#### AGENDA ITEM V.I.

#### FY 2017-18 Board of Regents Support Fund Award Recommendations

#### SECTION A: INTRODUCTION

#### A.1 Constitutionally Prescribed Program Components

The Constitution specifies that the Board of Regents Support Fund (BoRSF) may be used to support "any or all" of the following activities:

- a. The carefully defined research efforts at public and private universities in Louisiana;
- b. The endowment of chairs for eminent scholars;
- c. The enhancement of the quality of academic, research or agricultural departments or units within a university; and
- d. The recruitment of superior graduate students.

#### A.2 FY 2017-18 Board of Regents Support Fund Plan and Budget

#### a. Projected Budget and Funds Available

On January 9, 2017, the Board of Regents adopted the FY 2017-18 Plan and Budget for the BoRSF, which was later approved by the Governor and the Legislature. Based on Revenue Estimating Conference (REC) projections, the Plan and Budget allocated \$22,000,000 across Support Fund components as follows:

FY 2017-18 Support Fund Budget As Set Forth in the Board's Annu	al Plan and Budget
Endowment of Chairs for Eminent Scholars	\$ 1,620,000
Research and Development	\$ 5,862,467
Enhancement of the Quality of Departments/Units	\$ 9,392,401
Recruitment of Superior Graduate Students	\$ 4,390,500
Board of Regents Administrative Expenses	<u>\$ 734,632</u>
Total Funds Budgeted	\$22,000,000

#### b. Actual Funds Available

Since approval of the FY 2017-18 BoRSF Plan and Budget in January 2017, the REC has issued several opinions relative to the amount of money projected to be available for higher education's portion of the Support Fund. The most recent estimate, released in December 2017, was \$20,000,000. This projection is significantly lower than the previous REC guidance and projections used to derive the approved Plan and Budget and, as a result, reductions in anticipated first-year funds must be taken in competitive program components as stipulated in the Plan and Budget. Cuts have been somewhat mitigated by the diligence of Support Fund staff in identifying savings in other budget categories before reducing dollars for new awards.

#### SECTION B: ENDOWED CHAIRS FOR EMINENT SCHOLARS COMPONENT

#### **B.1** Competitive Endowed Chairs

Eleven (11) proposals were submitted and deemed eligible for funding consideration this year under the Competitive subprogram. Eight (8) proposals requested \$400,000 each from the Support Fund to endow \$1 million chairs; two (2) proposals requested \$800,000 to endow \$2 million chairs; and one (1) proposal requested \$1,200,000 to endow a \$3 million chair. All requests were to establish new chairs.

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#### **B.2** Restricted Bequest Endowed Chairs

No requests for matching of restricted bequests were submitted in FY 2017-18.

#### **B.3** Summary of the Endowed Chairs for Eminent Scholars Program

The eleven (11) Endowed Chairs proposals requested a total of \$6,000,000 in matching funds from the Support Fund. All disciplines were eligible to apply. A team of out-of-state consultants assessed and ranked the proposals using the guidelines and scoring rubric provided in the Board's RFP and subprogram policy. (See **Appendix A** for the rank-order list of FY 2017-18 Endowed Chairs proposals and **Appendix B** for a summary of all competitive endowment proposals recommended for funding.)

It should be noted that the following stipulation in the Board's Endowed Chairs policy is relevant to proposals submitted in the Competitive subprogram: "...When requests exceed funds available, the following limitations apply relative to the amount of money that will be awarded per campus under the competitive program: (a) each public campus will be limited to \$1.2 million per fiscal year; and (b) all LAICU campuses combined will be limited to a total of \$1.2 million per fiscal year."

The \$1,620,000 projected in the FY 2017-18 Plan and Budget to be available in the Endowed Chairs for Eminent Scholars subprogram includes \$20,000 for consultants. Due to budgetary constraints, a reduction of \$400,000 (one slot) is necessary, leaving \$1,200,000 for allocation to successful proposals. This amount will enable funding for proposals ranked 1 through 3 in the Competitive subprogram.

#### Senior Staff Recommendation

The Senior Staff recommends provision of Support Fund money at levels requested to complete the endowments for proposals ranked 1, 2, and 3 in the Consultants' Report (i.e., proposals 002EC, 008EC, and 005EC). (See Appendix A.)

#### SECTION C: ENHANCEMENT OF THE QUALITY OF DEPARTMENTS OR UNITS COMPONENT

#### C.1 Recommended New Departmental Enhancement Projects

The \$9,392,401 figure cited in the FY 2017-18 Plan and Budget for Enhancement included the following distributions:

Prior Commitments						
Traditional and Undergraduate Enhancement	\$ 300,000					
Federal Matching Grants	\$1,675,000					
New Awards						
Federal Matching Grants						
Endowed Two-Year Workforce Scholarships	\$ 650,000					
Endowed First-Generation Undergraduate Scholarships	\$ 380,000					
Endowed Professorships	\$3,000,000					
Departmental Enhancement, including BoR/SREB	<u>\$2,637,401</u>					
TOTAL	\$9,392,401					

The eligible disciplines in Departmental Enhancement in FY 2017-18 included Engineering B (Industrial, Materials, Mechanical, etc.), Biological Sciences, Health & Medical Sciences, Physics, Social Sciences, Humanities, Agricultural Sciences, Astronomy, and Targeted Workforce.

In the winter of 2017 and spring of 2018, six teams of out-of-state subject-area experts reviewed, evaluated and ranked the Departmental Enhancement proposals within similar disciplines. Disciplinary assessments were then forwarded to a final panel of experts with broad academic and administrative experience, for final rating, ranking, and funding recommendations. The final panel considered all aspects of the proposals recommended for funding, but emphasized the overall impact of the investment on academic and research capacities in Louisiana, as well as alignment of proposed activities with the submitting campus's role, scope, mission and strategic priorities.

Departmental Enhancement	Number of Proposals Submitted	First-Year Funds Requested	Number of Proposals Recommended	First-Year Awards Recommended
Comprehensive-Multiyear	39	\$ 9,261,205	3	\$ 549,629
Targeted-One Year	<u>139</u>	<u>\$16,319,179</u>	<u>19</u>	\$ 1,935,831
TOTAL	178	\$25,580,384	22	\$2,485,460

#### Senior Staff Recommendations

The \$2,485,460 available and recommended for expenditure shall be awarded in the rank order, at the funding levels, and with the funding stipulations recommended by consultants:

**Comprehensive-Multiyear: Ranks 1-3** 

**Targeted-One Year: Ranks 1-19** 

Should the amount of money ultimately available to fund first-year activities in Departmental Enhancement projects be less than the \$2,485,460 disbursed herein, the following principles shall apply: (1) All Support Fund money shall be awarded in rank order, at funding levels and with stipulations recommended by consultants; (2) if the remaining money in the budget for a particular component is insufficient to fully fund the next recommended proposal for that component, the remaining funds shall constitute the total award for that proposal; and (3) should an institution refuse or be denied an award, that money shall be awarded to the next highest ranked unfunded proposal within that component. (See Appendix C.)

# C.2 BoR/Southern Regional Education Board Doctoral Support Initiative to Promote Student and Faculty Diversity

Five (5) institutions submitted a total of five (5) proposals requesting funds for the support of 32 BoR/SREB doctoral support slots in the FY 2017-18 competitive cycle. (See **Appendix C**.) A total of \$480,000 in first-year funds was requested. The external consultant recommended support for four (4) proposals, for a total first-year allocation of \$150,000. Funding will begin in FY 2018-19. Annual funding totals for recommended projects are:

FY 2018-19	\$150,000
FY 2019-20	\$150,000
FY 2020-21	\$150,000

#### Senior Staff Recommendation

The Senior Staff recommends approval of funding for four (4) proposals, ranked 1-4, submitted in the FY 2017-18 cycle to the BoR/SREB Doctoral Support Initiative for the durations and at the levels recommended. (See Appendix C.)

Appendix D summarizes by campus the Priority I recommendations for new projects under Departmental Enhancement.

#### C.3 Endowed Professorships

The Board of Regents Support Fund Endowed Professorships subprogram requires the submitting college or university to raise funds at prescribed levels from external sources, which are matched by Support Fund dollars to establish an endowed professorship valued at a minimum of \$100,000. The subprogram policy guarantees two matching slots to each eligible campus. In November 2016, the Board of Regents approved a change in the match rate from \$40,000 for a \$60,000 non-State contribution, to \$20,000 for an \$80,000 non-State contribution. Campuses were permitted to submit requests at the previous matching level through June 30, 2017, resulting in a large number of slots needing \$40,000 match, in addition to new slots at the \$20,000 match rate submitted during the current fiscal year. In addition, a campus with fewer than 15 Endowed Professorships is permitted to continue to submit \$60,000 contributions for \$40,000 match until the campus reaches that threshold.

The FY 2017-18 Support Fund Plan and Budget allocates a total of \$3,000,000 to the Endowed Professorships subprogram: \$1,680,000 for new and prior-year requests (first submitted after the 2012 program suspension and still unmatched), and \$1,320,000 for backlogged requests (submitted during the program suspension in 2012). With all requests validated, the Board received by the April 2, 2018 deadline applications for 206 Endowed Professorship \$40,000 slots submitted by the June 30, 2017 deadline (184 prior-year requests; 22 backlogged) from eleven campuses and ten Endowed Professorship \$20,000 matching slots from six campuses, requiring a combined total of \$8,440,000 in BoRSF matching funds. Each eligible submitting campus, with the exception of LSU and A&M College, will receive matching for a maximum of five new or prior-year slots (\$200,000), totaling \$1,520,000; LSU and A&M College will receive matching for four new or prior-year slots, for a total of \$160,000. In addition, LSU and A&M College is the sole campus with backlogged requests remaining from the 2012 program suspension; a total of \$880,000, to be provided from the \$1,320,000 budget allocation earmarked for backlogged match requests, will complete these 22 endowment slots (See **Appendix E**). Since no additional backlog requests are unmatched, the remaining \$440,000 set aside for such requests cannot be awarded and will be taken as a budget reduction. A complete list of Endowed Professorships applications submitted for funding consideration in FY 2017-18 appears in **Appendix F**.

#### Senior Staff Recommendation

The Senior Staff recommends approval of \$2,560,000 from the Support Fund for the Endowed Professorships subprogram: \$1,680,000 to match forty-five (45) new and prior-year requests and \$880,000 to match twenty-two (22) backlogged slots. (See Appendix E.)

#### C.3 First-Generation Endowed Undergraduate Scholarships

The Board of Regents Support Fund First-Generation Endowed Undergraduate Scholarships subprogram requires a submitting four-year college or university to raise at least \$60,000 from external or institutional sources, which is matched by \$40,000 from the Support Fund, thus establishing an endowed scholarship valued at a minimum of \$100,000; two-year campuses must provide \$30,000, to be matched with \$20,000 from the Support Fund to establish an endowed scholarship valued at a minimum of \$50,000. The program was suspended to new applications in July 2017; by the June 30, 2017 deadline eight campuses submitted 30 scholarships, requesting \$1,360,000 in BoRSF matching funds.

The FY 2017-18 Support Fund Plan and Budget allocates a total of \$380,000 to the First-Generation Endowed Undergraduate Scholarships subprogram for the establishment of at least nine endowed scholarships for first-generation undergraduate students. With all disciplines eligible and all requests validated, the Board has received

applications for thirty-four (34) \$40,000 scholarship matches; no requests were received from two-year campuses. A list of applications, in descending rank order as specified by each submitting campus, appears in **Appendix G**.

Each submitting campus will receive matching for its top-ranked scholarship, for a program total of \$360,000. After funding one slot per eligible campus, remaining funds of \$20,000 are insufficient to provide a match to any remaining requests and will be taken as a reduction in the budget.

#### Senior Staff Recommendation

The Senior Staff recommends approval of \$360,000 from the Support Fund to match eight (8) applications submitted before the July 1, 2017 program suspension date under the First-Generation Endowed Undergraduate Scholarships subprogram. (See Appendix G.)

#### C.4 Endowed Two-Year Student Workforce Scholarships

The competitive Endowed Two-Year Student Workforce Scholarships subprogram provides scholarship opportunities for students on two-year campuses to enter the Louisiana workforce in the following ways: (a) train students for immediate entrance into selected, high-demand, four- and five-star jobs, including positions in nursing and allied health; and/or (b) prepare students to become job-ready in STEM fields after completing degrees on four-year campuses. Non-State contributions combined with a BoRSF match will produce permanent endowments. This subprogram replaces the Enhancement Subprogram for Two-Year Institutions.

The FY 2017-18 Support Fund Plan and Budget allocates a total of \$650,000 to the Two-Year Student Workforce Scholarships subprogram, to be awarded on a competitive basis. With all requests validated, the Board has received applications for the matching of twenty-four (24) scholarships, requesting BoRSF funding of \$860,000. Proposals were rated and ranked by an out-of-state expert using the evaluation criteria set forth in the request for proposals, and eighteen proposals, totaling \$600,000, were recommended for funding with monies available. (See **Appendix H** for a rank order of recommended proposals and **Appendix B** for a summary of all competitive endowment proposals recommended for funding.)

#### Senior Staff Recommendation

The Senior Staff recommends approval of \$600,000 from the Support Fund to match eighteen (18) applications, ranked 1-17, submitted in FY 2017-18 under the Endowed Two-Year Workforce Scholarships subprogram. (See Appendix H.)

#### SECTION D: RESEARCH AND DEVELOPMENT COMPONENT

# D.1 Continuation of Previously Funded Research and Development (R&D) Projects and Other Prior Commitments

The \$5,862,467 cited in the FY 2017-18 Plan and Budget as being available for Research and Development (R&D) includes amounts for prior commitments to Support Fund R&D awards approved in previous years as well as approximately \$135,000 in consultants' costs for the FY 2017-18 R&D review process.

#### D.2 Recommended New Research and Development Projects

The R&D component of the BoRSF includes the Research Competitiveness Subprogram (RCS), the Industrial Ties Research Subprogram (ITRS) with Proof-of-Concept/Prototyping (PoC/P) component, and the Awards to Louisiana Artists and Scholars (ATLAS) subprogram. RCS solicits proposals that strengthen the research foundations and competitiveness of Louisiana colleges and universities and help to promote long-term economic

development. ITRS and PoC/P target proposals that support research with significant near-term potential for development and diversification of Louisiana's economic base. ATLAS supports completion of major scholarly and artistic endeavors from the arts, humanities, and social sciences with potential for broad impact on State, regional, national and/or international levels.

Eligible disciplines in RCS for FY 2017-18 are Biological Sciences, Computer/Information Sciences, Earth & Environmental Sciences, Chemistry, Engineering B (industrial, materials, and mechanical), and Health & Medical Sciences. ITRS with PoC/P invites ideas for applied research projects that promote near-term economic development in the State; accordingly the five high-priority industry sectors – Advanced Materials & Manufacturing, Clean Technology & Energy, Coastal & Water Management, Digital Media & Enterprise Software, and Life Sciences & Bioengineering – are targeted for support, though other disciplines may apply provided the project can demonstrate a significant potential economic benefit to Louisiana. ATLAS accepts proposals in all arts, humanities and social sciences areas.

From November 2017 through March 2018, 44 subject-area reviewers and twelve final panel members across four panels reviewed, evaluated, and ranked research proposals according to the Board's RFP guidelines and evaluation criteria. The following table summarizes consultants' recommendations across the four R&D subprograms/components (See **Appendix I**):

R&D Subprogram	Number of Proposals Submitted	First-Year Funds Requested	Number of Proposals Recommended	First-Year Awards Recommended
Research Competitiveness Subprogram	151	\$ 7,639,045	34	\$ 1,576,831
ITRS Industrial Ties	39	\$ 2,913,946	8	\$ 488,099
ITRS Proof-of-Concept/Prototyping	19	\$ 752,140	6	\$ 238,685
Awards to LA Artists and Scholars	<u>65</u>	<u>\$ 2,939,973</u>	<u>19</u>	\$ 848,006
TOTAL	274	\$14,245,104	67	\$3,151,621

#### Senior Staff Recommendations

The Senior Staff recommends approval of disbursement of \$2,280,727 estimated to be available in FY 2017-18 to fund the first year of new RCS, ITRS, PoC/P, and ATLAS projects as follows:

- 1. Research Competitiveness Subprogram: \$1,286,078
- 2. Industrial Ties Research Subprogram: \$662,411
  - A. Industrial Ties: \$423,726
  - B. Proof-of-Concept/Prototyping Initiative: \$238,685
- 3. Awards to Louisiana Artists and Scholars: \$332,238

Approved R&D proposals shall be funded at the levels and with the stipulations recommended by consultants; Support Fund money shall be awarded to fund at recommended levels the top twenty-six (26) RCS proposals, seven (7) ITRS proposals, six (6) PoC/P proposals, and eight (8) ATLAS proposals; the RCS proposal ranked 27<sup>th</sup> shall be funded partially, based on the amount of remaining funds in RCS. In addition, the following principles shall apply: (1) should an institution refuse or be denied an award, or should FY 2017-18 money be returned from previously funded R&D contracts, that money shall first be used to provide full funding to rank orders partially supported with remaining funds, then offered to the next-ranked proposal which the consultants recommended for Priority I funding within the respective subprogram (ranks 28-34 in RCS; rank 8 in ITRS Industrial Ties; and ranks 9-19 in ATLAS), subject to availability of funds; (2) if the remaining money in the budget for a particular component is insufficient to fully fund the next-ranked recommended proposal for that component, the remaining funds shall constitute

the total award for that proposal; and (3) if there are no remaining Priority I proposals in a particular subprogram the money shall be awarded in descending rank order to Priority I proposal(s) in another R&D subprogram in accordance with restrictions applicable to allocation of funds for multi-year projects. Should the amount of money ultimately available to fund first-year activities in all R&D projects be less than the \$2,280,727 disbursed herein, adherence to the following principles shall be uniformly enforced: R&D Priority I proposals shall be funded in rank order at the levels and the durations and with the stipulations recommended by consultants until the funds designated for each component have been exhausted. (See Appendix I.)

Appendix J includes a summary, by campus and R&D subprogram, of new projects recommended for funding.

#### SECTION E: RECRUITMENT OF SUPERIOR GRADUATE STUDENTS COMPONENT

#### E.1 Endowed Superior Graduate Student Scholarships

The Endowed Superior Graduate Student Scholarships subprogram matches non-State contributions of at least \$60,000 with \$40,000 from the BoRSF to create endowed scholarships that may be used in support of graduate and first-professional students as well as post-doctoral fellows. Higher levels of non-State contributions, in minimum increments of \$60,000, may be matched with additional \$40,000 contributions from the Support Fund. The initial corpus of the endowment must remain intact, while income above the corpus may be used to benefit the student recipient in the form of scholarships, fellowships, and/or experiential opportunities, including internships, externships, conference travel, and field work.

It should be noted that the following stipulation in the Board's Endowed Superior Graduate Student Scholarships program policy is relevant to proposals submitted in this cycle: "...Louisiana State University and A&M College, due to its distinctive public flagship status, may receive a maximum of 50% of subprogram funds budgeted...; each submitting campus with a five-year average total graduate and first professional student enrollment of 1,000 or more may receive a maximum of 30% of subprogram funds...; and each submitting campus with a five-year average total graduate and first professional student enrollment of less than 1,000 or with post-doctoral fellow positions but no student enrollment may receive a maximum of 20%."

The FY 2017-18 Support Fund Plan and Budget allocates a total of \$920,000 to the Endowed Superior Graduate Student Scholarships subprogram, to be awarded on a competitive basis. With all requests validated, the Board has received applications from nine campuses for the matching of fifty-seven (57) scholarships, requesting BoRSF funds of \$5,400,000. A rank-order list of applications appears in **Appendix K**. (See **Appendix B** for a summary of all competitive endowment proposals recommended for funding.)

#### Senior Staff Recommendation

The Senior Staff recommends approval of \$880,000 from the Support Fund to match eleven (11) applications, ranked 1-10, submitted in FY 2017-18 under the Endowed Superior Graduate Student Scholarships subprogram. (See Appendix K.)

#### SECTION F: CONTINGENCY PLAN FOR BUDGETARY SHORTFALL

#### Senior Staff Recommendation

The Senior Staff recommends approval of the following contingency plan for a budgetary shortfall: should the final FY 2017-18 Support Fund budget not achieve the amount cited herein, any shortfall shall be accommodated through a proportionate reduction in the amounts allocated for proposals in the competitive non-endowment Enhancement and Research and Development program components.

#### SECTION G: CAMPUS SUCCESS RATES

**Appendix L** contains a chart that summarizes – by campus and program – the number of proposals submitted to competitive Support Fund components, proposals recommended for funding, and first-year and total funding recommended for all Priority I proposals during the FY 2017-18 BoRSF competitive cycle.

## APPENDIX A

### **RANK ORDER**

### BoRSF Endowed Chairs for Eminent Scholars Subprogram Proposals Submitted FY 2017-18

### Competitive Subprogram

Rank	Proposal Number	Institution	Title of Chair	BoRSF Match Recommended	Total Points (100 Points)
1	002EC-18	LSU and A&M College	Dodson and Hooks Endowed Chair in Maritime Law	\$400,000	96
2	008EC-18	Tulane University	Scott and Marjorie Cowen Chair in Latin American Social Sciences II	\$400,000	91
3	005EC-18	LSUHSC-NO	Cancer Crusaders Chair in Advanced Cancer Therapy Research	\$400,000	90
4	004EC-18	LSU and A&M College	Freeport-McMoRan Endowed Chair in Economics #2	\$400,000	89

### **APPENDIX B**

### Board of Regents Support Fund (BoRSF) Competitive Endowment Subprograms Summary of Priority I Recommendations, FY 2017-18

Institution			Endowed (	Chairs		Endov	wed Gradua	te Scholarships	E	Endowed T	wo-Yr Work	force Scholarships	Total Proposals				
		Submitted	Recm.	Total Award		Submitted		Total Award		Submitted	Recm.	Total Award	Submitted	Recm.	Total Award		
BRCC										1	1	\$20,000	1	1	\$20,000		
BPCC										2	2	\$80,000	2	2	\$80,000		
Centenary										_		+,		_			
Central Louisiana																	
Delgado										2	1	\$10,000	2	1	\$10,000		
Dillard										-		ψ10,000	 -		\$10,000		
Grambling																	
Fletcher										1	1	\$60,000	 1	1	\$60,000		
Louisiana College												<i>\\</i> 00,000			<i>\\</i> 000,000		
LCTCS																	
Louisiana Delta										1	0	\$0	 1	0	\$0		
LSU - Ag Center		1	0	\$0						1	0	φυ	1	0	\$0 \$0		
LSU - Ag Center LSU - Alexandria			0	φυ										0	φυ		
LSU - Alexandria		3	2	\$800,000		27	4	\$440,000					30	6	\$1,240,000		
LSU - Eunice		3	2	\$600,000		21	4	\$440,000		3	1	\$10,000	 30	1	\$10,000		
LSU - Law										3	1	\$10,000	 3	I	\$10,000		
LSU - Pennington						1	0	¢0					4	0	¢o		
LSU - Shreveport	_			<b>*</b> 400.000			0	\$0					1	0	\$0		
LSU Health Sci. CtrNO	_	2	1	\$400,000	_	9	2	\$240,000					 11	3	\$640,000		
LSU Health Sci. CtrS	_	1	0	\$0	_	2	2	\$80,000					3	2	\$80,000		
Louisiana Tech	_																
Loyola	_					-											
	_																
McNeese	_	-			_	-											
Nicholls	_																
Northwestern	_																
Northshore	_									1	0	\$0	1	0	\$0		
Nunez	_					-				1	1	\$20,000	1	1	\$20,000		
Our Lady of the Lake																	
River Parishes										1	1	\$70,000	1	1	\$70,000		
St. Joseph Seminary																	
South Louisiana										5	4	\$200,000	5	4	\$200,000		
Southeastern Louisiana						2	0	\$0					 2	0	\$0		
Southern - Baton Rouge																	
Southern - New Orleans																	
Southern - Shreveport										2	2	\$60,000	2	2	\$60,000		
SOWELA										4	4	\$70,000	4	4	\$70,000		
Tulane		1	1	\$400,000		1	0	\$0					2	1	\$400,000		
Tulane Health Sci. Center																	
University of Holy Cross																	
UL - Lafayette						9	3	\$120,000					9	3	\$120,000		
UL - Monroe		3	0	\$0		5	0	\$0					8	0	\$0		
UNO						1	1	\$40,000					1	1	\$40,000		
Xavier																	
TOTALS		11	4	\$1,600,000		57	12	\$920,000		24	18	\$600,000	92	34	\$3,120,000		

## **APPENDIX C**

Board of Regents Support Fund Departmental Enhancement: Comprehensive FY 2017-18 Review Cycle
Priority I Proposals Recommended for Funding by Out-of-State Consultants

	Proposal				Primary Primary		Primary Duration		An		Amount Recommended					Cumulative		
Rank	Number	PI Name	Institution	Project Title	Category	Discipline	(Yrs)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Y1
1	026ENH-18	Jill Daniel	Tulane University	Enhancement of Core Research Facilities in the Tulane Brain Institute	Research	Health & Medical Sciences	5	\$240,946	\$200,000	\$200,000	\$174,717	\$184,337	\$240,946	\$200,000	\$200,000	\$174,717	\$184,337	\$240,946
2	008ENH-18	Kevin McPeak	Louisiana State University and A & M College	Advanced Device Fabrication for Science and Engineering Research and Education at Louisiana State University	Research	Engineering B	5	\$235,615	\$180,500	\$162,400	\$199,500	\$129,700	\$235,615	\$180,500	\$162,400	\$199,500	\$129,700	\$476,561
3	038ENH-18	Reggie Poche	University of New Orleans	Expanding Access, Enhancing Quality: Strengthening Digital Teaching and Learning in the Department of English and Foreign Languages at the University of New Orleans	Education	Humanities	5	\$81,068	\$175,750	\$136,750	\$113,800	\$113,800	\$73,068	\$175,750	\$136,750	\$113,800	\$113,800	\$549,629

Total Number of Proposals Submitted	39
Total Funds Requested for First Year	\$10,479,011.00
Total Funds Requested for Second Year	\$6,061,497.00
Total Funds Requested for Third Year	\$5,505,142.00
Total Funds Requested for Fourth Year	\$4,543,667.00
Total Funds Requested for Fifth Year	\$3,131,434.00
Total Funds Requested	\$29,720,751.00
Total Number of Proposals Recommended	3
Total Funds Recommended for First Year	\$549,629.00
Total Funds Recommended for Second Year	\$556,250.00
Total Funds Recommended for Third Year	\$499,150.00
Total Funds Recommended for Fourth Year	\$488,017.00
Total Funds Recommended for Fifth Year	\$427,837.00
Total Funds Recommended	\$2,520,883.00

Rank	Proposal Number	PIName	Institution	Project Title	Primary Discipline	Amount Requested	Amount Recommended	Cumulative
1	174ENH-18	Vassil Roussev	University of New Orleans	UNO CyberRange: An Advanced Platform for Cybersecurity Workforce Training	Targeted Workforce	\$195,400	\$195,400	\$195,400
2	177ENH-18	Ross Louis	Xavier University	Performance Studies Mobile Laboratory: An Interdisciplinary Teaching and Research Lab	Humanities	\$196,854	\$196,854	\$392,254
3	086ENH-18	Laura Bonanno	Louisiana State University Health Sciences Center - New Orleans	Enhancing Advanced Practice Registered Nursing Education to Improve Readiness for Professional Practice	Health and Medical Sciences	\$126,047	\$126,047	\$518,301
4	163ENH-18	Liz Skilton	University of Louisiana at Lafayette	Preserving Our Past: The History Lab & Louisiana Disaster Response	Humanities	\$48,929	\$48,929	\$567,230
5	066ENH-18	Qinglin Wu	Louisiana State University Agricultural Center	Strengthening Rheology, R2R Film Forming and Physi-sorption Facility for Nanocellulose Based Materials at Louisiana Forest Products Development Center	Agricultural Sciences	\$167,132	\$167,132	\$734,362
6	067ENH-18	Robb Brumfield	Louisiana State University and A & M College	Infrastructure improvements to enhance the preservation and accessibility of the Collection of Genetic Resources, an LSU treasure used in research and education at the Museum of Natural Science	Biological Sciences	\$199,827	\$162,027	\$896,389
7	139ENH-18	Samuel Ibekwe	Southern University and A&M College - Baton Rouge	Enhancement of Materials Research and Education through the Acquisition of High-Performance Servo-Hydraulic Tensile and Fatigue Test System.	Engineering B	\$200,000	\$200,000	\$1,096,389
8	060ENH-18	Daira Aragon	Louisiana State University Agricultural Center	Acquisition of a Laser Diffraction Particle Size Analyzer		\$111,860	\$111,860	\$1,208,249
9	058ENH-18	Julie Driessen	Louisiana College	Enhancing the Collaborative Learning Environment in the Division of Humanities		\$17,766	\$17,766	\$1,226,015
10	131ENH-18	Austin Crumley	South Louisiana Community College	International School of Aviation Excellence [ISAE] Technological Advancement		\$19,093	\$19,093	\$1,245,108
11	165ENH-18	Harry Whitlow	University of Louisiana at Lafayette	Organic Molecule Imaging at the Louisiana Accelerator Center [OMILAC]	Physics	\$197,675	\$197,675	\$1,442,783
12	101ENH-18	Robert Whitaker	Louisiana Tech University	Digital Humanities Initiative, Louisiana Tech University	Humanities	\$20,197	\$20,197	\$1,462,980
13	043ENH-18	Amy Hammond	Centenary College	Centenary Square Flexible Learning Environment	Social Sciences	\$28,344	\$18,000	\$1,480,980
14	041ENH-18	Brandy Tyson-Polk	Baton Rouge Community College	BRCC PTEC Targeted Industry Project	Targeted Workforce	\$96,660	\$96,660	\$1,577,640
15	176ENH-18	John Wiley	University of New Orleans	Cost Effective Helium Recovery System for Low Temperature Magnetic, Electronic and Thermal Measurements	Engineering B	\$125,212	\$125,212	\$1,702,852
16	053ENH-18	Errol Champagne	Fletcher Technical Community College	Breathing New Life into Cardiopulmonary Care Science Program		\$73,170	\$73,170	\$1,776,022
17	169ENH-18	Donna Glaze	University of Louisiana at Monroe	ULM Nursing Simulation Center Enhancement		\$92,462	\$92,462	\$1,868,484
18	111ENH-18	Raj Boopathy	Nicholls State University	Upgrading Autoclave for Microbiology Education	Biological Sciences	\$42,042	\$42,042	\$1,910,526
19	098ENH-18	Ashley Keith	Louisiana Tech University	ENHANCING TECH FARM THROUGH THE DEVELOPMENT OF A SMALL RUMINANT CENTER	Agricultural Sciences	\$25,305	\$25,305	\$1,935,831

#### Board of Regents Support Fund Departmental Enhancement: Targeted FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

Total Number of Proposals Submitted	139
Total Funds Requested	\$16,319,179
Total Number of Proposals Recommended	19
Total Funds Recommended	\$1,935,831

### Board of Regents Support Fund BoR/SREB Doctoral Support Initiative to Promote Student and Faculty Diversity For the FY 2017-18 Review Cycle

<b>Priority I Proposals</b>	Recommended for	<sup>•</sup> Funding by	<b>Out-of-State Consultant</b>

Rank	Proposal#	Proposal Title	Institution	PI Name(s)	Duration (Years)	Funds Recommended	BoRSF Cumulative 1 <sup>st</sup> - Year Amount
1	001SREB-18	Board of Regents Graduate Fellow Program 2018-21	LSU A&M	Michelle Massé	1 2 3 TOTAL	\$ 60,000 \$ 60,000 <u>\$ 60,000</u> \$180,000	\$60,000
2	004SREB-18	Board of Regents Doctoral Fellowships at Tulane University	Tulane	Michael Cunningham	1 2 3 TOTAL	\$ 45,000 \$ 45,000 <u>\$ 45,000</u> \$135,000	\$105,000
3	002SREB-18	Increasing Diversity in Doctoral Student Populations at Louisiana Tech University 2018-21	LA Tech	Habib Mohamadian	1 2 3 TOTAL	\$ 30,000 \$ 30,000 <u>\$ 30,000</u> \$ 90,000	\$135,000
4	005SREB-18	Board of Regents/SREB Graduate Fellowships to Promote Diversity and Inclusion at UL Lafayette	UL Lafayette	Mary Farmer- Kaiser	1 2 3 TOTAL	\$ 15,000 \$ 15,000 <u>\$ 15,000</u> \$ 45,000	\$150,000

### Summary of Priority I Proposals Submitted to the BoR/SREB Graduate Fellowships to Promote Diversity Program for the FY 2017-18 Review Cycle

Proposals	Proposals	Total First-Year	Total Funds	Total First-Year	Total Funds	Total First-Year
Submitted	Recommended	Funds Requested	Requested	Funds Recommended	Recommended	Funds Budgeted
5	4	\$480,000	\$1,440,000	\$150,000	\$450,000	\$150,000

## **APPENDIX D**

### Board of Regents Support Fund (BoRSF) Departmental Enhancement Summary of Priority I Recommendations, FY 2017-18

Institution		Dept. Enha	ancement:	Comprehensive	Ð	Departme	ntal Enhan	cement - Targe	ted	E	BoR/SREB	Doctoral	Student Suppor	t	Total Proposals			
		Submitted		1st Yr Award	Total Award	Submitted		1st Yr Award			Submitted		1st Yr Award	Total Award	Submitted	Recm.	1st Yr Award	Total Award
BRCC						2	1	\$96,660	\$96,660						2	1	\$96,660	\$96,660
BPCC						1	0	\$0	\$0						1	0	\$0	\$0
Centenary						2	1	\$18,000	\$18,000						2	1	\$18,000	\$18,000
Central Louisiana																		
Delgado																		
Dillard		1	0	\$0	\$0	8	0	\$0	\$0						9	0	\$0	\$0
Grambling																		
Fletcher						2	1	\$73,170	\$73,170						2	1	\$73,170	\$73,170
FMOLU						1	0	\$0	\$0						1	0	\$0	\$0
Louisiana College						4	1	\$17,766	\$17,766						4	1	\$17,766	\$17,766
LCTCS																		
Louisiana Delta																		
LSU - Ag Center		2	0	\$0	\$0	7	2	\$278,992	\$278,992						9	2	\$278,992	\$278,992
LSU - Alexandria						1	0	\$0	\$0						1	0	\$0	\$0
LSU and A&M		9	1	\$235,615	\$907,715	18	1	\$162,027	\$162,027		1	1	\$60,000	\$180,000	28	3	\$457,642	\$1,249,742
LSU - Eunice		1	0	\$0	\$0										1	0	\$0	\$0
LSU - Pennington						1	0	\$0	\$0						1	0	\$0	\$0
LSU - Shreveport						6	0	\$0	\$0						6	0	\$0	\$0
LSU Health Sci. CtrNO		3	0	\$0	\$0	4	1	\$126,047	\$126,047						7	1	\$126,047	\$126,047
LSU Health Sci. CtrS		1	0	\$0	\$0	1	0	\$0	\$0						2	0	\$0	\$0
Louisiana Tech		2	0	\$0	\$0	5	2	\$45,502	\$45,502		1	1	\$30,000	\$90,000	8	3	\$75,502	\$135,502
Loyola						3	0	\$0	\$0						3	0	\$0	\$0
LUMCON						1	0	\$0	\$0						1	0	\$0	\$0
McNeese						5	0	\$0	\$0						5	0	\$0	\$0
Nicholls		1	0	\$0	\$0	10	1	\$42,042	\$42,042						11	1	\$42,042	\$42,042
Northshore																		
Northwestern						6	0	\$0	\$0						6	0	\$0	\$0
Nunez						2	0	\$0	\$0						2	0	\$0	\$0
River Parishes																		
St. Joseph Seminary																		
South Louisiana						2	1	\$19,093	\$19,093						2	1	\$19,093	\$19,093
Southeastern Louisiana	_	1	0	\$0	\$0	6	0	\$0	\$0						7	0	\$0	\$0
Southern and A&M						4	1	\$200,000	\$200,000		1	0	\$0	\$0	5	1	\$200,000	\$200,000
Southern - New Orleans		2	0	\$0	\$0	4	0	\$0	\$0						6	0	\$0	\$0
Southern - Shreveport		1	0	\$0	\$0	2	0	\$0	\$0						3	0	\$0	\$0
SOWELA	_																	
Tulane		5	1	\$240,946	\$1,000,000	7	0	\$0	\$0		1	1	\$45,000	\$135,000	13	2	\$285,946	\$1,135,000
Tulane Health Sci. Center		3	0	\$0	\$0	2	0	\$0	\$0						5	0	\$0	\$0
University of Holy Cross						1	0	\$0	\$0						1	0	\$0	\$0
UL - Lafayette		5	0	\$0	\$0	10	2	\$246,604	\$246,604		1	1	\$15,000	\$45,000	16	3	\$261,604	\$291,604
UL - Monroe						4	1	\$92,462	\$92,462						4	1	\$92,462	\$92,462
UNO		2	1	\$73,068	\$613,168	5	2	\$320,612	\$320,612						7	3	\$393,680	\$933,780
Xavier	_					2	1	\$196,854	\$196,854						2	1	\$196,854	\$196,854
TOTALS		39	3	\$549,629	\$2,520,883	139	19	\$1,935,831	\$1,935,831		5	4	\$150,000	\$450,000	183	26	\$2,635,460	\$4,906,714

## **APPENDIX E**

### Endowed Professorships Matching Requests: Allocation of BoRSF Funds by Campus/System\* FY 2017-18 Submissions

	FY 2017-18 New/Prior Yr. (PY) Slots Requested	FY 2017-18 New/PY Slots Recommended	FY 2017-18 Funds Recommended: New/PY Slots	FY 2017-18 Backlog Slots Requested	FY 2017-18 Backlog Slots Recommended	FY 2017-18 Funds Recommended: Backlog Slots
Louisiana Association of In	dependent Colleges and	Universities (LAICU)				
Loyola	1	1	\$20,000			
Tulane	2	2	\$80,000			
TUHSC	2	2	\$40,000			
System Total	5	5	\$140,000			
LSU System (LSU)						
LSU Ag Center	1	1	\$20,000			
LSU and A&M	87	4	\$160,000	22	22	\$880,000
LSUHSCNO	22	5	\$200,000			
LSUHSCS	2	2	\$40,000			
LSUS	2	2	\$80,000			
System Total	114	14	\$500,000	22	22	\$880,000
Southern University System	n (SUS)					
Southern A&M	1	1	\$40,000			
System Total	1	1	\$40,000			
University of Louisiana Sys	stem (UL)					
LA Tech	1	1	\$40,000			
McNeese	10	5	\$200,000			
Northwestern	4	4	\$160,000			
UL Lafayette	13	5	\$200,000			
UL Monroe	20	5	\$200,000			
UNO	26	5	\$200,000			
System Total	74	25	\$1,000,000			
STATEWIDE TOTAL	194 184 @ \$40,000 10 @ \$20,000	45 39 @ \$40,000 6 @ \$20,000	\$1,680,000	22	22	\$880,000

## **APPENDIX F**

ion	LOUISIANA TECH UNIVERSITY					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sough
Clare	ence and Louise Faulk Professorship	1	Y	1	\$60,000	\$40,000
	1	1			\$60,000	\$40,000
on	LOUISIANA STATE UNIVERSITY AND A&M COLLEGE					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sough
Paula	a Manship Professorship for Excellence in Music	5	Backlog	1 - 5	\$300,000	\$200,000
Contr	ractors Educational Trust Fund Professorship #3 for Applied Professional Ethics	1	Backlog	6	\$60,000	\$40,000
Ourse	o Professorship of Communication Studies	2	Backlog	7, 8	\$120,000	\$80,000
Ourse	o Professorship of Communication Studies #3	1	Backlog	9	\$60,000	\$40,000
Leon	ard C. Tobin, Sr. Endowed Professorship	1	Backlog	10	\$60,000	\$40,000
Darel	lene and Thomas O. Ryder Professorship #7	1	Backlog	11	\$60,000	\$40,000
Darel	lene and Thomas O. Ryder Professorship #8	1	Backlog	12	\$60,000	\$40,000
Patric	cia Hewlett Bodin Dist. Professorship in College of Sciences	3	Backlog	13 - 15	\$180,000	\$120,000
U.J. I	LeGrange Professorship in Accounting #8	1	Backlog	16	\$60,000	\$40,000
Ron a	and Dr. Mary Neal Geaux Teach Distinguished Professorship	3	Backlog	17 - 19	\$180,000	\$120,000
Geor	ge C. Kent Distinguished Professorship #5	1	Backlog	20	\$60,000	\$40,000
Janet	t D. and Hermann Moyse, III Professorship in Social Work	1	Backlog	21	\$60,000	\$40,000
John	and Catherine Day Professorship in Oceanography and Coastal Studies	1	Backlog	22	\$60,000	\$40,000
Loret	tta Cox Stuckey and James G. Traynham Distinguished Professorship #2	1	Y	23	\$60,000	\$40,000
Patric	cia Hewlett Bodin Distinguished Professorship #2	3	Y	24 - 26	\$180,000	\$120,000
Ron a	& Dr. Mary Neal Geaux Teach Distinguished Professorship #2	3	Y	27 - 29	\$180,000	\$120,000
Luke	V. Guarisco Distinguished Professorship in American History #2	1	Y	30	\$60,000	\$40,000
Dr. Jo	oseph D. Martinez Professorship in Environmental Science	1	Y	31	\$60,000	\$40,000
U.J. I	Legrange Endowed Professorship in Accounting #9	1	Y	32	\$60,000	\$40,000
Doris	Westmoreland Darden Professorship #6	1	Y	33	\$60,000	\$40,000
Neil (	Odenwald Distinguished Professorship in Landscape Architecture	1	Y	34	\$60,000	\$40,000
Judith	h Walker Gibbs Professorship #2	1	Y	35	\$60,000	\$40,000
Neil (	Odenwald Distinguished Professorship in Landscape Architecture #2	1	Y	36	\$60,000	\$40,000
Enter	rgy Louisiana Professorship in Power Engineering	3	Y	37 - 39	\$180,000	\$120,000
Wedd	on T. Smith Professorship in Civil Law #2	1	Y	40	\$60,000	\$40,000
Luke	V. Guarisco Distinguished Professorship in American History #3	1	Y	41	\$60,000	\$40,000
Ben F	R. Miller, Jr. Professorship	1	Y	42	\$60,000	\$40,000
Lorra	ine and Leon August Professorship in Physics and Astronomy	3	Y	43 - 45	\$180,000	\$120,000
Profe	essional Ethics Professorship #4	1	Y	46	\$60,000	\$40,000
E.J. (	Ourso Professorship in Consumer Behavior	10	Y	47 - 56	\$600,000	\$400,000
E.J. (	Ourso Professorship in Marketing Strategy	10	Y	57 - 66	\$600,000	\$400,000
E.J. (	Ourso Professorship in Information Systems & Decision Sciences #1	7	Y	67 - 73	\$420,000	\$280,000
E.J. (	Ourso Professorship in Information Systems & Decision Sciences #2	7	Y	74 - 80	\$420,000	\$280,000
E.J. (	Ourso Professorship in Information Systems & Decision Sciences #3	6	Y	81 - 86	\$360,000	\$240,000

Sybil F. Boizelle Professorship         William Boizelle Professorship         U.J. LeGrange Professorship in Accounting #10         Cheney C. Joseph Endowed Professorship         Neil Odenwald Distinguished Professorship in Landscape Architecture #3         Joan Pender McManus Distinguished Professorship         Dr. William R. Lee Professorship in Genetics         Totals         43         Institution         LSU AGRICULTURAL CENTER         Name of Professorship         Sterling C. Bain Professorship in Sugarcane Production         Totals         1         Institution         LSU - SHREVEPORT         Name of Professorship         Joe B. Callaway Endowed Professorship in Business	3 1 3 1 5 3 109 Slots 1 1 Slots 1	Y Y Y Y New P/Y Request New P/Y Request	91 - 93 94 - 96 97 98 - 100 101 102 - 106 107 - 109 <b>Priority</b> 1	\$180,000 \$180,000 \$60,000 \$60,000 \$300,000 \$240,000 \$6,600,000 <b>\$6,600,000</b> <b>Donation</b> \$80,000	\$120,000 \$120,000 \$40,000 \$40,000 \$200,000 \$60,000 \$4,300,000 Match Sought \$20,000 \$20,000
U.J. LeGrange Professorship in Accounting #10 Cheney C. Joseph Endowed Professorship Neil Odenwald Distinguished Professorship in Landscape Architecture #3 Joan Pender McManus Distinguished Professorship Dr. William R. Lee Professorship in Genetics <b>Totals</b> <b>13</b> <b>13</b> <b>13</b> <b>13</b> <b>13</b> <b>14</b> <b>14</b> <b>14</b> <b>15</b> <b>15</b> <b>15</b> <b>16</b> <b>1</b> <b>1</b> <b>17</b> <b>17</b> <b>17</b> <b>17</b> <b>17</b> <b>17</b>	1 5 3 109 Slots 1 1 Slots 1	Y Y New P/Y Request New	97 98 - 100 101 102 - 106 107 - 109 <b>Priority</b> 1	\$60,000 \$180,000 \$60,000 \$300,000 \$240,000 \$6,600,000 Donation \$80,000	\$40,000 \$120,000 \$40,000 \$200,000 \$60,000 \$4,300,000 Match Sought \$20,000
Cheney C. Joseph Endowed Professorship         Neil Odenwald Distinguished Professorship in Landscape Architecture #3         Joan Pender McManus Distinguished Professorship         Dr. William R. Lee Professorship in Genetics         Totals         Institution         LSU AGRICULTURAL CENTER         Name of Professorship         Sterling C. Bain Professorship in Sugarcane Production         Totals         Institution         LSU - SHREVEPORT         Name of Professorship         Joe B. Callaway Endowed Professorship in Business	1 5 3 109 Slots 1 1 Slots 1	Y Y New P/Y Request New	98 - 100 101 102 - 106 107 - 109 <b>Priority</b> 1	\$180,000 \$60,000 \$300,000 \$240,000 \$6,600,000 Donation \$80,000	\$120,000 \$40,000 \$200,000 \$60,000 \$4,300,000 Match Sought \$20,000
Neil Odenwald Distinguished Professorship in Landscape Architecture #3         Joan Pender McManus Distinguished Professorship         Dr. William R. Lee Professorship in Genetics         Totals         Institution         LSU AGRICULTURAL CENTER         Name of Professorship         Sterling C. Bain Professorship in Sugarcane Production         Totals         Institution         LSU - SHREVEPORT         Name of Professorship         Joe B. Callaway Endowed Professorship in Business	1 5 3 109 Slots 1 1 Slots 1	Y Y New P/Y Request New	101 102 - 106 107 - 109 <b>Priority</b> 1	\$60,000 \$300,000 \$240,000 \$6,600,000 Donation \$80,000	\$40,000 \$200,000 \$60,000 \$4,300,000 Match Sought \$20,000
Joan Pender McManus Distinguished Professorship Dr. William R. Lee Professorship in Genetics Totals 43 Institution LSU AGRICULTURAL CENTER Name of Professorship Sterling C. Bain Professorship in Sugarcane Production Totals 1 Institution LSU - SHREVEPORT Name of Professorship Joe B. Callaway Endowed Professorship in Business	3 109 Slots 1 1 Slots 1	New P/Y Request New	102 - 106 107 - 109 <b>Priority</b> 1	\$300,000 \$240,000 \$6,600,000 Donation \$80,000	\$200,000 \$60,000 \$4,300,000 Match Sought \$20,000
Dr. William R. Lee Professorship in Genetics  Totals Institution  Totals  Totals  Control  Contro  Control  Control  Con	3 109 Slots 1 1 Slots 1	New P/Y Request New	107 - 109 <b>Priority</b> 1	\$240,000 \$6,600,000 Donation \$80,000	\$60,000 \$4,300,000 Match Sought \$20,000
Totals       43         Institution       LSU AGRICULTURAL CENTER         Name of Professorship         Sterling C. Bain Professorship in Sugarcane Production         Totals       1         Institution       LSU - SHREVEPORT         Name of Professorship       Joe B. Callaway Endowed Professorship in Business	109 Slots 1 1 Slots 1	P/Y Request New	Priority 1	\$6,600,000 Donation \$80,000	\$4,300,000 Match Sought \$20,000
Institution LSU AGRICULTURAL CENTER Name of Professorship Sterling C. Bain Professorship in Sugarcane Production Totals Institution LSU - SHREVEPORT Name of Professorship Joe B. Callaway Endowed Professorship in Business	Slots 1 1 Slots 1	New	1	<b>Donation</b> \$80,000	Match Sought \$20,000
Name of Professorship         Sterling C. Bain Professorship in Sugarcane Production         Totals       1         Institution       LSU - SHREVEPORT         Name of Professorship       Joe B. Callaway Endowed Professorship in Business	1 1 Slots 1	New	1	\$80,000	\$20,000
Sterling C. Bain Professorship in Sugarcane Production         Totals       1         Institution       LSU - SHREVEPORT         Name of Professorship         Joe B. Callaway Endowed Professorship in Business	1 1 Slots 1	New	1	\$80,000	\$20,000
Totals     1       Institution     LSU - SHREVEPORT       Name of Professorship       Joe B. Callaway Endowed Professorship in Business	1 Slots 1				
Institution LSU - SHREVEPORT Name of Professorship Joe B. Callaway Endowed Professorship in Business	1	P/Y Request		400,000	
Name of Professorship Joe B. Callaway Endowed Professorship in Business	1	P/Y Request			
Joe B. Callaway Endowed Professorship in Business			Priority	Donation	Match Sought
		Y	1	\$60,000	\$40,000
George A. Khoury, Jr. Endowed Professorship in Kinesiology and Health Sciences	1		2	\$60,000	\$40,000
Totals 2	2	Y		\$120,000	\$80,000
Institution LSU HEALTH SCIENCES CENTER - NEW ORLEANS	2			\$120,000	\$80,000
Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
Charles A. Cefalu, MD Endowed Professorship in Geriatrics	1	Y	1	\$60,000	\$40,000
Cheuk Family Professorship in Comprehensive Dentistry No. 2	1	Ŷ	2	\$60,000	\$40,000
The Gerald S. Berenson, MD Professorship in Preventive Cardiology	2	Y	3	\$120,000	\$80,000
Howard Buechner, MD Professorship of Medicine	2	Ŷ	4	\$120,000	\$80,000
Emeril J. Lagasse, III Professorship of Child and Adolescent Psychiatry	2	Ŷ	5	\$120,000	\$80,000
Emeril J. Lagasse, III Professorship of Child and Adolescent Psychiatry	1	New	5	\$80,000	\$20,000
Horatio Reily Professorship in Urology	1	Y	6	\$60,000	\$40,000
Austin J. Sumner, MD Professorship in Neurology	2	Ŷ	7	\$120,000	\$80,000
The Jim Lowenstein Professorship of Medicine	1	Ŷ	8	\$60,000	\$40,000
Brian P. Jakes, Sr., Professorship of Rural Healthcare	1	Ŷ	9	\$60,000	\$40,000
The Harry E. Dascomb, MD Professorship of Medicine	1	Ŷ	10	\$60,000	\$40,000
The Fred G. Brazda, PhD Professorship in Biochemistry	1	Ŷ	11	\$60,000	\$40,000
The Richard M. Paddison, MD Professorship of Neurology	1	Ŷ	12	\$60,000	\$40,000
The Marie LaHasky Professorship of Family Medicine	3	Ŷ	13	\$180,000	\$120,000
Margie Villere Professorship for Childhood Development in Psychiatry	1	Ŷ	14	\$60,000	\$40,000
Anderson/Searle Professorship in Psychiatry	1	Y	15	\$60,000	\$40,000
Totals 15	22			\$1,340,000	\$860,000
Institution LSU HEALTH SCIENCES CENTER - SHREVEPORT					
Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
Alice Coleman Endowed Professorship in Pediatric Rheumatology	1	New	1	\$80,000	\$20,000
Tilakram and Bhagwanti Devi Distinguished Professorship in Cleft Lip and Palate Surgery and Training	1	New	2	\$80,000	\$20,000
Totals 2	2			\$160,000	\$40,000

	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Peter J. Cangelosi/Beggars Professorship in History	1	New	1	\$80,000	\$20,000
Totals	1	1			\$80,000	\$20,000
nstitution	MCNEESE STATE UNIVERSITY					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Dr. Francis Bulber Professorship in Music	1	Y	1	\$60,000	\$40,000
	Robert Noland Professorship in Agricultural Sciences	1	Y	2	\$60,000	\$40,000
	William T. & Ethel Lewis Burton Foundation Professorship in Education #2	1	Y	3	\$60,000	\$40,000
	Dorothy and Wallace Hanna Endowed Professorship in Performing Arts #2	1	Y	4	\$60,000	\$40,000
	William T. & Ethel Lewis Burton Foundation Professorship in Education #3	1	Y	5	\$60,000	\$40,000
	CITGO Petroleum Professorship in Engineering #8	1	Y	6	\$60,000	\$40,000
	Dorothy and Wallace Hanna Endowed Professorship in Performing Arts #3	1	Y	7	\$60,000	\$40,000
	William T. & Ethel Lewis Burton Foundation Professorship in Education #4	1	Y	8	\$60,000	\$40,000
	CITGO Petroleum Professorship in Engineering #9	1	Y	9	\$60,000	\$40,000
	Fanny Edith Winn Professorship in Nursing #2	1	Y	10	\$60,000	\$40,000
Totals	10	10			\$600,000	\$400,000
stitution	NORTHWESTERN STATE UNIVERSITY					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	The R. Stewart Ewing Endowed Professorship in Business	1	Y	1	\$60,000	\$40,000
	The Thomas M. Wright Endowed Professorship in Accounting	1	Y	2	\$60,000	\$40,000
	Senator Gerald Long Endowed Professorship	1	Y	3	\$60,000	\$40,000
	State Farm Endowed Professorship in Business	1	Y	4	\$60,000	\$40,000
Totals	4	4			\$240,000	\$160,000
stitution	SOUTHERN UNIVERSITY AND A&M COLLEGE					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Myra A. Kleinpeter Endowed Professorship in Science	1	Y	1	\$60,000	\$40,000
Totals	1	1			\$60,000	\$40,000
stitution	TULANE UNIVERSITY					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Joseph H. Boyer Professorship in Chemistry II	1	Y	1	\$100,000	\$40,000
	Cochran Family Professorship in Earth and Environmental Sciences II	1	Y	2	\$100,000	\$40,000
Totals	2	2			\$200,000	\$80,000
nstitution	TULANE UNIVERSITY HEALTH SCIENCES CENTER					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Dean Baker Ellithorpe, M.D. Professorship VII	1	New	1	\$80,000	\$20,000
	Dean Baker Ellithorpe, M.D. Professorship VIII	1	New	2	\$80,000	\$20,000
Totals	2	2			\$160,000	\$40,000
stitution	UNIVERSITY OF LOUISIANA AT LAFAYETTE					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Thelma & Jamie Guilbeau/BoRSF Prof - History Instruction V	1	Y	1	\$60,000	\$40,000
	Richard G. Neiheisel/BoRSF Endowed Professorship in History	1	Y	2	\$60,000	\$40,000
	Rayne State Bank U J "Ducky" Prevost/BoRSF Prof - MBA Faculty	1	Ŷ	3	\$60,000	\$40,000
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	Gov Kathleen Babineaux Blanco/BoRSF Prof in Liberal Arts II	1	Y	5	\$60,000	\$40,000
	Francis Patrick Clark/BoRSF Prof In Comp & Informatics I	1	Y	6	\$60,000	\$40,000
	Francis Patrick Clark/BoRSF Prof In Comp & Informatics II	1	Y	7	\$60,000	\$40,000
	Laf. Music Co - Raymond J. Goodrich Professorship in Music	1	Y	8	\$60,000	\$40,000
	G.S. Beaman Griffin/BoRSF Endowed Professorship in Music	1	Y	9	\$60,000	\$40,000
	Rhett Jeansonne/BoRSF Professorship in Insurance & Risk Management	1	Y	10	\$60,000	\$40,000
	Francis Patrick Clark/BoRSF Prof In Comp & Informatics III	1	Y	11	\$60,000	\$40,000
	Francis Patrick Clark/BoRSF Prof In Comp & Informatics IV	1	Y	12	\$60,000	\$40,000
	Sen. Edgar "Sonny" Mouton/BoRSF Endowed Prof in Liberal Arts	1	Y	13	\$60,000	\$40,000
Totals	13	13			\$780,000	\$520,000
Institution	UNIVERSITY OF LOUISIANA AT MONROE					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Iberia Bank Endowed Professorship of Distinction	1	Y	1	\$60,000	\$40,000
	David & Sharon Turrentine Endowed Professorship	1	Y	2	\$60,000	\$40,000
	Progressive Bank Endowed Professorship in Financial and Information Technology Services	1	Y	3	\$60,000	\$40,000
	Clark G. Boyce Endowed Super Professorship in Construction	2	Y	4	\$120,000	\$80,000
	Emy-Lou Biedenharn Second Endowed Professorship in Music	1	Y	5	\$60,000	\$40,000
	Linda & Nick Bruno University Honors Endowed Professorship	1	Y	6	\$60,000	\$40,000
	Endowed Professorship in Nursing	1	Y	7	\$60,000	\$40,000
	Jan & Gary Luffey Endowed Professorship in Life Sciences	1	Y	8	\$60,000	\$40,000
	LIPA Professorship in Pharmacy	1	Y	9	\$60,000	\$40,000
	Leon Hammonds Professorship	2	Y	10	\$120,000	\$80,000
	Willis-Knighton Endowed Professorship for Nursing	1	Y	11	\$60,000	\$40,000
	John & Tasha Gardner Professorship in Marketing Analytics	1	Y	12	\$60,000	\$40,000
	Henry A. Little, CPA, Professorship in Accounting	1	Y	13	\$60,000	\$40,000
	Kim Sledge Super Professorship in Risk Management & Insurance	2	Y	14	\$120,000	\$80,000
	ULM Super Professorship in Risk Management & Insurance	2	Y	15	\$120,000	\$80,000
	Lawson & Sharon Swearingen Professorship in Political Science	1	Y	16	\$60,000	\$40,000
Totals	16	20			\$1,200,000	\$800.000
nstitution	UNIVERSITY OF NEW ORLEANS					
	Name of Professorship	Slots	P/Y Request	Priority	Donation	Match Sought
	Canizaro-Livingston Endowed Professorship in Software and System Development	1	Y	1	\$60,000	\$40,000
	Canizaro-Livingston Endowed Professorship in Cybersecurity I	3	Y	2	\$180,000	\$120,000
	Canizaro-Livingston Endowed Professorship in Cybersecurity II	2	Y	3	\$120,000	\$80,000
	Whitney Bank Endowed Professorship in Finance I	2	Y	4	\$120,000	\$80,000
	Whitney Bank Endowed Professorship in Finance II	2	Y	5	\$120,000	\$80,000
	White an Deale Frederica d Deafe as eaching in Francescient	2	Y	6	\$120,000	\$80,000
	Whitney Bank Endowed Professorship in Economics I					
	Whitney Bank Endowed Professorship in Economics I Whitney Bank Endowed Professorship in Economics II	2	Y	7	\$120,000	\$80,000
	-	2 2	Y Y	7 8	\$120,000 \$120,000	\$80,000 \$80,000
	Whitney Bank Endowed Professorship in Economics II				. ,	. ,
	Whitney Bank Endowed Professorship in Economics II Whitney Bank Endowed Professorship in Economics III	2	Y	8	\$120,000	\$80,000
	Whitney Bank Endowed Professorship in Economics II Whitney Bank Endowed Professorship in Economics III Peter L. Hilber, Sr. Endowed Professorship in Mechanical Engineering	2 5	Y Y	8 9	\$120,000 \$300,000	\$80,000 \$200,000

Totals	12	26	\$1,560,000	\$1,040,000		
		Amount	Donation	BOR Match		
	GRAND TOTALS	Amount	\$13,240,000	\$8,440,000		
	GRAND TOTALS	Total Professorships	125			
		Total Slots	216	216		
	Professorship Class	Professorships	Slots	Match Class Total		
	June 30 2017 Deadline Requests	104	184	\$7,360,000		
	Back-log Requests	13	22	\$880,000		
	New Requests	8	10	\$200,000		

Backlog = Slots submitted during 2012 program suspension

Y = Submitted after 2012 program suspension and prior to ratio change

New = Submitted after ratio change

## **APPENDIX G**

### Endowed First-Generation Scholarships Matching Requests: Allocation of BoRSF Funds by Campus/System\* FY 2017-18 Submissions (Program Suspended to New Applications)

		FY 2017-18	FY 2017-18
	FY 2017-18 Slots Requested	Slots Recommended	<b>Funds Recommended</b>
LSU SYSTEM			
LSU Alexandria	2	1	\$40,000
LSU Shreveport	1	1	\$40,000
System Total	3	2	\$80,000
UL SYSTEM			
Louisiana Tech	1	1	\$40,000
McNeese	1	1	\$40,000
Northwestern	17	1	\$40,000
Southeastern	1	1	\$40,000
UL Monroe	5	1	\$80,000
UNO	2	1	\$40,000
System Total	27	6	\$280,000
STATEWIDE TOTAL	30	8	\$360,000

#### FIRST-GENERATION ENDOWED SCHOLARSHIPS MATCH REQUESTS, FY 2017-18

Fiscal Year Submitted	Institution	Name of Scholarship	Slots	Donation	Match Sought
2016-2017	LA Tech	Leslie and Kathy Guice First-Generation Student Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	LSU - Alexandria	Jeremiah and Kenneth Grant Holcombe Endowed Scholarship for First Generation College Students in Allied Health	1	\$60,000	\$40,000
2015-2016	LSU - Alexandria	Howard and Eloise Mulder Endowed Scholarship #5 for First Generation College Students	1	\$60,000	\$40,000
2016-2017	LSU - Shreveport	Kathie Giddings Troquille Memorial Endowed Scholarship for First Generation College Students in Social Services	1	\$60,000	\$40,000
2014-2015	McNeese	Leslie Richard First Generation Scholarship #6	1	\$60,000	\$40,000
2016-2017	Northwestern	The Bacdayan Family First Generation Endowed Scholarship in Business	1	\$60,000	\$40,000
2016-2017	Northwestern	The Bacdayan Family First Generation Endowed Scholarship in Health Sciences	1	\$60,000	\$40,000
2016-2017	Northwestern	Michael Peter Manno First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Northwestern	Theta Mu First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Northwestern	Rose Landry Long Louisiana Senate First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #2	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #3	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #4	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #5	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #6	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #7	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #8	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #9	1	\$60,000	\$40,000
2016-2017	Northwestern	David and Sherry Morgan First Generation Endowed Scholarship #10	1	\$60,000	\$40,000
2016-2017	Northwestern	Ludlow and Bless McNeely First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Northwestern	John and Angelina Manno First Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	Southeastern	Judge Sheldon Fernandez First-Generation Endowed Scholarship	1	\$60,000	\$40,000
2016-2017	ULM	Milton and Bertha Gorn Super First Generation Scholarship	2	\$120,000	\$80,000
2016-2017	ULM	T. and Dollie John Super First Generation Scholarship	2	\$120,000	\$80,000
2016-2017	ULM	Anna Meyer First Generation Scholarship	1	\$60,000	\$40,000
2016-2017	ULM	Paul and Mary Fink Super First Generation Scholarship	2	\$120,000	\$80,000
2016-2017	ULM	Oscar Cahn and Kurt & Irmgard Fisher Super First Generation Scholarship	2	\$120,000	\$80,000
2016-2017	UNO	University of New Orleans International Alumni Association 2017 First Generation Scholarship	1	\$60,000	\$40,000
2016-2017	UNO	JP Morgan Chase First Generation Scholarship	1	\$60,000	\$40,000
	TOTAL	30	34	\$2,040,000	\$1,360,000

## **APPENDIX H**

#### RANK ORDER: PRIORITY ONE

#### BoRSF Endowed Two-Year Workforce Scholarships Proposals Submitted FY 2017-18

Rank	Proposal #	Campus	Scholarship Name	Match Requested	Total Points (100 Points)	Funds Recommended
1	015EWS-18	South Louisiana Community College	Acadiana Healthcare Endowed Scholarship in Nursing	\$100,000	100	\$100,000
1	016EWS-18	South Louisiana Community College	St. Landry Parish Cy-Pres Award Endowed Scholarship in Nursing	\$80,000	100	\$80,000
1	017EWS-18	South Louisiana Community College	Evangeline Endowed Scholarship in Nursing	\$10,000	100	\$10,000
4	014EWS-18	South Louisiana Community College	Lafayette General Health Heart of Nursing Endowed Scholarship in Nursing	\$10,000	99	\$10,000
5	009EWS-18	Louisiana State University at Eunice	Heart of Nursing Scholarship	\$10,000	98	\$10,000
6	003EWS-18	Bossier Parish Community College	BPCC Curt Eysink Two-Year Workforce Scholarship Proposal in Allied Health	\$60,000	97	\$60,000
7	002EWS-18	Bossier Parish Community College	BPCC Two Year Workforce Scholarship Proposal in Industrial Production	\$20,000	95	\$20,000
7	012EWS-18	Nunez Community College	Curt Eysink Memorial Nursing Scholarship		95	\$20,000
9	021EWS-18	SOWELA Technical Community College	Sasol/Curt Eysink Endowed Scholarship		93	\$20,000
10	019EWS-18	Southern University at Shreveport	Williams Center for Undergraduate Achievement Student Scholarship		91	\$50,000
11	004EWS-18	Delgado Community College	Sister Laurentia Walsh Charity Alumni Endowed Two-Year Workforce Scholarship in Nursing	\$10,000	90	\$10,000
12	020EWS-18	Southern University at Shreveport	Alpha Kappa Alpha Sorority, Inc. S.C, Region Student Scholarship	\$10,000	89	\$10,000
13	013EWS-18	River Parishes Community College	The Lambert Family Scholarship	\$70,000	88	\$70,000
13	022EWS-18	SOWELA Technical Community College	Greater Lake Charles Rotary Club Endowed Scholarship (2) - Supplemental Support	\$10,000	88	\$10,000
13	023EWS-18	SOWELA Technical Community College	Jim and Jo Ann Beam Endowed Scholarship		88	\$20,000
13	024EWS-18	SOWELA Technical Community College	Frank A. Wood Endowed Scholarship		88	\$20,000
17	001EWS-18	Baton Rouge Community College	Curt Eysink Endowed Workforce Scholarship in Accounting and Finance	\$20,000	87	\$20,000
17	006EWS-18	Fletcher Technical Community College	Curt Eysink Memorial Endowment Scholarship in Integrated Production Technologies	\$60,000	87	\$60,000

## **APPENDIX I**

#### Board of Regents Support Fund Research and Development Program Research Competitiveness Subprogram (RCS) for FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

					Amount Requested			Amount Recommended				
Rank	Proposal #	PI Name	Institution	Project Title	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Cumulative Year 1	
1	044A-18	Yogesh Saini	Louisiana State University and A & M College	Targeting cell-specific responses to treat lung infections	\$68,113	\$67,113	\$64,699	\$50,585	\$49,585	\$46,685	\$50,585	
1	120A-18	Lulin Jiang	University of Louisiana at Lafayette	Understanding Spray and Combustion Characteristics of a Novel Fuel-Flexible Twin-Fluid Injector	\$63,778	\$62,153	\$61,061	\$57,980	\$54,480	\$50,480	\$108,565	
1	041A-18	Genevieve Palardy	Louisiana State University and A & M College	Toward structural health monitoring: effect of embedded sensors on mechanical behavior and repairability of high-performance thermoplastic composite joints	\$57,400	\$50,400	\$48,900	\$56,900	\$48,900	\$47,400	\$165,465	
1	102A-18	Nathalie Busschaert	Tulane University	Development of synthetic hosts for the selective recognition of phospholipids: new antibiotics and antibiotic delivery systems	\$63,523	\$55,934	\$38,953	\$60,523	\$54,523	\$38,118	\$225,988	
1	059A-18	Amy Erickson	Louisiana State University in Shreveport	Allelopathic effects of common aquatic plants on the invasive water fern Salvinia molesta	\$20,000	\$0	\$0	\$15,000	\$0	\$0	\$240,988	
1	052A-18	Jinwei Ye	Louisiana State University and A & M College	Computational Imaging Approach for 3D Volumetric Fluid Reconstruction	\$58,000	\$55,000	\$53,000	\$55,500	\$53,250	\$52,500	\$296,488	
1	114A-18	Samendra Sherchan	Tulane University Health Sciences Center	Impact of saltwater intrusion on groundwater microbiome	\$52,976	\$53,681	\$54,406	\$39,945	\$39,945	\$39,945	\$336,433	
1	012A-18	Hyunju Chung	Louisiana State University and A & M College	Semivowel errors as Speech Sound Disorders diagnostic marker	\$69,092	\$65,110	\$53,490	\$51,474	\$48,224	\$37,755	\$387,907	
1	047A-18	Ryoichi Teruyama	Louisiana State University and A & M College	Chemogenetic manipulation of neurons in the hypothalamus	\$20,000	\$0	\$0	\$18,500	\$0	\$0	\$406,407	
1	024A-18	Jangwook Jung	Louisiana State University and A & M College	Functional cardiac organoids differentiation via optimized engagement of 3D extracellular matrices and ILK signaling	\$54,468	\$51,968	\$50,468	\$52,468	\$51,968	\$48,968	\$458,875	
1	051A-18	Jian Xu	Louisiana State University and A & M College	Spectroscopy-guided Intraoperative Cancer Detection	\$46,975	\$46,475	\$45,975	\$46,975	\$46,475	\$45,975	\$505,850	
1	143A-18	David Podgorski	University of New Orleans	Elucidation of the Structure and Composition of Dissolved Organic Matter	\$49,040	\$49,800	\$40,200	\$46,040	\$46,040	\$37,040	\$551,890	
1	103A-18	Laurie Earls	Tulane University	Molecular characterization of a novel, small peptide important for age-related neuronal dysfunction	\$67,146	\$67,565	\$64,995	\$57,146	\$57,146	\$57,146	\$609,036	

#### Board of Regents Support Fund Research and Development Program Research Competitiveness Subprogram (RCS) for FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

					Amount Requested			Amount Recommended				
Rank	Proposal #	PI Name	Institution	Project Title	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Cumulative Year 1	
1	134A-18	Xu Yuan	University of Louisiana at Lafayette	Building A Distributed Key-value Store with Secure Data Operations	\$58,939	\$55,563	\$47,434	\$45,814	\$45,814	\$37,234	\$654,850	
15	016A-18	Adam Forte	Louisiana State University and A & M College	Catchment Averaged Erosion Rates Across Time in the Greater Caucasus Mountains: Combining Cosmogenic Isotopes and Detrital Thermochronology in Single Samples	\$20,000	\$0	\$0	\$20,000	\$0	\$0	\$674,850	
16	109A-18	Eric Dumonteil	Tulane University Health Sciences Center	Next generation sequencing and metabarcoding as a novel approach for the molecular epidemiology of Trypanosoma cruzi transmission	\$58,898	\$58,076	\$58,023	\$46,543	\$44,406	\$42,996	\$721,393	
17	042A-18	Sonika Patial	Louisiana State University and A & M College	Interplay of tristetraprolin, chronic inflammation, and microbiome in the pathogenesis of Inflammatory Bowel Disease	\$60,150	\$59,436	\$58,744	\$43,151	\$42,151	\$41,151	\$764,544	
18	136A-18	Qian Zhang	University of Louisiana at Lafayette	Mitigating Elevated Temperature Effect on Ductile Fiber Reinforced Concrete Through the Use of High Temperature Resistant Fibers and Nanofibers	\$66,198	\$66,288	\$58,465	\$65,218	\$56,218	\$52,218	\$829,762	
19	123A-18	Longfei Li	University of Louisiana at Lafayette	High-order Computational Methods for Beams and Plates with Applications to Fluid-Structure Interaction Problems	\$46,646	\$46,330	\$46,294	\$42,146	\$42,146	\$42,146	\$871,908	
20	105A-18	Scott Grayson	Tulane University	Improving polymer stability for conservation applications by covalently attachment of chemical stabilizers	\$20,000	\$0	\$0	\$20,000	\$0	\$0	\$891,908	
21	104A-18	Jonathan Fadok	Tulane University	Neuronal mechanisms controlling the scalability of fear	\$64,124	\$62,048	\$56,484	\$56,213	\$53,713	\$47,713	\$948,121	
22	064A-18	Jinyuan Chen	Louisiana Tech University	Information-Theoretic Secrecy for Wireless Networks: From Degrees-of-Freedom to Constant- Gap Capacity Approximations	\$51,969	\$51,848	\$51,753	\$50,469	\$49,669	\$48,869	\$998,590	
23	079A-18	C. Shawn Sun	Louisiana Tech University	Implementation of ultra-high performance concrete in precast through girders for shallow bridge structures	\$45,090	\$63,294	\$44,025	\$65,090	\$42,590	\$42,590	\$1,063,680	
24	077A-18	Scott Poh	Louisiana Tech University	The Use of Folate Targeted Degradable Thermosensitive Biopolymers to Treat Inflammatory diseases	\$48,538	\$50,559	\$51,101	\$48,538	\$46,538	\$46,538	\$1,112,218	
25	026A-18	Laura Lagomarsino	Louisiana State University and A & M College	Co-evolution of hummingbird bills and flowers: The origin and maintenance of obligate specialized interactions in the American tropics	\$89,547	\$62,349	\$46,500	\$69,922	\$59,224	\$43,375	\$1,182,140	
26	113A-18	Zubaida Saifudeen	Tulane University Health Sciences Center	Regulation of Nephron Progenitor Cell Lifespan by Energy Metabolism	\$65,783	\$60,000	\$0	\$63,765	\$57,317	\$0	\$1,245,905	

#### Board of Regents Support Fund Research and Development Program Research Competitiveness Subprogram (RCS) for FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

	L Dramaaal # Di Naws				Amount Requested			Amount Recommended				
Rank	Proposal #	PI Name	Institution	Project Title	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Cumulative Year 1	
27	074A-18	Gergana Nestorova		ExoSense: a lab-on-a-chip platform for solid-phase purification of exosomes	\$49,351	\$46,845	\$47,879	\$48,931	\$45,831	\$45,831	\$1,294,836	
28	096A-18	Omer Sovsal		A CAR framework for recognition of lung tumors utilizing hierarchical deep learning	\$43,316	\$26,319	\$28,291	\$26,633	\$24,883	\$24,883	\$1,321,469	
29	027A-18	Semin Lee	University and A & M	Design and Synthesis of Molecular Nanohoops with Strain-Release Reactivity	\$62,100	\$60,600	\$58,600	\$54,600	\$53,100	\$51,100	\$1,376,069	
30	144A-18	Benjamin Samuel	University of New Orleans	Recognizing Narrative Patterns in Simulated Worlds	\$58,384	\$60,438	\$62,148	\$45,922	\$45,922	\$45,922	\$1,421,991	
31	037A-18	Steve Midway	Louisiana State University and A & M College	Macroscale Patterns of $CO_2$ in US Flowing Waters	\$46,170	\$45,670	\$44,670	\$46,170	\$43,170	\$42,170	\$1,468,161	
32	020A-18	Eileen Haebig	I Iniversity and A & M	Word Knowledge in Young Children with Autism Spectrum Disorders: The Developing Lexicon	\$59,700	\$58,700	\$57,700	\$40,601	\$40,101	\$39,101	\$1,508,762	
33	087A-18	Amber Hale	McNeese State	Using The Zebrafish Model System To Characterize The Role and Regulation of Autophagy During Embryonic Development	\$18,162	\$0	\$0	\$17,562	\$0	\$0	\$1,526,324	
34	039A-18	Alexandra Noel	University and A & M	Lung physiological, cellular and molecular effects induced by electronic cigarette in mouse models of in utero and adult exposure	\$64,623	\$55,213	\$49,020	\$50,507	\$49,707	\$48,221	\$1,576,831	

Total Number of Proposals Submitted	151
Total Funds Requested for First Year	\$7,639,045
Total Funds Requested for Second Year	\$6,634,104
Total Funds Requested for Third Year	\$5,636,318
Total Funds Requested	\$19,909,467
Total First-Year Funds Recommended	\$1,576,831
Total Second-Year Funds Recommended	\$1,393,036
Total Third-Year Funds Recommended	\$1,244,070

#### Board of Regents Support Fund Research and Development Program Industrial Ties Research Subprogram (ITRS) for FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

						nount Requeste	d	Amount Recommended				
Rank	Proposal #	PI Name	Institution	Project Title	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Cumulative year 1	
1	010B-18	Kerry Dooley	Louisiana State University and A&M College	Micro Heat Exchanger / Reactor for Advanced Oxidation Processes	\$65,250	\$56,200	\$54,200	\$59,750	\$47,200	\$47,200	\$59,750.00	
1	022B-18	Brian Mitchell	Tulane University	High Performance Anodes for Lithium Ion Batteries	\$91,800	\$95,969	\$98,203	\$85,800	\$85,800	\$85,800	\$145,550.00	
1	034B-18	Joshua Vaughan	University of Louisiana at Lafayette	Improving Autonomous Surface Vehicle Performance through Machine-learning Enhanced Modeling and Control	\$60,644	\$60,411	\$60,755	\$60,644	\$60,411	\$60,411	\$206,194.00	
1	011B-18	Navid Jafari	Louisiana State University and A&M College	Reconstruction of Flood Hydrographs in Louisiana during Hurricanes and Floods	\$92,355	\$91,355	\$90,355	\$59,105	\$56,105	\$56,105	\$265,299.00	
5	021B-18	Vijay John	Tulane University	The Use of Halloysite in Enhanced Oil Recovery	\$61,569	\$61,569	\$33,569	\$61,569	\$61,569	\$33,569	\$326,868.00	
6	014B-18	Chao Sun	Louisiana State University and A&M College	A data-driven framework for online damage diagnosis of oil and natural gas pipelines	\$64,483	\$63,483	\$61,983	\$62,483	\$61,983	\$60,983	\$389,351.00	
7	004B-18	Myriam Evelyn Watts	Louisiana State University Agricultural Center	Characterization of slurry ice as chilling technology for fresh seafood	\$31,675	\$35,175	\$0	\$34,375	\$30,875	\$0	\$423,726.00	
8	029B-18	Ning Liu	University of Louisiana at Lafayette	Nanoparticle-Stabilized CO <sub>2</sub> Foam as Fracturing Fluid	\$72,948	\$68,684	\$68,199	\$64,373	\$59,609	\$59,609	\$488,099.00	

Total Number of Proposals Submitted	39
Total Funds Requested for First Year	\$2,913,946
Total Funds Requested for Second Year	\$2,504,279
Total Funds Requested for Third Year	\$2,283,399
Total Funds Requested	\$7,701,624
Total Funds Recommended for First Year	\$488,099
Total Funds Recommended for Second Year	\$463,552
Total Funds Recommended for Third Year	\$403,677
Total Funds Recommended	\$1,355,328

### Board of Regents Support Fund Research and Development Proof-of-Concept/Prototyping Initiative (PoC/P) FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

Rank	Proposal #	PI Name	Project Title	Institution	Funds Recommended	Cumulative Funds Recommended
1	010D-18	Matthew Escarra	Transmissive Concentrator Photovoltaic Modules for Hybrid Solar Energy Conversion	Tulane University	\$40,000	\$40,000
2	009D-18	Shengnian Wang	Shengnian Wang Producing valuable fuel/feedstock from lignin waste using mesoporous zeolites synthesized Louisiana Tech University by solid crystallization		\$39,999	\$79,999
3	006D-18	Kidong Park	Development of large-scale fabrication setup for rolled scaffold	Louisiana State University and A&M College	\$39,679	\$119,678
4	003D-18	Jin-Woo Choi	Prototyping self-powered underwater lighting device for photosynthetic cultures	Louisiana State University and A&M College	\$40,000	\$159,678
5	008D-18	Shaurav Alam	Development of in-situ soil-root binding strength evaluation equipment with Internet of Things (IoT) on board and the associated testing protocol	Louisiana Tech University	\$39,012	\$198,690
6	014D-18	Daniel Gang	GAMC Novel Adsorbent Development for BTEX Removal from Hydraulic Fracturing Flowback Water	University of Louisiana at Lafayette	\$39,995	\$238,685

Number of Proposals	19
Total Money Requested	\$752,140
Total Money Recommended	\$238,685

#### Board of Regents Support Fund Research and Development Awards to Louisiana Artists and Scholars (ATLAS) FY 2017-18 Review Cycle Priority I Proposals Recommended for Funding by Out-of-State Consultants

Rank	Proposal #	PI Name	Project Title	Institution	Funds Recommended	Cumulative Funds Recommended
1	003ATL-18	Jeremiah Ariaz	Louisiana Trail Riders	Louisiana State University and A&M College	\$30,016	\$30,016
1	010ATL-18	Nathan Kalmoe	With Ballots & Bullets: Partisanship and Violence in the American Civil War	Louisiana State University and A&M College	\$50,000	\$80,016
1	043ATL-18	Emily Clark	Noel Carriere's Liberty: From Slave to Soldier in Colonial New Orleans	Tulane University	\$50,000	\$130,016
4	039ATL-18	Katherine Adams	Reconstructing Value: Cotton Culture and Blackness after Emancipation	Tulane University	\$50,000	\$180,016
5	009ATL-18	Zack Godshall	Thomas, a film	Louisiana State University and A&M College	\$44,396	\$224,412
6	049ATL-18	Amy Lesen	Oral Histories of Scientists at the Boundary: Interdisciplinarity, Public Engagement, and Transformation	Tulane University	\$46,837	\$271,249
7	060ATL-18	Jana Giles	The Post/Colonial Sublime: Aesthetics, Politics, and Ethics in the Twentieth- Century Novel	University of Louisiana at Monroe	\$38,057	\$309,306
8	016ATL-18	Wilfred Major	Love in the Age of War: The Soldier in Menander	Louisiana State University and A&M College	\$22,932	\$332,238
9	065ATL-18	Chris Surprenant	Criminal Justice Reform in the US: Three First Steps	University of New Orleans	\$47,523	\$379,761
10	038ATL-18	Alison Pelegrin	Feast Days: Poems	Southeastern Louisiana University	\$30,208	\$409,969
11	018ATL-18	Lori Martin	The Untold Story of Abe Hawkins: Horse Racing, Romanticizing, and the Myth of Privilege on Southern Plantations	Louisiana State University and A&M College	\$50,000	\$459,969
12	037ATL-18	Joel Fredell	Documentary Editions and Multiple Witnesses in the Age of Smartphones: John Gower's Confessio Amantis	Southeastern Louisiana University	\$49,643	\$509,612
13	044ATL-18	Christopher Dunn	Stray Dog in the Milky Way: Tom Zé and Brazilian Popular Music	Tulane University	\$50,000	\$559,612
14	027ATL-18	William Saas	The Politics of Privation: Barack Obama and the U.S. Fiscal Situation, 2004- 2017	Louisiana State University and A&M College	\$44,823	\$604,435
15	030ATL-18	Joshua Wheeler	Saw the Deep	Louisiana State University and A&M College	\$48,642	\$653,077
16	050ATL-18	Wei Long	An Investigation of the Ferguson Effect and How Publicized Events Impact Behaviors of Law Enforcement and Criminals	Tulane University	\$50,000	\$703,077
17	032ATL-18	Sunny Yang	Fictions of Territoriality: Legal and Literary Narratives of Race, Geography, and US Empire	Louisiana State University and A&M College	\$44,929	\$748,006
18	057ATL-18	Michele Feist	Exploring Time, Metaphor, and Language	University of Louisiana at Lafayette	\$50,000	\$798,006
19	028ATL-18	Andrew Sluyter	Publication of an Online Database of Colonial Maps for the Analysis of Social and Environmental Change in the Eighteenth and Nineteenth Centuries	Louisiana State University and A&M College	\$50,000	\$848,006

Number of Proposals	65
Total Money Requested	\$2,939,973
Total Money Recommended	\$848,006

### **APPENDIX J**

### Board of Regents Support Fund (BoRSF) Research & Development Summary of Priority I Recommendations, FY 2017-18

Institution	Research Competitiveness Subprogram w/One-Yr.				rogram w/One-Yr.	Industrial Ties Research Subprogram w/ PoC/P					Awards to Louisiana Artists & Scholars Subprogram				Total Proposals			
		Submitted	Recm.	1st Yr Award	Total Award	Submittee	Recm.	1st Yr Award	Total Award		Submitted	Recm.	1st Yr Award	Total Award	Submi	ted Recm	. 1st Yr Award	Total Award
BRCC																		
BPCC											1	0	\$0	\$0	1	0	\$0	\$0
Centenary																		
Central Louisiana																		
Delgado																		
Dillard																		
Grambling																		
Fletcher																		
FMOLU																		
Louisiana College																		
LCTCS																		
Louisiana Delta																		
LSU - Ag Center		5	0	\$0	\$0	6	1	\$34,375	\$65,250						11	1	\$34,375	\$65,250
LSU - Alexandria		1	0	\$0	\$0										1	0	\$0	\$0
LSU and A&M		50	14	\$657,353	\$1,787,609	18	5	\$261,017	\$590,593		33	9	\$385,738	\$385,738	101	28	\$1,304,108	\$2,763,940
LSU - Eunice				ļ													_	
LSU - Pennington		1	0	\$0	\$0										1	0	\$0	\$0
LSU - Shreveport		1	1	\$15,000	\$15,000	_									1	1	\$15,000	\$15,000
LSU Health Sci. CtrNO						_												
LSU Health Sci. CtrS		2	0	\$0	\$0	_									2	0	\$0	\$0
Louisiana Tech		22	4	\$213,028	\$581,484	4	2	\$79,011	\$79,011		1	0	\$0	\$0	27	6	\$292,039	\$660,495
Loyola		4	0	\$0	\$0						1	0	\$0	\$0	5	0	\$0	\$0
LUMCON																		
McNeese		3	1	\$17,562	\$17,562	1	0	\$0	\$0						4	1	\$17,562	\$17,562
Nicholls		2	0	\$0	\$0										2	0	\$0	\$0
Northwestern																		
Northshore	_			-		_							-				-	
Nunez	_			-		_							-				-	
River Parishes	_																	
St. Joseph Seminary	_																	
South Louisiana	_											-				-		
Southeastern Louisiana		7	1	\$26,633	\$76,399		+				2	2	\$79,851	\$79,851	9	3	\$106,484	\$156,250
Southern and A&M		3	0	\$0	\$0	-									3	0	\$0	\$0
Southern - New Orleans						-												
Southern - Shreveport				1			+	1					<u> </u>				+	1
SOWELA		7	4	¢102.000	¢500.044	6	2	¢107.000	¢454.407		40	-	\$040.007	¢040.007			¢000.000	¢4.000.405
Tulane		7	4	\$193,882	\$502,241	5	3	\$187,369	\$454,107		18	5	\$246,837	\$246,837	30	12	\$628,088	\$1,203,185
Tulane Health Sci. Center		/	3	\$150,253	\$374,862		U	\$0	\$0				1		8	3	\$150,253	\$374,862
University of Holy Cross		21	4	\$211,158	\$591,894	18	3	\$165,012	\$405,052		3	1	\$50,000	\$50,000	42	8	\$426,170	\$1,046,946
UL - Lafayette		21	4	· · · ·	\$591,894	18	3	\$105,012	÷405,052		3		\$50,000 \$38,057	\$50,000 \$38,057	42		\$426,170 \$38,057	\$1,046,946 \$38,057
UL - Monroe UNO		6	2	\$0 \$91,962	\$0	3	0	\$0	\$0		1 5	1	\$38,057 \$47,523	\$38,057 \$47,523	5	3	\$38,057 \$139,485	\$38,057 \$314,409
Xavier		5	2	\$91,962	\$200,880 \$0	3	U	φU	φU		3	I	\$41,023	\$41,323	5	0	\$139,485	\$314,409
TOTALS		151	34	\$1,576,831		56	14	\$726,784	\$1,594,013		65	19	\$848,006	\$848,006	272		\$3,151,621	\$6,655,956

### APPENDIX K

### **RANK ORDER: PRIORITY ONE**

### BoRSF Endowed Superior Graduate Student Scholarships Proposals Submitted FY 2017-18

Rank	Proposal Number	Institution	Title of Scholarship	BoRSF Match Requested	BoRSF Match Recommended	Total Points (100 Points)
1	005EGS-18	LSU A&M	Kenneth R. Hogstrom Superior Graduate Student Scholarship in Medical Physics #2	\$40,000	\$40,000	94
1	016EGS-18	LSU A&M	Lopez Family Graduate Student Scholarship in Chemical Engineering #1	\$40,000	\$40,000	94
1	031EGS-18	LSUHSC-NO	Dr. David Louis Autin Scholarship Fund	\$40,000	\$40,000	94
1	037EGS-18	LSUHSC-S	Sandra and Jerry Martin Endowed Scholarship for Medical Students	\$40,000	\$40,000	94
5	021EGS-18	LSU A&M	Dr. Jack and Annagreta Van Lopik Graduate Student Scholarship	\$320,000	\$320,000	93
5	027EGS-18	LSU A&M	Carraway Foundation Graduate Excellence Scholarship #2	\$40,000	\$40,000	93
5	033EGS-18	LSUHSC-NO	Drs. William G. '64 & Hannelore H. '63 Giles Scholarship Fund	\$200,000	\$200,000	93
5	038EGS-18	LSUHSC-S	Charles G. Hargon Jr. Memorial Scholarship for Medical Students	\$40,000	\$40,000	93
9	051EGS-18	UL Lafayette	R. C. & Sybil Sealy Family/BORSF Endowed Superior Graduate Student Scholarship in Engineering	\$40,000	\$40,000	91
10	043EGS-18	UL Lafayette	James D. Moncus/BORSF Endowed Superior Graduate Student Scholarship in Biology I	\$40,000	\$40,000	89
10	050EGS-18	UL Lafayette	James D. Moncus/BORSF Endowed Superior Graduate Student Scholarship in Biology II	\$40,000	\$40,000	89
12	057EGS-18	UNO	Endowed Superior Graduate Student Scholarship in Accounting and Tax Accounting	\$40,000	\$40,000	88
TOTAL				\$920,000	\$920,000	

### **APPENDIX L**

#### BOARD OF REGENTS SUPPORT FUND COMPETITIVE\* PROGRAMS, BY COMPONENT SUMMARY OF PRIORITY I RECOMMENDATIONS, FY 2017-18

			Enhancement			Res	earch & Developi	ment	Com	petitive E	Indowments	ALI			
Institution	Submitted	Rec.	1st year \$	Total \$ Rec.	Submitted	Rec.	1st year \$	Total \$ Rec.	Submitted	Rec.	Total \$ Rec.	Submitted	Rec.	1st Year \$ Rec.	Total \$ Rec.
Institution	Submitted	Rec.	Tst year \$	Rec.	Submitted	Rec.	ist year \$	Rec.	Submitted	Rec.	Rec.	Submitted	Rec.	Rec.	Rec.
BRCC	2	1	\$96,660	\$96,660					1	1	\$20,000	3	2	\$116,660	\$116,660
BPCC	1	0	\$0	\$0	1	0	\$0	\$0	2	2	\$80,000	4	2	\$80,000	\$80,000
Centenary	2	1	\$18,000	\$18,000							,	2	1	\$18,000	\$18,000
Central Louisiana			, ,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Delgado									2	1	\$10,000	2	1	\$10,000	\$10,000
Dillard	9	0	\$0	\$0							,	9	0	\$0	\$0
Grambling			¥ -												
Fletcher	2	1	\$73,170	\$73,170					1	1	\$60,000	3	2	\$133,170	\$133,170
FMOLU	1	0	\$0	\$0							. ,	1	0	\$0	\$0
Louisiana College	4	1	\$17,766	\$17,766								4	1	\$17,766	\$17,766
LCTCS			<b>,</b> , . <b></b>	<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									-	<b>,</b> ,	<i></i> ,
LA Delta									1	0	\$0	1	0	\$0	\$0
LSU-AG	9	2	\$278,992	\$278,992	11	1	\$34,375	\$65,250	1	0	\$0	21	3	\$313,367	\$344,242
LSU - Alexandria	1	0	\$0	\$0	1	0	\$0	\$0		-		2	Ō	\$0	\$0
LSU and A&M	28	3	\$457,642	\$1,249,742	101	28	\$1,304,108	\$2,763,940	30	6	\$1,240,000	159	37	\$3,001,750	\$5,253,682
LSU - Eunice	1	0	\$0	\$0			\$1,001,100	¢2,: 00,0 :0	3	1	\$10,000	4	1	\$10.000	\$10.000
LSU - Pennington	1	0	\$0	\$0 \$0	1	0	\$0	\$0	Ŭ		¢.0,000	2	0	\$0	\$0
LSU - Shreveport	6	0	\$0	\$0	1	1	\$15,000	\$15,000	1	0	\$0	8	1	\$15,000	\$15,000
LSUHSC-NO	7	1	\$126,047	\$126,047			<i><i><i>ϕ</i>.0,000</i></i>	<i><i><i>ϕ</i> · <i><i>ϕ</i> · <i>ϕ</i> · <i>ϕ</i></i></i></i>	11	3	\$640.000	18	4	\$766.047	\$766,047
LSUHSC-S	2	0	\$0	\$0	2	0	\$0	\$0	3	2	\$80.000	7	2	\$80,000	\$80,000
Louisiana Tech	8	3	\$75,502	\$135,502	27	6	\$292,039	\$660,495	Ŭ	-	<i><b>Q</b>00,000</i>	35	9	\$367.541	\$795.997
Loyola University	3	0	\$0	\$0	5	0	\$0	\$0				8	0	\$0	\$0
LUMCON	1	0	\$0	\$0	Ŭ		ψũ	ţ,				1	0	\$0	\$0
McNeese	5	0	\$0	\$0	4	1	\$17,562	\$17,562				9	1	\$17,562	\$17,562
Nicholls	11	1	\$42,042	\$42.042	2	0	\$0	\$0				13	1	\$42,042	\$42.042
Northshore			¢ .2,0 .2	\$ 12,0 12	_		ψũ	ţ,	1	0	\$0	1	0	\$0	\$0
Northwestern	6	0	\$0	\$0						ů	ţ,	6	0	\$0	\$0
Nunez	2	0	\$0	\$0 \$0					1	1	\$20,000	3	1	\$20,000	\$20,000
RPCC		-	<b>*</b> *						1	1	\$70,000	1	1	\$70,000	\$70,000
St. Joseph											<i><i><i>q10</i>,000</i></i>		•	<b>*</b> . •,•••	<b>*</b> <i>:</i> <b>:::::::::::::</b>
SLCC	2	1	\$19.093	\$19.093				-	5	4	\$200.000	7	5	\$219.093	\$219.093
Southeastern	7	0	\$0	\$0	9	3	\$106,484	\$156,250	2	0	\$0	18	3	\$106,484	\$156,250
Southern and A&M	5	1	\$200,000	\$200,000	3	0	\$0	\$0	-	Ű	ţ,	8	1	\$200,000	\$200,000
Southern-NO	6	0	\$0	\$0		-						6	0	\$0	\$0
Southern-Shreveport	3	0	\$0	\$0 \$0					2	2	\$60.000	5	2	\$60.000	\$60.000
SOWELA	Ť		÷	÷			1		4	4	\$70.000	4	4	\$70.000	\$70.000
Tulane	13	2	\$285,946	\$1,135,000	30	12	\$628.088	\$1,203,185	2	1	\$400,000	45	15	\$1,314,034	\$2,738,185
Tulane HSC	5	0	\$0	\$0	8	3	\$150.253	\$374,862	-		÷,	13	3	\$150,253	\$374,862
U Holy Cross	1	0	\$0	\$0 \$0	Ť	Ť	φ100,200	\$01 1,00L				10	0	\$0	\$0
UL - Lafavette	16	3	\$261,604	\$291.604	42	8	\$426.170	\$1.046.946	9	3	\$120.000	67	14	\$807.774	\$1,458,550
UL - Monroe	4	1	\$92,462	\$92.462	-12	1	\$38.057	\$38.057	8	0	\$0	17	2	\$130,519	\$130.519
UNO	7	3	\$393.680	\$933.780	14	3	\$139.485	\$314,409	1	1	\$40,000	22	7	\$573,165	\$1,288,189
Xavier	2	1	\$196,854	\$196,854	5	0	\$0	\$0		- ·	ψ10,000	7	1	\$196,854	\$196,854
		26		; ,	272	-			92	34	\$3,120,000	547			
TOTALS	183	26	\$2,635,460	\$4,906,714	272	67	\$3,151,621	\$6,655,956	92	34	\$3,120,000	547	127	\$8,907,081	\$14,682,670

### AGENDA ITEM V.II.A.

### Use of Expendable Earnings in Vacant Endowed Chair: University of Louisiana at Monroe

#### **Background Information**

The Board of Regents Support Fund Endowed Chairs program policy stipulates that "when the endowment is vacant, spending is not permitted beyond appropriate fees charged by the managing entity, though expendable amounts shall continue to be calculated and retained for expenditure by the holder, when appointed." Campuses may request waiver of this provision, provided the proposed use of funds is well justified in the context of the associated Chair and non-State donor approval is secured.

### **Staff Summary**

The Tom and Mayme Scott Chair in Clinical Pharmacy at the University of Louisiana at Monroe (ULM) has been vacant since 2014, though the campus is active in seeking a holder, to be housed in the School of Pharmacy. In 2017, Novartis donated approximately 65 pieces of laboratory equipment, with a value in excess of \$250,000, to the ULM School of Pharmacy, with the understanding that the School of Pharmacy will be responsible for the costs of moving the equipment from Dallas to Monroe. To be housed in its common core laboratory, the equipment will enhance both the pharmacy programs generally and the Scott Chair. A further expectation is that the acquisition will facilitate successful recruitment of a senior scholar to the Scott Chair by increasing ULM's educational and research capacities.

ULM, therefore, requests to use a total of \$6,276.20 from the expendable earnings of the Scott Chair for the costs of moving the equipment. The balance of the Chair's operating fund on December 31, 2017, was \$617,777.56, which is ample to support a chairholder's needs beyond the minimal expendable earnings requested for the equipment move. In addition, the acquisition of the donated equipment from Novartis may ultimately be a savings to the chairholder, who may need to acquire less material at startup and therefore begin lab work immediately upon arrival on campus.

#### Senior Staff Recommendation

The Senior Staff recommends approval of the University of Louisiana at Monroe's request to use \$6,276.20 from the expendable earnings in the Tom and Mayme Scott Chair in Clinical Pharmacy to pay for moving costs associated with the donation of equipment by Novartis.

#### AGENDA ITEM V.II.B.

### Appointment of Endowed Chairholder without National Search: Tulane University Health Sciences Center

#### **Background Information**

At its January 12, 2015 meeting, the Board unanimously approved the following revision to the Endowed Chairs for Eminent Scholars policy:

Effective immediately, all campuses shall provide documentation to the Commissioner of Higher Education that each Chair vacancy is being filled – whether externally or internally – following a national search. Any request for waiver of this policy shall be made in writing to the Commissioner of Higher Education and reviewed by external consultants. Upon receipt of the consultants' response, the Commissioner will provide a formal recommendation for consideration and approval by the Board of Regents. Board approval of the waiver must be provided prior to appointment of the chairholder. The Board reserves the right to render a campus not in compliance with this policy to be ineligible for new Endowed Chairs funds.

#### **Staff Summary**

The Elias S. Hanna M.D. Cardiovascular Foundation Regents Distinguished Chair in Cardiovascular Surgery is a \$2,000,000 Chair matched by the Board of Regents Support Fund in FY 2004-05. The Chair has been vacant since 2014 and a recent national search was unsuccessful. To increase the functionality of the Chair, Tulane University Health Sciences Center (TUHSC) sought and received donor and Board of Regents approval to broaden its scope to support a holder in any field of surgery. In accordance with current policy, TUHSC has requested waiver of the Endowed Chairs national search requirement to appoint Dr. Emad Kandil, Professor of Surgery and a distinguished robotic head and neck surgeon, to the Hanna Chair. Donor permission was granted for the internal appointment. Documentation outlining Dr. Kandil's qualifications was provided to an external reviewer, who concluded that this appointment is appropriate and recommended approval; the Commissioner of Higher Education concurred.

#### Senior Staff Recommendation

The Senior Staff recommends approval of Tulane University Health Sciences Center's request to appoint Dr. Emad Kandil to the Elias S. Hanna M.D. Cardiovascular Foundation Regents Distinguished Chair in Cardiovascular Surgery without a national search. As stipulated in Board policy, a Letter of Appointment to Dr. Kandil must be submitted to the Board within 90 days of this approval.

### AGENDA ITEM V.II.C.

#### Louisiana Nominations to the National Science Board

#### **Background Information**

The National Science Board (NSB) is one of two leadership components governing the National Science Foundation (NSF). Jointly the NSB and the NSF Director pursue the goals and function of the NSF, including the duty to "recommend and encourage the pursuit of national policies for the promotion of research and education in science and engineering." In addition, the NSB conducts two important functions, establishing the policies of NSF within the framework of applicable national policies set forth by the President and the Congress and serving as an independent body of advisors to both the President and the Congress on policy matters related to science and engineering and education in science and engineering.

The NSB is an apolitical body consisting of 25 members appointed by the President. Members serve sixyear terms; one-third of the Board is appointed every two years. NSB members are drawn from industry and universities, and represent a variety of science and engineering disciplines and geographic areas. Nominees must be (1) eminent in the fields of the basic, medical, or social sciences, engineering, agriculture, education, research management or public affairs; (2) selected solely on the basis of established records of distinguished service; and (3) selected as to provide representation of the views of scientific and engineering leaders in all areas of the U.S.

#### **Staff Summary**

Louisiana currently has no member serving on the NSB. Dr. Les Guice, President of Louisiana Tech University, and Dr. Yuri Lvov, Professor in the Institute of Micromanufacturing at Louisiana Tech University, have been identified as nominees for the NSB who meet all necessary scientific qualifications. Mr. Edward Markle, JD, Member of the Board of Regents, has also been recommended for nomination. Curricula vitae are included as Attachment A. It is proposed that these candidates be sent forward as Board of Regents-endorsed nominees for upcoming NSB vacancies.

#### Senior Staff Recommendation

The Senior Staff recommends approval the nominations of Dr. Les Guice, Dr. Yuri Lvov, and Mr. Edward Markle to the National Science Board, to be sent forward on behalf of the Board of Regents.

# ATTACHMENT A

# Leslie K. Guice

### Education

Bachelor of Arts in Architecture – Louisiana Tech University • 1976 Master of Science in Civil Engineering – Louisiana Tech University • 1978 Doctor of Philosophy in Civil Engineering – Texas A&M University • 1986

### **Professional Experience**

### President, Louisiana Tech University - July 2013 - Present

### **Executive Vice President**

### Louisiana Tech University • September, 2012 – June, 2013

Responsible for Tech Barksdale and Shreveport/Bossier program development, computing center, enrollment management, registrar, financial aid and admissions

### Vice President for Research and Development Louisiana Tech University • April, 2004 – Present

Responsible for research & development, intellectual property, and research compliance programs Responsible for government relations, economic development, and state-wide initiatives Director of Information Technology Led campus deployment of LONI network and High Performance Computing infrastructure Established Data Replication Center in Davison Hall Established Cyberspace Research Laboratory in Tech Pointe Supported development of major information technology research and education projects Developed entrepreneurship, innovation, and commercialization programs Oversaw Triage Team, Innovative Venture Research, and Venture Enhancement Team efforts Impacts in high levels of innovation productivity, commercialization, and start-up companies Planned development and operations of two technology incubators (Enterprise Center), research park (Enterprise Campus), and first tenant building (Tech Pointe) Planned University Hall renovations for support of entrepreneurship and innovation activities Co-chaired university's strategic planning initiative, Tech 2020 Initiated cyber security research initiative Led in development of a state-wide Science and Technology Plan, FIRST Louisiana Doubled federal research expenditures between 2005 and 2010

### Dean, College of Engineering and Science Louisiana Tech University • March, 1999 – March, 2004

Responsible for 13 academic programs and 6 research centers Led successful ABET and SACS accreditation reaffirmations for all curricula Supported major reforms in undergraduate integrated and interdisciplinary curricula Initiated Letter of Intent for B.S. in Nanosystems Engineering Implemented an integrated strategic plan, *COES 2010*, and fund-raising campaign, *Tech's BEST*  Led to funding for an Eminent Scholar Chair, 15 Professorships, \$500k Scholarship Fund, several new laboratories and facilities

Established and Directed Center for Entrepreneurship and Information Technology • July, 2002 Fostered education and research collaborations with other colleges Transitioned Institute for Micromanufacturing research focus towards nanotechnology Significantly increased M.S. and Ph.D. enrollments and numbers of graduates Doubled research expenditures and expanded intellectual property activities

### Executive Associate Dean, College of Engineering and Science Louisiana Tech University • February, 1998 – February, 1999

Named Interim Dean - July, 1998 Implemented Ph.D. in Engineering - Fall, 1998 Assisted first graduates of the Ph.D. in Computational Analysis and Modeling

### Academic Director, College of Engineering and Science Louisiana Tech University • June, 1996 – January, 1998

Responsible for Civil Engineering, Chemical Engineering, Chemistry and Geosciences Assisted in merger of School of Science with College of Engineering Assisted in College reorganization to promote interdisciplinary education and research

### Professor and Head of Civil Engineering Louisiana Tech University • April, 1989 – May, 1996

Responsible for administration of Civil Engineering and Construction Engineering Technology Led successful accreditation reaffirmation efforts with ABET-EAC and ABET-TAC Established Civil Engineering Advisory Board Initiated Distinguished Alumni Program Recruited first two Eminent Scholar Chairs Established Trenchless Technology Center (TTC) - September, 1989 Conducted research on long-term stability of polymer systems

### Interim Head, Department of Civil Engineering Louisiana Tech University • April, 1988 – March, 1989

Responsible for administration of Civil Engineering and Construction Engineering Technology

### Associate Professor, Department of Civil Engineering Louisiana Tech University • 1981 – 1989

Taught engineering mechanics and civil engineering structures courses Conducted research on blast effects with U.S. Army Engineers, Waterways Experiment Station

### Assistant Professor, Department of Civil Engineering Louisiana Tech University • 1978 –1981

Taught courses for architecture, construction engineering technology, engineering mechanics and civil engineering

Conducted research on computer applications for modeling of civil engineering systems with U.S. Army Engineers, Waterways Experiment Station

### Professional Activities

Member, Louisiana Cyber Commission - February 2018-present
Chairman, Louisiana Innovation Council - February 2014-present
Chairman, Board of Regents Master Plan Research Advisory Council • August 2012-present
Member, Louisiana Board of Regents Support Fund Planning Committee - July 2012-present
Member, Louisiana Innovation Council, ULS Representative - January 2011-present
Director and Secretary, Louisiana Biotechnology Council - February 2010
Expert Advisor to the Commission on Cyber Security for the 44 <sup>th</sup> Presidency, Working Group for Key Actors, Center for Strategic & International Studies, 2007-08, Report entitled "Securing Cyberspace for the 44 <sup>th</sup> Presidency" • December 2008
Governor's Advisory Council on Economic Growth, Higher Education Working Group • 2007
Advisor, Southern Technology Council, Southern Growth Policies Board • 2007
Advisor, Cyber Innovation Center, Bossier City, LA • 2007-present
Organized the Science and Technology Advisory Council
Provided extensive support for development of research, education, and partnership initiatives
Chairman, Louisiana Optical Network Initiative (LONI) Management Council • 2004-2010
Chaired Council during planning, design, and implementation of the state-wide optical network and high performance computer deployment
Chairman, Louisiana EPSCoR Committee - August 2007-present
Led the development of Louisiana's Science and Technology Plan, First Louisiana
Organized the first three state-wide Industry/University Workshops
Assisted in organizing, securing, and monitoring several major state-wide federal grants
Member, Louisiana EPSCoR Committee • 1998-present
Member, Louisiana Optical Network Initiative Steering Committee • 2004
Board of Trustees, Southeastern Universities Research Association (SURA) • 2004-present
Member, Information Technology Committee
Chair, Post-Katrina Gulf States Forum Steering Committee, Louisiana Board of Regents • 2007
Organizing Chair for LA-MS-AL Vice Presidents for Research meetings • 2007-2009
Member, National Institutes of Health Louisiana Biomedical Research Network (LBRN) Steering Committee • 2004-2007
American Concrete Institute, Member • 1978-1994
American Society of Civil Engineers, Member • 1979-present
Shock and Vibratory Effects Committee, Contact Member • 1986-88
Planning Committee and Editor, ASCE Specialty Conference - February 1988
Reviewer, ASCE Structural Journal
American Society for Engineering Education, Member
Louisiana Engineering Society, Member
Engineering Education Committee, past chairman
Monroe Section: President • 1991-92
National Society of Professional Engineers, Member
Robert E. Dougherty Educational Foundation, Scholarship Selection Committee
Sunrise Kiwanis Club of Ruston, Board of Directors • 1986-90; Past Vice President

### Publications, Professional Papers & Conference Presentations

### JOURNAL PUBLICATIONS:

Kordal, R. and Guice, L.K., "Assessing Technology Transfer Performance," Journal of Research Management Review, Volume 16, Number 1, Fall/Winter 2009.

Katz, D., Allen, G., Cortez, R., Cruz-Neira, C., Gottumukkala, R., Guice, L., Jha, S., Kolluru, R., Kosar, T., Leger, L., McMahon, C., Nabrzyski, J., Rodriguez-Milla, B. Seidel, E., Speyrer, G., Stubblefield, M., Voss, B., Whittenburg, S., "Louisiana: A Model for Advancing Regional e-Science through Cyberinfrastructure," *Philosophical Transactions of the Royal Society A*, 2009, 367, pp 2459-2469.

Bakeer, R.M., Guice, L.K., Sever, V.F., and Boyd, G.R., "Fluid Migration into Lined Pipelines," *Journal of Tunneling and Underground Space Technology*, Volume 20, April 2005, pp 452-462.

Guice, L.K. and Pratt, J.D., "A Technology-based Economy for North Louisiana," The Louisiana Civil Engineer, *Journal of the Louisiana Section of the American Society of Civil Engineers*, 12, no.2, February 2004.

Benedict, B.A., Napper, S.A., and Guice, L.K., "Restructuring for Strategic Outcomes," *Journal of Engineering Education*, ASEE, Volume 89, Number 2, April 2000.

Omara, A.A., Guice, L.K., Straughan, W.T. and Akl, F.A., "Instability of Thin Pipes Encased in Oval Rigid Cavity," *ASCE Journal of Engineering Mechanics*, April 2000.

Straughan, W.T., Tantirungrojchai, N., Guice, L.K. and Lin, H., "Creep Test of Cured-In-Place Pipe Material Under Tension, Compression and Bending," *Journal of Testing and Evaluation*, American Society for Testing and Materials, Volume 26, Number 6, November 1998.

Omara, A.A., Guice, L.K., Straughan, W.T., and Akl, F.A., "Buckling Models of Thin Circular Pipes Encased in Rigid Cavity," *ASCE Journal of Engineering Mechanics*, December 1997.

Guice, L.K., Straughan, W.T., Norris, C.R., Bennett, R. D., and Iseley, D.T., "TTC Report on Long-Term Structural Behavior of Pipeline Rehabilitation Systems-Closure," *No-Dig Engineering*, Vol. 3, No. 4, July/August 1996.

Straughan, W. T., Guice, L. K., and Mal-Duraipandian, C., "Long-Term Structural Behavior of Pipeline Rehabilitation Systems," *ASCE Journal of Infrastructure Systems*, December 1995.

Li, J.Y., and Guice, L.K., "Buckling of an Encased Elliptic Thin Ring," *ASCE Journal of Engineering Mechanics*, December 1995.

Guice, L.K., "Independent Research Confirms Long-Term Structural Behavior of Pipeline Rehabilitation Products," *No-Dig Engineering*, Vol. 2, No. 2, Summer 1995, pp. 24-25.

Guice, L.K., Slawson, T.R., and Rhomberg, E.J., "Membrane Analysis of Flat Plate Slabs - Discussion," *American Concrete Institute Structural Journal*, Vol. 86, No. 6, November-December 1989, pp. 758-760.

Guice, L.K., and Rhomberg, E.J., "An Analogous Model for Slabs Using a Truss Element," *Computers and Structures*, Vol. 31, No. 5, May 1989, pp. 767-774.

Guice, L.K., Slawson, T.R., and Rhomberg, E.J., "Membrane Analysis of Flat Plate Slabs," *American Concrete Institute Structural Journal*, Vol. 86, No. 10, Jan-Feb 1989, pp. 83-92.

Guice, L.K., Rhomberg, E.J., "Membrane Action in Reinforced Concrete Slabs," *American Concrete Institute Structural Journal*, Vol. 85, No. 4, July-August 1988, pp. 365-373.

#### **OTHER PUBLICATIONS:**

Guice, L.K., "Partnerships for Innovation; Motivations and Framework," a White Paper for the Discovery to Innovation Workshop, National Academy of Sciences, July 27-29, 2008, Irvine, CA.

Kordal, R., Pratt, J.D., and Guice, L.K., "Technology Importation: A New Model for Regional Economic Development," Annual Conference of the Technology Transfer Society, September 27-29, 2006, Atlanta, GA.

Guice, L.K., "Connecting North Louisiana to the World," Economy & Community, Research Division, College of Administration and Business, Louisiana Tech University, Volume 2, Issue 1, Spring 2005.

Guice, L.K., and Pratt, J.D., "The Future is Catching North Louisiana," Economy & Community, Research Division, College of Administration and Business, Louisiana Tech University, Volume 2, Issue 1, Winter 2005.

Lvov, Y., Zheng, Z., Shutava, T., Guice, L., Koukoulas, A., Tan, Z., and Kish, K., "Nanoassembly for Pulp and Paper Modification," Proceedings of USDA/TAPPI Paper Nanotechnology Workshop, Washington DC, October 2004.

Guice, L.K., and Pratt, J.D., "Building a Technology-Based Economy for North Louisiana," Economy & Community, Research Division, College of Administration and Business, Louisiana Tech University, Volume 1, Issue 2, Fall 2004.

Guice, L.K., "A Technology-Based Economy for North Louisiana," Economy & Community, Research Division, College of Administration and Business, Louisiana Tech University, Volume 1, Issue 1, Spring 2004.

Pratt, J.D., and Guice, L.K., "Collaboration in Commercializing Intellectual Property: Gaining Practical Experience in "InVenture Research" at Louisiana Tech," Proceedings of the National Collegiate Inventors & Innovators Alliance, 8<sup>th</sup> Annual Meeting, March 2004.

Guice, L.K., Napper, S.A., and Nelson, J.D, "Interdisciplinary Administration Supports Interdisciplinary Education and Research," International Conference on Engineering Education Proceedings, College Station, TX, Feb 2003.

Guice, L.K. "Challenges and Opportunities in Engineering Education," ASCE Louisiana Section, May 2001.

Malik, O., Akl, F.A., and Guice, L.K., "Analysis of a Steel Pipe Joint for Trenchless Construction," Developments in Applied and Theoretical Mechanics, Vol. 18, SECTAM XVIII, University of Alabama, Tuscaloosa, pp. 575-586, April 1996.

Bennett, R.D., Guice, L.K., Khan, S., and Stahlie, K., "Guidelines for Trenchless Technology: Curedin-Place (CIPP), Fold-and-Formed Pipe (FFP), Mini-Horizontal Directional Drilling (Mini-HDD), and Microtunneling," Technical Report CPAR-GL-95-2, Construction Productivity Advancement Research (CPAR) Program, U.S. Army Corps of Engineers, September 1995.

Straughan, W. T., and L. K. Guice, "Buckling Tests of Plastic Sewer Pipe Liners," *Proceedings of the 1995 NO-DIG Conference*, hosted by the North American Society for Trenchless Technology, Toronto, Canada, April 1995.

Guice, L.K., and Norris, C., "Evaluation of Long-Term Behavior of CIPP and F&F Pipe," *Proceedings* of the 67th Water Environment Federation Annual Conference and Exposition, Chicago, Illinois, October 1994.

Guice, L.K., Straughan, W.T., Norris, C.R., and Bennett, R.D., "Long-Term Structural Behavior of Pipeline Rehabilitation Systems," Task Report for the Construction Productivity Advancement Research (CPAR) Project, U.S. Army Engineers and Trenchless Technology Center, August 1994.

Guice, L.K., and Li, J.Y., "Buckling Models and Influencing Factors for Pipe Rehabilitation Design," *Proceedings of the North American NO-DIG '94,* Dallas, Texas, April 1994.

Guice, L.K., Norris, C., Iseley, D.T., and Najafi, M., "Description of Long-Term Hydrostatic Pressure Testing of Pipeline Rehabilitation Materials," *Proceedings of The Water Environment Federation Conference on Collection Systems: Operation and Maintenance*, June 1993.

Guice, L.K., and Norris, C., "Long-Term Hydrostatic Pressure Testing of Pipe Relining Systems," *Proceedings of Trenchless Technology: An Advanced Technical Seminar, Trenchless Technology Center*, Ruston, January 1993.

Anderson, D.O., Guice, L.K., and Rocke, P.L., "Traffic Accident Simulation Using Interactive Computer Graphics," Louisiana Transportation Research Center, Baton Rouge, 1991.

Anderson, D.O., and Guice, L.K., "Creating Video Animation from Off-Road Vehicle Simulations," *Proceedings of the SAE International Off-Highway and Powerplant Congress and Exposition*, September 1989.

Guice, L.K., and Kiger, S.A., "Structural Resistance of Blast Resistant Slabs," *Seismic Engi-neering: Research and Practice; Proceedings of the ASCE Structures Congress,* May 1989, pp. 877-886.

Guice, L.K., and Anderson, D.O., "Development of a Traffic Accident Reconstruction Animation System," *Proceedings of the Sixth National Conference on Microcomputers in Civil Engineering*, November 1988, pp. 296-300.

Hansen, K.D., and Guice, L.K., (Editors), **Roller Compacted Concrete 88**, *Proceedings of the 1988* ASCE Specialty Conference, American Society of Civil Engineers, February 1988, 487 pages.

Wright, S.R., and Guice, L.K., "In-Structure Shock Environment of an Aboveground Reinforced Concrete Structure," *Proceedings of the 58th ASCE Shock and Vibratory Effects Symposium*, October 1987.

Guice, L.K., and Kiger, S.A., "Response Charts for Designing Against Nuclear Overpressures," *Dynamics of Structures, Proceedings of the 1987 ASCE Structures Congress, American Society of Civil Engineers, August 1987, pp. 749-760.* 

Ray, J.C., Huff, W.L., Walker, R.E., and Guice, L.K., "Vulnerability of Selected Structures to Canetip-Type Munitions," *Technical Report SL-87-18*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, May 1987, 98 pages.

Kiger, S.A., Hyde, D.W., and Guice, L.K., "Flexural Response of Reinforced Concrete Structures to Conventional Weapons," *Proceedings of the Third Symposium on the Interaction of Conventional Munitions with Protective Structures*, Mannheim, Federal Republic of Germany, March 1987.

Guice, L.K., "Membrane Behavior in Partially Restrained Reinforced Concrete Slabs," *Proceedings of the Workshop on the Performance of Concrete and Cement Materials*, Air Force Office of Scientific Research, Ohio, October 1986.

Guice, L.K., "Behavior of Partially Restrained Reinforced Concrete Slabs," *Technical Report SL-86-32*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, September 1986, 184 pages.

Guice, L.K., "Effects of Edge Restraint on Slab Behavior," Dissertation presented to Texas A&M University, College Station, Texas, in partial fulfillment of the requirements for the degree of Doctor of Philosophy, August 1986, 180 pages.

Guice, L.K., "Effects of Edge Restraint on Slab Behavior," *Technical Report SL-86-2*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, February 1986, 279 pages.

Guice, L.K., and Slawson, T.R., "Static and Dynamic Slab Tests Conducted at WES: FY 78-84," *Technical Report SL-86-1*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, February 1986, 117 pages.

Guice, L.K., and Kiger, S.A., "Elastic-Plastic Response Charts for Nuclear Overpressures," *Miscellaneous Paper SL-84-7*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, June 1984, 65 pages.

Guice, L.K., Schroeder, C.S., Fithen, W.F., and George, M., "PATTERN: A Picture and Model-Generating Interactive Computer Graphics Program," *Instruction Report IR K-82-5*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, May 1982, 70 pages.

Guice, L.K., and Schroeder, C., "PATTERN, A Two-Dimensional Picture and Model Generating Program," *Proceedings of the Third Army Engineer's Computer Graphics Workshop*, April 1981.

#### **CONFERENCE PRESENTATIONS (partial list):**

"A Model for Integrating Academic Research into State and Industry S&T Activities", EPSCoR/IDeA Foundation and Coalition Meeting, Washington, DC, December 8, 2010 (invited)

"FIRST Louisiana: Louisiana's Science and Technology Plan", LA EPSCoR's 1<sup>st</sup> Industry-Academia Collaborative Workshop, Baton Rouge, October 15, 2010

"Digital Natives or Naïvely Digital?" Air Force Global Strike Command Technology & Innovation Summitt, Debate moderator featuring Dr. Mark Bauerlein and Mr. Mark Prensky, November 17, 2010

"Transferring Research into Economic Development," Council for a Better Louisiana Annual Meeting, Baton Rouge, LA, December 5, 2008. (invited)

"Commercialization through Partnerships," Cyberspace Awareness Summit, Shreveport, LA, October 7-9, 2008. (invited)

"Partnerships for Innovation; Motivations and Framework," Discovery to Innovation Workshop, National Academy of Sciences, Irvine, CA, July 27-29, 2008. (invited)

"Building Innovation-Enabling Cyberinfrastructure," Air Force Research Laboratory, Information Assurance Science & Technology Series, Rome, NY, July 8, 2008. (invited)

"The Role of Senior Administrators in PFI," National Science Foundation, Partnerships for Innovation Workshop, Washington, DC, April 1, 2008. (invited)

"Leveraging Regional Centers for Innovation and Commercialization," Governor's Advisory Council on Economic Growth, Ruston, Louisiana, December 2007.

"Aligning the Gulf Coast for Economic Competitiveness," 2007 Gulf States Alliance Forum

Network Science and Recovery, Biloxi, Mississippi, August 19-21, 2007.

"Retaining and Leveraging our Knowledge Economy," Louisiana American Planning Association, Annual Meeting, Shreveport, Louisiana, October 6, 2005.

"Challenges and Opportunities in Engineering Education," American Society of Civil Engineers -Louisiana Section, Annual Meeting, March 29, 2001. (keynote banquet speaker)

"The Future of Engineering Education," Louisiana Engineering Society Centennial Meeting, New Orleans, Louisiana, May 28, 1998.

"Trenchless Technology and Indirect Costs," Trenchless Technology Seminar, Wentworth Polytechnic Institute, Boston, Mass, March 26, 1997.

"Research in Pipeline Rehabilitation," Advanced Trenchless Sewer Rehabilitation Seminar, Baton Rouge, Louisiana, December 1995.

"Buckling Models and Influencing Factors for Pipe Rehabilitation Design," Design Theory Workshop, North American NO-DIG '94, Dallas, Texas, April 10, 1994 (invited).

"Current Developments in Trenchless Technology," American Gas Association 1994 Winter Workshop, New Orleans, Louisiana, March 2, 1994.

"Pipeline Rehabilitation Research for Trenchless Technology," Mississippi Valley Flood Control Association Annual Meeting, New Orleans, Louisiana, December 2, 1993.

"Long-Term External Pressure Testing of Pipeline Rehabilitation Products," Second Conference on Structural Performance of Pipes, Columbus, Ohio, March 14-17, 1993.

"Long-Term Hydrostatic Pressure Testing of Pipe Relining Systems," Trenchless Technology: An Advanced Technical Seminar, Vicksburg, Mississippi, January 26-30, 1993.

"Structural Resistance of Blast Resistant Slabs," ASCE Seventh Annual Structures Congress, San Francisco, California, May 5, 1989.

"Development of a Traffic Accident Reconstruction Animation System," Sixth National Conference on Microcomputers in Civil Engineering, Orlando, Florida, November 9-11, 1988.

"Response Charts for Designing Against Nuclear Overpressures," ASCE Sixth Annual Structures Congress, Orlando, Florida, August 17-20, 1987.

"Resistance Functions for Compressive and Tensile Membrane Effects," U.S. Army Engineer Workshop on the Blast-Resistant Design of Structures, Vicksburg, Mississippi, June 22-26, 1987.

"Membrane Behavior in Partially Restrained Reinforced Concrete Slabs," AFOSR Workshop on the Performance of Concrete and Cement Materials, Wright-Patterson Air Force Base, Ohio, October 9-10, 1986.

### Funded Research, Grants and Contracts

State of Louisiana, Office of Community Development, Disaster Recovery Unit, "Advanced Certifications and Training for Technology (ACTT); July 2011-August 2012; \$1,000,000

National Science Foundation, "Louisiana's Cyber Connectivity via LONI", with Michael Khonsari (PI), Cheryl Stevens, Joel Tohline, and Gene D'Amour; September 2010-August 2012; \$1,176,470

Louisiana Economic Development, "Clarke M. Williams Professorship in Telecommunications"; Cooperative Endeavor Agreement with CenturyLink OCR# 252-001075; July 2009-June 2015; \$2,100,000

Air Force Office of Scientific Research, "Cybersecurity Laboratory"; with E. Karim, and V. Phoha; June 2009-May 2014; \$3,992,000

National Science Foundation, "Venture Enhancement Teams for Commercialization of University Intellectual Property"; with J. Pratt, J. Nelson, R. Kordal, and D. Norris; March 2008-March 2011; \$600,000

Louisiana Board of Regents, "The LONI Institute"; Advancing Biology, Materials, and Computational Sciences"; (co-PI) with E. Seidel (PI), B. Ramachandran and others; June 2007-May 2012; \$7,000,000

Louisiana Board of Regents and NSF, "EPSCoR Research Infrastructure Improvement- CyberTools"; September 2007-August 2010; \$42,140; "Computational Materials" September 2010-September 2015; \$76,983 (Note: this is part of a state-wide \$20M grant from NSF)

Air Force Research Laboratory; subcontract through Clarkson Aerospace Corp; "Materials and Manufacturing and Sensors Research"; with R. Selmic, S. Dua, P. Derosa and T. Dobbins; September 2006-March 2014; \$1,475,500

Louisiana Board of Regents, "An NSF Social, Behavioral and Economic Sciences Workshop"; July-November 2006; \$4,000

Louisiana Board of Regents, "LONI Grant"; June –December 2005; \$200,000

National Science Foundation, "Innovative Ventures for Emerging Technologies in Rural North Louisiana"; with M. Chopin, T. Noble, K. Varahramyan, and M. McShane; November 2003-October 2006; \$599,937

Louisiana Board of Regents and National Science Foundation, "Take a Walk on the Reviewer's Side Grant Writing Workshop"; July 2004-September 2004; \$7,000

National Science Foundation, "Louisiana Tech's Graduate K-12 Teaching Fellows Program"; with D. Mills (lead), L. Ramsey (lead), J. Dauzat, and S. Reagan; May 2003-April 2006; \$1,485,997

National Science Foundation, "North Louisiana Partnership for Innovation: Creating Infrastructure for Technology Growth"; co-PI with A. Scheffler, J. Orban, P. Sisson and S. Conrad; July 2003-June 2006; \$599,474

Louisiana Information Technology Initiative; State of Louisiana; "Establishment of the Center for Entrepreneurship and Information Technology (CEnIT) at Louisiana Tech University;" \$1.86M/year operating funds and \$540,000 in capital outlay

Sandia National Labs, "Design and Fabrication of Novel Fluidic Systems;" with R. Besser and M. McShane; 2002-2003; \$396,000

BORSF, "Graduate Fellows for ACAM, BME & ENGR PhD Students"; 2000-2004; \$128,000

BoRSF, "Recruitment of Superior Students for the PhD Program in Engineering"; with R. Greechie; July 1999-June 2003; \$70,000

BoRSF, "Evaluation of Drill Pipe in Mini-HDD Construction"; with P. Hadala (PI), R. Sterling and W. Jordan; July 1998-June 1999; \$118,000

BoRSF, "Development of a Preliminary Sanitary Sewer Management System"; with N. Pumphrey (PI), F. Roberts and R. Nassar; June 1995-June 1999; \$100,000

City of Baton Rouge, "Tests for Evaluating Fluid Migration in the Annular Space of Lined Piping Systems"; with R. Bakeer (Tulane); December 1995-July 1997; \$50,000

InLiner USA, Inc., "Experimental Program for Evaluating InLiner USA Pipe Installed in Host Pipes"; with T. Straughan (Co-PI); Aug 1995-March 1996; \$25,780

U.S. Army Engineer Waterways Experiment Station; "Evaluation of a Fail-Safe Retrievable Microtunneling System"; with others; October 1994-May 1995; \$15,000

Shell Development Company, "Evaluation of Different Epoxy Resin Systems in CIPP Applications," March 1993-June 1994; \$60,371

U.S. Army Corps of Engineers Construction Productivity Advancement Research Program; "Trenchless Construction: Evaluation of Methods and Materials to Install and Rehabilitate Underground Utilities"; with T. Iseley and D. Bennett; primary responsibility for pipeline rehabilitation component; January 1991- January 1993; \$1.5 million

Federal Highway Administration's Research Fellowship Program; "Analysis of Vehicle Dynamic Forces" Turner-Fairbank Highway Research Center; July 1988-June 1989; \$17,295

Louisiana Transportation Research Center and Federal Highway Administration; "Traffic Accident Simulation Using Interactive Computer Graphics"; with D. Anderson (PI); August 1987-July 1990; \$299,996

U.S. Army Engineer Waterways Experiment Station; Reinforced concrete slabs subjected to static and dynamic loadings; principal investigator; May 1983-May 1987; \$132,450

U.S. Army Engineers Waterways Experiment Station; Effects of weapons on structures; March-August 1986; \$27,500

U.S. Army Engineer Waterways Experiment Station; "Three-Dimensional Finite Element Mesh Generator"; July 1981-January 1982

U.S. Army Engineer Waterways Experiment Station; "Computer-Aided Graphics for Engineers"; July-August 1979

### Honors and Awards

Robert E. Russ Award, Ruston/Lincoln Parish Chamber of Commerce 2009 Outstanding Civil Engineer, ASCE Louisiana Section - 2008 Louisiana Tech University Civil Engineering Distinguished Alumnus • 2007 Louisiana Engineering Society's James M. Todd Technological Accomplishment Award • 2007 Governor's University Technology Leader of the Year Award • 2006 Louisiana Tech Engineering & Science Foundation Tech's Best Founding Leader Scholarship • 2004 Louisiana Engineering Society A.B. Patterson Medal for an Engineer in Management • 2004 Louisiana Tech University Foundation Professorship • 1995 Louisiana Engineering Society's Charles M. Kerr Public Relations Award • 1995 ASCE Student Chapter Crying Towel Award • 1994-95 Louisiana Engineering Foundation's Engineering Faculty Professionalism Award • 1992 Louisiana Engineering Society's F. Hugh Coughlin Award of Merit for Young Engineers • 1988 ASCE Outstanding Teacher Award, Louisiana Tech = 1979-80 = 1988-89 = 1993-94 Louisiana Tech Engineering Foundation Award Outstanding Engineering Service, • 1978-79 • 1980-81 Outstanding Achievement in Instruction • 1983-1984 Outstanding Achievement in Research • 1986-87 Chi Epsilon, national civil engineering honor society • 1980 Tau Beta Pi, national engineering honor society • 1978



## YURI M. LVOV

### **Current Position**

Professor, Tolbert Pipes Eminent Endowed Chair on Micro and Nanosystems, Institute for Micromanufacturing, Louisiana Tech University, 911 Hergot Ave., Ruston, LA 71272; office (318)257-5144, vlvov@latech.edu

### Education

- PhD in Physical Chemistry, M. Lomonosov, Moscow State University, 1979. Thesis title: "Small-Angle X-ray and Neutron Structural Analysis of Histidine Decarboxylase."
- BS in Physics, M. Lomonosov, M. Lomonosov Moscow State University, Russia, 1975.

### Honors/Awards

- Outstanding Innovator for 2016 LaTech award.
- Elected as a member of US National Academy of Inventors, 2015

• Awarded with prestigious international Alexander von Humboldt Prize in recognition of lifetime achievements in nano-scale chemistry, 2015. Only 2-3 such prizes are awarded to US chemists annually.

• Louisiana Tech University Senate Chair award, 2014

•Awarded with Honorary Professorship at Beijing University of Chemical Technology within People Republic of China Qian Ren Talents Program (the Oversea Famous Teacher), 2013.

•Award Certificates from American Chemical Society for organization and chairing of symposiums: "Nanomaterials-From Fundamentals to Applications," 236<sup>th</sup> ACS National Meeting in Philadelphia, 2008, and "Polymer-Clay Nanocomposites" 241<sup>st</sup> ACS Meeting in Anaheim, 2011, 245<sup>th</sup> and 255<sup>th</sup> ACS Meeting in New Orleans, 2013 and 251<sup>st</sup> ACS Meeting in San Diego.

• US National 2008 Best of Small Tech Award in the category Innovator of the Year. Best of Small Tech Awards recognize achievements in micro and nanotechnology.

- •Annual Award: 2007 Outstanding Louisiana Researcher in Emerging Technologies
- •Medal for Best Research Achievements from Engineering Department, LaTech, 2005

•Tolbert Pipes Eminent Endowed Chair on Micro and Nanosystem, 2004.

• US Institute of Scientific Information ranked our article in "Langmuir," v.9, p.481, among three most cited papers on molecular self-assembly (citations: 1,232), and another my paper on protein architecture in the Journal of American Chemical Society, v.117, p.6177 was cited 1,547 times A total citation of my papers on nanoassembly is above **22,100** and my Hirsch-index is **76** in Scopus and 82 in Google Scholar.

•Award Certificate from American Chemical Society for organization of "Smart Nanoassemblies" Symposium at 226<sup>th</sup> ACS National Meeting in New York, September 2003, and 251<sup>st</sup> ACS Meeting in San Diego, March 2016.

•Royal Chemical Society Publication Award, 1999, UK;

•Alexander von Humboldt Fellowship, 1991-1993, Germany;

•Awarded with Doctor of Science in Physics from Institute of Crystallography, Russian Academy of Sciences, 1991, Russia.

### Experience

- 2004-now Professor of Chemistry, Tolbert Pipes Eminent Endowed Chair on Micro and Nanosystems, Institute for Micromanufacturing, LaTech; Affiliated Faculty at Biomedical Engineering Department, Louisiana Tech University, Ruston; President of Nano Pulp and Paper, LLC
- 2000-2003 Associate Professor, Institute for Micromanufacturing and Chemistry Program, Affiliated Faculty in the Physics and Biomedical Engineering Departments, Louisiana Tech University, Ruston, LA.
- 1998-1999 Research Associate Professor, Center Molecular Science and Engineering, Naval Research Laboratory, Washington DC.
- 1997-1998 Research Associate and Adjunct Professor, Chemistry Department, University of Connecticut, Storrs, CT.
- 1994-1996 Staff Researcher, Research & Development Corporation, Japan Science Agency, Fukuoka.
- 1991-1993 Alexander von Humboldt Fellowship, Mainz University, Institute of Physical Chemistry, Germany.
- 1980-1990 Senior Researcher, Thin film group leader, Institute of Crystallography, Russian Academy of Sciences, Moscow.

Temporary •Visiting Scientist, Materials Directorate, Wright - Patterson Air Force Base, Dayton, OH,

Positions: July -Sept 1997. •Visiting Professor, Molecular Electronics Center, Durham University, UK, March-May 2000. •Adjunct Professor in Pharmaceutics at University of Louisiana in Monroe, 2003-2016. •Visiting scholar (sabbatical leave), Max Planck Institute for Colloids and Interfaces, Potsdam, Germany, June – December 2007.
•Visiting scholar (sabbatical leave), Tech University of Berlin, Germany, June 2014 - March 2015. • Visiting professor, Russian State University of Oil and Gas, 2017. • Honorable Professor at Beijing University of Chemical Technology, 2014-2018.

### **Scientific/Professional Societies**

American Chemical Society, since 1994. Alexander von Humboldt Foundation, Germany, since 1992. TAPPI (Technical Association for Pulp and Paper Industry) member 2004-2016.

# **Research grants** - my total group funding was \$ 10.6 mln and \$ 15 million together with co-PIs grants' budget *Current*

- 1. "Biomanufacturing: Multi-scale high-aspect ratio structures for constructing dynamic 2D and 3D cellular bioreactors, co-PI, NSF #1547693, \$300,000, Sept 2015-Sept 2018
- 2. "Design of Oil Spill Dispersant and Herding Systems using Tubular Clay Structures," Gulf of Mexico Research Initiative / BP. RFP-V, PIs: V. John, Y. Lvov, \$1,200,000, Jan 2016-Dec 2018 #GOMRI2015-V-358
- 3. "Halloysite microtubes as templates for separate inside/outside catalytic nanoparticles," PFUND-BoR, #2013000897, \$20,000; June 2016-Dec 2018, PI
- 4. "Nanoclay Based Anti-Aging Drug Formulations," Biomed. Res. Found., PI, \$25,000; Jan-Dec 2018

### Successfully concluded in the last 10 years:

- 5. "Building an Internationally Competitive Neutron Scattering Research Program in Louisiana" EPSCoR-DoE, co-PI with budget \$370,000, PI, Sept 2014- Dec 2017
- 6. "Utilization of geopolymer concrete in solidification / stabilization of sorbent impacted fly ash, power plant wastewater treatment solids." Electric Power Research Institute, co-PI, \$323,382 July 2014- Dec 2016
- 7. "Envirom. Protection Agency Fellowship", Nov 2014-May 2016, \$50,000, #32-0967-56196, PI
- 8. "Layer-by-layer Nanocarriers for Highly Efficient Solubilization of Insoluble Drugs," co-PI, NIH 1-R01-CA-134951-01A2, \$1,200,000; Dec 1, 2009 Dec 31, 2015.
- 9. "Clay Tubule Nanocontainer for Responsive Corrosion Protection," NSF-nanomanufacturing, PI, \$387,000, Sept 2011- Dec 2015

- 10. "Nanofluidic Modeling in Clay Nanotubes for Controlled Release of Protective Agents," my \$300,000 from total \$3 mln (PI: R. Ramachandran), NSF-EPSCoR RII: Computational Materials, Sept 2011-Aug 2015
- 11. "Stormwall boards with antimolding and flame retardance coating," BoR EPSCoR OPT-IN (2013-1452), PI, \$65,000, July 2013-Febr 2014
- 12. "Halloysite nanotube based anticorrosion protective coating," EDA's i6 Green Challenge Program, PI, \$220,000 funding, PI: D. Norris, \$1.1 mln, Nov, 2011- Apr 2014
- 13. "Flexible Geopolymer Coating with Clay Nanotube for Anticorrosion Protection of Critical Steel Structures," PI, i6-POCC, \$90,0000; PIs: Lvov & Allouche, March 2013- Apr 2014, 2014
- 14. "Center for Advanced Materials and Nanotechnology in AMRI at the University of New Orleans," PI post-KSFI, BoR, my part \$700,000 from total \$ 3 mln (C. O'Connor-PI), 2007-2013
- 15. "Clay Nanotubes for Controlled Release of Corrosion Inhibitors," LA BoR-ITRS, PI, \$240,000, July 2009-June 2012.
- 16. "Nanomaterials Safety Lab: Research Integrated with Service and Education (RISE)," \$94,000; Enhancement BoR, co-PI, July 2010-June 2011.
- 17. "Pulp Fiber Layer-by-Layer Nanocoating in the Emerging "Green" Roofing Felt Manufacturing," LaTech Enterprise Center, \$40,000. PI: Y. Lvov, June 2010-Dec 2010
- "Micro, Nano Engineering Inspiration for Artistic Outreach," LaTech Alumni Foundation, \$30,000; PIs: M. Bukowski, Y. Lvov, June-Dec 2010
- "Clay Nanotubes as "Green" Nanocontainers for Protective Coating," PI (co-PI J. Sanders, Biology major) LURA-NASA, \$15,000, Sept 09-Aug 2010, # 32-0967-58346.
- "An Efficient Method for Simulating Diffusion Inside Nanotubes for Drug Delivery Systems" co-PI (PI: D. Liu), \$93,800 BoR-RCS, July 2007-June 2010
- 21. "Nanotechnology for Pulp and Paper Industry: Layer-by-Layer Polyelectrolyte Coating," PI, LA Board of Regent Industry Ties Program, \$180,000; July 1, 2005 June 30, 2009.
- 22. "Clay Nanotubes for Controlled Release of Anticorrosion Agents," PI, BoR-PFUND, \$30,000; April 2008-May
- 23. "Nanoassembly: from Fundamentals to Applications," Funding for International Symposium, Y. Lvov PI and Symposium Chair, \$13,600 grant from ACS Petroleum Research Foundation, Philadelphia, Aug 1 –Sept 30, 2008
- "Research and Education: Increasing Student Participation in Research at Internationally Recognized User Facilities," co-PI, NSF-0508560, \$380,000; Sept 2005- August 2009.
- "Enhancement of Educational and Research Infrastructure for Nanosystems Engineering and Molecular Science and Nanotechnology Curricula" PI, BoR LEQSF(2007-08)-ENH-TR-45, \$169,000, July 2007- August 2008
- 26. "Understanding the Local Atomic-Level Effect of Dopant in Complex Metal Hydrides, USING Synchrotron X-Ray Absorption Spectroscopy" PI, DoE, \$330,000 Sept 2005-August 2008
- 27. "Stronger Paper with Better Recycling through Nanoassembly," PI, USDA-SBIR, \$180,000 May 2007-Apr 2008.
- 28. "Theoretical, Numerical and Experimental Studies of an Intermediate-layer Lithography Approach," NSF-0654202, co-PI (PI: C. Liu), \$320,000, June 2007-March 2008
- 29. "Protein Drug Microencapsulation," Epic Therapeutic / Baxter Corporation contract, PI, \$340,000; May 2004 Nov 2007
- "Modification of Corneal Tissue Engineered Scaffolds to Promote Epithelialization," \$90,000, PIs: Y. Lvov; BoR, 2006-Dec 2007.
- "Nanoengineered Shells for Encapsulation and Controlled Release," PI, budget \$941,000; NSF-NIRT 0210298, Sept 2002-Aug 2007.
- 32. "Fluorescent Glucose Sensors from Polyion Shells," co-PI, total budget \$1,329,000; NIH-1RO1 EB00739-01; Sept 02-Aug 2007.

#### **Patents**

1) M. Onda, Y. Lvov, K. Ariga, T. Kunitake; "Multiple layered functional thin films." *February 1, 2000, US patent* 6020175.

2) M. Onda, Y. Lvov, K. Ariga, T. Kunitake, "Preparation of Immobilized Protein Ultrathin Film Reactor and Chemical Reaction by Using Immobilized Protein Film Reactor," *August 22, 2000, US Patent 6107084* 

3) T. Kunitake, K. Ariga, Y. Lvov; "Preparation of protein ultrathin films using alternate adsorption technique." Japanese patent 8-245815, September 24, 1996

4) T. Cui, Y. Lvov, F. Hua "Lithographically-based patterning of layer-by-layer nano-assembled thin films," Aug 15, 2006 US patent 7,090,783 B1

5) J. Rashba-Step, T. Scott, R. Darvari, Y. Lvov, T. Shutava, "Polyion Layer-by-Layer Coating of Microparticles" US Patent April 27, 2006, #2006/0260777

- 6) Y. Lvov, T. Shutava, T. Scott, J. Rashba-Step, "Surface modified microparticles and methods of forming and using the same." Australian patent AU2006241145 B2, 04/27/2006
- 7) Y. Lvov, V. Torchilin, A. Agarwal, "Therapeutic stable nanoparticles," *International Patent WO2009/012303 A9, 22 January 2009.*
- 8) Y. Lvov, G. Grozdits, "Layer-by-layer nanocoating for paper fabrication" US Patent 7842162B1, Nov 30, 2010
- 9) M. Agarwal, Y. Lvov, K. Varahramyan, *US patent 8,349,131 from January 8, 2013* "Method for the manufacture of smart paper and smart wood microfibers"
- 10) Y. Lvov, E. Abdullayev, "Microreservoir with End Plugs for Controlled Release of Corrosion Inhibitor" U.S. Patent No. 8,507,056. August 13, 2013
- 11) V. Torchilin, Y. Lvov, "Stable polyelectrolyte coated nanoparticles" US Patent 8,685,538, April 1, 2014.
- 12) Y. Lvov, D. Mills, "Ceramic nanotube composites with sustained drug release capability for implants, bone repair and regeneration," US patent 9,192,912, November 24, 2015
- 13) E. Allouche, Y. Lvov, C. Montes, "Geopolymer with Nanoparticle Retardant and Method," US patent appl. #9,604,880, 03/28/2017
- 14) Yuri Lvov, Abhishek Panchal, Rawil Fakhrullin "Clay microtube self-assembly on hair surfaces: formulation for medical and hair color treatments," US 62/550,926, filed 8/28/17.

Disclosures to LaTech and Patent Applications - 29 disclosures were submitted to LaTech

#### <u>Licensing technology:</u>

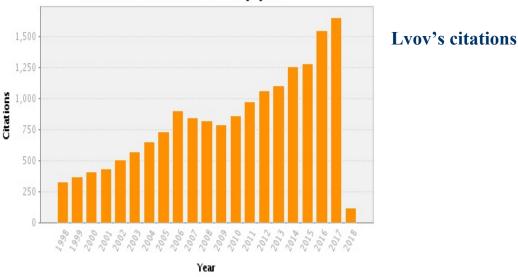
- 1) Through LaTech Research Foundation to International Paper, Cincinnati, Layer-by-layer nanocoating for paper fabrication" January 2014.
- 2) Through LaTech Research Foundation to Artificial Cell Technologies, Inc., New Haven, CT, "Microencapsulation of Hemoglobin in Nanoorganized Polymer Sells," May 15, 2008
- 3) Through LaTech Research Foundation to Nemucore Medical Innovations Inc, Wellesley, MS, "Therapeutic Stable Nanoparticles," October 18, 2008
- 4) Through LaTech Research Foundation to International paper Co, "Nanocoating for paper fabrication" Jan 2014

### Publications

# Total –254 articles in peer reviewed journals with total citation of my papers 23,100 and my Scopus H-index is 76 and Google h-index = 82 which places me in top 1% of chemical professor; 25 most important articles are given below:

- 1. G. Lazzara, G. Cavallaro, A. Panchal, R. Fakhrullin, V. Vinokurov, Y. Lvov, Curr. Opin. Coll. Interface Sci, v.35, 42-50, 2018, "Assembly of organic-inorganic composites using halloysite clay nanotubes,"
- B. Mico-Vicent, V. Vinokurov, A. Novikov, A. Stavitsky, Y. Lvov, "Stabilized dye pigment formulations with platy and t ubule nanoclays." Adv. Func. Mater., v.37, 170355, 2018 - *impact factor 12.2*
- 3. R. Smith, K. Holder, S. Ruiz, Y. Lvov, J. Grunlan, Adv. Func. Mater, v.27, 1703289, 2017, "Environmentally Benign Halloysite Nanotube Multilayer Assembly Significantly Reduces Polyurethane Flammability." *impact factor 12.2*
- 4. J. Tully, R. Yendluri, Y. Lvov, **Biomacromolecules**, v.17, 615-621, 2016, "Enzyme Stabilization by Immobilization Onto and Into Clay Nanotubes."
- 5. Y. Lvov, M. DeVilliers, R. Fakhrullin, **Expert Opin. Drug Delivery**, v.13, 678-686, 2016, "The potential of halloysite tubule clay in drug delivery applications"
- 6. M. Kruchkova, A. Danilushkina, Y. Lvov, R. Fakhrullin, Environ. Sci. Nano, 3, 442-451, 2016, "In vivo toxicity study of nanoclays and graphene oxide with Paramecium caudatum"
- Y. Lvov, L. Zhang, R. Fakhrullin, Adv. Mater., v.28, 1227–1250, 2016, "Halloysite Clay Nanotubes for Loading and Sustained Release of Functional Compounds" - *impact factor 19.2*
- 8. M. Dzamukova, E. Naumenko, A. Badrutdinov, Y. Lvov, R. Fakhrullin, Sci. Reports (Nature Publ.) v.5, 10560, 2015 "Enzyme-activated intracellular drug delivery with tubule clay nanoformulation."
- 9. G.Fakhrullina, F. Akhatova, Y. Lvov, R. Fakhrullin, Environ. Sci. Nano, v.2, 54-59, 2015, "Toxicity of halloysite clay nanotubes *in vivo*: a *Caenorhabditis elegans* study"
- 10. J. Hue, Y. Niu, M. Gong, Y. Lvov, ACS Nano, v.9, 1600-1608, 2015, "Antimicrobial tissue with prolonged drug release produced with electrospinning of clay nanotubes / gelatin composites."

- 11. N. Sanchez-Ballester, Y. Lvov, K. Ariga, H. Abe, J. Mater. Chemistry, v.3, 6614-6619 2015, "Activated Interior of Clay Nanotubes for Agglomeration-tolerant Exhaust Purification"
- 12. Y. Fu, D. Zhao, P. Yao, Y. Lvov, ACS Appl. Mater. Interf., v.7, 8156-8165, 2015, "Highly Aging Resistant Elastomer Reinforcement with Antioxidant Loaded Clay Nanotubes"
- 13. Y. Lvov, A. Aerov, R. Fakhrullin, Advances Colloid Interface Sci., v.207, 189-198, 2014. "Clay nanotubes encapsulation for functional biocomposites."
- 14. T. Shutova, R. Fakhrullin, Y. Lvov, Current Opinions Pharmacol., v.18, 141-148, 2014, "Spherical and tubule nanocarriers for sustained drug release,"
- 15. Y. Lvov, E. Abdullayev, Progress in Polymer Sciences, v.38, 1690-1719, 2013, "Functional Polymer Clay Nanotube Composites with Sustained Release of Chemical Agents," *journal impact factor 26.8*
- 16. A. Joshi, E. Abdullayev, Y. Lvov, Langmuir, v.29, 5871-5879, 2013, "Interfacial modification of clay nanotubes for sustained release of corrosion inhibitors,"
- 17. W. Yah, A. Takahara, Y. Lvov, J. Am. Chem. Soc. v.134, 1853-1859, 2012, "Selective Modification of Halloysite Lumen with Octadecyl Phosphonic Acid: New Inorganic Tubular Micelle"
- W-O. Yah, H. Xu, H. A. Takahara, Y. Lvov, J. Am. Chem. Soc., v.134, 12134-12137, 2012, "Biomimetic Dopamine Derivative for Selective Polymer Modification of Halloysite Nanotube Lumen"
- E. Abdullayev, A. Joshi, Y. Lvov, ACS Nano, v.6, 7216-7226, 2012, "Enlargement of Clay Nanotube Lumen by Selective Etching of Aluminum Oxide"
- 20. R. Fakhrullin, Y. Lvov, ACS Nano, v.6, 4557-4564, 2012 "Face-Lifting and Make-Up" for Microorganisms (Layer-by-Layer Nanocoating)," *feature / perspective paper*
- 21. V. Vergaro, E. Abdullayev, R. Cingolani, Y. Lvov, S. Leporatti, **Biomacromolecules**, v.11, 1177, 2010, "Cito/biocompatibility and Uptake Visualization for Clay Nanotubes,"
- 22. D. Fix, D. Andreeva, H. Möhwald, Y. Lvov, D. Shchukin, Advanced Funct. Materials, v.19, 1720-1727, 2009, "Application of Inhibitor Loaded Halloysite Nanotubes in Active Anticorrosive Coatings
- 23. A. Agarwal, Y. Lvov, R. Sawant, V. Torchilin, J. Controlled Release, v.7, 788-796, 2008, "Stable Nanocolloids of Poorly Soluble Drugs with High Drug Content Prepared Using Sonic Layer-by-Layer Technology."
- Y. Lvov, D. Shchukin, H. Moehwald, R. Price, ACS Nano, v.2, 567-572, 2008, "Clay Nanotubes for Controlled Release of Protective Agents" – *feature/ perspective paper*
- 25. T. Shutava, D. Kommireddy, Y. Lvov, **J. Am. Chem. Soc.**, 2006, v.128, 9926-9934, "Polyelectrolyte / Enzyme Multilayer As Functional Protective Nano/barrier in Oxidizing Media"
- Y. Lvov, I. Ichinose, T. Kunitake, J. Am. Chem. Soc., 1995, v.117, 6117-6122 "Assembly of Multicomponent Protein Films by Means of Electrostatic Layer-by-Layer Adsorption" - *cited 1,545 times*



### Citation Distribution by year

Books and chapters (published during last ten years)

#### **Book edited:**

1. "*Protein Architecture: Interfacial Molecular Assembly and Immobilization Biotechnology*", Editors: Y. Lvov and H. Möhwald, 2000, Marcel Dekker Publ., NY, p. 1-394 (ISBN: 0-8247-8236-4).

2. "Bio-Inorganic Hybrid Nanomaterials," Editors: E. Ruiz-Hitzky, K. Ariga, and Y. Lvov, 2008, Wiley Publ., London, Berlin, New York, p.1-480 (ISBN 978-3-527-31718-9) - Wiley 2009 bestseller list

3. "*Cell Surface Engineering: Fabrication of Functional Nanoshells*." Eds. R. Fakhrullin, Y. Lvov, I. Choi, Royal Chem. Soc. Publ., pp. 1-320, Cambridge, 2014 (ISBN 978-1-84973-902-3)

4. *"Functional Polymeric Composites with Nanoclay."* Eds. Y. Lvov, B. Guo, Royal Chem. Soc. Publ., pp.1-434, 2017. ISBN-13:978-178262422-6

#### **Recent chapters in books:**

- 1. R. Minullina, J. Tully, Y. Lvov, "Halloysite clay nanotubes for long acting controlled release of drugs and proteins, chapter # 13 in book: "Functional Polymeric Composites with Nanoclay." Eds. Y. Lvov, B. Guo, R. Fakhrullin, Royal Chem. Soc. Publ., pp.354-376, 2017
- 2. K. Ariga, H. Abe, Q. Jia, Y. Lvov, "Halloysite and related mesoporous carriers for advanced catalysis and drug delivery, ch.# 7 in book: "Functional Polymeric Composites with Nanoclay." Eds. Y. Lvov, B. Guo, R. Fakhrullin, Royal Chem. Soc. Publ., pp.207-222, 2017
- J. Tully, R. Fakhrullin, Y. Lvov, "Halloysite clay nanotube composites with sustained release of chemicals." Chapter in book: NATO Science Series C: Environmental Security. Nanomaterials and Nanoarchitectures. Editors: Tomas Wagner, Maria Bardošová, Springer Publ., 2015, 87-122. DOI 10.1007/978-94-017-9921-8\_5
- 4. E. Abdullayev, Y. Lvov, "Halloysite clay nanotubes polymer composites with sustained anticorrosion, antimicrobial and flame retardant properties." Chapter <u>in book</u>: "*Research Progress in Natural Mineral Nanotubes*" Eds. P. Pasbakhsh, J. Churchman, World Scientific Publ., Singapore, 2014, p.216-265
- Y. Lvov, P. Pattekari, T. Shutava, "Making Aqueous Nanocolloids from Low Soluble Materials: LbL Shells on Nanocores" Ch.8 in book: "*Multilayer Thin Films: Sequential Assembly Nanocomposite Materials*," Eds. G. Decher, J. Schlenoff, Wiley-VCH, NY, London 2012, p.150-168 (ISBN978-3-527-31648-9)
- 6. T. Shutova, Y. Lvov, "Encapsulation of natural polyphenols with antioxidant properties in polyelectrolyte capsules and nanoparticles," Ch. 9 in book: "*Natural compounds as inducers of cell apoptosis.*" Ed: M. Diederich, Springer Publ., Berlin, London, p. 215-236, 2012 (DOI 10.1007/978-94-007-4575-9)
- M. DeCoster, J. McNamara, K. Cotton, D. Green, Y. Lvov. "Bio/nanocomposites for multi-dimensional analysis of brain cell communication in health and disease," Ch.9 in book "Advances in Natural Polymers and Biomaterials," Eds: S. Thomas, A. Haghi, Apple Academics, Oakville, Canada, 2012(ISBN 978-1-926895-16)
- H. Ai, Y. Lvov, "Biomaterials Based on Layer-by-Layer Nanoassembly: Ultrathin Coating and Microencapsulation," Ch.9 <u>in book:</u> "Bottom-Up Nanofabrication: Supramolecules, Self-Assemblies, and Organized Films." Editor: K. Ariga, American Scientific Publishers, NY, 2009, pp.217-246. (ISBN: 1-58883-082-9)
- 9. Y. Lvov, R. Price, "Halloysite Nanotubules a Novel Substrate for the Controlled Delivery of Bioactive Molecules," in book: *Bio-Inorganic Hybrid Nanomaterials*, Editors: E. Ruiz-Hitzky, K. Ariga, Y. Lvov, Wiley Publ., London, Berlin, 2008, pp.440-478 (ISBN 978-3-527-31718-9).

### **Presentations with published abstracts** Totally, more than 200 presentations. **Below, the titles of 16** *major invited talks* in the last ten years:

- Y. Lvov, "Nano, Microencapsulation of Bioactive Macromolecules for Controlled Release Delivery (Nanoshells and Clay Nanotubules)." Micro/Nano-Encapsulation of Active Food Ingredients, 233<sup>rd</sup> American Chemical Society Meeting, Agriculture & Food Chemistry Division, April 1, 2007, Chicago – *invited talk*
- Y. Lvov, "Cellulose Microfiber Functionalizing through Nanocoating with Polyelectrolytes, Enzymes, and Nanoparticles," 233<sup>rd</sup> American Chemical Society Meeting, Cellulose & Renewable Materials Division, April 1, 2007, Chicago – *invited talk*
- 3. <u>Y. Lvov</u>, "Layer-by-Layer Nanocoating for Pharmaceuticals: from Microcapsules to Nanoshells," 5<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, Boston, November 2-3, 2007,  *invited talk*
- 4. <u>Y. Lvov</u>, "1-, 2-, and 3-D Biomimetic Nanoassembly (Coating, Patterning and Encapsulation)," 8<sup>th</sup> World Biomaterials Congress, Layer-by-layer nanoassembled materials, 28 May 2008, Amsterdam - *invited keynote speaker*
- Y. Lvov, "Clay Nanotubes for Controlled Release of Protective Agents" Colloids Symposium in Memory of Janos Fendler, 236<sup>th</sup> National American Chemical Society Meeting, Aug 17-21, 2008, Philadelphia – *invited talk*
- <u>Y. Lvov</u>, E. Abdullayev, "Self-Healing Coatings Based on Clay Nanotube /Polymer Composites," 13<sup>th</sup> International Conference on Organized Molecular Films (LB-13), July 18-21, 2010 Quebec City, Canada- *invited talk*

- Y. Lvov, "Clay nanotube protective coating with controlled release of healing agents," 15th Intern. Coating Science & Technology Symposium (section: Nanomaterial and Nanoscale Coatings), Sept 12-15, 2010, St. Paul, MN, USAinvited talk
- 8. <u>Y. Lvov</u>, "Halloysite Nanotubes as Nanocontainers for Controlled Release," PMSE Symposium Clay/Polymer Nanocomposites, 241<sup>st</sup> National American Chemical Society Meeting, Anaheim, March 27-30, 2011 *invited talk*
- <u>Y. Lvov</u>, "Nanocontainer Composite Coating for responsive anticorrosion protection "243<sup>rd</sup> National Amer. Chemical Society Meeting, San Diego, March 25-27, 2012 – *invited talk*
- <u>Y. Lvov</u>, "Nanocontainers for Sustained Release of Medical Agents: Capsules and Tubes," 9<sup>th</sup> World Congress on Biomaterials, Chengdu, China, June 1-5, 2012 – *invited talk*
- <u>Y. Lvov</u>, "Halloysite Clay Nanotubes for Long Acting Controlled Release of Drugs." 245<sup>th</sup> National Am. Chem. Soc. Meeting, New Orleans, Apr 7-11, 2013– *invited talk*
- 12. Y. Lvov, "LbL shells to make stable nanocolloids from low soluble materials." International Conference "Layer-by-Layer Assemblies: Science and Technology." New York, June 23-25, 2014- *invited talk*
- 13. <u>Y. Lvov</u>, J. Tully, "Halloysite nanotubes for delivery of drugs, proteins and DNA into biological cells," Intern. Conf. on Applied Mineralogy & Advanced Materials. (AMAM2015), Bari, Italy, June 7-11, 2015- *invited talk*
- 14. <u>Y. Lvov</u>, "Enzyme encapsulation in clay nanotubes for nanoconfined biocatalysis." 251st American Chemical Society Meeting, San Diego, March 13-17, 2016 *invited talk*
- 15. <u>Y. Lvov</u>, "Clay nanotube biocomposites: sustained drug delivery and tissue scaffolds." "255<sup>th</sup> National Am. Chem. Soc. Meeting, Colloid Div. Symposium New Orleans, March 18-22, 2018

### **Invited lectures in universities and companies in the last years:**

- 1. MIT, Materials Science and Engineering Dep., Cambridge, "Nanoparticle Self-Assembly as Smart Coating," June 29, 2007, hosts: Profs. Michael Rubner and Robert Cohen
- 2. Stevens Institute of Technology, Chemical Engineering Dep., Newark, "LbL Microencapsulation of Drugs: Interpolyelectrolyte Complexation and Interior Protection," July 3, 2007, host: Prof. Sveta Sukhishvili
- 3. Cornell University, Department of Fiber Science, Ithaca, NY, "Layer-by-Layer Self-Assembly for Nanocoating on Microtemplates (fibers and capsules)," Oct 19, 2007, host: Prof. Juan Hinestroza
- 4. Louis Paster Strasbourg University, Institute Charls Sadron, "Sustained Release from Clay Nanotubules and Drug Nanoparticles," December 7, 2007. Host: Prof. Gero Decher
- 5. University of Pittsburgh, School of Pharmacy, "Stable Nanocolloids of Poorly Soluble Drugs Using Layer-by-Layer Nanoassembly." April 15, 2008. Host: Prof. David J. Edwards
- 6. Northeastern University, Boston, Cancer Nanomedicin Institute, "Polyelectrolyte Nanoshell for Drug Delivery," October 16, 2008. Host: Director, Prof. Vlad Torchilin
- 7. Texas A & M University, Materials Science and Engineering Dep., University College, TX, "Clay Nanotubes for Controlled Release of Corrosion Protective Chemicals," November 21, 2008. Host: Prof. Jan Gerston
- 8. University of Texas at Arlington, Dep. Mechanical & Aerospace Engineering, "Functional Organic / Inorganic Nanocoating." March 27, 2009. Host: Prof. C. Luo and Albert Tong
- 9. Kyushu University, Chemical Engineering Dep., Fukuoka, Japan, "Clay Nanotubes for Anticorrosion protection," August 18, 2009, Hosts: Profs. Atsushi Takahara and Toyoki Kunitake
- 10. National Institute of Materials Science, Tsukuba, Japan, "Smart Nanocontainers," August 28, 2009. Hosts: Drs. Katsuhiko Ariga and Izumi Ichinose
- 11. National Nanotechnology Laboratory, Lecce, Italy. "Nanocarriers for Cancer Drugs," November 25, 2009. Hosts: Prof. Roberto Cingolani and Dr. Stefano Leporatti
- 12. Max Planck Institute for Colloids and Interfaces, Berlin, Germany, "Halloysite Nanotubes for Corrosion Protection: End Stopper Formation," May 28, 2010. Hosts: Director, Prof. Helmuth Moehwald and Dr. Dmitry Shchukin
- 13. Institute of Elemento-Organic Compounds, Russian Academy of Sciences, Moscow, "Smart Nanocontainers: from Nanocapsules to Nanotubes," June 8, 2010, host: Vice-President of the Moscow State University, Prof. Alexei Khokhlov
- 14. Kurchatov Institute of Atomic Physics, National Russian Research Center, Moscow, "Clay nanotubes for controlled delivery of chemicals," June 11, 2010, host: Director, Prof. Michael Kovalchuk and Dr. Pavel Kashkarov
- 15.PPG-Industries Corp, Pittsburgh, "Clay Nanotubes for Controlled Release of Protective Agents," June 29, 2010, hosts: Dr. Tim Marsh, and Dr. Kurt Olson, Director Automotive Products
- 16. Indiana University-Purdue University, Indianapolis, Sept 10, 2010, "Smart Nanocontainers: from Nanocapsules to Nanotubes," host: Prof. M. Agarwal
- 17.Cameron Corporation, Houston, Nov 4, 2010 "Halloysite nanocontainer-based anti-corrosion and self-healing systems," host: Principal Research Engineer Don Coonrad

- 18.M. Lomonosov Moscow State University, Russia "Nanocontainers for Sustained Release of Chemical Agents," June 8, 2011, host: Prof. Irina Perminova.
- 19. Georgia Tech, Dep. Materials Science and Engineering, Atlanta, "Nanocontainers for Sustained Release of Protective Agents and Drugs," October 3, 2011, hosts: Profs H. Beckham and V. Tsukruk
- 20.M. Lomonosov Moscow State University, Chemistry Dep., May 24, "Nanocontainers for Sustained Release of Protective Agents and Drugs: Tubes and Capsules." Host: Prof. Natalia Klyachko
- 21. Tsinghua University, Chemistry Dep., Beijing, China, May 29, 2012, "Nanocontainers for Sustained Release of Protective Agents and Drugs: Tubes and Capsules," June 4, 2012, host: Prof. Xi Zhang
- 22. Kazan State University, Bio/nanotechnology Dep., Russia, Sept 4, 2012, "Functional Clay-Polymer Nanocomposites," host: Prof. Rawil Fakhrullin
- 23. Institute of Crystallography, Russian Academy of Sciences, Moscow, Nov 23, 2012, host: Prof. Lev Feigin
- 24. Schlumberger Corp., Oct 4, 2013, "Nano/micro Containers for Sustained Release of Protective Agents and Drugs: Tubes and Capsules" host Dr. Andre Mirakyan
- 25. Beijing University of Chemical Technology, China, "Functional polymer-halloysite nanocomposites," November 21, 2013, host: Director of Elastomers Key Lab, Profs. Liqun Zhang, Wencai Wang.
- 26. National Center for Nanoscience and Nanotechnology, Beijing, China, "Clay nanotubes for functional polymeric composites," Nov 26, 2013, host: Prof. Junbai Lee
- 27. International Paper Company, "Electrostatic Layer-by-Layer Self-Assembly: Nanoencapsulation for cellulose microfibers)," Cincinnati, Dec 18, 2013, host: Dr. Andy Anderson
- 28. Institute Chemistry of Materials, CSIC, Madrid, Spain, "Clay nanotube composites with sustained release of chemical inhibitors." May 22, 2014, host: Prof. Eduardo Ruiz-Hitzky
- 29. M. Lomonosov Moscow State University, Physics Dep., Russia, "Polymer-clay nanotube composites: Exploiting orientation." May 30, 2014, host: Vice-President, Prof. Alexei Khokhlov
- 30. Tech University Berlin, Germany, "Clay Tube Nanocomposites with Controlled Release of Chemicals and Drugs," June 10, 2014, host: Prof. Regine von Klitzing
- 31. Clarian Corp, Frankfurt, Germany, "Halloysite based Pickering emulsions" November 27, 2014, host: Dr. Ulrich Sohling
- 32. Beijing University of Chemical Technology, China, "Anti-aging Elastomer with Antioxidant Loaded Clay Nanotubes & Nano-Enforced Rubber." Sept 20, 2014, host: Prof. Wenchai Wang and Liqun Zhang
- 33. Institute of Process Engineering, Chinese Academy of Sciences, National Key Lab for Biochemical Engineering, "Proteins Encapsulation in Clay Nanotubes," Sept 27, 2014, host: Prof. Xuehai Yan
- 34. Louisiana State University, Chemistry Dep., Baton Rouge, "Nano/micro Containers for Sustained Release of Protective Agents and Drugs: Tubes and Capsules," Feb 13, 2015, hosts: Profs. Donghui Zhang, John DiTusa.
- 35.M. Lomonosov Moscow State University, Physics Dep., "Halloysite based oil Pickering emulsification," Sept 5, 2015, host: Profs. Alex Vasiliev
- 36. University of New Orleans, Chemistry/AMRI, "Natural clay nanotubes as template for loading and release chemical agents," host: Prof. John Wiley, Nov 6, 2015
- 37. Zhengzhou University, Chemistry Dep., China, "Enzymatic reactions in clay nanotubes," host: Prof. Bing Zhang, Nov 26, 2015
- 38. MIT, Boston, MIT, Dep. of Materials Science and Engineering, "Halloysite-polymer composites- toward the functional epoxy for solar panels," May 9, 2016; host: Prof. Michael Rubner
- 39. University of Maryland, Biomolec. Engineering Dep., Washington DC, "Halloysite clay nanotubes for functional polymeric composites." May 2, 2017, host: Prof. Michael Anisimo
- 40. Beijing University of Chemical Technology, China, "Halloysite clay nanotubes for functional composites and catalysis," May 25, 2017, host: Prof. Wencai Wang.
- 41. Zhengzhou University, Chemistry Dep., China, "Halloysite clay nanotubes for functional composites, catalysis and spill oil bioremediation." May 26, 2017, host: Profs. Bing Zhang
- 42. Institute of Chemical Process Engineering, Chinese Academy of Sciences, Beijing, "Halloysite clay nanotubes for functional composites and catalysis" June 1, 2017, host: Prof. Xuehai Yah.
- 43.Kazan Federal University, Institute of Fundamental Medicine and Microbiology, Russia, "Clay nanotubes for biological tissues and drug delivery," June 18, 2017, host: Prof. Rawil Fakhrullin
- 44. University of Palermo, Chemistry Dep., Italy "Natural tubule clay for materials organic-inorganic composites," Nov 28, 2017, Hosts: Profs. Serena Riela and Giuseppe Lazzara

Service University Service Established LaTech collaboration with Max-Planck Institute for Colloids and Interfaces, Potsdam, Germany. Established collaboration with National Institute of Materials Science, Tsukuba, Japan

Member of Steering Committee for PhD program in Molecular Chemistry and Nanotechnology, LaTech.

Member of Steering Committee for Governor Biotechnology Initiative program, LaTech.

Associate Director, Institute for Micromanufacturing, LaTech

Chair of IfM-graduate bi-weekly seminar on Nanotechnology: "Functional Nanoassemblies: Fundamentals and Applications." 192 reports were delivered on this seminar in the last five years.

### **Professional Service**

- I was panels' referee for National Science Foundation panel on Nanoscale Centers and Scalable Nanomanufacturing, NSF Chemistry Program, NSF Ceramics Program, and NSF MRSEC program: 2004-2017; a referee for National Institute of Health (NIH) –2003-2014; American Chemical Society Petroleum Foundation 15 reviews during 2000-2017, and for Army Research Office, Mechanical Sciences Division (2002-2015). Reviewer on Nanofiber Materials for US Army Research Office, 2006-2011 Reviewer for Congressionally Directed Medical Research Program, 2005-2011, projects on Targeted Nano-Therapeutics.
   Reviewer for US Civilian Research and Development Foundation on New Nanoparticle Materials, 2006-2017.
- I am a member of Editorial Board of *BioNanoScience* journal (ISSN: 2191-1630, Springer Publ.) since 2012 and *Journal* of Green Energy and Environment, Springer & Chinese Academy Sciences since 2015.
- In 2003, 2008, 2011 and 2013, 2015 and 2018 I chaired American Chemical Society International Symposiums on Nanoassembly in New York, Philadelphia, Anaheim, San Diego and New Orleans. There were 100-150 participants from US, Germany, France, UK, Japan, China, and Russia at these interesting and successful symposiums.
- In 2007-2018 I served as a peer referee for the following journals: Journal of American Chemical Society, Biomacromolecules, Langmuir, Macromolecules, Colloids and Surfaces: Engineering, J. Nanoscience and Nanotechnology, J. Physical Chemistry, Nano Letters, J. Colloid and Interface Sciences; J. Vacuum Science and Technology, Thin Solid Films, Analytical Chemistry, and Advanced Materials. More than 200 papers were reviewed for these prestigious international journals.
- <u>National press:</u> paper in The Atlanta Post, Aug 23, 2010 "The job outlook for the cutting edge field of nanotechnology." Cover page featuring of our drug nanocapsule research in journal "Pharma Focus Asia" July 2008 article: "Think Small You Are Entering Nano-Zone. Nanotechnology for Forestry," in PAPER-360° TAPPI National Journal, August issue of 2006, p.30-36, "Science-NASA" journal published a paper "Voyage to the Nano-Surgeons" describing our research on drug nanocapsule delivery, March 23, 2003.

### **Teaching:**

- New graduate course "Nanofabrication by Self-Assembly" was prepared and taught for eight years with an overage enrollment of about 26 students. The following courses were taught at Louisiana Tech University during last 7 years:
- <u>Undergraduate</u> (with average enrollment of 75 students): General Physics, PHYS 209 and 210; Physics for Engineers, PHYS 201 and 202; Conceptual Physics PHYS 205 and 206.
- <u>Graduate:</u> CHEM 523/450, and MSNT506 "Nanofabrication by Self-Assembly," MSE 505 "Nanotechnology Principles," MSE 501 - "Microsystem Principles" – part on nanoassembly; MSE 512 - "Biotechnology Principles" – part on bio/membranes, lipid mesophases, and Langmuir-Blodgett films; ENG 647 – "Smart Nanocontainers" MSNT 504 – graduate nanotechnology seminar, MSNT 685-engineering qualifying exam
- Currently, I am a chair of advisory committee for 5 PhD grad students, and a member of advisory committee of another 22 PhD students.
- I was an advisor for ten postdocs in the last 10 years: Drs: C. Colletti, P. Pattekari, G. Callavaro, E. Abdullayev, T. Shutova, Z. Lu, D. Shchukin, G. Bantchev, M. Agarwal, Weng-On Yah

In last 10 years, the following my students graduated with PhD and MS degree:

- 1) Mr. Sandeep R. Eadula, MS in Nanotechnology and Molecular Biology, August 2006, "Nanocoating of Cellulose Microfibers for Novel Bioconjugates"
- 2) Dr. Malcolm Prouty, PhD in Engineering, Aug 2007, "Layer-by-Layer Self-Assembly of Microcapsules for the Magnetic Activation of Semi-permeable Nanoshells."
- Dr. Nalinkan G. Veerabadran, PhD in Biomedical Engineering, "Drug Encapsulation in Nanocapsules and Nanotubules," August 2008
- Dr. Anshul Agarwal, PhD-Biomed, "Nanoformulation and Controlled Delivery for Low Soluble Anticancer Drugs," grad May 2009
- 5) Dr. Shantanu Balkundi, PhD-Biomed, "Biomimetic Approach to Micro Nano Encapsulation for Drug Formulations," grad Aug 2009

- 6) Dr. Qi Xing, PhD-Engineering, "Cellulose Microfibers Modified with Carbon Nanotubes and Enzymes," grad Nov 2009
- 7) Dr. Elshad Abdullayev, PhD-Engineering, "Halloysite clay nanotube for controlled delivery of chemically active agents," grad Nov 2010
- 8) Dr. Zhiguo Zheng, PhD-Biomed, grad March 2010, "Ultrasonic assisted layer-by-layer assembly for stable nanocolloids of curcumin and paclitaxel"
- 9) Dr. Xingcai Zhang, PhD-Engin., grad March 2013 "Ultrasonication assisted layer-by-layer technology for preparation of multifunctional; drugs: paclitaxel and lapatinib"
- 10) Dr. Pravin Pattekari, postdoc, PhD Biomed, grad May 2013, "Low Soluble Drug Encapsulation Based on Architectural Layer-by-Layer Assembly for Longer Circulation Time and Targeted Therapy"
- 11) Dr. Renata Minullina, Nov 2012-July 2013, postdoc, Russian President stipend "Halloyiste antimicrobial activity." Kazan Federal University, Tatarstan, Russia, mirenata1612@gmail.com
- 12) Dr. Wenbo Wei, PhD Biomed, grad Nov 2013, "Antimicrobial composites based on halloysite nanotubes"
- 13) Dr. Anupam Joshi, PhD-engineer, grad Nov 2014, "Applications of halloysite nanocontainers for functional protective coating"
- 14) Yafei Zhao, PhD -engineering "Functional Clay Nanotubes and Composites," grad May 15
- 15) Gaurav Parekh, PhD-Biomed, "Camptothecin nanoformulation with enhanced in vivo circulation" grad Nov 2015
- 16) Renata Minullina, PhD-biomed, Aug 2016, "Oil spills bioremediation through Pickering emulsification"
- 17) Raghuvara Yendluri, PhD-biomed, Nov 2017, "Halloysite clay as a nanotubular template for enzyme immobilization and drug delivery"

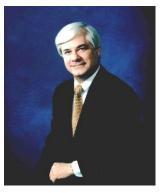
In earlier years of my career at LaTech I was an advisory chair for 8 students who graduated with PhD in engineering.

- **Industrial contracts:** 2006- BioRad Corporation, California on magnetic nanocores; 2001-2006 contract with CIBA-Vision Corporation on eye lens biocompatible nanocoating; 2004-2009 contract with EPIC Therapeutics Inc, Baxter Corporation on insulin and other protein drug microencapsulation; 2006-2009 contract with SAPPI Fine Paper Corporation on nanotechnology for wood fiber processing, and 2007-2011– contract with Atlas Mining Inc, on halloysite clay nanotubes; 2009-2011, contract with Toshiba Tec Corp., 2011-2017 contract with Applied Minerals-NY, Inc., 2011- 2013contract with PPG-Industries Corp., 2013- 2015 contract with Schlumberger Corp.
- Last 5 years collaboration: Northeastern University, Boston, V. Torchilin, C. Lewis; MIT, Boston M. Rubner; Max Planck Institute for Colloids and Interfaces, Germany H. Moehwald, R. von Klitsky; Queen Mary College, London University, G. Sukhorukov; National Nanotechnology Laboratory, Lecce, Italy S. Leporatti; Beijing University of Chemical Technology: Prof. Liqun Zhang,

### EDWARD D. MARKLE

### 504-388-5848 emarkle@msn.com

Edward Markle was graduated from the University of Arizona with a degree in Aerospace Engineering. After working for Combustion Engineering designing nuclear and fossil fuel power plants, Mr. Markle enrolled in the MBA program at Tulane University and then transferred to the combined law/MBA programs offered at Loyola University. He received his degree from Loyola Law School in 1978. Mr. Markle is licensed to practice law and maintains offices in the states of Mississippi, Louisiana, Colorado, and Texas.



Since graduating from law school, Mr. Markle's practice has consisted of commercial litigation, insurance defense, aviation, governmental relations, insurance coverage, errors and omission, director's and officer's liability, products liability, aviation litigation, environmental and toxic tort litigation, and professional liability litigation. He has counseled many corporate clients on intellectual property requirements as well. Mr. Markle has extensive trial experience at every state and federal court level in Louisiana, Mississippi, Colorado and Texas and has tried lawsuits in several foreign countries. He also has broad experience in handling multiparty complex litigation, which routinely involves multimillion-dollar claims as well as broad experience in large real estate development projects.

In addition to his years of general litigation and business practice, Mr. Markle has been registered to practice before the U.S. Patent and Trademark Office since 1978. He has been involved in copyright and trademark infringement litigation. He is also a Licensed FAA Flight Instructor and Commercial Pilot with over 5,000 hours of flying time.

Mr. Markle is also a member of the Colorado, Louisiana, Mississippi, Texas, and American Bar Associations, the American Society of Mechanical Engineers and the National Transportation Safety Board Association. He is admitted to practice before the United States Supreme Court and various other federal and state courts throughout the country.

Mr. Markle has served as a teacher and instructor at both Tulane University and the University of Florida, lecturing on environmental law and related issues. He is also very active with a variety of civil groups and was chosen "Man of the Year" for 1989 by the Algiers Community Network in New Orleans.

In 1991, the Mayor of the City of New Orleans (Sidney Barthelemy) appointed Mr. Markle to act as

the City's chief legal negotiator and advisor on all issues involving economic development. As the chief legal counsel to the Mayor and the City of New Orleans, Mr. Markle negotiated and drafted the lease agreement, real estate agreements, financial documents and other contractual documents that led to the establishment and development of one of the world's largest multi-purpose economic development complexes, which includes one of the world's largest gaming casinos. He was also responsible for monitoring and coordinating all financial matters of the economic project including issues concerning debt, equity, trusts and bonding. Mr. Markle was further responsible for monitoring the legislative process during the initial stages of the economic legislation. Mr. Markle organized, developed and incorporated the Rivergate Development Corporation, the public benefit corporation charged with overseeing the operation of the New Orleans casino. Mr. Markle was also in charge of all real estate leases, and real estate development. Mr. Markle has also represented governments in Michigan, Massachusetts, and Indiana as well as Mexico on economic matters.

In 1999, Mr. Markle created the Plaquemines Parish Coastal Zone Management Committee ("CZM"), under President Rouselle and became one of its first members, having been appointed by the Plaquemines Parish Council and President. The CZM was charged with the responsibility of reviewing costal restoration plans for Plaquemines Parish and providing recommendations to the Parish Council. Mr. Markle also acted as the Committee's legal counsel. For eight (8) years, Mr. Markle was the chief executive counsel to Parish President, Benny Russelle.

In 2004, Mr. Markle was retained by the Commissioner of Insurance to rewrite and recodify the Louisiana Insurance Code. The proposed legislation was introduced in the spring of 2009 and passed the legislature without any major changes or modifications. Mr. Markle continues to provide update services to the Commissioner and the Legislature.

In 2007, Mr. Markle was honored to be appointed as a member of Governor Jindal's Governmental Transition Team.

In 2008, Governor Bobby Jindal appointed Mr. Markle to the New Orleans Convention Center Board of Directors. He devoted eight years to the Board and recently disengaged as a board member to concentrate on the Louisiana Board of Regents. During his service on the board, the Convention Center progressed into a facility with over 1.1 million square feet of convention and meeting space with a strong budget of over 500 million dollars.

In 2013, Governor Bobby Jindal appointed Mr. Markle to serve on the Louisiana Board of Regents, a managing body responsible for managing and operating all of the colleges and universities in the state of Louisiana with a budget of over one billion dollars. Mr. Markle is the Vice-Chairman of the Board.

In 2016, Mr. Markle was appointed to the Algiers Development District which is responsible for the development and operation of the Federal City Project in Algiers, Louisiana, a suburb of New

Orleans. .

Mr. Markle recently taught courses at the LSU Law Center relating to UAS and drones. The FAA also lectured with Mr. Markle on the legal and practical aspects of the use of UAS. Mr. Markle also started a company dedicated to Drone operations and commercial business. The company, Sky Eye, LLC, conducts drone operations in Louisiana and Mississippi.

Mr. Markle became a PADI licensed scuba diver in 1996. He is also a licensed General Contractor in the State of Louisiana and operates under the name of "North American Development and Construction."

From 1967-1969 Mr. Markle assisted his father in creating a commuter airline service in Louisiana, Mississippi and Texas. It operated under the name of Gulf Coast Airlines. Mr. Markle was the chief pilot and company flight director until he enrolled in engineering school at the University of Arizona.

During Mr. Markle's employment with Combustion Engineering, Mr. Markle was involved in the design and testing of wet scrubbers for coal fired boilers at the Louisville Power and Light plant in Louisville, Ky. He was also the chief engineer for Combustion during the power plant installation in Page Arizona which involved the startup and troubleshooting of one of the world's largest supercritical power plants at the time.

Mr. Markle holds an "AV" rating from *Martindale-Hubbell Legal Directory*, the highest rating granted by that national legal directory.

### EDWARD D. MARKLE

### **FAMILY**

Born:	Danville, Pennsylvania - January 5, 1950
Wife:	Gloria (Pharmacist
Children:	Ryan, 33 years and John, 29 years
DOB:	1/5/1950
Residence	842 Camp Street, Apt. 2
Address:	New Orleans, LA 70114

24306 Arcadia Farm Rd Pass Christian, MS 39571

Telephone: (504) 388-5848 (Home) (504) 392-8127 (Work) (504) 388-5848 (Cell)

### **EDUCATION**

University of Arizona - B.S. Aerospace Engineering, 1972; minor, Mechanical Engineering Tulane University - M.B.A. program 1975 - 1976; minor, Financial Accounting and Economics Loyola School of Law - Juris Doctor 1978 - Louisiana Bar Number: 8919 Patent and Trademark Institute - 1978 Licensed Patent and Trademark Attorney – 1978 – Bar No. 28,967

### SPECIAL EDUCATION

Commercial Aircraft Pilot since 1968 Commercial Flight Instructor CFI-1770895 Instrument Flight Instructor CFI-AI-1770895 Multi-engine and Single engine Basic, Advanced and Instrument Ground Instructor Total Flying Time: 5,000 hours Received notoriety as youngest instrument rated pilot in the U.S. in 1968 U.S. Patent and Trademark attorney - Admitted to bar 1978 Patent Bar Registration Number: 28,967 Licensed PADI scuba diver Licensed General Contractor in State of Louisiana

### **NON-LEGAL EMPLOYMENT**

1972-1974 Combustion Engineering – Windsor, Connecticut. Design and control application of large utility power plants. Designer of first successful air pollution control device for coal burning power systems for Louisville Power & Light. Designed computer control systems and programs for the automatic operation of utility power plants.

### PROFESSIONAL EMPLOYMENT

Admitted to practice law in Louisiana, 1978 Partner and general owner in the law firm of Markle and Associates - general trial and business practice Admitted to practice law in Colorado, 1989 Teacher and Instructor at Tulane University, 1988 to present - Environmental Law Admitted to practice law in Texas, 1995 Admitted to practice law in Mississippi, 1997 Experienced in city and state licenses and ordinances Representation of the Government of Mexico on financial and real estate transactions Representation of the Government of Bermuda on financial and real estate transactions including the redesign of the port facilities and hotel complex development In 1999, Mr. Markle was appointed to the Plaquemines Parish Coastal Zone Management Committee, in charge of coastal restoration and protection. He also acted as the committee's legal counsel.

### **PROFESSIONAL ACTIVITIES**

Member of:

American Bar Association Louisiana Bar Association New Orleans Bar Association New Orleans Association of Defense Counsel Colorado Bar Association Louisiana Association of Defense Counsel American Society of Mechanical Engineers National Transportation Safety Board Association Louisiana Trial Lawyers Association Texas Bar Association Mississippi Bar Association

Admitted to practice law before the United States Supreme Court, the Louisiana Supreme Court, the United States Court of Appeals for the Fifth and Eleventh Circuits, and the United States District Courts for the Eastern, Middle and Western Districts of Louisiana, Colorado and Texas. Admitted to all State and Federal Courts in Texas, Colorado and Mississippi.

### **CIVIC ACTIVITIES**

1989 "Man of the Year", chosen by Algiers Community Network in New Orleans

Member of the Chamber of Commerce:

- (1) Aviation Committee Chairman 1984 -1985
- (2) Committee for the Development of a Heliport for the City of New Orleans
- (3) Committee for the Promotion of Civilian Use of Alvin Callendar Field

Aircraft Owners & Pilots Association Safety Foundation National Association of Mechanical Engineers

### **AREAS OF PRACTICE**

### BANKING, FINANCING, COMMERCIAL AND SECURED LENDING

Loan Negotiations and Loan Closings Accounts Receivable Financing Working Capital Loans Asset-Based Loans Mortgage Loans Issuances of Bond Indebtedness Small Business Administration Guaranteed Loans Loan Restructuring and Workouts Vessel Financing and Documentation Financial Planning and Commercial Financing of Projects Trust Organization and Management

### CORPORATE, BUSINESS AND PARTNERSHIP LAW

Professional Corporations Rights and Responsibilities of Officers, Directors, Shareholders and Partners Independent Contractor Relationships Employment Contracts Shareholder Agreements Partnership Agreements Maintenance of Corporate and Partnership Records

### **INSURANCE**

Coverage Issues Defense Litigation Policy Interpretation Insurance Regulation

### LITIGATION

State and Federal Courts Aviation Arbitration Mediation Commercial Corporate Partnership **Insurance** Defense **Real Estate** Tax Disputes **Professional Liability and Malpractice** Trademark, Copyright and Patent Aviation Construction **Products Liability** General Casualty Engineering Transportation Worker Compensation

### **ADMINISTRATIVE LAW**

Licensure Proceedings & Adjudications Professional Disciplinary Proceedings Professional Rule-Making Drafting, Introduction and Monitoring of Legislation

#### PATENTS

Patents Copyrights Trademarks

### GAMING AND RECREATIONAL LAW

Gaming Negotiations Gaming Contracts Gaming Licensing and Adjudications Gaming Disciplinary Proceedings Administrative Proceedings Drafting, Introduction and Monitoring of Legislation Financial Planning and Commercial Financing of Projects Trust Organization and Management