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 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, Sarra (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.

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

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

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

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

A. Monday June 4th through Thursday June 7th from 9am to 1pm
B. Four TABERC Interns will be taking the class: Saylor, Cyr, Hopkins, and Blose
C. 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

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

V. Funding

A. This year stipends will be paid from TCF directly to each of the host institutions
B. Each student will be paid for 137 hours of work at minimum wage (7.25) = approx. $1000, $500 max regent funding/per host lab
C. 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
D. 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.

A. Each student gave a 20 minute presentation on their Summer Research Project. See list of projects on next page
B. 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)

11:05 am  Carol Hefley (TCC)
Mentor:  Randy Wymore, Ph.D. (OSU-CHS)
*Morgellons: Is this Mysterious Skin Condition of Fungal or Bacterial Origin?*

11:25 am  Matt Cyr (RSU)
Mentor:  Kent Teague, Ph.D. (OU-Tulsa)
*Measuring Cortisol Levels in Sweat*

11:45 am  Victoria Reynolds (ORU)
Mentor:  Gerwald Koehler, Ph.D. (OSU-CHS)
*Investigation of the Mechanism of Prostaglandin Biosynthesis in Candida albicans*

12:05 pm  Intermission – Poster Viewing
Summer Rickets (TCC) and Jeremy Sabo (TCC)
*Summer Gaillardia and GAPDH Cloning and Sequencing*
NSF-Community College Undergraduate Research Initiative

12:20 pm  Caitlin Blose (ORU)
Mentor:  Estelle Levetin, Ph.D. (TU)
*The Pre-Seasonal Meteorological Effects on Juniperus ashei Pollen Levels*

12:40 pm  Catherine Page (TU)
Mentor:  Charles Brown, Ph.D. (TU)
*Personality and Social Behavior of Cliff Swallows*

1:00 pm 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).
## TABERC 2012 Detailed Financial Summary

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<th>Description</th>
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### In Kind Donations

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