINTING FACULTY  
FACILITATORS OF THE FIVE UNIVERSITY INITIATIVES**

For the past three years, we have had exciting discussions about a set of “strategic initiatives.” We are now preparing to “roll out” the set of activities—e.g., faculty hiring, conferences, course development, fund raising—as spelled out in the document “Rethinking MU’s Future: Moving Forward in Tough Times.”

An important first step is to appoint a “facilitator” for each of the five initiatives. Notes on the role of the facilitators are attached. We will initiate an expedited process for these appointments in late summer, with the goal of the facilitators beginning their work at least part time in later in the fall term.

The provost will appoint a small, very broad-based advisory group for the appointment process. This group will help make nominations, consider the nominees’ personal and professional experience, assess their “fit” with this unusual structure, and ultimately provide recommendations to the provost.

These facilitators will not be administrators in the usual sense of the word. As the “Notes on the Facilitators’ Roles” indicate, they will function more as “team captains,” networking with people who have interests relevant to the initiative, facilitating discussions, and otherwise bringing together promising collaborative teams for developing proposals, educational programs, conferences, and other activities.

The facilitators will MU faculty or possibly retirees. Reporting line will be to the Provost, who will make the appointment.

**GUIDELINES:**

**FACULTY DEVELOPMENT AWARDS  
FROM STRATEGIC INITIATIVES**

MU's Strategic Initiatives provide funds for travel or other professional development: 100 awards of \$2,000. These awards are meant to allow faculty to attend meetings, to meet with colleagues, or travel for other reasons related to MU's Strategic Initiatives. The guidelines are very general. The committee that makes the awards will rank proposals/applications with the sole criterion that the proposed travel or other activity will advance MU's strategic initiatives by providing visibility (e.g., an invited paper in a prestigious meeting), receiving an award, exploring a reasonably high probability collaboration with a prominent scholar, attending a board meeting of a national association, or any other function that will be supportive of any one or more of the five strategic initiatives.

Proposals should be no more than one page long, specifying how the funds will be used, and providing information on how the travel will benefit one or more of the strategic initiatives. Travel may occur within two years of the date of the award.

Awards will be made on an on-going basis, beginning in September, 2009. There are no deadlines, although awards will end when the \$200,000 budget is fully expended. Send proposals/applications to:

Dr. Robert Duncan  
Vice Chancellor for Research  
Jesse Hall 205

**MU STRATEGIC ADVANTAGES**

**Recommendations from the Task Force  
Co-Chairs of the Task Force  
Brian Foster, Provost and  
Richard Wallace, Chancellor Emeritus**

**(Approved September 19, 2007)**

Background

A critical element of MU's strategic planning is to identify the areas in which the University is positioned to be competitive with the best institutions of higher education. To identify such areas, it is important to identify those unique assets—e.g., facilities, collaborators, program strengths—that provide opportunities for extraordinarily competitive initiatives that can position MU uniquely in higher education. In 2006, Provost Brian Foster appointed a task force to identify such assets, which we called “strategic advantages.” After a great deal of campus input and discussion—written input, focus groups, public forums, discussions with deans and others—the Task Force approved its list of MU's Strategic Advantages. These advantages are not programs; rather they are the foundation stones on which competitive program initiatives can be built. MU faculty, deans, the Office of Research, external partners, and others will now create the program initiatives.

Unique assets that MU has that no one else has or can hope to have, which position MU uniquely in the world on higher education. These assets can take several forms:

- Unique mix of programs
- Collaboration with external partners
- Institutional culture
- Unique facilities

Facilities and environment

A. Nuclear reactor.

- MU has the largest research reactor at any university in the U.S. Its activities include research, instructional, and production functions.

B. Interdisciplinary campus culture.

- Faculty at MU work across disciplinary boundaries and are very entrepreneurial in putting together unusual and forward-looking initiatives. Interdisciplinary successes are numerous, including nano science and materials, the Thompson Center for Autism and Neurodevelopmental Disorders, and the broad collaboration on policy research.

C. Unique state-wide presence

- MU is a land grant university with a public service commitment that touches every corner—with an Extension presence, *including extension councils*, students, and alumni in literally every county—of the State of Missouri. Other examples include MU’s Telehealth network, Area Health Education Centers, and broad-based economic development initiatives.

#### D. External partnerships

- MU has strong corporate, governmental, foundation and other non-profit partnerships that complement program strengths, together enabling uniquely strong program thrusts in areas that will define the future of the U.S. and of the University. Some examples include the Danforth Center, Washington University, ABC Labs, and CERNER.

#### Unique program mix

##### 1. Veterinary Medicine/Medicine/Animal Science.

- MU is one of a half dozen universities with Veterinary Medicine, Medicine, and Animal Science on the same campus. This combination, when allied with Engineering, Biological Sciences, and other disciplines, allows unique approaches to comparative medicine in both basic and translational research and ultimately in clinical applications. (Intersects with A, B, and D above; also with 2, 3, 4, and 6 below.)

##### 2. New Media

- Numerous programs at MU have interests that touch on new media. MU’s premier Journalism program, which has a focus on new, global media, has strong relations with Missouri external partners (e.g., AT&T, Spring, the Missouri Press Association, the KC Star, the St. Louis Post Dispatch) and with diverse programs across campus (e.g., engineering (especially digital design and imaging disciplines, writing, graphic design, and Center for the Digital Globe). Other important media programs whose interests overlap with those above include The Center for eResearch, which partners with Apple and Adobe, the Museum of Art and Archaeology, and the School of Information Sciences and Learning Technologies in the College of Education. (Intersects with B, C, D, and 1 above, and 4, 5, and 6 below.)

##### 3. Informatics

- MU’s corporate and governmental partners give a unique shape to research and instructional efforts to extract information from very large data bases in areas as diverse as health care (CERNER) and geospatial data bases (Geospatial Intelligence Agency). Programs as diverse as Marketing, Environmental Science, Plant Genomics, and Epidemiology embody applications of informatics technologies. (Intersects with A, B, D, and 1 above, and 5 and 6 below.)

##### 4. Aging

- MU’s unique Tiger Place, along with corporate partner Americare, brings together numerous campus academic programs as diverse as Nursing, Health Professions,

Sociology, Business, Engineering, Medicine, Human Development and Family Studies, Architectural Studies, and Social Work and Center for Health Policy. Research in Animal Science, Veterinary Medicine, Medicine, Nutrition, Education, Extension, and other areas contribute to a unique mix of campus initiatives in aging, with a particular emphasis on aging in place and on biomedical, clinical, and social aspects of aging. (Intersects with B, C, D, 1, 2, and 3 above.)

5. Agribusiness

- Missouri's two major urban areas bracket a uniquely strong agribusiness axis, with a Plant Science anchor in St. Louis and a world-prominent animal health cluster in the Kansas City area. MU plays a key role in this Agribusiness corridor, including partnerships with Monsanto, the Danforth Center, Bayer, and other prominent organizations. This axis aligns with the mix of MU programs (especially Animal Science, Plant Science, Life Science Center, Veterinary Medicine, and Biological Sciences), with the strong agricultural industry of rural Missouri, and with MU Extension's support network. (Intersects with A, B, C, D, 1, 2, and 3 above.)

6. Design disciplines and Imaging Technologies

- MU has a broad array of disciplines with strong design components, including Journalism, Graphic Design, Interior Design, Textiles, Theatre, radio-nuclear imaging, computer design technologies in Engineering and elsewhere, and in the broadest sense, Engineering. These strengths intersect with imaging technology program including film and animation technologies, Film Studies, geospatial analysis (Geography, Engineering, and application areas including Marketing, Environmental Studies, and Epidemiology), medical imaging, and Journalism. (Intersects with A, B, D, 1, 2, 3, and 5 above.)

**DRAFT**  
**March 7, 2009**

**MU STRATEGIC INITIATIVES:  
A MAP FOR MU'S FUTURE**

As MU thinks about its future, both as an institution of higher education and as a resource for economic development and quality of life, it is critical that the University focus on areas that position both the University and the State of Missouri strategically for the future. In AY 2007-08, MU held extensive discussions, forums, and other forms of input from hundreds of interested faculty and others to help our Strategic Advantages Task Force identify MU's assets that could position the University uniquely in higher education. These strategic advantages are not "programs," but they are foundation stones for programmatic initiatives that could position MU prominently in higher education and that could position Missouri prominently in economic development and, more generally, as a place of high quality of life and, accordingly, as a prime destination for the future work force.

We have now identified five strategic initiatives that will be built on MU's strategic advantages. We have received broad input from faculty, staff, students, and external constituents for defining these areas, both through a set of faculty forums that provided opportunities for open, creative discussion, and through discussions with the local Chamber of Commerce and other external constituencies.

**Guidelines**

The strategic advantages are not "programs" as we normally use the term. Rather, they are foundation stones for program initiatives, which might be thought of as clusters or networks of existing programs or parts of programs.

- The strategic initiatives must be in areas where we have "competitive advantages" in our competitive environment. We seek areas where we can rise to and maintain prominence over the long haul.
- The strategic initiatives cannot be "amorphous umbrellas," but rather have to have clear focus, with significant strengths and measurable outcomes to point to.
- It is critical that the strategic initiatives not compromise existing strengths at MU; rather they must complement our strong programs and provide opportunities for our existing programs to enhance their stature by strategic collaborations.
- The strategic initiatives should focus on solving big problems, not on "tools."
- It is important that they have a significant relationship to the state of Missouri: to communities, businesses, state government, other universities, to Missouri culture.
- The strategic initiatives cannot just be focused on research in science areas, but must also engage undergraduate education, the arts, social sciences, professional schools, public service, and international programs...in short, all aspects of MU's academic mission.

- Projects must extend beyond the campus, engaging corporate and other partners (e.g., corporate, other universities, national labs)
- Not only will the strategic initiatives be interdisciplinary, the strategic initiatives will overlap with each other to produce synergies among the initiatives themselves.
- The success of any area will depend on the strength and leadership of key faculty.

## **MU's Initiatives**

### 1. Food for the Future

- Builds on MU's impressive agribusiness (animal and plant) strengths and on strong relations with corporate and research partners in St. Louis (plant) and Kansas City (animal); also relates to a strong MU Nutrition program, to Aging, Obesity, and other chronic health issues, and to basic biological sciences, Animal Science, Veterinary Medicine, and all health disciplines.
- Other assets for the initiative are that it intersects with Business (the changing business model for agribusiness is extraordinarily important for Missouri), with Restaurant and Hotel Management, with applied ethics, the Journalism and public education/information, with Extension programs, chronic disease research and clinical treatment (especially obesity), social services, the CIM, and with environmental studies, Law, Public Health, Health Policy.
- Both undergraduate and graduate education, as well as continuing education, should carefully assess and address workforce needs, and many disciplines will find it appropriate to include "food issues" in selected courses: e.g., in history, in literary and film studies, in social sciences (e.g., cross-cultural studies), and in service programs.

### 2. New Media

- Builds on MU's world-class Journalism, including the Reynolds Institute, which does research on the rapidly changing media world; it also builds on Engineering and other work on digital technologies, on Communication Studies, and on many other disciplines that touch on media production and/or business models.
- This thrust intersects with nearly every college in the University, including Business (studies of the rapidly changing business model), applied ethics, public policy, graphic design, digital arts, creative writing, and many subject-matter areas (e.g., arts, athletics, politics, social issues, economics and business, health, agriculture, environment, public policy, religion, and science)

### 3. One Health, One Medicine: The Convergence of Human and Animal Health

- The combination of MU's interdisciplinary culture and the presence of Medicine, Animal Science, and Veterinary Medicine programs provides a virtually unique opportunity for research and education at the intersection of animal and human health.
- Based on inter-related MU capabilities, each of which combines aspects of animal and human health: (a) Public Health, (b) clinical/translational research, (c) animal models for human medicine, and (d) studies of zoonotic disease and possible pandemics, and (e) security issues.
- These areas not only intersect with each other, but they also connect with many other programs on campus including the Center for Comparative Medicine, the Program in Public Health, medical ethics, Health Policy, studies of chronic diseases (e.g., arthritis), Journalism and public education/information, CTSA (if the program is funded), security-related programs, environmental sciences.

#### 4. Sustainable Energy

- MU has many assets in the area of sustainable energy, both research and educational. The MU reactor is a strong asset for research and training in the nuclear energy (though it is currently underdeveloped in the energy area), and biofuels is an area of considerable research capacity and of local agribusiness interest.
- The sustainable energy initiative intersects with many other educational, research, economic development, and service programs including environmental sciences, nuclear science and engineering, public policy, economics, business, architectural studies, journalism and public information/education, transportation, basic sciences (chemistry, physics, biological sciences, geological sciences), agriculture, history, psychological and cultural studies, agricultural economics, and rural sociology.
- Energy may be the single most promising area for federal funding over the next decade.

#### 5. Understanding and Managing Disruptive and Transformational Technologies

- MU's strategic initiatives all are in areas in which existing technologies and all that is based on them are fundamentally changing: media, agribusiness, biomedical sciences, and energy. These changes are both transformational (opening stunning new opportunities) and disruptive (destroying existing businesses, jobs, and other ways of doing things). Implications of these dramatic changes need to be understood for the benefit of policy, business, and socio-cultural adaptation to changing times.
- This topic touches on virtually every part of the university, including business, legal, policy, economic, ethical, health, education, entertainment, arts, history, environment, standard of living, quality of life, climate, and transportation. MU's strategic initiatives, which are based on Missouri's position in these areas, provide a virtual laboratory for studying four key areas of disruptive and transformational technologies. Understanding these dynamics would position Missouri and the U.S. favorably in the rapidly evolving world economic, political, business, and cultural environment.

### Organization

The strategic initiatives will not become new “centers,” “institutes,” or similar units. Rather they will be **networks** of collaborators in a wide range of activities: research grants, conferences and other academic events, clinical operations, public education, economic development, academic programs, and large scale clinical trials, development of specialized facilities, to name a few possibilities. It is likely that the network structure will morph continuously as projects come and go, as individuals' interests shift, as organizations' agendas change, and as environmental conditions evolve—e.g., funding potential, regulatory environment, and political support. Each initiative must have strong leadership—a senior faculty member who will facilitate the network relationships, maintain contact with funding sources, provide a compelling public voice for the initiative, work with MU departments in hiring faculty contributors, and develop research facilities (e.g., labs, studios). In short, the leader of each initiative will bring together the people and other resources to make the initiative effective.

The network collaborators will be very diverse. Some will be individuals (e.g., researchers, teachers, business people), and others will be MU departments and centers. Many will be external to MU: corporate partners (e.g., Monsanto, Cerner), other universities (e.g., Washington University, UMKC), community colleges, national labs, research organizations (e.g., Danforth Institute, MRI), foundations, research parks (e.g., the Missouri Innovation Park in Blue Springs), cities (e.g., Kansas City, Springfield, St. Louis), economic

development organizations (e.g., REDI, CORE, KCADC), philanthropists, and others. Clearly, the collaborative activities will have to be facilitated by significant funding. Hiring and associated start-up costs will be critical. Organizing events, building labs and other facilities, providing match funds for grants, and providing special operational funds for faculty and others to attend conferences or other professional activities will be important.

A key element of the initiatives' success will be our ability to form strong relationships with the most respected, connected, and effective people in the world. One critical step will be to bring them to Columbia for our conferences and other activities. Ultimately, forming collaborations with them, and in some cases attracting them to MU as faculty, will be the real mark of success. Relationships are key to every university's effectiveness in receiving grants, placing publications in the most prestigious journals, getting faculty elected to the NAS and other organizations, attracting the best graduate students, hiring the best faculty, and succeeding at high levels in just about everything we do. Our potential to form relationships in these areas of special strength at MU is promising, and we will be very systematic in cultivating strong relations with the very best people.

An important activity will be fundraising. It is anticipated that the strategic initiatives will be one central focus of MU's next fundraising campaign, raising program funds, faculty endowments, student fellowships, and other forms of support. Significant effort will be directed to large, transformational gifts from very wealthy individuals with a passion for the big issues we are addressing, or from corporations, foundations, or other sources.

## **Academic Directions**

Taken together and separately, the strategic initiatives will greatly enhance the stature and recognition of MU's educational, research, service, and economic development programs. This, in turn, will enhance student (graduate and undergraduate) recruitment, will help in hiring the highest quality faculty and staff, will improve external funding for research, training, educational, and other programs, and will enhance publication success of faculty and students. And enhancing stature will greatly strengthen and broaden MU's relationships with major corporate partners, national labs, other universities, and other entities who will be productive partners in education, research, service, and economic development. Some broad activities that will contribute to these outcomes are:

- All five initiatives will engage an extraordinarily broad range of academic programs and centers: sciences, humanities, engineering, arts, policy studies, social science, law, business, Extension, and other areas. Both graduate and undergraduate programs that participate in the initiatives will find strong benefits in recruiting the highest quality students.
- Much of the strongest work will occur in the intersections of the initiatives. There is high potential for development of truly new, highly important, and very innovative programs that address several major challenges of this century—those to do with food, health, energy, media, and transformative/disruptive technologies. The intent here is not to define specific paths that the campus will take, but to lay out a set of related areas and provide relevant support so that highly talented and creative faculty can build initiatives that will build our future in these volatile and very promising times.
- The initiatives will require investment of resources for “seed funding.” But many resources will come from enhanced efforts to acquire external funding. These efforts will draw heavily on MU's grant writer network, a national model for successful grant funding. Fundraising from development efforts will also be significant, as indicated above.
- MU's strategic initiatives will benefit from a sustained series of major conferences, symposia, and other events that bring leading scholars to campus. Such events will build critical relationships in

the academic world and they enhance the intellectual vitality of the campus. Students, faculty, staff, corporate partners, and faculty at other higher education institutions all benefit from participation in these exciting events. The broad disciplinary base of the five initiatives enhances the quality of interaction at such events, bringing together scholars, practitioners, and professionals with differing and complementary perspectives that lead to highly productive synergies.

- Significant faculty hiring will be done in the five areas—much interdisciplinary, and much in the intersections of the initiatives. Initial seed funding will significantly match departmental and collegiate funding for salaries and start-up funds, and substantial funding will support hiring of a limited number of extremely distinguished people such as members of the National Academies and Pulitzer prize winners. Hiring will be done with an eye to research, service, and educational contributions.
- All of the initiatives have strong international dimensions. The subject areas are inherently international in scope and impact. The research and educational activities will certainly involve strong international collaborations. Economic development activities cannot be carried out today without attention to international issues—e.g., in export control, protecting intellectual property, and relations with international firms.

### Research

In addition to the general issues discussed above, there are critical issues specific to research. One key element will be development of facilities needed for the initiative areas. It is important that the initiatives are built on current areas of strength, where facilities are strong—e.g., the Bond Life Science Center—but as the initiatives develop, addressing facilities issues will be critical to their success.

It will be essential to build further on MU's unusually strong interdisciplinary culture, facilitating the collaborations across disciplinary, collegiate, and departmental boundaries. Such efforts will affect hiring practices, promotion and tenure, and other central processes of higher education. Budget processes will be profoundly affected as we address the need to incentivize departments to support cross-unit faculty activities.

### Education

The development of creative curriculum and educational programs that enhance educational experiences of undergraduate, graduate, and professional students will require intentional, disciplined investment of fiscal and human resources. The investments in these curricular and co-curricular activities will be designed in a way similar to the overarching strategic initiatives—they must be built on existing strengths.

It is not anticipated that new majors and minors will be created, although such developments are not ruled out. Initially, educational efforts and investments will focus on four areas. First, as indicated above, a significant amount of hiring will be done in the strategic initiative areas, with substantial salary matches. Educational interests of the faculty will be significant considerations in these hires. Second, both campus-based and on-line courses will be developed in creative ways; stipends will be available to faculty who develop such courses. Third, certificate programs in the initiative areas—perhaps in the areas of intersection—will be developed to formally complement the majors of participating academic units. Fourth, a substantial number of undergraduate research internships and graduate assistantships will be funded through the strategic initiatives.

Rich co-curricular activities associated with research projects, conferences, and other activities will significantly enhance students' educational experiences.

### Service

Current service activities, ranging from medical care to small business support to health programs in Extension will be enhanced by the strategic initiatives.

Conferences and other activities will provide strong opportunities for school teachers, corporate employees, and faculty at other higher education institutions in Missouri to develop professionally.

### Economic Development

MU is one of Missouri's strongest assets in the area of economic development. MU prepares very high-level workforce that is necessary to attract, retain, and grow firms. MU also creates intellectual property with great potential for commercialization, either through licensing (often to Missouri firms) or through startup companies. The potential for joint R&D is a major resource for Missouri firms and is a major asset for educational programs in placement of interns, post-docs, and graduate students in corporate research labs.

It is not accidental that these strategic initiatives have a close match with industry clusters in the State of Missouri. Thus, the potential for close collaboration in research is great, as is the quality of workforce trained at MU and, accordingly, the career opportunities for MU graduates.

MU's enormous network of alumni who are well placed in the corporate world tend to be in areas related to the strategic initiatives and to the state's major industrial clusters. Accordingly, this network is a major resource in recruitment of firms and in creating collaborative relationships—e.g., corporate sponsored research, joint R&D, and licensing intellectual property.

## **CHANCELLOR'S MEMO TO PRESIDENT FORSEE ABOUT INVESTING IN OUR CURRENT FISCAL ENVIRONMENT**

TO: Gary D. Forsee

FROM: Brady J. Deaton

DATE: April 1, 2009

RE: Strategy to Achieve Effective Reform and Restructuring in the Future Development of the University of Missouri-Columbia

This statement outlines our plans for structural change and adjustments in the University of Missouri-Columbia as we face a new and challenging competitive educational and budget environment.

Higher education has never been more important for the national and global social and economic environment. Public demand for the education, research, and service of the University of Missouri is more pronounced in today's difficult economic environment than ever before in the recent history of the U.S. The University of Missouri-Columbia has a major public research university, state and land-grant mission. Parents, elected officials, and the citizenry generally call on MU to serve important emerging needs. We see this expressed in a pronounced way through our Parents' Association and students who apply in increasing numbers for admission to the University of Missouri.

Accordingly, we approach the current planning process anticipating impressive achievements to be seeded by significant strategic investments that provide faculty incentives for growth, quality improvements, and socio-economic impact. Selective structural changes will be made in order to focus on strategic goals and achieve savings to fuel progress. However, we will avoid the disruptive effects of major organizational changes that lead to discord among faculty and alums; such change often achieves minimal actual savings, impairs our fundraising, and fails to drive the university forward. Form should follow function; by focusing on strategic investment, adjustments will be made in an interdisciplinary and cross-divisional manner to ensure progress.

### Proposal for Strengthening MU

We put forward a bold plan of action as we enter a new period of investment and planning over the next ten years. Specifically, we will invest in personnel and support of MU's Strategic Initiatives, which have been developed for the past two years through a dialogue among a broad range of faculty and other university constituents with much of the discussion occurring in open forums on campus. The investment in Strategic Initiatives will be undertaken in collaboration with our Strategic Planning and Resource Advisory Council (SPRAC). We expect the strategic investments to power appropriate structural changes that will undergird the future direction of the university.

The success of our Strategic Initiatives will depend on competitive salaries for faculty, staff and administration. We recognize the competing nature of salary demands with the need for strategic investments in new directions for the campus and will outline an approach that accommodates these needs. For addressing salary issues, we anticipate continuation of the Compete Missouri process as economic circumstances allow. More broadly, we are proposing significant resource reallocation within the university, drawing on external revenues insofar as they can be generated through philanthropy, increases in state

funding, and revenue from student enrollments. Significant gains in efficiency of operations will also feed this resource base.

In fact, we will draw on all resources available within the university through reinvestment of funds generated through enrollment growth, philanthropy, partnerships, Compete Missouri, and our planned slow-down in spending. An operating premise will be to enable and facilitate structural changes while minimizing discord among faculty and alums that impairs fundraising and reduces faculty, staff and student morale. By focusing on strategic objectives, adjustments will be made in an inter-disciplinary and cross-divisional manner, drawing on the important strengths in inter-disciplinary research for which MU has become well known.

Our intent is to reinvest at least \$25-30M over the next five years, nearly \$70 million over ten years to stimulate continued growth of the university even as we confront significant budget challenges. Initial investments will be in the following strategic initiative areas which were defined during a two-year process that included focus groups and four open faculty forums. Detailed descriptions of the initiatives can be seen in Attachment A.

- Food for the Future;
- One Health One Medicine: Convergence of Animal and Human Health;
- New Media;
- Sustainable Energy (especially nuclear and biofuels);
- Understanding and Managing Disruptive and Transformational Technologies: Economic, Social, and Cultural Implications.

Substantial plans are under development in each of these areas as faculty and deans develop in-depth approaches and rationales for future activities. An advisory group will be appointed for each area to oversee the development and funding of key programs and projects that further the plans. Faculty and support staff will be hired to undertake the scholarship and teaching in each area.

The structure for implementing these Strategic Initiatives will consist of:

1. Forming networks of individuals, centers, departments, corporate collaborators, national labs, economic development agencies, and other entities that conduct research, instruction, service, and economic development activities in the areas of the strategic initiatives. The initiatives will not be contained in centers or institutes, but rather will have broad and fluid structures centered around activities such as joint grant-funded projects, conferences and symposia, joint R&D, economic development functions, and policy research.

2. Inviting faculty across the university community to develop inter-disciplinary research and scholarly proposals within the Strategic Initiatives' framework with cutting-edge research and scholarship, curricular redesign, and teaching programs at the undergraduate, graduate, and professional levels.

3. Appropriate vetting of ideas and approaches with faculty will ensure sharply focused programs similar to the process used in populating the Bond Life Sciences Center and in earlier Mission Enhancement initiatives.

4. Proposals will be funded to hire faculty and develop supportive infrastructure. Funds are being set aside to provide operational packages and group or team hiring across disciplines as appropriate.

#### Generating Revenue to Drive Strategic Initiatives

The following key sources of revenue will generate the investment funds over the next five years:

1. We will continue our aggressive efforts to secure private sector gift funds that will support the strategic initiatives; these initiatives will provide the focus of development efforts for MU's next campaign.

2. We will maintain the partial freeze on faculty and staff hiring and expenditures, already underway through Compete Missouri, the university-wide hiring freeze, and the proposed 5 percent reductions to deal with financial uncertainty. These positions and funds will be reallocated back to the divisions to the extent possible and according to our Strategic Initiatives. New positions that become open will be replaced by hiring in areas of the Strategic Initiatives.

3. Faculty and staff workload adjustments will be undertaken as part of our continuing process to achieve efficiencies and generate additional FTE committed to the Strategic Initiative plan. In particular, we will draw on Academic Analytics and the Delaware Study to examine workloads across the university and work with leadership in schools and colleges to adjust assignments in teaching, research and service. This will be an important source of additional resources. An estimate of the resources generated will be available by October 1, 2009.

4. Additional resource movement will be encouraged at the school and college levels by working closely with leadership of those units and collaborating with public and private-sector entities outside the university as we strengthen our mission to the state. Effectively, human resources will be moved from low-to high-priority areas.

5. We will continue to eliminate ineffective research centers on campus and reallocate those resources to the Strategic Initiatives. Over the past year, we have reduced G.O. allocations to the centers by approximately \$1.7M. At the same time, in aggregate, the centers have generated significantly more extramural funding. The leverage factor is now 3.3:1. We intend to reallocate at least \$1M to Strategic Initiatives by selective reduction of GO support to Centers over the next year.

6. Important external partnerships across the state will lead to both program growth and new funding opportunities. These include our relationships with the Danforth Plant Science Center, our local Chamber of Commerce, our new initiative in Blue Springs, and new and emerging relationships with private-sector entities.

7. We will continue to develop both undergraduate and graduate programs where the marginal revenue exceeds the marginal costs. Specific examples already accomplished include our Information Technology Program in Engineering, a BS in Health Science, and our Master of Public Health program (MPH). Additionally, exciting new proposals for attracting international students in targeted areas are being developed.

8. New endowed chairs and professorships will be generated from private-sector giving. Although new endowed chairs and professorships do not usually add numbers to our faculty, we have received some gifts for which the level of endowment is sufficient to fully fund positions. Gifts for endowed faculty positions enhance compensation for key faculty, addressing one of our most pressing challenges.

9. Responsibility-Center Management (RCM) will be utilized across the campus to stimulate greater ownership by colleges and divisions of the actual costs of operating our university. RCM will also incentivize units to be more entrepreneurial so that additional revenue might be generated to cover those operating costs.

10. We will utilize flexible hiring processes for joint appointments across departments and divisions in order to build upon key strengths and stimulate successful collaboration, including important linkages with the private sector and revenue-generating opportunities.

#### Strategic Planning Background: Continuity with Past Success

It is critical that this strategic investment plan builds directly on past successes in strategic investments. Over the past 15 years, strategic planning at MU evolved and focused on new strategic directions for the university. For example, the niche planning process under Chancellor Charles Kiesler sought to strengthen key elements of the university to realize comparative advantages over competitors. The idea was to do those things which no other school could do as well. Several important programs were strengthened during this period and have continued into our present strategic planning activities. Among these are the strengths in molecular biology, psychological sciences, life sciences, and the humanities, particularly creative writing and classics, all of which are foundation stones for the current planning process.

In subsequent periods, more emphasis was placed on focusing university resources on strategic outcomes, developing baseline measures and projections for each outcome, and mobilizing resources to ensure the ability of the university to achieve those goals. Specific examples include the strengthening of advising, freshman interest groups (FIGs) and learning communities, and strategic investments in the life sciences, journalism, and the arts and humanities.

Our significant success in enhancing educational quality, and record research, enrollment, fundraising and reputation has grown systematically as sound processes of one period fed success in subsequent periods. That the Strategic Initiatives being pursued now draw on important foundations of earlier planning becomes more obvious as we examine several important areas outlined below:

1. Consider the thematic development of important scientific areas now encompassed within the Bond Life Sciences Center. These changes enabled multi-disciplinary initiatives to feed further development in the life sciences across the campus. The significant progress associated with life sciences research is evident by the rapid growth in external funding, by prominent publications, and by the attraction of quality and prestigious individuals in important areas of life sciences. While the growth in external funding in the Bond Life Sciences Center has greatly exceeded expectations, the growth in life sciences research among supportive colleagues on campus, but outside the Bond Center, has been even greater.

The successful scientific initiatives underway in the Bond Life Sciences Center are logical extensions of earlier investments in molecular biology, which included an important state-funded initiative to promote inter-disciplinary work in the biological sciences. A supportive component was the Food for the 21<sup>st</sup> Century program (F21C) funded under Governor Bond. F21C and molecular biology evolved in tandem and led to significant reinvestments under Mission Enhancement—clearly important foundations for Food for the Future and One Health, One Medicine.

2. The Integrated Plant Group (IPG) is not a formal center, but represents a coordinated plant science effort that is certainly among the top three in the nation, generating more NSF funding than any other plant science group in the country. This work has stimulated research that is now being fed directly into the Bond Life Sciences Center, along with other areas of strength noted above. IPG now represents over 40 faculty in three colleges at MU. Twelve member of the IPG are Fellows of the AAAS, making this a unique concentration of our most highly recognized scientists at MU. This is one of our most significant scientific thrusts and is key to the Food for the Future and Sustainable Energy initiatives.

3. Our programs in nuclear science and engineering are among the very best in the United States, and we operate the most powerful research reactor within academia in the USA. This outstanding resource will be all the more important to us as we help address the re-emergence of nuclear power within the

USA, and as we develop programs in medical physics that center on both radioisotope therapies and imaging applications. Radioisotopes are now proposed for use in tracing out the systems biology of plants, and they are essential to anthropology and the development of our understanding of the natural history of our planet and our species. We will develop this truly interdisciplinary strength of the university to the fullest extent possible, building upon the national leadership in these fields that we have achieved primarily through the strength of the MURR. Old divisional norms that have divided these efforts in the past will re-unify under resource management that centers on our strategic initiatives.

4. The Reynolds Journalism Institute in our School of Journalism, designed to generate new media models, was funded by the largest private gift in our For All We Call Mizzou campaign. The emergence of ideas that now position the University of Missouri to change the role of journalism in today's world over the next several decades grew from important dialogue stimulated by the last round of Mission Enhancement and represented multi-disciplinary input from these colleges and schools: Business, Human Environmental Sciences, Medicine, Health Professions and Law, among others. It also represents a funding model that will be important in the next phase of our work, the Strategic Initiative on New Media.

5. Biological Engineering, created as a merger of programs in CAFNR and Engineering, is becoming a major leading discipline, enabling faculty in medicine, engineering and agriculture to work collaboratively for important research objectives. Dr. John Viator's creation of a laser to detect melanoma is a prime example and is a strong foundation for One Health, One Medicine.

6. Resource reallocation to hire National Academy of Sciences member Dr. Fred Hawthorne and to ensure the development of a new international nanoscience center has captured national and international attention and resulted in numerous awards and recognitions for our faculty in the nanoscience areas. This extends to multiple colleges and departments in the university. Teamwork has been established across departmental and divisional lines to achieve multi-disciplinary and inter-disciplinary collaboration.

The process utilized under the last round of Mission Enhancement to reallocate approximately \$20M of funding internally in the university provides a useful model for informing the next phase of development under our Strategic Initiatives. A more detailed and operational document outlining the strategic initiative strategy is available and can be provided upon request. The proposed process is continuing to undergo change in our strategic planning process on campus, but will result in significant reallocation of resources.

Several key points merit repeating:

1. The current Strategic Initiative process builds directly on strong reallocation/strategic investment processes over the past two or three decades at MU.
2. The process utilized under the last round of Mission Enhancement to allocate approximately \$17.6M of funding provides a notable and successful precedent for the next phase of development under our Strategic Initiatives, and helps lay the programmatic groundwork for the present initiatives.
3. The Strategic Initiatives are built on a systematic process that identified "strategic advantages" for which MU is uniquely well positioned in Higher Education and the research world.
4. MU will form networks of faculty, departments, Centers, external partners and others to further research, education and economic development activities in the areas defined by the strategic initiatives. These networks will receive significant funding to support infrastructure, conferences, faculty hiring and other investments in developing a strong academic presence in MU's strategic initiatives. The nature of these investments is illustrated in the attached budget.

## Strategic Initiatives Budget

Assumptions:

- 5 strategic initiatives
- Completely integrated into strategic planning and financial planning
- Must be seeded with significant funding to succeed (see budget that follows; funds are mainly from the enrollment surge, internal reallocation, and F&A)
- Faculty hiring that receives match funds often will be in the intersection of two or more initiatives
- Faculty hires will preferably be interdisciplinary
- Funding will be enhanced greatly by development, grants, contracts, revenue from commercialized IP, and other sources

<u>Description of Expense Item</u>	<u>Annual Recurring Expenditure</u>
Matching funds for faculty hiring: 25 positions at \$50,000 match	\$1,250,000
Department funds for key faculty	1,750,000
NAS, Pulitzer hires: 4 positions with match of \$250,000 per hire	1,000,000
NAS networking project	50,000
Funds to seed conferences, other events: \$50,000 per initiative per year	250,000
Funds to subsidize event coordination services through Conference Office	60,000
Operating costs for each initiative \$25K director stipend, 60K staff, 50K E&E	675,000
Match for travel and other operating costs: 100 faculty at \$2,000 per year	200,000
Development expenses (personnel, operations)	115,000
Flexible rate funding	400,000
Match for equipment purchases	1,000,000
Match for start-up costs	<u>1,000,000</u>
<b>Total Recurring Budget for Strategic Initiatives</b>	<b>\$7,750,000</b>

## EDUCATION PROGRAMS

It is critical that higher education take serious action to accommodate the realities that our students will face in today's rapidly changing environment. We know that the average student will have several careers (not jobs, but careers). We know that many of the largest industries are in turmoil—the business models, the underlying science, the social and environmental implications of current practice, and much more. We know that interdisciplinary research and education ARE the future in many respects.

We also know that students will generally receive credentials in recognized fields and/or professions, which is as it must be. But we also must find ways to position people with these recognized credentials for the volatile world they will find themselves in. Our five initiatives are defined by areas of our economy, culture, and social fabric which are all in the midst of transformational change. The educational programs associated with the initiatives will, at least initially, focus on certificate programs that will provide context for changes that our graduates will encounter as they pursue careers and live in these volatile times.

Designing these educational activities will build heavily on a series of faculty forums that occurred about two years ago. At the Provost's Staff Retreat in 2007, a long and lively discussion occurred about how we would reinvent higher education from the ground up, knowing what we know today. The idea was to assume nothing; don't even assume that we would have classes, faculty, campus, majors, credit hours, courses, degrees, and so on. We might end up re-inventing faculty, campus, credit hours, and so on, but the idea was to sidestep the historical "baggage" that the current system gives us. The discussion at the Provost's Staff Retreat seeded a series of very robust faculty forums on the same topic. Summary notes from the faculty forums are attached.

Building on the discussions in the faculty forums, the certificate programs (and courses of which they are comprised) will be designed with a heavy emphasis on problem-based learning, on hands-on learning, team work, and practical experiences outside the classroom. Much of this educational experience will be heavily facilitated by cutting-edge technologies—some to be delivered through distance education, and some to be done in a classroom setting.

The main goal in any case is to complement existing majors at both the undergraduate and graduate levels. Thus, a student majoring in Health Policy or Public Health might do a certificate in Food for the Future or in Comparative Medicine. Or a student majoring in Journalism or in Business might do a certificate in Disruptive Technologies. A student with a Journalism, Communication Studies, or Information Technology major might do a certificate in New Media. It is anticipated that the certificate programs would be constituted of three to five courses (9 to 15 credit hours), some graduate and some undergraduate.

Many of the courses will be cross-listed across department and college boundaries, often taught by faculty with joint appointments. In some cases they may be taught by two or more instructors and/or TAs from more than one department. In all cases, the goal will be to capture the strong interdisciplinary synergies that characterize each of the five initiatives. Both graduate and undergraduate certificate programs may include significant research activity.

Funding is available for course development stipends, development of technologies, and for instructional design services. A coordinator of educational programs will be appointed to facilitate development of the courses and certificate programs.

## GUIDELINES FOR DISTRIBUTION OF EDUCATION FUNDS

### Course Development Funds

Stipends will be awarded to faculty to develop courses in the five initiative areas. The precise distribution over the areas will be determined by faculty interest and ideas for certificates and other larger instructional ideas. Funds are available for 40 stipends of \$8,000 each. It is anticipated that 20 will be for classroom or other rather traditional instruction modes. The other 20 stipends will be for technology-based courses, which may be either distance education, classroom education strongly centered on technology (e.g., simulations or team-based projects with major technology components).

Faculty who are interested in developing such courses should submit a proposal that (a) identifies one or more initiatives for which the course is relevant and explains that relevance, (b) spells out the context for the course (e.g., a certificate program, a course that would be part of several majors relevant to the initiative), (c) an outline of the course content and delivery mode, and (d) a brief description of the course development process. Those developing courses with high technology component will receive instructional design assistance; if necessary supplemental funding will be provided. Proposals should be submitted to the Education Coordinator and the Facilitator(s) of the relevant initiative(s); the Coordinator and the Facilitators will develop a process for review of the proposals and selection for the funding.

### Student Support Funding

All three forms of student support—GA match, UG intern match, and student travel match—will be awarded through the Coordinator of Education Programs, working with the Initiative Facilitators, who will develop the process for making the awards.

- The GA match may be either RA or TA awards. The match from the Initiative funds will be a maximum of \$10,000; awards will be made until the \$200,000 budget is expended.
- The undergraduate interns will work in faculty research programs. Awards will be for \$8.00 per hour for 15 hours per week for 30 weeks, for a total (including match) of \$7,200.
- Travel funds will match departmental, collegiate, center, or grant-funded travel for a maximum of a \$500.00 award for a total of 100 or more awards per year until the \$50,000 budget is expended.

# Reinventing Higher Education from the Ground Up

## Summary Notes from Five Breakfasts with Faculty Council, Chairs, UG Deans and Student Government Representatives

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Do not assume anything – e.g., not:

- Courses
- Majors
- Campus
- Lectures
- Credit hours
- Semesters
- Faculty

Meeting for 3 hours a week for 14 weeks for 3 “credit hours” is totally arbitrary. A “four-year degree” is arbitrary.

No right or wrong ideas, questions, or answers.

We do need to think of:

- Work force credentialing/qualifications
- Technology
- Mobility of students
- IP issues

We are talking about reinventing Higher Education, not just MU.

### **What are we trying to do? How are students different after they leave a university?**

What is the commonality of all “graduates” in the system we are inventing?

What do “graduates” give back to society?

What is a “society ready graduate”? (John Campbell)

- Knowledge base – subject matter information is pre-requisite for learning to think.
- Citizenship – global, values, access to support system, social maturation
- Skills – credentialing – program accreditation – students recognized in market place.  
Skills vs. Education
  - Is surgery a skill?
    - Educated surgeon
    - Skilled surgeon
- Learn how to learn
- Learn to think - “I don’t want them to learn chemistry. I want them to learn to think like a chemist.”
- Transferrable skills and problem solving
- Inspiration
- Quality of life – students need to make a life and a living, the purpose of higher education is to improve lives.

Different outcomes are desired for different programs – how do they overlap?

The average student will have 7 careers before he/she reaches retirement age.

### **Models**

Different learning styles require different models.

How can we build a system that individualizes education? What do students want?

Do multiple learning styles shape desired outcomes for each student?

More value on field experience and service learning.

Distance education – how do you reach those students and make them part of the community.

4-H as a learning model.

The Oxford system – houses of learning, small group meetings with professor, not discipline defined groups.

Large lecture classes blended with small group problem solving or discussion.

Get rid of M, W, F @ 9:00 model – go to block system, cluster system

Independent study model

Honors program – Humanities Sequence

### **Ideas**

Faculty as lifelong network.

Eliminate programs: What is the alternate structure?

Alternative teacher certification- practicing professionals as faculty?

Use technology to increase teamwork

Do not allow students to declare a major in the first two years.

Can't make sweeping changes with big ideas – could do a pilot program as part of a research project/grant.

Eliminate tenure – how can you make faculty positions competitive in the market.

Get rid of text books and use source materials or novels as problem based learning model.

Passion comes from interaction – Walden vs. Mizzou vs. urban school

We do FIGs at the beginning and Capstone at the end – the middle piece is missing – what ties these experiences together?

## Issues

Where does research fit? Universities have become the research laboratories for the U.S. and corporations. Industry relies on the university to do the research for them.

Differences in disciplines

- Arts – musicians require skill development
- Pre-med – GPA is the name of the game

Very small classes and independent study are not economically viable – large lecture courses allow us to deliver independent study.

We cannot do away with credentials for professional practice. – Accreditation and Testing – more accrediting bodies want competency based models.

Success of large lectures depends on teaching abilities. Variation in levels of student engagement based on how the instructor delivers the material. The instructor's passion for the subject and passion for teaching make a big difference in learning.

What do libraries of the future look like? They will be gathering places. Big coffee shops? Social and intellectual networking? How will materials be distributed?

## Impediments

Cannot make changes in HE without evaluating and changing K-12.

ROI – Cost of education is the biggest concern for students and their families (and the state) – what are you going to do with your degree in history – “I'm pre-professional.” Why study Goethe?

Disconnect between academia's view of higher education and the public's view of higher education.

Tenure process does not reward teaching.

Tension between tenured and non-tenured faculty – issue of status. Teaching faculty are perceived as having less status. (Big problem?)

Preparation of HS students

Wikipedia – evaluation of information – huge body of online information needs to be evaluated critically

Need dedicated revenue stream similar to corporations

Credential inflation

Financial silos are a big drag on our ability to structure learning models outside the silos.

Lack of individual interaction

Student could not get credit for TA-ship. Learned the most from teaching the subject, but there was no mechanism that allowed him to pay for the experience and get credit.

Power Point – robotic instruction. Deliver the lecture online – then meet students for small group discussions.

Accreditation requirements – licensing, etc. – place big constraints on what we can do.

Library referred to as the “Campus Museum” by tour guide.

## MU Anchors Science, Technology Park

*By Brian Foster  
MU Provost  
(published in Blue Springs Magazine)*

We at the University of Missouri in Columbia are excited about being the anchor tenant of the new Missouri Innovation Park. We look forward to partnering with the Blue Springs Economic Development Corporation, the City of Blue Springs, area corporations, the University of Missouri-Kansas City and other universities. Not only do we bring important assets to the Park, but our participation also benefits MU's research, graduate education and other core programs. The match of our strengths with those of the Kansas City area is remarkable, and I'd like to address them in three parts.

First, Mizzou brings the stature and recognition of a world-class university to the Missouri Innovation Park. With \$248 million in research expenditures each year, MU is Missouri's leading public research university. As important are MU's internationally recognized graduate programs, which supply high-level scientists, engineers and other research professionals. These doctoral students and post-doctoral trainees are a key part of the scientific labor force at the university, doing work that is a critical component of their education (much as a residency is part of a physician's training).

There are many strong affirmations of the quality and impact of MU's programs. Perhaps the most impressive is our membership in the Association of American Universities (AAU), a group of the most prominent and respected research universities in the U.S. and Canada. MU is one of only 32 public universities invited to join the AAU and has been a member for 100 years.

One of the most significant ways MU serves Missouri is in supporting economic development. With a \$1.75 billion budget, MU is one of the largest enterprises in the state and has a correspondingly powerful economic impact. Mizzou also is a large enterprise in its creation and commercialization of "intellectual property," academic language for bringing inventions to market or "tech transfer." MU currently manages more than 600 issued and pending patents and tech transfer has brought the university about \$50 million in revenues. In addition, MU provides a high-quality work force and conducts collaborative research with corporate partners (a key part of *their* tech transfer operations). And finally, MU works with economic development agencies to recruit, retain and grow firms in Missouri.

Recently we identified MU's most competitive strategic advantages that position us uniquely in the world of research and higher education, which leads me to my second point. Three of these strengths align extraordinarily well with key industrial clusters in the greater Kansas City area and, we expect, with the tenants of the Missouri Innovation Park:

- One Health, One Medicine: the Convergence of Human and Animal Health
- Food for the Future
- Sustainable Energy (especially nuclear and bio-energy)

Thirdly, establishing the Mizzou Innovation Center at the Park will allow us to concentrate on five types of activities:

- Mizzou will conduct excellent research, the basis of much of our contribution to the Missouri Innovation Park. Our research will focus on basic science that lays the foundation for new and creative applications, joint projects with corporate partners (tenants of the Park) and the development of intellectual property that can be commercialized.
- Effective commercialization of this intellectual property will be a key function at the Mizzou Innovation Center.
- Education programs that prepare an outstanding work force in key areas are central to MU's economic development efforts. One critical contribution will be in providing highly skilled doctoral students to work in the labs of tenants in the Park (and become employees later). Continuing education and other activities that boost the skills of the local work force is another major contribution.
- MU will help recruit firms for the Park by tapping our alumni networks and by using MU's strategic assets as incentives.
- And finally, the Mizzou Innovation Center will use the power of MU Extension programs and expertise to provide small business support and to enhance the quality of life in the Blue Springs area.

In short, MU is a world-class university that brings major assets to the Missouri Innovation Park. The university's attractiveness lies in several pre-eminent programs in areas that match well with the future tenants of the Missouri Innovation Park and, more broadly, with the industrial clusters of the greater Kansas City area.

**University of Missouri Extension  
Strategic Initiatives: A Map for the Future**

**Initiative: New Media**

**Summary: What is MU Extension’s relationship with this Initiative and with Missouri’s communities, businesses, other educational institutions, government and/or culture concerning this Initiative? Why is Extension’s involvement important?**

MU Extension faculty are engaged in e-scholarship, e-learning and e-collaboration with colleagues from other land-grant institutions to exert national and global influence on program and policy, transform data into relevant information and use technology to support positive youth development. New media play a critical role in our delivery of research-based information to the citizens of the state.

**e-Learning**

MU Extension brings learners everywhere access to quality education, both online and in the classroom, through MU Direct and the Center for Distance and Independent Study. The flexibility allows learners to access high school, undergraduate and graduate-level courses (credit and noncredit) anytime, anywhere and at their own pace.

MU Extension is the largest non-formal youth and adult learning institution in Missouri. Because MU faculty are distributed throughout the state and are integral to their local communities, MU Extension is a credible source of information. Translating research into practical and reliable information helps MU stay relevant to the residents and taxpayers of Missouri.

**e-Scholarship**

eXtension is an interactive learning environment delivering the highest-quality knowledge from the research and Extension faculty at land-grant universities across America. This new medium provides an opportunity for MU faculty to provide expertise to consumers globally on demand. Faculty collaborate with colleagues from other land-grant universities through Communities of Practice such as Entrepreneurs and Their Communities, Ag Commodities, Diversity Across Higher Education, Youth Literacy in Science, Family Caregiving, Just in Time Parenting and Financial Security. This is an opportunity for faculty to publish and become national and global leaders in their respective fields.

**Transforming Data into Information**

MU Extension is piloting use of geospatial technologies to help citizens solve complex issues by mapping data into meaningful, interactive representations. Local MU Extension faculty take this technology to citizens and facilitate deliberative processes to help elected officials, groups and organizations make informed decisions.

MU Extension offers a variety of research and policy support for economic development. The Food and Agriculture Policy Research Institute (FAPRI) is a collaborative program between Mizzou and Iowa State University. At FAPRI, comprehensive data and computer modeling

systems analyze complex economic interrelationships in the food, energy and agriculture industry.

The Office of Social and Economic Data Analysis (OSED) is Missouri's main source of demographic and economic data analysis to develop and evaluate economic policy. OSED's staff analyze, report and track trends for the well-being of Missouri's seniors and children. OSED's Missouri Career Exploration Tool, developed with the Missouri Division of Workforce Development, helps military personnel forced to transition to other careers due to base realignment and closure.

### **Technology to Support Youth Development**

MySpace, Facebook, Twitter, IM and texting are means by which young people keep connected. MU Extension 4-H Youth Development faculty use these tools with youth to help manage their groups, conduct business between meetings and guide youth in the beneficial use these social networking tools.. 4-H Youth Development faculty are integrating geospatial technology and processes into environmental programming, community emergency management and healthy living.

### **Commercialization of New Media**

The Business Development program administers funding under the umbrella of the Missouri Technology Incentive Program (MoTIP). The program assists companies and individuals with Phase "0" Small Business Innovation Research/Small Business Technology Transfer Program funding. Results include 103 proposals and 15 awards; 69 percent are new to the SBIR/STTR process. The objective is to increase SBIR/STTR research participation and awards in Missouri.

### **Missouri Film Office**

Extension operates the Missouri Film Office, which is helping bring new media and productions to the state. The office is funded by a grant from the Department of Economic Development. The Film Office made headlines when George Clooney came to St. Louis for filming of a major motion picture due out in fall 2009. Early estimates indicated \$30-\$50 million dollars in economic impact for the St. Louis area during the film production.

**What Are MU Extension's current strengths, expertise, capabilities, competitive advantages, measurable outcomes and resources concerning the Initiative? (interdisciplinary programs, statewide network, partnerships, etc.)**

### **e-Learning**

MU Extension's continuing and distance education programs help people build careers vital to the state's economy. Online classes are self-paced or semester-based. Degrees can be earned online from around the world and at anytime. Also, many Missourians take life-enriching classes specifically designed for people over 50.

More than 100,000 continuing education enrollments annually include teachers, veterinarians, doctors, nurses, public safety personnel and business owners. More than 8,000 high school students take courses they cannot get at their local schools, many of which are prerequisites for pursuing higher education, such as foreign languages, advanced math and science. Some students earn their diplomas online.

MU Extension is the official trainer for Missouri's 25,000 career and volunteer firefighters. More than 1,600 state and local employees took required national courses on community emergency preparedness taught by MU Extension faculty.

### **e-Scholarship**

MU Extension faculty lead or contribute to the 40 existing or developing Communities of Practices of eXtension. eXtension is a reliable and trusted source of information. Public site metrics for 2007 and 2008 indicate that page views increased by 186 percent (1,045,029 to 2,992,681); total visits increased by 299 percent (320,778 to 1,278,800); and total number of unique visitors increased by 306 percent (270,465 to 1,099,052). Missouri citizens from nearly 600 cities accessed information from eXtension.

### **MU Extension Web site**

In 1996, MU Extension was among the first state extension programs to move its publication content to the Web. In 2008, the MU Extension Web site had 6.1 million unique visitors. MU Extension launched a complete redesign of its Web site in April 2009. The new design is reorganized based on user input and testing. In May, 486,372 publications were viewed on the redesigned site (15,689 publication views per day).

### **Cooperative Media Group**

MU Extension's Cooperative Media Group is a convergence media facility that produces radio, print, television and online news stories that feature MU Extension faculty and programs. The office also produces video and radio news packages for other schools and colleges within MU. The HD video, digital radio news and photo distribution system results in more than 70 million listener/viewer impressions per year (based on Nielsen and Arbitron daypart numbers). The office also produces live and asynchronous streaming videos that enable people within Missouri and beyond to engage in learning opportunities.

### **Transforming Data into Information**

MU Extension offers a variety of reputable supports for social and economic policy development. Comprehensive databases, geospatial tools and computer modeling turn data into useful information for communities to make informed decisions. For example, St. Francois County residents cracked down on child abuse and neglect due to unacceptable trends in the KIDS COUNT report. In Hollister, Mo., information provided by MU Extension faculty translated into \$9.5 million for highway reconstruction, which generated 348 jobs and \$11 million in income and \$500,000 in tax revenue.

### **Technology to Support Youth Development**

MU Extension 4-H Center for Youth Development has 45 faculty and 50 staff who are highly skilled to work with hundreds of community volunteers to create environments for positive youth development. Teams of faculty and staff reach one in 10 youth in the state. Research has shown that young people in 4-H are 1.7 times more likely to go on to college; engage more in science, engineering and technology activities during out-of-school time; and perform nearly three times more community service than their non-4-H peers.

**What are MU Extension's plans, possibilities for the future? (Include what could be planned with more resources.)**

**e-Scholarship & e-Learning**

MU Extension faculty are encouraged to engage with colleagues in Communities of Practice. Publishing through eXtension will be recognized through the pending career progression program. MU Extension will continue to help people build careers, stay current in their field and access education from preschool through graduate work. Expanded opportunities for volunteers through e-learning will help them meet orientation criteria and certification to lead specified projects.

**Convergence Media**

We have combined the print, radio and television news efforts in our Cooperative Media Group and are using our Web site and content aggregators such as YouTube to deliver stories directly to consumers. We also work with KBIA radio to provide educational programming to listeners. Additional resources will allow for a single physical location to house the staff with access to the shared electronic workspace. The photo, video, and news archives can then be easily accessed for production of Web content, publications, podcasts and live streaming as part of our public information and education efforts. Enhanced use of social media, podcasts of campus lectures and more live streaming of programs from campus and across the state to Extension, 4-H and MU alumni groups are being examined and developed.

**Technology to Support Youth Development**

The principles of positive youth development -- connecting youth to caring adults, developing life skills and engaging in meaningful leadership experiences -- will not change. Skilled faculty will always be needed to balance high tech with the appropriate human touch to help children, youth and families grow and thrive.

**Which key faculty are involved? Which key faculty could be involved in the future?**

Key faculty involved in commercialization of new media include Paul Rehrig, associate state specialist, Small Business and Technology Development Center; and Jim Gann, specialist, SBTDC.

In the Missouri Film Office, Jerry Jones, project director, is key to involvement.

In MU Extension 4-H Center for Youth Development:

Bradd Anderson, digital media, and Tammy Gillespie, e-learning technologies

On the technology side:

Frank Fillo, director, Cooperative Media Group

Michael Dunn, station manager, KBIA radio

George Laur, director, Extension Publications

John Myers, director, Extension Technology & Computer Services

**How does MU Extension's involvement in this Initiative relate to any of the other four Initiatives? (New Media, Human and Animal Health, Sustainable Energy, Disruptive and Transformational Technologies)**

New media are methods for MU Extension faculty to inform, educate and engage learners and commercialize solutions to solve problems. E-Learning can increase knowledge and skills of learners on issues of human and animal health and sustainable energy. MU Extension faculty will facilitate the use of new technologies to transform data into information to help groups, organizations and governments make informed decisions. MU Extension is uniquely positioned to facilitate dialogue and develop concept-specific strategies for Missourians to understand and deal with emergent technologies and societal transformations. Commercialization of breakthroughs and new technologies in health (animal and human) or sustainable energy bridges the gap between the lab and the consumer.



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ATTACHMENT 8

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July 24, 2009

**TO:** Joy Millard

**FROM:** Brian Foster

**SUBJECT:** Hiring event coordinator for Strategic Initiative events

Joy, I would like to have a conversation in the very near future about hiring an event coordinator for events related to the Strategic Initiatives. This is closely related (but not the same) as the discussion we had earlier about bringing an extra 30,000 visitors to Columbia.

For the Strategic Initiatives, I would provide funding for a full-time position. I would like to have a person in this position who would be an effective spokesperson to faculty and deans about the value to campus and to individual departments, and about the services offered, encouraging faculty to use their position in national and regional associations to bring their meetings to Columbia. Basically, we need not only an effective event coordinator, but also an effective “hustler” who can get faculty (and staff, I should add) really enthusiastic about bringing events to campus...or at least to Columbia.

I will (by copy of this memo) ask Teresa to arrange a meeting of you, me, and Michael to talk about ways that we can roll this project out. I want to say that I’ve been extremely grateful for your willingness to talk about these matters in the past. Now, let’s try to actually do something!

BLF:td

cc: Brady Deaton  
Teresa Davis

**NOTES ON NETWORKING WITH NAS MEMBERS  
AND OTHER DISTINGUISHED FACULTY (Version 3)**

Brian Foster  
April 27, 2008

An important component of any university's recognition and stature, and of the quality of the academic experience on a university's campus, is the number of world-prominent scholars, artists, and others who spend time on campus, engaging the campus community, and getting to know the campus well.

The following notes are based on a discussion I had with Fred Hawthorne, and a follow up meeting with Fred, Lynn Randall, and Mike Roberts. The general idea was to craft a strategy for (1) identifying members of National Academies of Sciences and Engineering and the Institute of Medicine (or other prominent people such as Nobel laureates, Pulitzer prize winners, etc.) for whom there was some reason to think they might be open to a close relationship with MU, then (2) cultivating relationships with them (e.g., bringing them to campus for lectures, forming joint research projects), and (3) as opportunities arose, initiating more explicit relationships (e.g., placing post docs in their labs, having them on campus regularly, have them help get our faculty to be considered for membership, have them serve on MU graduate students' dissertation committees, engage them in joint research with MU faculty, or include them as formal members of MU centers and other programs). In some cases, these relationships could lead to their joining MU as faculty members or administrators. These notes are to translate this general idea into an action plan and identify some funding support.

**1. Identifying a "Prospect List"**

What are the characteristics of prominent academics (or artists, novelists, or others) whom we would like to have an extended relationship with MU **and** whom we would have the best chance of building such a relationship? The following come to mind, but a systematic discussion will be required to make a good list and to define the characteristics clearly:

- Grew up in Missouri (or perhaps adjoining states)
- Went to school at MU
- Went to school in Missouri
- Was graduate advisor to one or more MU faculty members
- Has written about Missouri
- Has collaborated with MU researchers
- Has long or close relation with Missouri organization (e.g., St. Louis Symphony)
- Uses Missouri facilities in research (e.g., MURR, St. Louis Botanical Garden)
- Has close relation with Missouri corporation(s)
- Has close personal friends at MU or elsewhere in Missouri

To make the strategy work, we need to systematically examine the membership of the Academies and Institute of Medicine, as well as recent winners of Nobel, Pulitzer, and other prestigious awards to construct the prospect list. To do so, I propose that we hire a graduate assistant to work with campus members (NAS members, chairs, deans, Curators' Professors, and others) to define the total list of potential "prospects", then to examine their biographical information to construct list of "best

prospects.” This list might be stratified by some well-defined criteria: e.g., highest level would be those with existing close research collaborations, next might be those with close personal ties to faculty, next those with family ties to Missouri, and so on. We may also wish to engage a senior faculty member or retiree to oversee and facilitate the process.

## **2. Cultivating relationships**

Cultivating relationships with the people on the “prospect list” must be done in a systematic and sustainable way, building on current relationships. A key opening for the process is to bring the person to campus, most likely to give a lecture, participate in a symposium, or similar event. It is crucial that this is just the opening, and we need systematic and continuous contact with the person into the future.

Follow up activities could include the following:

- Further lectures (e.g., the first launching a series of lectures)
- Research collaboration
- Asking the visitor to serve on a dissertation committee
- Asking the visitor to serve on an external advisory committee
- Asking the visitor to serve as a clinical preceptor
- Serve on panels organized by MU faculty for professional meetings
- Targeted interactions at professional meetings (e.g., host for cocktails, meals)
- Visit the person at his/her home institution
- Establish network of contacts—e.g., relations with person’s friends and colleagues, multiple relations with MU people
- Consult person on our searches—e.g., ask for nominations
- Work with the person in recruiting graduate students at MU
- Send MU students to graduate, post-doc studies, or medical residencies with the person
- Program reviews

These and other cultivation activities need to be tracked and records kept, much as would be done in cultivating donors. This tracking would need support, perhaps from the graduate student who does the background research for generating the prospect pool. Funds would need to be budgeted to support these kinds of activities, and the level of activity would have to be controlled to assure that appropriate funding was available to sustain relations with promising prospects.

## **3. Formalizing Relationships with MU**

It is important that the cultivation process end in real, sustained, and highly visible relationships with MU. One point of the exercise is to greatly enhance the quality of intellectual life on the MU campus by having the most interesting and exciting people in the world be part of campus life. Another key point is that close and visible relationships with such people will greatly enhance the stature and reputation of the university. This kind of association with the greatest minds of the world affect our recruitment of great faculty, our recruitment of outstanding students, our ability to have our grants funded, our funding prospects from philanthropic gifts, and our ability to place our graduates in the most prestigious positions.

Most of these relationships will have to be crafted in very creative ways, since these distinguished people will have primary relationships with other institutions. Research collaborations are models of

good relationships—e.g., they result in publications that are seen by the most important people in the field. Having inter-institutional initiatives that involve “centers” and “institutes” from multiple institutions open many possibilities for formal status at MU, for visible affiliation in publications, web sites for centers, and so on. And a trail of the distinguished person’s graduate students to MU, or of MU students to that person’s program, will be visible to those in the field. The networks that arise from such relationships as these will, over time, qualitatively change the stature of MU in the world of higher education.

Recruitment of such distinguished people to join the MU faculty would have to be targeted carefully while also taking advantage of unexpected opportunities that arise. In general, it would be extraordinarily expensive to recruit such faculty, and we would want to recruit them into areas where we have unusual program strengths—and, of course, we will have the best chance of attracting them here in areas of unusual strength. It would be important to extend our recruitment beyond very expensive areas in science and engineering to Math, Anthropology, and others where salaries, start-up, and other kinds of support are more manageable.

Most recruitment would be done as targeted hires, not open searches. It would be important to have substantial institutional funds available, including start-up, endowed professorships, prime space, bridge funds for post-docs and other colleagues, and perhaps even significantly unusual travel and other funds. This effort should be coordinated with the MU development office and with strategic planning. It is especially important that the development be systematically pursued in areas of our strategic advantages, giving us institutional stories that can be compelling with donors.

### **Action Plan**

Goals for the next year are as follows. It is critical that this process begin immediately and be sustained over next several years in a focused way. Documentation and tracking of interactions must be formally kept and tracked.

1. Summer/fall 2008

Hire student worker to do prospect list as described above. The list would be constructed by examination of the following:

- NAS members (National Academies of Science and Engineering, Institute of Medicine)
- Pulitzer Prize Winners over last 15 years
- Members of the Academy of Arts and Sciences
- Members of the Royal Academy
- Nobel prize winners over the past 15 years
- Other major awards at this level of distinction

2. Develop first draft of the prospect list in the fall, 2008.

3. Vet the prospect list with appropriate members of the MU faculty

4. Organize a minimum of two lectures by the “prospects” in spring, 2009

5. Have a minimum of 25 personal interactions between MU faculty and members of the “prospect list” in the form of lunches, breakfasts, dinners, or cocktails at professional meetings and other venues.

### **Budget for Year 1**

Student employee (full time summer, half time academic year)	16,000
Lectures (shared cost with departments, colleges)	10,000
Lunches, dinners, cocktails, etc.	2,500
Miscellaneous operations	1,500
<b>TOTAL</b>	<b>30,000</b>

### **Conclusion**

Relationships with distinguished faculty of the kind discussed here are important for MU in many ways. Such faculty members greatly increase the reputation of the university. They are key resources in attracting faculty, graduate students, and even grants. They have impressive national networks that are useful in attracting other people of their stature. They are highly visible locally, generating donor interest and political capital.

## LETTER TO DEANS ABOUT PROJECT TO NETWORK WITH PROMINENT SCHOLARS, ARTISTS, AND OTHERS

November, 2008

The purpose of this letter is to inform you of a new effort to enhance MU's relations with prominent scholars and artists. One of the most important ingredients of a vital campus intellectual life is to have the best scholars, scientists, engineers, performers, and writers in the world on campus interacting with the campus community. And to the extent that relationships with such people can be continuous—e.g., repeated visits, serving on doctoral committees, coming as visiting faculty, collaborating on research—the campus intellectual life is even more enhanced. Moreover, the recognition and stature of any university are greatly enhanced when prominent people get to know the campus.

I have had discussions on this topic with Fred Hawthorne, Lynn Randall, and Michael Roberts. We all agree that a good way to begin enhancing our networks is to consider our relationships with the many members of the National Academies, Pulitzer Prize Winners, Guggenheim Fellows, MacArthur Award Winners, and other distinguished scholars that have ties to MU and/or to Missouri. Many MU faculty members have personal and professional relationships with people of this stature as well. I want to explore ways to enhance MU's networks by systematically building on these relationships.

At present, the project entails (1) identifying members of the National Academies of Sciences and Engineering and the Institute of Medicine and other prominent individuals such as Nobel laureates, Pulitzer Prize winners who have a relationship with MU, (2) building on these relationships—e.g., bringing these individuals to campus for lectures or other reasons, developing joint research, asking them to serve as reviewers of MU academic programs, and (3) initiating more explicit and longer lasting relationships with these individuals—e.g., placing post-docs in their labs, inviting them to serve as members of graduate student dissertation committees at MU, perhaps adjunct membership in the MU faculty, and/or affiliates of centers.

The project has the full support of the Chancellor. Vice Provost Pam Benoit will be working closely with Chancellor Emeritus Richard Wallace, who has agreed to provide administrative oversight for the project. We have formed an Advisory Council to Enhance the Academic Networks at MU; the Council includes some of MU's finest and most connected scholars (membership list is attached). In addition, we have engaged a very able graduate assistant, Ms. Sarah Longlett, who will be working on the project under Richard's direction.

By the end of the semester, we will have identified some 20 to 25 names and will have invited at least two prominent scholars to campus. Then, before the end of the spring term, it is our hope to have had a minimum of 24 personal interactions between MU faculty and the 25 people we have identified—these interactions in the form of lunches, breakfasts, dinners, or other sessions at professional meetings and other venues. During the remainder of the winter, we hope to arrange for several of these individuals to be on campus for lectures and/or other interactions with MU faculty and students in the immediate future.

Though it will take some time (several years) and some work, this is an important venture. It is our hope that, through collaboration with members of the Advisory Council and other members of the current MU community such as you, we will be very successful in the enrichment of MU's academic culture. **Your support is critical for the success of the project. We seek your help in identifying prominent scholars with connections to MU, Columbia, or Missouri.** In addition,

if you will have an opportunity to interact later this fall or spring with one of the individuals we are thinking of, please let us know in advance of the meeting. We have identified some funds to reimburse you for coffee, breakfast, lunch, dinner, or cocktails for your meeting.

If you have suggestions in regard to either (1) possible membership on the Advisory Council or (2) prominent scholars with ties to MU or Missouri, please send their names and any contact information that you may have to Vicki Dennison (Richard Wallace's assistant) at [dennisonv@missouri.edu](mailto:dennisonv@missouri.edu) . Also, please contact Vicki Dennison if you have an opportunity to interact with one of the people we are thinking of, and she will arrange for reimbursement for the expenses incurred.