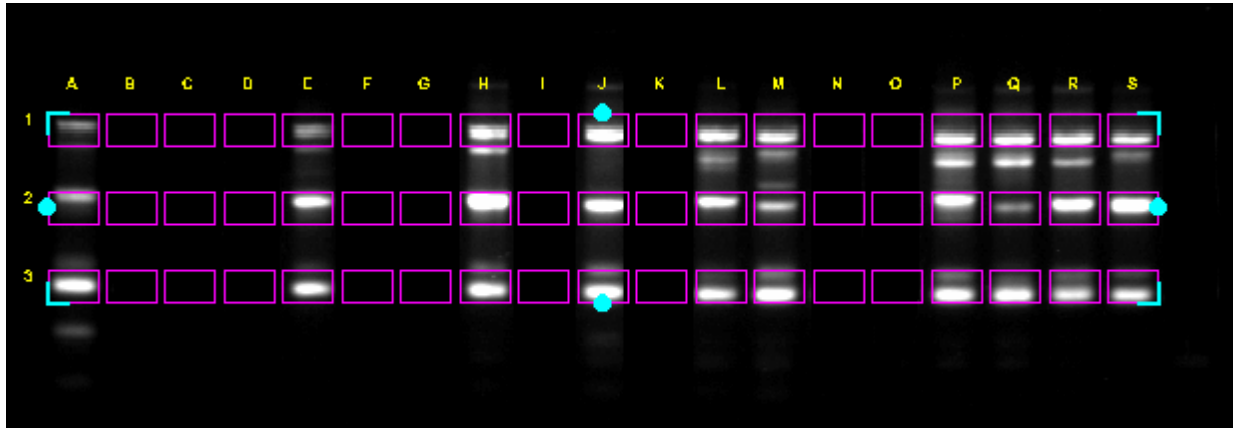


# 20<sup>th</sup> Annual WCCTA Conference



Sleeping Lady Resort and Conference Center  
Leavenworth, WA

October 4<sup>th</sup> – 6<sup>th</sup>, 2012

*Brought to you by.....*

Big Bend Community College

Wenatchee Valley College

Yakima Valley Community College



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# Welcome

Whether you're discovering Sleeping Lady for the first time, or a returning guest rediscovering all of your favorite haunts, we are delighted you'll be staying with us. We hope that you will take advantage of all that we have to offer during your stay.

Check in is 3 pm, check out is 11 am. All guest rooms offer complimentary WiFi Internet access and network connections. By design, guest rooms do not have televisions, refrigerators or mini bars.

Your meals\*, if included in your package will be served in the **Kingfisher Dining Lodge**. Dinner is served 6 - 7:30 pm with salad and bar service beginning at 5 pm; lunch is 12 - 1 pm and breakfast is served 7:30 - 9 am. Meals are chef's choice and are served buffet style in Kingfisher's lodge-style setting. An extensive beer and wine list highlights local favorites and complements the menu, which changes daily. Seasonal specialty drinks are also available. \*Please check with your Group Leader for your group's specific meal times.

Serving wine, beer, and spirits, **The Grotto** offers a relaxing place to toast with colleagues or unwind after dinner. The Grotto's interior features a faux granite wall crafted to represent local stone, and dramatic Chihuly icicle chandelier. A new outdoor space featuring a fire circle, waterfall and ample seating is a wonderful place to spend a warm summer evening. An extensive list of Washington wines and microbrews, along with signature cocktails, make The Grotto the ideal place after a day of adventure. The Grotto opens at 4:30 pm daily.

**O'Grady's Pantry** opens at 7 am to quench your early morning espresso craving and also serves lunch. Our menu includes soups, salads, panini and deli sandwiches, quiche, hot entrees and a sinful selection of seasonal desserts and ice cream. We serve a wide selection of teas and juices, as well as a fine collection of Northwest wines, beers and spirits.

Want to take something home for your spouse and kids? Take a peek at our newest gift nook, **The Mercantile**, located within O'Grady's Pantry, and peruse our whimsical selection of unique gifts, apparel, books and works of art, selected for their environmental sensitivity, fair trade certification, artisan craftsmanship or unique character. If you don't find what you're looking for, browse the unique work of select artists, authors, musicians and jewelry artisans in our new boutique, **Sleeping Lady Gifts**, located in our main lobby. A selection of personal care items is available at Guest Services.

If your schedule allows, treat yourself to a relaxing massage, rejuvenating body treatment or cleansing facial in one of our new private treatment rooms at **Solstice Spa at Sleeping Lady**. Call Guest Services, 800-574-2123 for appointment availability.

Cool off in our elegant and natural, **rock-lined swimming pool**, open seasonally April through October. An adjacent hot pool, heated year round, will warm you up after an early morning run or late evening bike ride. The pools are open 24 hours and can be accessed with your room key. Don't forget your suit!

Relax and unwind in our **Dry Sauna**, located near the entrance to **Solstice Spa at Sleeping Lady**. The sauna is open 24 hours and can be accessed with your room key.

**Grasshopper Fitness**, our fitness room, is located next to the massage/sauna building. Equipment includes a treadmill, an elliptical cross-trainer, a recumbent bicycle, weights, and stretch trainers. Grasshopper is open 24 hours a day and can be accessed with your room key. **Rent a bike** for an afternoon or for the whole day and explore the surrounding area. Rates are \$20 full day, \$15 half day. Rentals are available at Guest Services.

Take a stroll through the **Organic Garden** at Sleeping Lady, which produces many of the fruits, vegetables and herbs used in the restaurants. Tours are offered by the Garden Manager, Saturdays, May-September at 5 pm. Meet at the Organic Garden sign near KOHO Radio, just off the main parking lot.

Enjoy the relaxing combination of nature and art with a **self-guided art walk**, highlighting a variety of visual art including paintings, sculptures made of wood, stone, glass and metal, woven art such as blankets and baskets and hangings. Maps are available at the Guest Services desk.

Shoot a game of billiards, try your hand at table tennis or put on a skit on stage in **The Playhouse**, our new family hospitality room. The Playhouse is open 6 am - 10 pm and can be accessed with your room key.

Curl up and relax with a good book in our quiet and **cozy library**, located within the Forest cluster. The library is accessible with your room key.

Our Guest Service Agents are happy to help with requests including spa appointments and referrals to local activities and attractions.

If there is anything we can do to assist you in planning your visit, please don't hesitate to contact us! Guest Services is just a call away. 1-800-574-2123 or [info@sleepinglady.com](mailto:info@sleepinglady.com)

Sleeping Lady is a smoke-free environment and ADA compliant.

We look forward to your visit!



# Washington College Chemistry Teachers Association

## 2012 Conference Program at a Glance

<b>Thursday, October 4, 2012</b>	
3:00 – 10:00 pm	<b>Check-in</b> (Sleeping Lady Main Office)
4:30 – 10:00 pm	<b>Conference Registration</b> (Woodpecker)
6:00 – 7:30 pm	<b>Dinner</b> (Kingfisher Dining Lodge)
8:00 – 10:00 pm	<b>Informal socializing</b> Grotto Bar , hot tub, library, where ever

<b>Friday, October 5, 2012</b>			
7:30 – 8:30 am	<b>Breakfast</b>		
8:45 – 9:00 am	Welcome – Chapel Theatre		
9:00 – 10:15 am	<b>Keynote Address</b> Dr. Larry Wienkers - Executive Director Department of Pharmacokinetics and Drug Metabolism, Amgen Inc. <i>The Role of Drug Metabolism in BioTherapeutic Drug Discovery</i>		
10:15 – 11:00 am	<b>Vendor Break</b> , Salmon Gallery		
	<b>Chapel Theatre</b>	<b>Woodpecker</b>	<b>Flicker</b>
11:00 – 11:50 am	Kathy Carrigan ( Portland CC)  <i>Updates from the BCCE: Symposium on Distance Learning</i>	Dion Rivera (CWU)  <i>Assessment of the mathematical and science backgrounds of general chemistry students at Central Washington University and how that correlates to success in the general chemistry sequence</i>	Carole Berg (Bellevue CC)  <i>New Green Organic Chemistry Labs</i>
12:00 – 1:00 pm	<b>Lunch</b>		
1:10 – 2:00 pm <b>Roundtables</b>	<b>General Chemistry</b>	<b>GOB</b>	<b>Organic</b>
2:00 – 2:45 pm	<b>Vendor Break</b> , Salmon Gallery		

<b>Friday, October 5, 2012 <i>cont'd</i></b>			
	<b>Chapel Theatre</b>	<b>Woodpecker</b>	<b>Flicker</b>
2:45 – 3:35	John Thompson (Lane CC)  <i>Diet Coke &amp; Mentos Science with 5<sup>th</sup> Graders</i>	Thomas Ferguson (Tacoma CC)  <i>The Flipped Classroom: Maximize Student Achievement</i>	Terrah J. Goeden (CWU)  <i>Community-Based Inquiry: An instructional method to improve student critical thinking and promote gender and ethnic equity</i>
3:40 – 4:35 pm	Shane E. Hendrickson (WVC)  <i>Humor in the Chemistry Classroom</i>	<b>Discussion of Online Homework and related classroom technology issues:</b>  <b>Facilitator:</b> <b>Tanya Knickerbocker (Yakima CC)</b>  <i>What are you using individually and what are your experiences?</i>	Dharshi Bopegedera (Evergreen)  <i>Using Primary Literature as a Teaching Tool</i>
4:45 – 6:30 pm	<b>Reception - Salmon Gallery by Cengage</b>		
6:30 – 7:30 pm	<b>Dinner</b>		
8:00 – 10:00 pm	<b>Evening presentation</b> <b>Mr. Tim Kostelecky; Senior Manager, Technical Services ; John I. Hass, Inc.</b> <b>The Technology of Hops in Brewing</b> Various Beverages available		

## Saturday, October 6, 2012

7:30 – 9:00 am		Breakfast	
		Woodpecker	Flicker
9:05 – 9:30 am	<p><b>Discussion of: <u>Novel Laboratory Experiments You Do</u></b></p> <p><b>This discussion will first focus on your Novel Experiments and then transition to Undergraduate Research discussion.</b></p> <p><b>Facilitators:</b>  <b>Sam Mazhari and Tanya Knickerbocker (Yakima CC)</b></p> <p><b>What are you doing,?</b>  <b>(9:05 - 9:30)</b></p>	<p>Rebecca Sunderman (Evergreen)</p> <p><i>Combining Chemistry and Native Studies</i></p> <p style="text-align: center;"><b>(9:05 – 9:30)</b></p>	
9:35 – 10:00 am	<p><b>Discussion of: <u>Undergraduate Research</u> with introduction on using local industry as resources:</b></p> <p><b>Facilitators:</b>  <b>Sam Mazhari and Tanya Knickerbocker (Yakima CC)</b></p>	<p>Kerry Breno (Whitworth University)</p> <p><i>Natural Products and Modern Methods in the Organic Chemistry Lab- Palladium Catalyzed Indole Synthesis</i></p> <p style="text-align: center;"><b>(9:35 – 10:00)</b></p>	
10:05 – 10:30 am	<p><b>What are you doing, what can you do, what is the importance of this student experience?</b>  <b>(9:35 – 10:30)</b></p>	<p>Karen Stevens (Whitworth U)</p> <p><i>Intro/Gen Chem Experiments with common items: Glass, Pepto-Bismol, and Glue</i></p> <p style="text-align: center;"><b>(10:05 – 10:30)</b></p>	
10:30 - 11:00 am	<b>Break and Check-out by 11 am</b>		
11:10 – 11:50 am	Business Meeting – Woodpecker		
12:00 – 1:00 pm	<b>Lunch</b>		
1:00 pm	Have a safe drive home!		

# Program Details

Friday Keynote Address

9:00 – 10:15 am

October 5, 2012

Chapel Theatre

## **The Role of Drug Metabolism in BioTherapeutic Drug Discovery**

**Dr. Larry Wienkers** - Executive Director in the Department of Pharmacokinetics and Drug Metabolism, Amgen Inc., Seattle, WA.

Drug research is comprised of several diverse disciplines united by a single goal, namely the development of novel therapeutic agents to treat grievous illness. The search for new medicines can be divided functionally into two stages: discovery and development. The former consists of setting up a working hypothesis of the pharmacological target for a particular disease. Once the target enzyme, ligand or receptor is identified, medicinal and/or protein chemists use a variety of empirical and semiempirical structure-activity relationships to modify the chemical structure of a compound to maximize its pharmacological activity. However, robust pharmacological activity cannot be extrapolated to good biological activity unless a particular drug candidate has, in addition to potency towards a selected target, adequate systemic exposure, a desirable duration of action and good safety profile. To this end, there has been over the past decade a growing awareness of the key roles that pharmacokinetics and drug metabolism play as determinants of in vivo drug action. In fact, many drug companies routinely include examination of pharmacokinetics and drug metabolism properties as part of their screening processes in the selection of drug candidates. The working hypothesis around this effort reflects the notion that a comprehensive exploitation of pharmacokinetics and drug metabolism discovery data, instead of iteratively focusing on a single parameter, can enhance the success rate of drug discovery candidates. Consequently, industrial Drug Metabolism & Pharmacokinetic (DMPK) scientists have evolved from traditional supportive roles in drug hunting to true partners in Drug Discovery efforts. To this end, the current presentation will focus upon the application of pharmacokinetics and drug metabolism studies in BioTherapeutic Drug Discovery with special emphasis upon developing skill sets, beyond synthesis and analytical, that allows chemistry trained scientists to thrive in an ever changing industrial environment.



## Friday Morning Abstracts

October 5, 2012

**11:00 – 11:50 am**

**Updates from the BCCE: Symposium on Distance Learning**  
Kathy Carrigan (Portland CC)

**Chapel  
Theater**

I am co-hosting the symposium on DL Chemistry at the BCCE at Penn State this summer with Ken Friedrich, Amy Miller (Millersville College), and Laura Anna (Montgomery College).

I hope to have the latest information from the world of Distance Education from across the country to share. I will be sure to have web addresses and resources of any new technology introduced. I will also share the ACS division of 2 year colleges has to say about DL chemistry.

I hope to make this more of an information sharing event, so if you are teaching any type of distance please consider sharing what works for your students!

**Assessment of the mathematical and science backgrounds of general chemistry students at Central Washington University and how that correlates to success in the general chemistry sequence.**

**Woodpecker**

Dion Rivera (CWU)

How critical is a student's mathematical ability to their success in general chemistry? What is the math and science background of the student enrolled in a general chemistry class? CAN ANY OF MY GENERAL CHEMISTRY STUDENTS GRASP BASIC ALGEBRAIC LOGIC?

These questions and others have been on the minds of those of us that teach the general chemistry sequence at Central Washington University (CWU) and they are likely not unique to the faculty at CWU. The undergraduate curriculum committee and faculty members who teach in the general chemistry sequence have tried to get a handle on some of these questions by assessing our general chemistry student's mathematical and quantitative reasoning skills thorough use of an exam that was developed by the undergraduate curriculum committee. A self report survey has also been implemented in our final quarter of the general chemistry sequence to get an idea of the background of students who actually make it through the general chemistry sequence. Some of the results have been quite surprising. For instance ~20% of the students reported that they had never worked with  $e^x$  prior to the general chemistry series. Roughly 13% report having never worked with logarithms even though all students report that they have taken at least intermediate algebra. This talk will discuss the results to date in this ongoing assessment of our general chemistry population and will present some potential solutions.

**New Green Organic Chemistry Labs**  
Carole Berg (Bellevue CC)

**Flicker**

The Journal of Chemical Education has provided wonderful experiments from chemists across the country since its inception and now we can find some excellent green labs for second year organic chemistry students within its pages. My classes have been testing out several new labs and the three I will be presenting have been exceptionally useful. How about a 10 hour lab in 4 minutes using a microwave in the hood or a complex Pechmann condensation reaction that is very simple to do and uses many common organic mechanisms. Then let's look at a free radical substitution reaction with regiochemistry that is easy to verify with reliable results using a GCMS. If we have some extra time, we might even try some organic songs just for fun.

## Friday Afternoon Abstracts

October 5, 2012

1:10 – 2:00 pm

### Roundtable Discussions

Traditionally these discussions or Birds of a Feather were done on Saturday morning. At the request of some of the membership we scheduled these to allow for separation of Organic and GOB discussion groups

**Facilitated discussion of ideas, concerns and questions related to teaching of General Chemistry.**

**General Chemistry**

**Chapel Theater**

**GOB**

**Woodpecker**

**Organic**

**Flicker**

(please return room seating to original setup when completed)

2:45 – 3:35 pm

**Diet Coke & Mentos Science with 5<sup>th</sup> Graders**

**Chapel  
Theater**

John Thompson (Lane CC)

5<sup>th</sup> Grade is a level where children often begin to lose interest in science. With all the other demands on elementary school teachers, it is easy for science to be given minimal attention. For the last two years I have worked with my organic chemistry students to do experimental science with 5<sup>th</sup> graders using Diet Coke and Mentos. We have used an open inquiry approach where the students have designed and implemented the experiments, and then analyzed the results. I will share our experience and would like to discuss how this program can grow in the future.

2:45 – 3:35 pm

**The Flipped Classroom: Maximize Student Achievement**

**Woodpecker**

Thomas Ferguson (Tacoma CC)

Maximize both the quality and quantity of student classroom involvement. "Flipping the classroom" is a term given to presenting lectures and lessons – essentially information acquisition - through electronic devices prior to students coming to class. In-class time is used for labs, discussions, and assessments – higher-level learning involving application, synthesis and evaluation – with the instructor present to provide one-on-one feedback and guided practice. The presenter will share how he created courses using lecture-capture software (Tegrity) and other instructional technologies. Participants will leave with the following: what is a flipped classroom, pros and cons, ESL implications, basic knowledge of required equipment, and cursory knowledge of implementing a flipped classroom strategy. Presentation is at the beginner level and minimal prior technical knowledge assumed.

**2:45 – 3:35 pm**

**Community-Based Inquiry: An instructional method to improve student critical thinking and promote gender and ethnic equity** **Flicker**

Terrah J. Goeden (CWU)

In the Community-Based Inquiry (CBI) instructional method, collaborative student groups complete case study exercises based upon scientific literature and carry out their own laboratory investigations addressing authentic community needs. This study compared critical thinking, content knowledge, and student evaluations of instruction outcomes between traditional Introductory Biochemistry lecture/laboratory instruction and a CBI curriculum that employed human health case studies and laboratory investigations into the nutritional value of local elementary school lunches. Students in CBI showed significant critical thinking gains, whereas students in traditional instruction did not. Significant sex disparity in critical thinking outcomes was observed with traditional but not CBI methods, indicating female and male critical thinking equity with CBI. Content knowledge gains were equivalent between CBI and traditional groups. However, nonwhite students gained significantly more content knowledge in the CBI group than in the traditional group. Students indicated that CBI instruction had a larger workload, required more effort for success, and presented a greater intellectual challenge than did the traditional method. CBI students also evaluated their lecture instructor more favorably than did students with the same instructor in the traditional group. We encourage faculty to consider the CBI instructional model to facilitate critical thinking skills and gender and ethnic equity in their courses. This talk will involve audience participation in illustrative small-group activities.

**3:40 – 4:35 pm**

**Humor in the Chemistry Classroom**

**Chapel  
Theater**

Shane E. Hendrickson (WVC)

Humor is a powerful tool in connecting individuals thereby allowing an increased sense of commonality and improved communication, be it in the chemistry classroom or elsewhere. In this session I have drawn on my own experience and that of fellow WCCTA members to provide a Smörgåsbord of potentially pleasing offerings you may find useful in your chemistry instruction. These will be broadly divided into (1) amusing anecdotes (2) situational humor (3) concept metaphors (4) humorous assessment questions (5) bad puns (6) worse chemistry jokes and (7) curiosities that defy categorization. While the session is obviously intended to be light-hearted, emphasis will be placed on those offerings that have proven to be valuable tools in the collegiate chemistry learning environment.

**3:40 -4:35 pm**

**Discussion of Online Homework and related classroom technology issues:**

**Woodpecker**

**The first of the three larger discussion topics.**

From last fall's conference the membership indicated they wanted more discussions on relevant topics. We elicited topics at the business meeting and have included three larger discussion topics in this year's program.

**Facilitator:**

**Tanya Knickerbocker (Yakima CC)**

*What are you using individually and what are your experiences.*

**3:40 – 4:35 pm**

**Flicker**

**Using Primary Literature as a Teaching Tool**

Dharshi Bopegedera (Evergreen)

Reading and learning from the scientific literature is one of the most important skills we wish for our students to learn. After all, primary literature is the mode of communication for scientists.

Teaching students how to glean as much information as possible from a publication however, is a challenging task. First, there is the challenge of finding an article on the topic of interest that is intelligible to an undergraduate with their limited chemistry knowledge. Second, even when the "right paper" is found, how much a student gets out of it depends on the effort he/she puts into reading and comprehending the article. All too often one finds that the few best students have "read" most of the paper while much of the class has gained little from the experience.

After many frustrating attempts, I have found an effective way to engage students of all levels in actively reading scientific literature that leads to comprehension. I used it effectively in physical chemistry and general chemistry courses. I will share some of the papers and the method I used to help *all* students get the most out of reading primary literature. I will also discuss my limited experience in helping students transition towards independence in accessing the primary literature.

**4:45 – 6:30 pm**

**Salmon Gallery**

**Beer and Wine Reception  
Presented by Cengage**

**Friday Evening Event**

**October 5, 2012**

**8:00 – 10:00 pm**

**The Technology of Hops in Brewing**

**Woodpecker**

Tim Kostelecky (John I. Haas, Inc.)

For many centuries, hops have been an essential ingredient in beer, not just for aroma and flavor, but also for a wide range of additional benefits they provide for beer including product stability and appearance. Hops have recently been shown to contain powerful anti-oxidants that could possibly provide health benefits. We will take a look at the technology of hops in beer including their role in brewing chemistry, benefits to beer, and also the technology behind the commercial production of a myriad of different hop products currently used in brewing.

Tim is Senior Manager for John I. Haas, Inc. in Yakima Washington. His talk will include a small sample tasting of various applications of hops technology.

During his talk we also will have various beverages available to purchase. This service is supported by a DONATION FROM PEARSON PUBLISHING.

## Saturday Morning Abstracts

October 6, 2012

**9:05 – 9:30 am**

**Woodpecker**

**Discussion of: Novel Laboratory Experiments You Do**

*This discussion will first focus on your novel experiments and then transition to Undergraduate Research discussion.*

**Second of the larger discussion topics.**

From last fall's conference the membership indicated they wanted more discussions on relevant topics. We elicited topics at the business meeting and have included three larger discussion topics in this year's program.

**Facilitator:**

**Sam Mazhari and Tanya Knickerbocker (Yakima CC)**

**What are you doing? Bring your experiences and ideas to the discussion.**

**9:35 – 10:30 am**

**Woodpecker**

**Discussion of: Undergraduate Research with introduction on using local industry as resources:**

**Third of the larger discussion topics.**

From last fall's conference the membership indicated they wanted more discussions on relevant topics. We elicited topics at the business meeting and have included three larger discussion topics in this year's program.

**Facilitator:**

**Sam Mazhari and Tanya Knickerbocker (Yakima CC)**

**What are you doing, what can you do, what is the importance of this student experience?**

**Bring your experiences and ideas to the discussion.**

**9:05- 9:30 am**

**Flicker**

**Combining Chemistry and Native Studies**

Rebecca Sunderman (Evergreen)

Contextual chemistry is an alluring and enticing way to excite students about chemistry. Many of our contextual examples include environmental science, healthcare, or agricultural topics. There are so many other possibilities. This past academic year I had the chance to team teach with a Native Studies faculty member. Together we explored a variety of climate and energy issues occurring on Native American Homelands. In the examination of contemporary Native American struggles to resist cultural and environmental devastation to their communities I was able to teach topics of thermodynamics, equilibrium chemistry, acid- base chemistry, solubility, as well as many other critical components of general chemistry. Students were receptive, demonstrated growth in chemistry knowledge, developed confidence and ability in the lab, and enthusiastically presented projects from their work to the local community. This experiment in contextual chemistry was successful.

**9:35-10:00 am**

**Flicker**

**Natural Products and Modern Methods in the Organic Chemistry Lab-Palladium Catalyzed Indole Synthesis**

Kerry Breno (Whitworth University)

Most current synthetic methods for natural products could not have been possible without employing metal catalyzed reactions. However, in many organic chemistry laboratories metal catalyzed reactions are remarkably absent. At Whitworth we have developed a second semester organic chemistry lab utilizing palladium catalysts for cross coupling to make 2-phenylindole. This type of carbon-carbon bond formation is essential to current synthetic techniques as recognized by the award of the 2010 Nobel Prize in Chemistry to R.F. Heck, E. Negishi, and A. Suzuki. In addition, the lab allows students to use the chemical literature to investigate the medicinal and biochemical relevance of substituted indoles.

**10:05- 10:30 am**

**Flicker**

**Intro/Gen Chem Experiments with common items: Glass, Pepto-Bismol, and Glue**

Karen Stevens (Whitworth University)

Students are interested in activities that use everyday materials they are familiar with. Three separate chemical experiments are described that are suitable for a non-majors level, introductory chemistry, or general chemistry course. Bismuth metal is extracted from Pepto-Bismol tablets. Glass and glue are each separately prepared from common household materials.

## 2012 WCCTA Vendors

Thank you to all the vendors for their participation, door prizes, and sponsoring of social events.

A special thanks to **Cengage** for supporting the Friday afternoon social.  
and **Pearson** for supporting the Friday evening speaker event

<b>Vendors</b>	<b>Company</b>	<b>e-mail</b>
The American Chemical Society - Puget Sound Section		<a href="mailto:bopegedd@evergreen.edu">bopegedd@evergreen.edu</a>
Angie Harr	Vernier Software and Technology	<a href="mailto:aharr@vernier.com">aharr@vernier.com</a>
Jessie Gilmore	Pearson	<a href="mailto:Jessie.Gilmore@pearson.com">Jessie.Gilmore@pearson.com</a>
Alissa Nigro	W.H. Freeman and Company	<a href="mailto:Alissa.Nigro@macmillan.com">Alissa.Nigro@macmillan.com</a>
Eric Englund	Cengage Learning	<a href="mailto:Eric.Englund@cengage.com">Eric.Englund@cengage.com</a>
Debbie McFarland	Cengage Learning	
Brittney Bent	Cengage Learning	
Josh Fletcher	Cengage Learning	
Eric Ziegler	Cengage Learning	
Bryan Endreson	Cengage Learning	
Emily Clark	McMillan	
John Amend	MicroLab Inc.	<a href="mailto:jamend@microlabinfo.com">jamend@microlabinfo.com</a>



## 2012 WCCTA Participants Alphabetically

Last Name	First Name	e-mail	School/affiliation
Ashcraft	Jake	<a href="mailto:jacob.ashcraft@seattlecolleges.edu">jacob.ashcraft@seattlecolleges.edu</a>	South Seattle Community College
Ashworth	Kathy	<a href="mailto:kashworth@yvcc.edu">kashworth@yvcc.edu</a>	Yakima Valley Community College
Baldwin	Katy	<a href="mailto:kbaldwin@olympic.edu">kbaldwin@olympic.edu</a>	Olympic College
Baldwin	Ted	<a href="mailto:tbaldwin@olympic.edu">tbaldwin@olympic.edu</a>	Olympic College
Berg	Carole	<a href="mailto:cberg@bellevuecollege.edu">cberg@bellevuecollege.edu</a>	Bellevue College
Boeckl	Maxi	<a href="mailto:maximiliane.boeckl@email.edcc.edu">maximiliane.boeckl@email.edcc.edu</a>	Edmonds Community College
Bopegedera	Dharshi	<a href="mailto:bopegedd@evergreen.edu">bopegedd@evergreen.edu</a>	The Evergreen State College
Brackett	Anne	<a href="mailto:abrackett@everettcc.edu">abrackett@everettcc.edu</a>	Everett Community College
Breno	Kerry	<a href="mailto:kbreno@whitworth.edu">kbreno@whitworth.edu</a>	Whitworth University
Carriagan	Kathy	<a href="mailto:kcarriga@pcc.edu">kcarriga@pcc.edu</a>	Portland Community College - Cascade Campus
Critchlow	Sue	<a href="mailto:scritchlow@greenriver.edu">scritchlow@greenriver.edu</a>	Green River Community College
Crochet	Amanda	<a href="mailto:acrochet@clark.edu">acrochet@clark.edu</a>	Clark College
Das	Tapas	<a href="mailto:tdas@tacomacc.edu">tdas@tacomacc.edu</a>	Tacoma Community College
Deodhar	Sharaddha	<a href="mailto:shraddha.deodhar@bellevuecollege.edu">shraddha.deodhar@bellevuecollege.edu</a>	Bellevue College
Drak	Jacqueline	<a href="mailto:jdrak@bellevuecollege.edu">jdrak@bellevuecollege.edu</a>	Bellevue College
Duffey	Trisha	<a href="mailto:tduffey@whitworth.edu">tduffey@whitworth.edu</a>	Whitworth University
Eastman	Brandy	<a href="mailto:beastman@tacomacc.edu">beastman@tacomacc.edu</a>	Tacoma Community College
Engel	Randy	<a href="mailto:tawnydog@earthlink.net">tawnydog@earthlink.net</a>	North Seattle Community College
Fattaleh	Nadine	<a href="mailto:nfattaleh@clark.edu">nfattaleh@clark.edu</a>	Clark College
Ferguson	Tom	<a href="mailto:tferguson@tacomacc.edu">tferguson@tacomacc.edu</a>	Tacoma Community College
Gibbons	Erin	<a href="mailto:Erin.gibbons@seattlecolleges.edu">Erin.gibbons@seattlecolleges.edu</a>	Seattle Central C C and Bellevue College
Gold	Melodye	<a href="mailto:mgold@bellevuecollege.edu">mgold@bellevuecollege.edu</a>	Bellevue College
Grant	Karen	<a href="mailto:kgrant@columbiabasin.edu">kgrant@columbiabasin.edu</a>	Columbia Basin College
Greyer	Cameon	<a href="mailto:cgeyer@olympic.edu">cgeyer@olympic.edu</a>	Olympic College
Gulliford	Katie	<a href="mailto:kgulliford@tacomacc.edu">kgulliford@tacomacc.edu</a>	Tacoma Community College
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