

**LSU Triple EX (Excite, Explore, Experiment) Symposium for Undergraduate Research  
ABSTRACT SUBMISSION**

Submit via email to [ex3symposium@lsu.edu](mailto:ex3symposium@lsu.edu); fax: 225.578.7231;  
or online ([www.osi.lsu.edu](http://www.osi.lsu.edu); click on Symposium link, click on Abstract Submission link)

**DUE BY MONDAY, SEPTEMBER 21, 2009, 11:59 PM**

**STUDENT INFORMATION**

LAST NAME	FIRST NAME
EMAIL	PHONE
COLLEGE/UNIVERSITY	
DEPARTMENT	

**ABSTRACT SUBMISSION**

<b>ACADEMIC LEVEL:</b> <input type="checkbox"/> Senior <input type="checkbox"/> Junior <input type="checkbox"/> Sophomore <input type="checkbox"/> Freshman	
<b>Presentation Type: Select One</b> <input type="checkbox"/> Oral Presentation <input type="checkbox"/> Poster Presentation	<b>Discipline: Select One</b> <input type="checkbox"/> Life Sciences <input type="checkbox"/> Physical Sciences <input type="checkbox"/> Engineering <input type="checkbox"/> Math & Computational Sciences
<b>Research Experience Level:</b> <input type="checkbox"/> Level 1: < or = 3 semesters <input type="checkbox"/> Level 2: > 3 semesters	
Abstract Title	
Abstract Content (50-250 words); applicant can attach a separate page with abstract if needed	
FACULTY MENTOR NAME _____	
EMAIL _____	PHONE _____

**LSU Triple EX (Excite, Explore, Experiment) Symposium for Undergraduate Research  
FACULTY MENTOR RECOMMENDATION  
DUE BY THURSDAY, SEPTEMBER 24, 2009, 5:00PM**

Your undergraduate student, \_\_\_\_\_, has submitted an abstract for presentation at the LSU Triple EX (Excite, Explore, Experiment) Undergraduate Research Symposium being held on October 29, 2009. Completed recommendation form can be sent via email to [ex3symposium@lsu.edu](mailto:ex3symposium@lsu.edu) or fax to 225.578.7231.

**Abstract Title:**

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In order to ensure a presentation which most closely fits your student's research abilities, please answer the questions below.

This student is BEST prepared for the following type of presentation:

- Oral
- Poster
- Both

This student has acquired the following level of undergraduate research in their respective discipline:

- Level 1: < or = 3 semesters
- Level 2: > 3 semesters

Additional comments (Optional, up to 50 words)

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Printed Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

**LSU Triple EX (Excite, Explore, Experiment) Symposium  
for Undergraduate Research  
REGISTRATION FORM**

LAST NAME	FIRST NAME
EMAIL	PHONE
COLLEGE/UNIVERSITY	
DEPARTMENT	

**Please Check One:**

- Undergraduate Student
- Faculty or Post Doc
- Graduate Student
- Staff
- Other (not affiliated with a university, i.e. parents, high school students, teachers)

**Registration Fee, \$10, (covers lunch and refreshments) payable by check to LSU and hand deliver OR mail with registration form to:**

Triple EX Symposium  
Office of Strategic Initiatives  
Louisiana State University  
Room 240 Thomas Boyd Hall  
Baton Rouge, LA 70803

This is our first symposium and we welcome feedback. May we send you a survey, via email, after the event?       Yes       No

# LSU Triple EX (Excite, Explore, Experiment) Symposium for Undergraduate Research GUIDELINES for Abstract Submission & Presentations

## GUIDELINES for POSTER & ORAL PRESENTATIONS

**Poster:** All posters must be attached with velcro hooks. NO PUSH PINS  
Boards are 4'x4'. Ideally posters will be 3'tall x 4'wide for good visual appeal on the boards.

**Oral presentations:** 15 minutes (10 minute presentation + 5 minute discussion)

## GUIDELINES for PREPARATION OF ABSTRACTS

Abstracts should be submitted by email (ex3symposium@lsu.edu); fax to 225.578.7231; or online (URL link) by

**Monday, September 21, 2009 at 11:59 pm** following the instructions below.

- A) Limit your abstract to 250 words or less, not counting title, name (or names if co-authors), and affiliation information.
- B) The author/affiliation information should include full name of the author(s) and their affiliations (department, school, city, state).
- C) Underline the name of the presenter for both oral and poster presentations. Put an asterisk (\*) behind the name of the student presenter to ensure the eligibility for awards.

Traditionally, an abstract includes the following items:

- Introductory statement—introduces the general subject matter of the study.
- Justification—comments on the ultimate importance of looking at the phenomenon in question.
- Objectives—specifies the objectives of the study (1-2 sentences).
- Methods—principal methods employed, no detail; a couple of sentences.
- Results and Discussion—list most important, specific findings and add an interpretive comment to each.
- Summary and significance—in one sentence summarize the major take-home message of the observations and comment on their significance.

## SAMPLE ABSTRACT

Laura Mirch\* (Chemistry, Carroll College, Helena, MT), Steven Soper (Chemistry, Louisiana State University, Baton Rouge, LA)

Detection of K-ras Point Mutations With High Clinical Value for Colorectal Cancers Using Endonuclease V/AK16D Ligase and Ligase Detection Reaction Assays

Our research investigates the benefits of utilizing PCR/Ligase Detection Reactions (LDR) coupled with endonuclease V/AK16D ligase treatment for the detection of known and unknown point mutations within genomic DNA. The research focused specifically on the K-ras gene, implicated in the tumorigenesis of certain cancers including colorectal cancer. Identification of point mutations within this gene could lead to early detection and optimization of treatment options, as well as identification those with a predisposition to develop colorectal cancer. An LDR technique was utilized to identify specific, known mutations within the gene sequence, while the endonuclease/ligase treatment identified unknown mutations within this gene sequence. Capillary electrophoresis and slab gel electrophoresis were employed to distinguish the products of both EndoV/ligase and LDR based on the fragments' size differences. These methods have been found to be highly sensitive and conducive to high throughput applications. Further research should explore the potential to transfer the gel electrophoresis separation to a microelectrophoretic device with the potential for clinical applications.