

***The Department of Chemistry’s Information Session***

* We will cover:
  + *Why you might want to be a*

*(Bio)Chemistry major/minor*

* + *Related career options*
  + *Our degree programs*
  + *How to get involved in research*
  + *Chem Club!*
  + *Scholarships! (Free money!)*
  + *Graduate programs and when to*

*plan!*

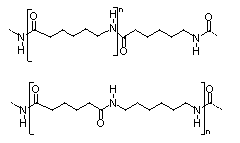
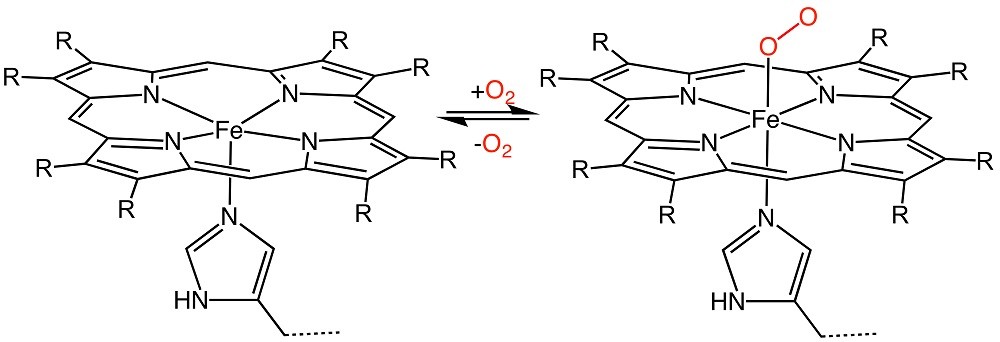
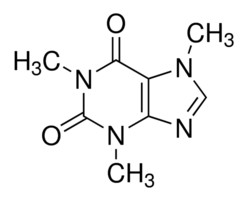


##### First and second year students:

What do you want to know about (bio)chemistry degree?

##### Third, fourth (and beyond) year students:

What do you *wish* you had known earlier about (bio)chemistry degree?

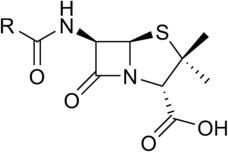


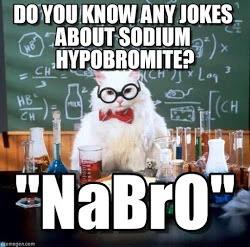
### Why Biochemistry or Chemistry?

The study of the chemistry of life

The study of matter’s composition, properties

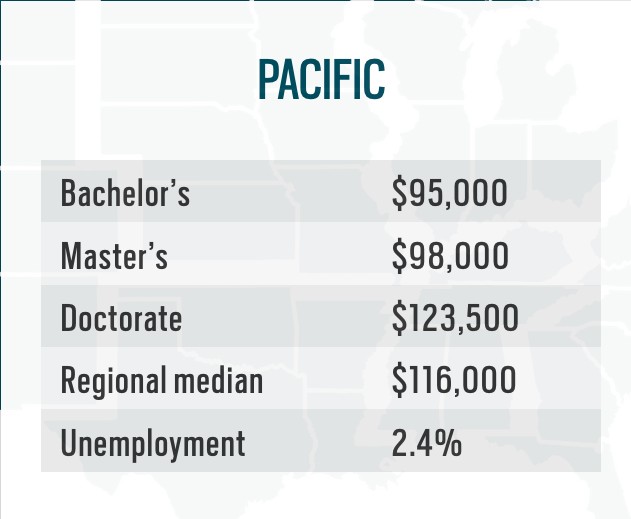
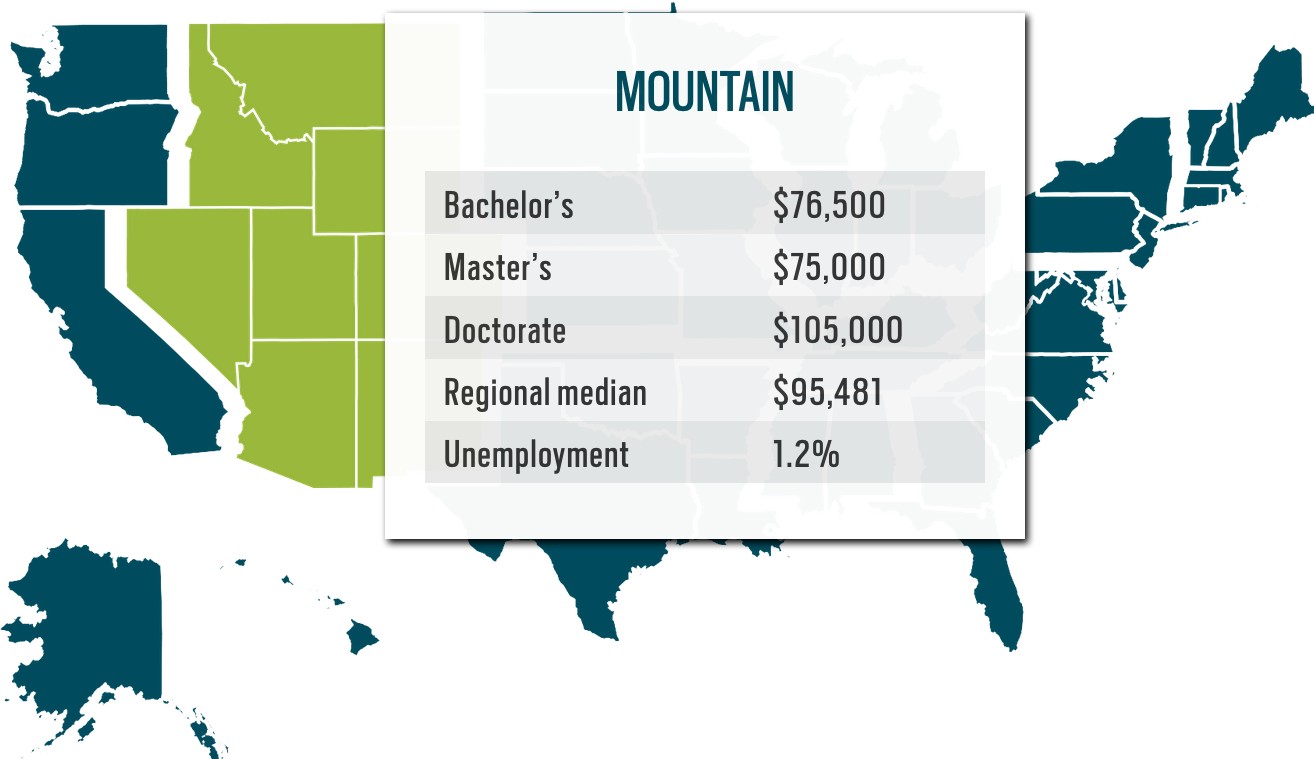
and reactions.







### Biochemists and Chemists are in demand and are paid well.



**What you can do as a (Bio)Chem major**

**1. Take awesome classes**

**3. Can apply to ...**

**Learn how and**



**why (Bio)Chem works!**

 Discover why

Science is

awesome!









**Hang around with like-**

**2. Get involved**

**minded people**

Do awesome demos with ChemClub

**Join a research lab** Get help/advice with classes, homework, etc.

**Inspire youngsters with chemistry knowledge** Get to know faculty

 **Graduate schools**: Chemistry, Biochemistry, Molecular Biology, Microbiology, etc.

 **Professional schools**: Medical,

**4. …or get a job**

Veterinary, Dental,

Nursing, PA, etc.

 **Government labs:** INL,

Pocatello crime lab, etc.

 **Industrial jobs**:

Simplot, Amy’s Kitchen, Medaluca, Micron, etc.

 **Biotechnology**

**companies**:ARUP Industries, BioFire/Biomerieux, Cytozyme Laboratories, etc.

##### What do chemists and biochemists do in their careers?

**Measure chemical quantities:**



**Make chemical compounds:**

**Manage chemical information: Communicate chemical ideas:**

Industrial manufacturing Public Health

Law Enforcement

Pharmaceutical Industry Electronics Manufacturers Agrochemical Companies

Laboratory Management Regulatory Compliance

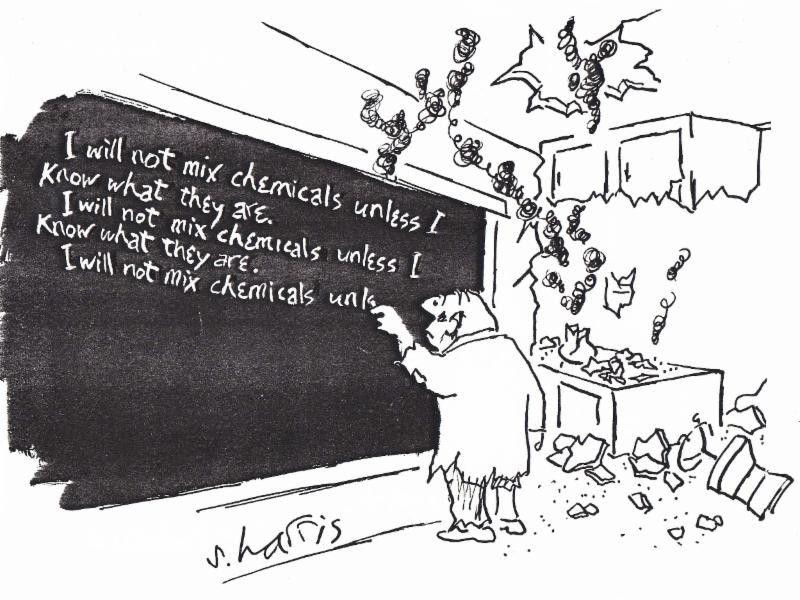
Teaching

Technical or Science Writing Law and policy

Marketing



## Degree programs and Opportunities for (Bio)Chemistry Majors





**Undergraduate Degrees at ISU**

##### Minor in Chemistry

* + **BS in Chemistry**
  + **BA in Chemistry (more flexibility, less calculus)**
  + **BS in Biochemistry**
  + **Accelerated BS/MS in Chemistry**
    - **Apply by April 1st as sophomore for funding consideration**
    - **Earn BS and MS degrees in 5 years total**

##### Questions about any degree program? Ask your chemistry instructor or a chemistry advisor!



**Scholarships @ ISU CHEM**

[**www.isu.edu/chem/student-resources/scholarships/**](http://www.isu.edu/chem/student-resources/scholarships/)

* **Chemistry/Biochemistry Scholarships at ISU (Deadlines in Spring)**
  + Chemistry Endowment Fund
  + Pattie Family Scholarship
  + Kasiska Health Science Scholarship

##### More scholarship information at [www.isu.edu/scholar/list\_scienceandengineering.shtml](http://www.isu.edu/scholar/list_scienceandengineering.shtml)



**Other National Scholarships & Fellowships**

* + American Chemical Society Scholars Program
  + American Indian College Fund
  + Barry M. Goldwater Scholarships
  + Environmental Protection Agency Fellowships
  + Hispanic Scholarship Fund Scholarship Opportunities
  + Knowles Science Teaching Foundation (KSTF) Science & Mathematics Teaching Fellowships
  + NASA Aeronautics Scholarship Program
  + National Institutes of Undergraduate Scholarship Program
  + Naval Research Enterprise Internship Program (NREIP)
  + NSF Developing Global Scientists and Engineers





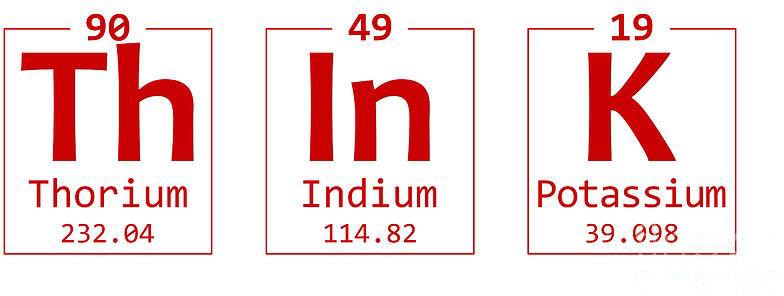
Other than taking classes and attending this event, what can you do at ISU to get more (bio)chemistry in your life?



## Undergraduate Research

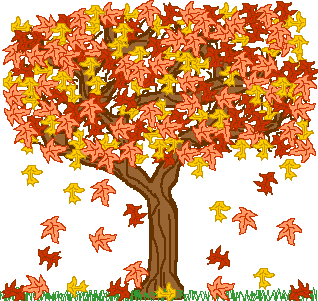


PhD comics: phdcomics.com/



### Finding Research Opportunities



Fall is good time to start looking for summer research opportunities!

Where to look:

**Labs at ISU:** Research Showcase (Wed. Sept 14, 6

pm). Also, look at faculty webpages and talk to instructors to find research that interests you.

**Internships/Jobs:** Job fairs and company websites.

**Other Schools:** Research Experience for

Undergraduates ([REU](https://www.nsf.gov/crssprgm/reu/reu_search.jsp)) programs.

## Faculty Research Areas



|  |  |
| --- | --- |
| **Analytical:** | John Kalivas, Jeff Rosentreter |
| **Biochemistry:** | Caryn Evilia, Cori Jenkins |
| **Environmental:** | Jeff Rosentreter |
| **Inorganic:** | Andy Holland, Cori Jenkins, Joshua Pak |
| **Organic:** | Leslie Nickerson, Joshua Pak, Andy Holland |
| **Physical:** | Lisa Goss, Rene Rodriguez |
| **Materials:** | Cori Jenkins, Andy Holland, Joshua Pak |
| **Nuclear:** | Lisa Goss, Cori Jenkins, Joshua Pak, Rene Rodriguez |



### Summer Research Fellowships @ ISU

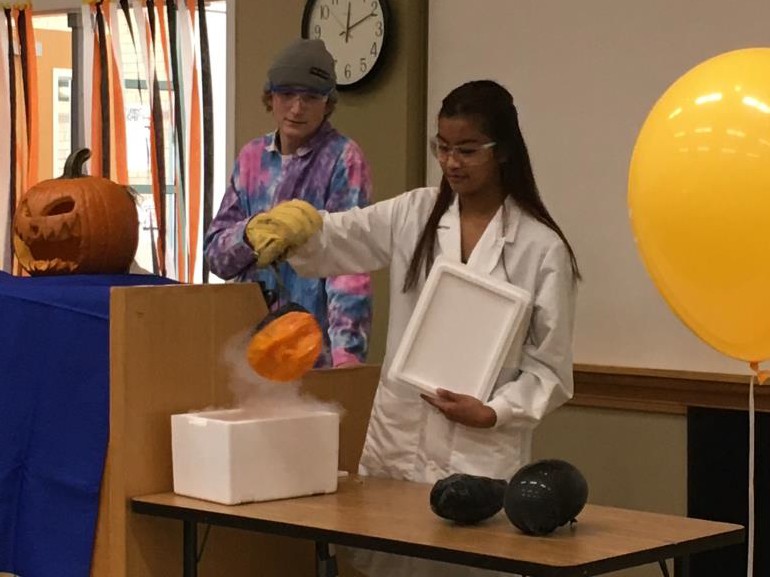
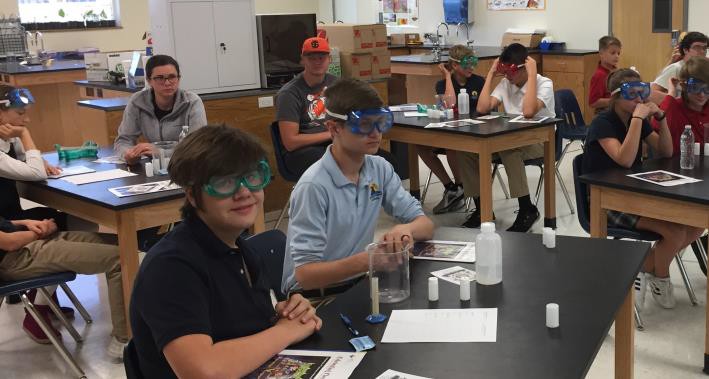
##### Chemistry - Summer Undergraduate Research Fellowships

The Department of Chemistry gives several C-SURF awards for students to conduct part-time summer research. Deadline is second Monday in February. (5 awards of $2,500 in 2021 & 2022.)

##### IDeA Network of Biomedical Research Excellence (INBRE)

ISU awards summer paid fellowships ($7,200 for 10 weeks) for students pursuing biomedical research career. You can participate in research activities at all Idaho universities and colleges. (Application deadline early November 2022 for summer 2023.)





**ISU**

**ChemClub**



**ChemClub – Be a part of the Solution!**

 Hang-out with like-minded people. Get help and advice on classes, science and more.

 Try new & exciting reactions and demos.

 Wow K-12 kids by performing demos and teaching Chemistry! Gain service and leadership experience.

 **Meetings (with free lunch!): Fridays 12:00-12:50 pm in Chemistry Study Room- PSC 248**





## Other Opportunities for Involvement

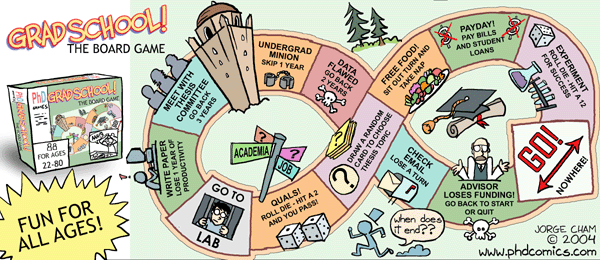
* Experienced undergraduates are paid to TA introductory laboratory classes.
* Students are paid to assist the stockroom maintaining the facilities and preparing laboratory materials.

Talk to Dr. Pak to learn more about applying for these positions.

## Now for all of the 3rd year students in the audience....



#### Graduate School – IT’S FREE!





**Graduate School**

* + Ph.D. programs take 4-7 years, and center research alongside some coursework and teaching.
  + Graduate schools pay tuition/fees and a stipend (~$20K to ~$40K).
  + Additional fellowships are available to exceptional students (more

$$).

* + **First application deadlines are usually in December.**
  + Some programs accept applications as late as April.
  + All applications require personal statement, research statement, 3

letters of recommendation, transcript

* + Some require general GRE; fewer require chemistry GRE (take your first GRE in Nov – Dec)
  + Once accepted, you are invited for a paid visit.

## What can I do now?



##### Know the deadlines and plan ahead!

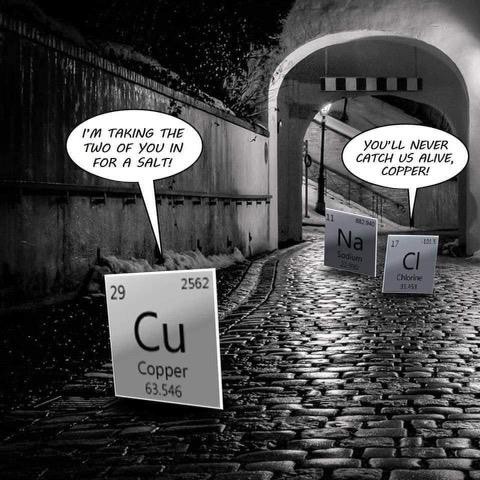
* Compile a strong academic record.
* Gain research/service/leadership/teaching experiences. (such as **ChemClub & STEMClub**)
* Strive for scientific presentations and publications.
* Cultivate strong recommendations (get to know faculty members in your department/critical courses).
* Write clear and scientifically-sound essays that:
  + Link your teaching and research experiences.
  + Highlight any challenges and achievements.
  + Display your passion and motivation for your field of study.

##### Get Advised!



**Questions for you!**

Was this helpful?

What other information would you like to see here?

Should we get something other than pizza?



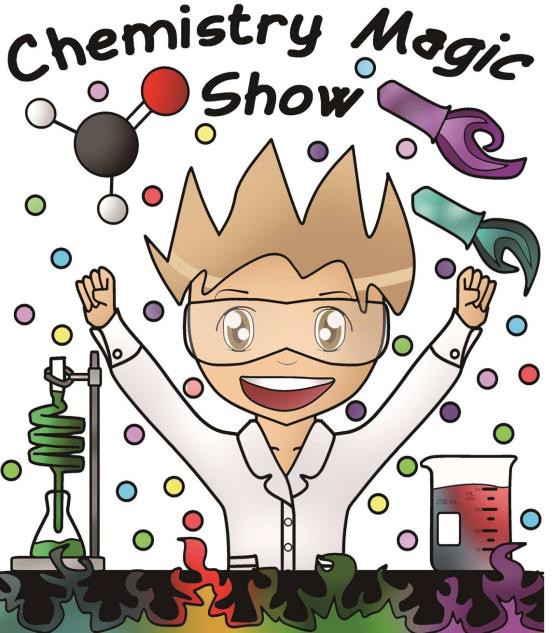
## Come to the Research Showcase!

* When: **Wednesday, September 14th , 6 pm**
* Where: Chemistry building atrium
* Why?
  + Meet faculty and students that are doing undergraduate research in the Chemistry department
  + Eat more pizza and ice cream!
  + Talk to Chem club about their exciting events!





# Thank you for coming!

**Questions?**

