# The Tower

Undergraduate
Research
Kaleidoscope
November 9, 2009

#### What is The Tower?

 The Tower is an interdisciplinary research journal for undergraduate students at the Georgia Institute of Technology.



#### **Our Goals**

- The goals of our publication are to:
  - Showcase undergraduate achievements in research,
  - Inspire academic inquiry,
     and
  - Promote Georgia
     Tech's commitment to undergraduate
     research endeavors.



# **Editorial Board**



### **Our Divisions**



**Business** 

**Production** 

Review

Web Design

### Who Can Submit?

 Any undergraduate or recent graduate who is doing research or has inquiries about a specific area of research

ALL majors

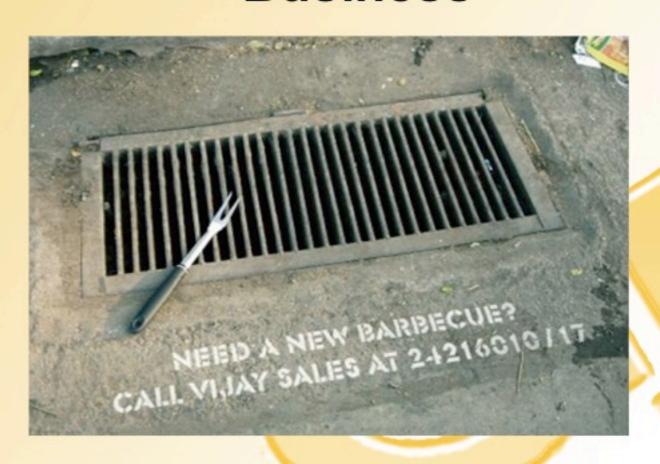
#### What to Submit

- Articles: Culmination point of an undergraduate research project; the author addresses a clearly defined research problem
- Dispatches: Reports recent progress on a research challenge; narrower in scope
- Perspective: provides personal viewpoints and invites further discussions through literature synthesis and/or logical analysis.

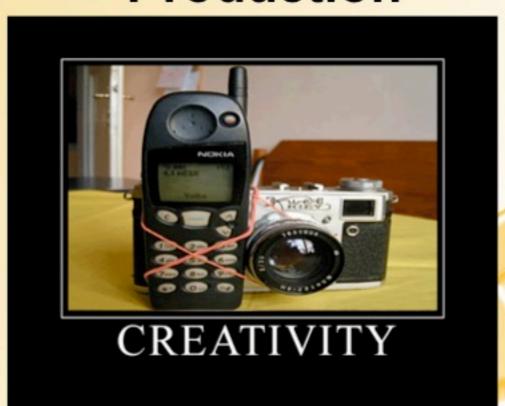
#### When to Submit

- We are ALWAYS accepting submissions
- We accept on a rolling basis
- Check out our website there are deadlines for spring and fall issues

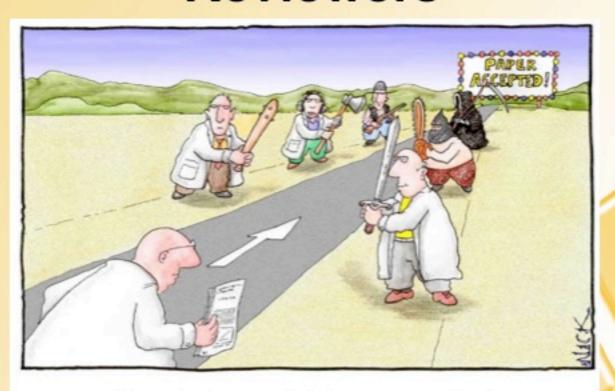
# Business



Production



## Reviewers



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

# Web Design



# **Inaugural Print Issue**

 We just recently published our first print issue!



Make sure
 you pick
 one up
 when you
 leave!

## We need your help!

- Talk to your undergraduate researchers about submitting an Article!
- Incorporate The Tower into your course
  - Encourage students to submit their work- Possible extra-credit points
  - Encourage students to join our Staff- Internship opportunity especially for students in Business/Production-related majors
  - Let us come to your class and talk to your students
- Spread the word!
  - Pass out flyers / information (we'll give them to you!) to your students
  - Let other faculty members know who we are and how they can help
- Help us with the print-journal distribution
  - Have them at your office, showthem to your visiting students

# We need your help!

Do you know of any other ways to help us?
 Do let us know! Contact us at

editor@gttower.org



MeMBL: Ring-opening a pathway to renewable, chemically customizable plastic.

MICHAEL R. NOLAN, CHRISOPHER W. JONES, GENGGENG QI

a-Methylene-y-methyl-y-butyrolactone (MeMBL) is a biomass-derived compound known to be polymerizable to make an acrylic material with a bigh last transition temperature. Also of interest is the presence of a lactone ring in the structure of MeMBL, which can be opened for MeMBL and alobout temperature. Also of interest is the presence of a lactone ring in the structure of MeMBL, and polymer composed of pure MeMBL and structure of the polymer, and subjected to reactions with sedim hydroxide in water, or a MeMBL polymer. This would expand the range of uses for poly(MeMBL) at a plastic. A polymer instead in the presence of the polymer should be received to the reaction of a change in the polymer instance of the polymer instance of the polymer should be received to the open ring.

MemBL and stryrene (the main component of Styrofoam) were prepared to the open ring. Sing opening water, or dismethyl sulfaccide (DMSO). Evidence of ring-opening water should be pure MemBL polymer and MemBL/styrene copolymer showed with sulfaccide (DMSO). Evidence of ring opening was observed to the open ring.

Lie, but ring-opening with hydroxide was found to be interfective for a pathway to further work on the open ring.

Lie, but ring-opening with hydroxide was found to be interfective for a pathway to further work on the polymer.