COBRE - PSF

NIH Center of Biomedical Research Excellence in Protein Structure and Function

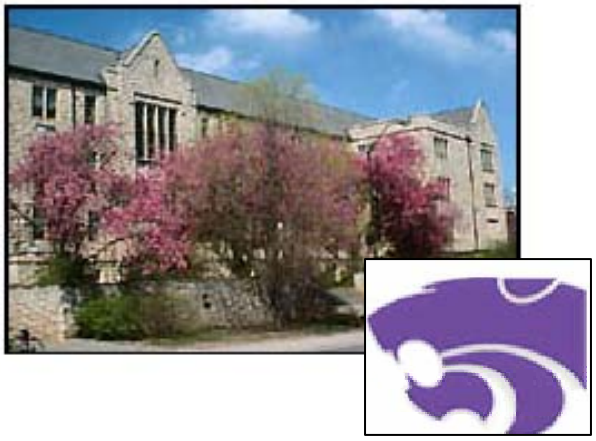
External Advisory Board Meeting

March 1-2, 2007

COBRE-PSF
The University of Kansas
Kansas State University
Wichita State University
KU School of Medicine

The University of Kansas

Kansas State University



Wichita State University

KU School of Medicine

NIH / COBRE-PSF Goals:

- Foster health-related research through basic research in protein structure-function;
- Faculty and student recruitment and retention;
- Faculty development and research-empowerment;
- Promote collaborative research;
- Development of new research capabilities/core labs;
- Strengthen ties between Kansas Universities;
- Establish a Center for Structural Biology Research.

Focusing the COBRE Theme

Protein Structure and Function emphasizes:

- Structure (physical methods, X-ray, NMR)
- Binding interactions (ligands, proteins, DNA)
- Catalysis (mechanistic studies, inhibition)
- PTMs / Proteomics / Mass Spectrometry
- HTS possibilities
- Potential for inter- and intra-campus collaborations including the COBRE Core Labs

Key Personnel

Administration: Robert P. Hanzlik, PI; Mary Lou Michaelis, Co-I
Cynthia Beall, Linda Carlyle, HBC staff

Investigators (2002)
Brian Blagg
Heather Desaire and George Bousfield
Susan Egan
Bill Picking
Jeff Staudinger
Anna Zolkiewska

Emily Scott (2004)
Julian Limburg
Liskin Swint-Kruse

Audrey Lamb (2005)
Jennifer Laurence
Roberto DeGuzman

(12)

Pilot Projects (2003)
David Eichhorn
Audrey Lamb
Bob Rowland
Asma Zaidi

Xue-wen Chen (2004) & Jianwen Fang
Silvia Mora
Shiguang Liu

Irina Smirnova (2005)
Qize Wei

James Bann (2006)
Weijun Huang

(12)

Faculty Recruits (2004)
James Bann
Roberto DeGuzman
Qize Wei

KU	**13**
KSU	**4**
KUMC	**3**
WSU	**3**
Total	**24**

Activities and Accomplishments
2003-2007

Publications by COBRE Investigators

Book chapters / reviews	3
Peer-reviewed research articles	113
Patents	2
TOTAL	118

Presentations by COBRE Investigators

Invited	28
Submitted	74
TOTAL	102

Activities and Accomplishments
2003-2007

New Research Grants Received (as of summer 2006)

NIH R01 grants received	9
Other major grants (>$50k)	37
Smaller awards	40

Total amount, all awards $16, 048,765

Activities and Accomplishments
2003-2007

Service on Study Sections

Individuals serving	11
Meetings	22

Honors / Recognitions Received

Number of individuals	12
Number of awards	20

Activities and Accomplishments
2003-2007

Graduations to independent R01 support	7
Recruitments	
New COBRE Investigators	7
New Tenure-Track Faculty	3
Investigators Tenured	
Awards in 2006	2
Nominations currently pending	2

Activities and Accomplishments
2003-2007

COBRE Renovations ($1.0 million supplement to COBRE)

- 19 Spaces (6000 nsf in 4 departments)

New Construction at KU

- Structural Biology Center (17,500 nsf, COBRE Core Labs)
- Multidisciplinary Research Building (100,000 nsf)
- "SBC-III" (>30,000 nsf, under construction)

3 Core Laboratories / 5 Staff / partly self-supporting

- Protein Purification Group (2 FTE staff scientists)
- Protein Structure (X-ray) Lab (1 FTE Director; 1 Res. Assoc.)
- Bio-NMR (initiated 8/06; 1 Res. Assoc.)

Activities and Accomplishments
2003-2007

6 Scientific Workshops

4/03	Biacore / SPR
7/03	From Cloning to Crystallization
10/03	Stress Proteins and Chaperones
10/04	Protein Structure and Function
10/06	GRASP-NMR
3/07	Protein Mass Spectrometry

3 Grant-Writing Workshops 2004, 2005, 2006

Activities and Accomplishments
2003-2007

Competitive Renewal Application - August, 2006

Outcome: not funded

Statistics

Round	Success Rate
1, 2005	17 / 20
2, 2006	8 /16
3, 2007	8-9? / 23

Strengths Noted in Critique

- Excellent organization of the COBRE
- Demonstrated ability to use COBRE funds effectively
- Positive impact on infrastructure in Kansas and at KU-L
- Strong institutional support from KU-L and State
- Capable PI and Co-I and excellent EAC

Strengths Noted in Critique

- Good plans for evaluating and tracking progress of participating investigators
- New IAC structure and Peer-to-Peer meetings are advantageous
- Mentoring program and use of External Advisors
- Cores are appropriate to Center's theme

Weaknesses Noted in Critique

- Mentoring plans not adequately described
- Budget structure not adequately described
- Organization of progress report; hard to see the big picture of the COBRE
- Criteria for graduation not explained, projected turnover too optimistic

Weaknesses Noted in Critique

- Too many pilot projects (low productivity at the expense of main projects)
- Team approach doesn't foster independence
- Main projects: not notably innovative, poorly described, not maturing scientifically (suggests weak mentoring)
- Lacks discussion of plans for Center beyond the funding life of COBRE program

Actions in Response to Critiques

We WILL submit a revised application on 7/17/07

Five projects - the strongest ones possible

(RFA has been circulated already)

Increase project funding, fund fewer pilot projects

Three Cores (PPG, PSL, Bio-NMR)

Address deficiencies in overall presentation

- mentoring plans
- progress report
- replacement criteria
- budget structure
- graduation criteria

Use appendices to help make our case

Points to discuss

Core Labs - how to increase usage

Core Labs - how to support them financially

How to "retain" graduates in the Center

Plans for Core Labs post-COBRE

Recruiting an Eminent Scholar for years 09, 10

Continuity of EAB into renewal