



Annual Report and Financial Summary: 2012

Introduction: TABERC was founded in 2009 in Tulsa, Oklahoma. The mission of TABERC is “to develop bioscience research in Tulsa through multidisciplinary and collaborative approaches to undergraduate and graduate education and technical training. To position Tulsa and surrounding area to be a leader in bioscience education, training, research, and innovation by utilizing assets of all area institutions of higher education.” TABERC is currently comprised of nine Tulsa area institutes of higher education: Langston University- Tulsa, Northeastern State University, Oklahoma State University – Tulsa, Oral Roberts University, Rogers State University, Tulsa Community College, Tulsa Technology Center, The University of Oklahoma –Tulsa, and The University of Tulsa. The TABERC executive board includes at least one faculty member from each of the institutional partners. As of 2011, TABERC has a donor advised fund managed by the Tulsa Community Foundation.

2012 Significant Accomplishments:

- The American Association for the Advancement of Science, Southwestern and Rocky Mountain Division – 86th Annual Meeting, Tulsa, OK, April 2, 2012 – Special Topic Symposium: Increasing Regional Bioscience Research Capacity through Outreach, Cooperation, and Internships. <http://www.aaas-swarm.org/documents/2012-program.pdf> . See Appendix 1, page 2.
- The TABERC website went live on April 1, 2012. The website was developed by a team of faculty members and students from our member universities. Our website can be viewed at: www.taberc.com or www.taberc.org
- TABERC sponsored a Summer Internship Program that included an introductory course in laboratory science at Tulsa Community College and the placement of 6 students into local bioscience labs. See Appendix 2, page 3-5.

2012 Financial Summary Statement

- Annual dues from the member institutes as well as a generous donation from OSU allowed TABERC to sponsor the 2012 Summer Internship Program as well as fund the Website Development. Direct donations and dues for 2012 totaled \$7122.91 and “in kind” donations totaled \$7370.
- A more detailed financial report for FY2011 is included in Appendix 3, page 6.

Appendix 1:

AAAS-SWARM

Special Topic Symposium: Increasing Regional Bioscience Research Capacity through Outreach, Cooperation, and Internships - Monday April 2nd, 1-3pm

Allen Chapman Activity Center – the University of Tulsa, 2nd Floor Gallery

The Tulsa Area Bioscience Education and Research Consortium (TABERC) was founded in 2009 with the mission of developing bioscience research in Tulsa through multidisciplinary and collaborative approaches to undergraduate and graduate education and technical Training. It is our goal to strategically position Tulsa and the surrounding area to be a leader in bioscience education, training, research and innovation by utilizing assets of all area institutions of higher education. Currently, TABERC is comprised of nine Tulsa area universities. In the summer of 2011, TABERC sponsored six student internships in bioscience research. In this 160 hour internship program undergraduate students from local universities were paired with faculty mentors from other local universities to conduct research. The interns were also brought together periodically for joint training in presentation skills and research ethics. The student projects encompassed a diverse variety of research; from field work with cliff swallows to cell and molecular biology. This symposium will showcase the research experiences of several of the interns. It will also highlight the recent evolution of this unique community consortium and discuss it as a model for community cooperation in promoting and coordinating undergraduate biological science research.

Session Chair: T. Kent Teague (University of Oklahoma College of Medicine –Tulsa)

Teague, T. Kent and Julie H. Marino (University of Oklahoma College of Medicine – Tulsa)

TABERC: Advancing Bioscience in Tulsa

Denton, Brandon (Tulsa Community College) and Earl Blewett (Oklahoma State University Center for Health Sciences)

Characterization of Drill Cytomegalovirus (OCOM6-2) P-bluescript SK II (+) NOTI clones

Malas, Sarrah (Oklahoma State University)

Morgellons: Real or Delusional?

Miranda, Zoey (Oral Roberts University)

Effects of Estrogens during ad libitum and restricted feeding: A rat model of “yo-yo” dieting

Spencer, Diana (Tulsa Community College)

Tulsa Area Bioscience – Building the Pipeline

Appendix 2: TABERC Summer 2012 Internship Program

I. Overview

- A. TABERC received 16 qualified applications for the Summer Internship, of these applications 6 outstanding students were chosen to receive paid internship at local bioscience research labs during the summer of 2012.

Student Name	Institute	Mentor/Host Institute
Carol Saylor	TCC	Dr. Randy Wymore/OSU-CHS
Matthew Cyr	RSU	Dr. Kent Teague/OUHSC
Victoria Reynolds	ORU	Dr. Gerald Köhler/OSU-CHS
Ashley Hopkins	TCC	Dr. Sapna Das Bradoo/NSU
Catherine Page	TU	Dr. Charles Brown/TU
Caitlin Blöse	ORU	Dr. Estelle Levetin/TU

II. Orientation – Friday, June 1, 2012 – OU-Tulsa – Julie Marino, PhD

- Introductions over coffee and donuts
- Brief introduction to TABERC – Kent Teague
- General laboratory etiquette – handout + game
- Mini project proposal – students given assignment to submit a 1-3 page proposal (handout)
- Pre-internship survey - student backgrounds in research/lab science and expectations for internship

III. TCC Selected Topics in Biotechnology – Lab Sprints – BIOT2991 – Dr. Diana Spencer

- Monday June 4th through Thursday June 7th from 9am to 1pm
- Four TABERC Interns will be taking the class: Saylor, Cyr, Hopkins, and Blöse
- Course Overview:
 - Day 1: Safety, Notebooks, micropipetting, solutions, agarose gels, PubMed and NCBI
 - Day 2: Cell Culture, PCR I, Bioinformatics I [BioEdit, SDSC, Multiple Sequence Alignment, Microbes Count, BLASTn, BLASTp], pH meters
 - Day 3: PAGE, Cn3D, PCR II, Spectrophotometers I
 - Day 4: Bacterial Growth curve with Spectrophotometers II and use of plate reader, Research writing, statistics intro

IV. TABERC Summer Intern Meeting –Tuesday, June 19, 2012– OU-Tulsa

- Students discuss their project proposals – mini peer review session
- Kent Teague – Presentation on “How to Give a Scientific Talk”

V. Funding

- This year stipends will be paid from TCF directly to each of the host institutions
- Each student will be paid for 137 hours of work at minimum wage (7.25) = approx. \$1000, \$500 max reagent funding/per host lab
- Budget:
 - \$508 – Intern Reimbursement (4) – TCC Lab Sprints (\$127/student)
 - \$1500 – NSU: 1 stipend/reagent funding
 - \$2300 – TU: 2 stipends/reagent funding
 - \$1000 – OU: 1 stipend
 - \$344 – Final Presentation Luncheon
 - Total = approx. \$5652.00
- David Wallace, Ph.D. on behalf of OSU generously offered to cover the expenses for students interning at OSU - they covered the \$2000.0 for 2 intern stipends plus an additional \$1000 in reagent funding

VI. Student Presentations and Lunch – Thursday, August 2 2012 – OU-Tulsa.

- Each student gave a 20 minute presentation on their Summer Research Project. See list of projects on next page
- Student and Faculty Mentor Survey – feedback collected from this summer’s program will enable us to improve and expand the program in the future

Summer Internship Presentations and Luncheon

Thursday August 2, 2012

- 11:00 am Welcome – Kent Teague, Ph.D. (OU- Tulsa)
- 11:05am Carol Hefley (TCC)
Mentor: Randy Wymore, Ph.D. (OSU-CHS)
Morgellons: Is this Mysterious Skin Condition of Fungal or Bacterial Origin?
- 11:25am Matt Cyr(RSU)
Mentor: Kent Teague, Ph.D. (OU-Tulsa)
Measuring Cortisol Levels in Sweat
- 11:45am Victoria Reynolds (ORU)
Mentor: Gerwald Koehler, Ph.D. (OSU-CHS)
Investigation of the Mechanism of Prostaglandin Biosynthesis in Candida albicans
- 12:05pm Intermission – Poster Viewing
Summer Rickets (TCC) and Jeremy Sabo (TCC)
Summer Gaillardia and GAPDH Cloning and Sequencing
NSF-Community College Undergraduate Research Initiative
- 12:20pm Caitlin Blose(ORU)
Mentor: Estelle Levetin, Ph.D. (TU)
The Pre-Seasonal Meteorological Effects on Juniperus ashei Pollen Levels
- 12:40pm Catherine Page (TU)
Mentor: Charles Brown, Ph.D. (TU)
Personality and Social Behavior of Cliff Swallows
- 1:00pm Concluding Remarks – Kent Teague, Ph.D.



2012 TABERC Summer Scholars attending TCC Lab Sprints: Pictured Left to Right – Matthew Cyr (RSU), Caitlin Blose (ORU), Carol Saylor (TCC), and Ashley Hopkins (TCC).



2012 TABERC Summer Experience: A Student's Perspective: Left to Right: Catherine Page (TU) weighs a cliff swallow during her field work with the Charles Brown, Ph.D. Lab (TU) in Nebraska. Catherine Page counts cliff swallow nests. Carol Saylor (TCC) (pictured right) works in the biological safety hood in the Randy Wymore, Ph.D. lab (OSU-CHS).

Appendix 3:

TABERC 2012 Detailed Financial Summary

Date	Name	Description	\$
1/1/2012	Starting Balance	Including 2012 dues from TTC, TU, TCC, and OSU	5090.23
1/19/2012	Oral Roberts University	annual dues	700.00
1/23/12	Tulsa Community Foundation	quarterly fee	-2.10
1/23/12	Tulsa Community Foundation	Administrative fee	-25.00
2/15/2012	Brandon Denton	AAAS-SWARM registration reimbursement	-25.00
2/16/2012	Melissa Thurston	Website development	-500.00
2/16/2012	Zoey Miranda	AAAS-SWARM registration reimbursement	-25.00
2/23/2012	Kent Teague	donation	22.91
3/2/2012	OU- Foundation	annual dues	1000.00
3/8/2012	OSU - Foundation	2011 summer intern stipend reimbursement (Malas)	1000.00
3/15/12	Sarrah Malas	AAAS-SWARM registration reimbursement	-25.00
3/16/2012	Rogers State University	annual dues	700.00
4/9/2012	Kent Teague	Domain name/website hosting reimbursement - HostGator	-110.52
4/9/2012	Joel Pagan	Website development	-500.00
4/17/2012	University of Tulsa	Internship stipends (2) – reagent budget (1)	-2300.00
4/17/2012	Kent Teague	Website domain – GoDaddy.com	-37.15
4/23/2012	Tulsa Community Foundation	quarterly fee	-6.17
4/23/2012	Tulsa Community Foundation	Administrative fee	-25.00
5/14/2012	Matthew Cyr	TCC Lab Sprints course reimbursement	-127.00
5/14/2012	Northeastern State University	Internship stipends (1) – reagent budget (1)	-1500
5/17/2012	Madeline McKeever	Brochure design	-250.00
5/17/2012	Caitlin Blose	TCC Lab Sprints course reimbursement	-127.00
5/22/2012	Ashley Hopkins	TCC Lab Sprints course reimbursement	-127.00
5/22/2012	Carol Saylor	TCC Lab Sprints course reimbursement	-127.00
6/15/2012	University of Oklahoma - Tulsa	Internship stipends (1)	-1000.00
7/23/2012	Tulsa Community Foundation	Quarterly fee	-4.23
7/23/2012	Tulsa Community Foundation	Administrative fee	-25.00
8/14/2012	Julie Marino	Internship Presentations Lunch Reimbursement - McAlister's	-344.17
8/16/2012	Tulsa Community College Foundation	2013 TCC student internship donation	3000.00
10/3/2012	Langston University	2013 annual dues	700.00
10/23/2012	Tulsa Community Foundation	Quarterly fee	-3.44
10/23/2012	Tulsa Community Foundation	Administrative fee	-25.00
			5057.36

	<u>In Kind Donations</u>	<u>Description</u>	<u>\$ value</u>
6/15/2012	University of Tulsa	discounted reagent funds for summer intern - Levetin Lab	200.00
6/15/2012	University of Tulsa	waived reagent funds for summer intern - Brown Lab	500.00
6/15/2012	Oklahoma State University	Covered expenses for 3 summer interns	2500.00
6/15/2012	Oklahoma State University	waived reagent funds for summer intern - Wymore Lab	500.00
7/25/2012	Tulsa Community College	Spencer/ Sloan – teaching - Lab Sprints	3670.00
			7370.00