



SSRD

**STUDENT
SCHOLARSHIP
RECOGNITION DAY
APRIL 16, 2014**

www.willamette.edu/cla/ssrd

WILLAMETTE UNIVERSITY'S FOURTEENTH STUDENT SCHOLARSHIP RECOGNITION DAY

WEDNESDAY, APRIL 16, 2014

The 14th annual Student Scholarship Recognition Day (SSRD) celebrates Willamette University students' research and creative work. Over the last thirteen years, SSRD has featured nearly 3,000 talks, performances and posters. This year more than 300 student participants from all cohorts across the full range of the liberal arts will present their work and ideas.

SSRD is a day to recognize the exemplary scholarship and creativity of Willamette University students. It is held annually in the spring for students to share the fruits of their research, present musical, theatrical, and dance performances, and display works of art to members of the faculty, family, friends, fellow students, and the community. Regular classes are not held on SSRD as a way of honoring the extraordinary accomplishments of our students and demonstrating Willamette University's institutional commitment to student scholarship.

SSRD is an important opportunity for student-scholars, artists and performers to present their work to the families, faculty, mentors, friends, coworkers and communities who support, encourage and inspire their education. Some students have worked directly with members of the faculty as research assistants or as part of student-faculty collaborative projects such as the Science Collaborative Research Program (SCRIP) and the Mellon-funded Liberal Arts Research Collaborative (LARC). Others have designed and conducted their own research as course projects, summer projects, or senior capstone research projects. Still others have created original works in fine and performing arts. This year's SSRD also features presentations from the Indian Mascot Community Listening Project and student collaborations with the Marion-Polk Food Share.

SSRD represents a rich array of thoughtful scholarship addressing long-standing philosophical debates, current social problems, environmental challenges, and scientific quandaries. It also offers an exciting spectrum of creative work. It is not only a time to demonstrate academic achievements, but also various performing arts and community service learning projects. The Presidential Scholar session, the Colloquium Grant session, the performances in Hudson Hall, Putnam Theatre, and Goudy Commons are just a few examples that illustrate the range of our students' incredible scholarship. **Let us celebrate the intellectual achievements, curiosity, leadership, and creativity of our extraordinary students!**

2014 SSRD program cover design by Michaelanne Foster

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Schedule of 2014 SSRD and Related Events
April 16, 2014

Kindling: work by sophomore and junior art majors

8:00 am – 4:00 pm, Student Art Gallery, Art Building

SSRD Student Presentations

Session 1 9:30am - 11:00am
Session 2 11:10am - 12:40pm
Session 3 12:50 - 1:50pm
Session 4 2:00 – 3:00pm
Session 5 3:10 – 4:10pm
Session 6 4:20 – 5:20pm

Chemistry Poster Sessions

Special Session 2 11:10am - 12:10pm, Cat Cavern
Session 3 12:50 - 1:50pm, Cat Cavern

Senior Art Majors Exhibition

10:00 am – 5:00 pm, Hallie Ford Museum of Art

Willamette Music Presentation and Performances

11:10 am – 12:40 pm, Hudson Hall
12:50 pm – 1:50 pm, Hudson Hall

Debate between College Democrats and Republicans

4:20 pm – 5:20 pm, Eaton 209

Salem-Keizer Science Expo Darwin Discovery Days

5:30 pm – 7:30 pm, Sparks Gym

Willamette Jazz Ensembles

7:30 pm – 9:00 pm, Rogers Rehearsal Hall

SESSION 1

Session 1.1, 9:30-11:00, Eaton 211

Moderator: Ortwin Knorr

Insults, Judgments, Barbarians, and Gladiators

Colorful Insults: Light Imagery and Color in Catullus'

Invective Poetry

Michalak, Eva

The Judgment of Paris in Art: A Critical Look at the Judge Himself

Patterson, Kristen

Barbarians Can Be Romans Too

Andrews, Spencer

Amazon and Achillia: The Importance of Stage Names in the Identification of Female Gladiators and Their

Characterization as Amazons

Paulson, George

Session 1.2, 9:30-11:00, Ford 304

Moderator: Colin Starr

Explorations in Discrete Mathematics

Convergence of Sequences of Polygons

Robinson, Rachel

Finite Geometry in the Card Game SET®

Li, Yumi

Applying Functional Programming to Group Computations

Lipton, Max

Unipancyclic Matroid Theory

Schreiner-McGraw, Jeff

Session 1.3, 9:30-11:00, Eaton 311

Moderator: Richard Ellis

Crises in the USA

America's Teaching Deficit

West, Nathaniel

Homelessness in America

Keller, Jillian

Felon Disenfranchisement

Joiner, Kate

Looking Outside Privacy: An Exploration into Five Alternative Legal Foundations for the Right to an Abortion
Dennis, Lindsey

Can Urban Farming Save American Cities Before it is Too Late?

Weinhold, Mckenzie

Session 1.4, 9:30-11:00, Eaton 106

Moderator: Greg Felker

Asia Today and Tomorrow

Japanese Versus Other: The Japanese Perspective of Multiracialism

Lum, Brianna

Female Political Leaders in Asia

Moody, Bailey

Examining Healthcare Cost Efficiency in Japan

Tyndall, Will

The Rise of English in Japan: Second Language Acquisition and Foreign Language Education Policy
Cagaoan, Chelsea

Session 1.5 9:30-11:00 Collins 201

Moderators: Michael Lockard and Brandi Row Lazzarini

Moving Bodies: Studies in Exercise Science

A Comparison of Resting Metabolic Rate after CrossFit and Traditional Aerobic Workouts

Boltwood, Allison; Vaughn, Jacqueline; Bennett, Parker

Development of a Stepping Test That Challenges Motion in Older Adults

Ruwitch, Margaret

Comparison of Nike Dri-FIT and Cotton T-shirts after a VO2max Test

Beeson, Alexandra; Flattum, Megan; Smith, Sydney; Miracle, Kathrin; Fish Eva

The Effectiveness of Nitrate-rich Beetroot Supplements as an Ergogenic Aid in College-age Females

Van Hook, Kelley; Ruwitch, Maggie; Jones, Catherine; McKendrick, Holly

(panel continues on next page)

Acute Effects of Whole Body Vibration on Power Output in American Football Lineman

Hudson, Cuyler; Jimenez, Christophe

Treadmill Walking Not Equivalent to Overground Walking for Harmonic Ratio

Kataras, Theo; Ruwitch, Margaret

Session 1.6, 9:30-11:00, Collins 205

Moderator: Melissa Marks

Goats, Birds, Stress, and Cells

Influence of Fish Shape on the Individual Lateralization of Feeding Behavior in a Bill-load Holding Seabird

Fujimoto, Rachel

Caprine skeletal reconstruction and bone anatomy

Parkinson, Erin

The Role of Myosin VI in Internalization Rates of ARPE-19 Cells

Nagata, Bianca

Ton-B Dependent Transportation and Oxidative Stress in Caulobacter Crescentus

Quinn, Nathaniel

Session 1.7, 9:30-11:00, Art 212

Moderator: Ricardo De Mambro Santos

Revisioning Art History

Whodunnit? Bruegel, Brueghel or Bruegel?

Albright, Winnie

From Vandal to Valor: Banksy and the Reception of Graffiti Art

Bishop, Caroline

Marxism and Art. A Historical Analysis of 16th-Century Art in Florence

Gray, Victoria

Reflections on Revivalism: New Models and Theories

Lyman, Natalie

Wish to Blaspheme Ikebana

Oldham, Christian Alborz

SESSION 2

Session 2.1, 11:10-12:40, Ford 304

Moderator: Scott Nadelson

Speculative Fiction: Senior Seminar in Creative Writing

There

Clawson, Spencer

Cause and Effect: A Novella in Progress

Ross, Elli

Both Worlds

Montgomery, Thomas

Quest of Ilio'ana: Novel in Progress

Kingstad, Kristian

Session 2.3, 11:10-12:40, Eaton 209

Moderator: Emily Drew

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

The Power of Language in Public Policy: Naming and Anti-Racism

Schultz, Joslin

Oregon's Indian-Themed Mascots: Accounting for Markers of Continued Coloniality

Villa, Kelley

Into the Institute: From Chemawa to Willamette

Gutierrez, Blanca

Dominant & Subordinated Narratives in Queer Communities and the Effects of the 'Marriage Equality' Movement

Buonocore, Katie

How do Guidance Counselors Adapt their Support Practices Taking into Account Students' Race and Gender?

Hinton, Bridget

Session 2.4, 11:10-12:40, Eaton 106

Moderator: Stephanie Degooyer

Human Rights, Environmental Justice, and Banana Wars

Social Disruption and the Evolution of the Sacred Cow
Mahajan, Surabhi

Human Rights & The Right to Development: U.S. Foreign Policy under the Clinton Administration
Meyer, Kristiana

The World on Coke
Vermilion, Lauren

The United Fruit Company: the Flower and the Seed of Corruption
Frederick, Dallas

Session 2.5, 11:10-12:40, Eaton 211

Moderator: Monique Bourque

College Colloquium Grants 2013

Investigation of Antibiotic Resistance in Environmental Bacteria in the Mill Stream
Class College Colloquium Summer Research
Doan, Xengie

Graffiti: Changing Image Through Imagery
Martin, Ben

Seeing with Emily: Emily Carr's vision of the Canadian Nation and its First Nations, then and now
Jacoby, Kelci

College Colloquium Research Grant: Creating a Documentary
Keechler, Samuel

Music and the Sense of Place in Video Games
Librande, Dylan

Making A Vision A Reality: Investigative Research On The Economics Of The Columbia River Gorge
Brinster, Caroline

Session 2.6, 11:10-12:40, Eaton 307

Moderator: David Gutterman

American Politics: Real or Imagined

"I'm Leslie Knope": *Parks and Recreation*, and a Feminist Rhetorical Perspective
Cothrun, Kayla

Medical Civil Societies and Politics: How the American Medical Association was able to Thwart Single Payer While the Canadian Medical Association was Not
Quinn, Nathaniel

Gods and Gospels at the DNC: Finding Democratic Identity in the Faithfully Irreligious
Greenblatt, Nichola

Charismatic Christianity, Latino Americans, and the Prospects of American Neoliberalism
Peterson, Maxfield

Session 2.9, 11:10-12:40, Eaton 105

Moderator: David Altman

Research from the Physics Seniors

Pulsation Analysis of δ -Scuti Stars: Triple Mode Pulsator V829 Aquila
Angell, Dylan

Constructing a Laser System to Trap and Cool Calcium Atoms for the Creation of Novel RbCa Molecules
Luetjen, Chris

Laser Ablation with an Ultrafast Pulsed Laser
Oral presentation
Connor Pogue

Modeling Pulsating Stars as Springs
McCulley, Daniel

Session 2.10 11:10-12:40 Ford 302

Moderator: Fritz Ruehr

Manipulating, Multiplexing and Visualizing: Studies in Computer Science

Pixel Interpolation for Geometric Image Manipulation
Bolen, Adam; Weger, Travis; Wiltbank, Xavier;
Kalidindi, Shrujan

Inverse multiplexing over TCP
Parker, Hayden

Building an Online Concordance for Project Gutenberg
Schmal, Kendra

Parallel Bioinformatics: String Searching in pMatlab
Berg, Ethan; Higley, Tyler; Schmal, Kendra

Session 2.11 11:10-12:40, Hudson Hall

**Willamette University Department of Music
presents a program of its outstanding soloists:**

"2+1" Ivan Trevino (b. 1983)

Yi, Happiness and Choy, Deanna; marimba

Italian Concerto, Mvt. 1, J.S. Bach

Liang, Sherry; piano

"Don Pasquale", "Quel guardo, il cavaliere....So anch'io la
virtu magica," Gaetano Donizetti

Ross, Madeline; soprano

Suite for Unaccompanied Cello in D Minor, BWV 1008,

Prelude, J.S. Bach

Pegis, Jason; cello

"Canticle II," Benjamin Britten

Sweeney, Joellen and Chase, Alec; soprano, tenor

Schubert A Minor, Op. Posth. 143

I. Allegro giusto

Kaltenbach, Audrey; piano

Concerto for Violin and Orchestra op. 47 D minor - Jean

Sibelius

I. Allegro Moderato

Prendergast, Chloe; violin

"Cancion del naranjo seco," Federico Garcia Lorca

Hall, Madison and Samelson, Eric; soprano, piano

"Zoom Tube," Ian Clarke

Cabading, Rosemarie; flute

"Ah! Je veux vivre" from Romeo and Juliet, Charles

Gounod

Campbell, Erica; soprano

"Le Carillon de Westminster," Louis Vierne

Sup, Derek; organ

Buffer Systems in the Blood

Olson, Conner; Sharpe, Jimmy; Varrelman, Tanner;
Antinson, Daniel

Enzymes: The Chemistry of Their Structure and Function
Within the Digestive System

Wehe, Julia; Bars, Kersey; Hallberg, Juliette

Eutrophication & You

Boucher, Ami; Thorp, Kaeleigh; Duff, Megan; Johnson,
Dante

Photovoltaic Cells

Hamer, William; Lev, Elise; Vine, Logan; Mithen, Tashana

Buckeyballs

Yakubovsky, Yulya; Hu, Laura; Sia, Whitney; Barber,
Bailey

Effects of Adderall

Wilson, Clark; Logan, Matthew; Thorn, Catherine

Ozone's Dual Nature

Johnson, Kylea; Roberts, Carmela; Hernandez, JoAnna

Depletion of Stratospheric Ozone

Sumida, Chase; Duyar, Madeleine; Nagao, Lauren;
Carias, Mikayla

Salt Water Magnetohydrodynamics

Merrill, Shelby; Cohen, Lucas; Maglinao, JR

Meth: The Truth Behind The Drug

Plunkett-de la Cruz, Shani; Sprague, Hannah; Lovitt,
Rachel; Wutte, Stefan

Health Effects and Risks of Carbon Monoxide Exposure

Huitt, Tobin; Dell, Evan; Schmidt, Ryan

Sarin Gas

Zetzsche, Lara; Silva, Valeria; Silva, Vanessa; Smithson,
Russell

The Effect of Atmospheric Carbon Dioxide on Coral Health

Heckman, Taylor; Froehling, Emily; Judd, Salina

The Legality of Oxycodone

Rolin, Emily; Diaz, Rolando; Carnes, Rachel

The Chemistry of Rocket Fuels

Zelenak, Breanne; Jensen, Daniel; Clark, Kaiya; Acevedo,
Alejandra

(panel continues on next page)

SESSIONS 2 & 3 - POSTERS

Special Session 2.12, 11:10-12:10, Cat Cavern

Session 3.12, 12:50-1:50, Cat Cavern

Moderators: Brandy Fox and Todd Silverstein

Basic Chemistry in the Real World: Posters

**Researched and Presented by Introductory Chemistry
students**

Gold Nanoparticles and Cancer Treatment

Fernandez, Johnray; Forbush, Maura; Good, Kendra; Heia, Lindsay

DMT: Dimethyltryptamine

Saunders, Jonathan; Riffenburg, Ravella; Betton, Forrest; Davis, Trevor

Ginger Ale and Apple Charger

Kusnick, David; Wallace, Alec; Dunn, Steffany; Hari, Makayla

The Effect Of pH on Cheese: Flavor, Hardness, Melting Behavior

Jones, Julia; Smelt, Brenna; Zimmer, Anelise

The Chemistry of Solar Energy

Rieger, Kayla; Keller, Ben; Richey, Laura; Weinhold, Mckenzie

Vitamin C

Manderbach, Cienna; Tahmassebi, Layla; Wert, Alex; Lee, Ben

The Chemistry, History, and Biology Behind DDT

Heidenreich, Mitchel; Manzano, Emma; McClelland, Madeline; Thurman, Elizabeth

Artem Oganov and Newly Discovered Sodium Chloride Compounds

Sewall, Emily; Parker, Racyne; Wulfing, Bridget

Irène Joliot-Curie

Parnell, Jaclyn; Cackler, Emily; Beschel, Blair; Shields, Alex

The Many Roles of Polymers in Society

Aki, Dan; Bumgarner, Josh; Fukunaga, Kristi; Hernandez, Amala

Chemistry of Cupcakes

Dallas, Johnathan; Mottarella, Malayka; Tolles, Traci

Chemistry of Fireworks

Callahan, Gregory; Coggeshall, Taylor; Ippolito, Stephen

The Long-Term Effects of Fast Food Products

Ahn, Juri; Martinez, Rubi; Masei, Alika

Bioplastics

Fish, Sarah; Riley, Kayla; Sutherland, Kyra

Capturing Chemistry in Photography

Rogers, Melissa; Halas, Paige; Sohn, Alicia; Wax, Sophia

The History of Gold

McLane, Ben; Abdie, Daniel; Salton, Zach

Chemistry of Baking Cookies

Newcomer, Ashley; Stensaas, Elizabeth; Pratt, Alexia; Pulham, Bethan

The Chemistry of Hair Dye

Carey, Alexis; Creasey, Amy; Weaver, Jessi

Women in Science

Wilson, Olivia; Kepple, Jeffrey; Manoukian, Greg

Methamphetamine

Morse, Karlin, Peden, Cassandra, Brown, Teryan

Special Session 2.13, 11:10-12:10, Cat Cavern

Session 3.13, 12:50-1:50, Cat Cavern

Moderators: Steve Heller and Sarah Kirk

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Prozacly What You Need

Townsley, Jasmine; Fortnam, Briana; Tibbetts, Clara; Fallon, Jewels

Taurine: the Bull in US

Decker, Shelby; Phillips, Jill; Silva, Julio; Bowton, Maya

Cannibidiol: A Lesser Known Cannabinoid

Vyhmeister, Kirsten; Van Kessel, Rachel; Romero, Marcos; Ayala, Jose

Tenofovir: Preventing Replication, Improving Procreation

Liang, Sherry; Becquart, Ninon; Gangan, Carlo; Palm, Brianna

The Chemistry of Clozapine

Murphy, Korinn; Johnson, Julianne; Sievers, Colin; Conrad, Nathan

Chocolate - What We Know That Just Ain't So

Ramsey, Alexandra; Quintana, Miguel; Hsu, Lawrence

Imidacloprid: A Pesticide Under Scrutiny

Freitas, Anna; Therrien, Jordan; Craig, Aaron

Schizophrenic Success

Tait, Ethan; Herr, Kathryn; Rosenstein, Wendy

(panel continues on next page)

Biotin - The Forgotten Vitamin

Stratton, Amanda; Lee, Gunnar; Rogers, Sawyer; Smith, Brittany; Vetter, Kyler

The History and Chemical Properties of the Chemotherapeutic Drug Eribulin

Farr, Jaide; Taylor, Audrey; Olson, Liana; Santos, Malia
The Diversity of Menthol
Busse Hopkins, Hana; Doan, Xengie; Carlson, Mandy; Warden, Kristen

Dangers of Bisphenol A

Hayashi, Macy; Matsuura, Stephanie; Morgan, Naomi; Cheney, John

TTX: The Neurotoxin of the Sea

Manning, Sarah; Galligar, Ian; Leadon, Marie; McMillan, Josie

An Unexpected Medicine: Methadone

Crabtree, Dusty; Compton, Lindsey; Glantz, Hayley; Tarnas, Kulanalanu

DDT: A Danger at High Yield and Low Cost

Vanbuskirk, Caleb; Cook, Katherine; Waite-Himmelwright, Jackson; Radler, Seth

SESSION 3

Session 3.1, 12:50-1:50, Eaton 211

Moderator: Sammy Basu

Law and Power

Law and Morality: A Study of Legal Positivism and Interpretivism

Haynes, Aaron

The Bioneers: Power, Structure, and Agency in the Environmental Movement

Utne, Eli

Rituals of Silence: Truth Telling by Child and Female Soldiers during Sierra Leone's Reconciliation

Manion, Megan

Law & Power: The Creation Of King Henry II's English Common Law

Sargeant, Robert

Session 3.2, 12:50-1:50, Eaton 311

Moderator: Megan Ybarra

Northwest Nice? Understanding the Effects of Immigration Policy for Latin@s Today

Under One Roof: Understanding the Effects of Immigration Policy on Mixed-Status Families in Oregon

Olmos-García, Delia

Under One Roof: Conceptualizing the experiences of citizen children in mixed-status families

Márquez Mendez, Humberto

Mixed Status Labor Organizing: Lessons we can Learn from Pacific Northwest Braceros

Vidrio Palomino, Maribel

Session 3.5, 12:50-1:50, Ford 302

Moderators: Ronald Loftus

Asian Studies: Japan Sustainability

A Re-imagining of Japanese Societal Roles and Practices: Japanese Childcare Institutions and the New Generation of Working Mothers

Murata, Kathryn

The Strange World of Waste Separation

Li, Yumi

Japan's Biophysical Limits to Economic Growth

Yoshioka, Kai

Successes and Failures in Japanese Waste Management Practices: A Multi-Disciplinary Approach

Hayashi, Raymond

Session 3.6, 12:50-1:50, Ford 301

Moderator: Linda Heuser

Social Spaces

Intersectionality, Queerness, and the Spectacle in the Social Spaces of 1920s Harlem

Raymond, Brynn

There no Blank Walls/No hay Muros Blancos

Adachi, Andrea

Understanding the 'Hipster Mentality' Among Music Fans and its Effect on the Music Industry

Brotman, Julia

(panel continues on next page)

Perception of Greek Life At Willamette University Through Non-Affiliated (non greek) Students.
Gilgan, Kaleb

Session 3.7, 12:50-1:50, Ford 204

Moderator: Amadou Fofana

French/Francophone Studies

Absurd Theater in Post-War France
Heisterkamp, Rachel

Language death and the case of Walloon
Cleary, Dominique

Paris: Poetry is in the Streets
Cornes, Matilda

Violent, Incapable, Sexual: The Representation of Algerians in French Journalism
Pate, Natalie

Session 3.8, 12:50-1:50, Hatfield Room

Moderator: Rebecca Dobkins

Indian Mascot Community Listening Project

Villa, Kelley; Garcia, Felicia; Gutierrez, Blanca; Marquez Guerrero, Cristina

Session 3.9, 12:50-1:50, Eaton 105

Moderator: David Altman

Research from the Physics Seniors

Detecting Acanthamoeba Myosin 1C In Vitro with Shifting Optical Trapping Assays
Koll, Andrew
Decoupling the Expansion of the Universe and Bulk Flows
Reinhart, Erik

Single Photon Interference and Weak Quantum Measurements
Jones, Cameron

Session 3.10 12:50-1:50, Collins 205

Moderators: Karen McFarlane Holman and Michaela Kleinert

Presidential Scholars

NAMI-A Binding Interactions with RNA and DNA
Josephson, Rebecca

A Permanent Magnet Zeeman Slower for Calcium: Improving Ultracold Calcium Trapping Efficiency for Creation of Rbca Molecules
Parsagian, Alexandria

Session 3.11, 12:50-1:50, Hudson Hall

Willamette University Chamber Choir

"I Gaze Upon You," Gabriel Jackson
Chase, Alec, tenor

Waller Piano Trio

Piano Trio in C Major, Op.87, Allegro Giocoso, Johannes Brahms
Liang, Sherry, piano; Prendergast, Chloe, violin; Pegis, Jason, cello

The Dewey Decible System

"Blues for Phi.I, Matt Sazima (b. 1992)

:((" , Thomas Shipley (b. 1994)

" $\frac{3}{4}$ out of $\frac{1}{2}$ ", Sean Edging (b. 1992)

Matt Sazima, piano; Sean Edging, saxophone; Thomas Shipley, bass; Jarrett Tracey, drums

Willamette Singers

"Hey Jude," arr. by Sazmina, Matt

"Sinking," arr. Sazmina, Matt

"Love, my old friend," arr. Sazmina, Matt

SESSION 4

Session 4.1, 2:00-3:00, Ford 304

Moderator: Cecily McCaffrey

Violence, Meaning, Gender, and Identity

Double Standards: The Man of Feeling and the Woman who Suffers
Smith, Lark; Shepherd, Clair

Rituals of the Self: The Construction of Male, Female and Kamajor in Sierra Leone Before and During the Civil War
Manion, Megan

The Art of Losing: Expatriation and Childhood Memories in the Autobiographies of Vladimir Nabokov and Marguerite Duras

Gregory, Gracie

Jouissance: Meaning and Violence

Saunders, Jonathan

Session 4.2, 2:00-3:00, Ford 302

Moderator: Gretchen Moon

**Time Lords, Superheroes, and Brave New Worlds:
Remaking Conventions through Science Fiction**

Women of Steel: Gendering the 21st-century Superhero
Lyman, Natalie

Estranged Mythologies: Pandora in the Sci-Fi Universe of
Gallifrey
Miller, Jennie

John the Savage as Imperial Subject: Discourses of
Empire in Huxley's *Brave New World*
Balonek, Courtney

Session 4.3, 2:00-3:00, Ford 301

Moderator: Emma Coddington

Victimization in the United States

Law Enforcement Agencies and the Use of a Victim-
Centered Approach
Wahl, Danica

Protecting Child Witnesses: Why U.S. Courts Rarely Use
Alternative Testimony for Child Victims of Sexual Abuse
Branch, Lauren

Session 4.4, 2:00-3:00, Eaton 311

Moderators: Erik Noffle and Courtney Stevens

Psychology Symposium

Whose Beauty? Narratives of Otherness and Female
Experiences of Beauty Norms
Hayes, Erica

Regional Personality Differences in the United States: A
Comparison of Three Competing Paradigms
Nanry, Megan

Electrophysiological Indices of Economic Decision-Making
in the Ultimatum Bargaining Game (UBG)
Snur, Ami

The Influence of Aging on Episodic Memory, Propection,
and Theory of Mind
Jarvis, Shoshana; DeLappe, James; Martinez, Samantha;
Ramos, Juan

Session 4.5 2:00-3:00 Ford 201

Moderator: Roy Perez

**Gender and Genre in *The Brief Wondrous Life of Oscar
Wao* Roundtable 1: Queering Wao**

The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name "Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

**Yunior's Big Gay Crush: Queer Triangulation of Desire
Through Speculative Fiction in *The Brief Wondrous Life of
Oscar Wao***

Raymond, Brynn (English)

**Conquering Queerness, Perpetuating Patriarchy: Reagan
and Yunior's National Narratives of Masculinity in *The
Brief Wondrous Life of Oscar Wao***

Sari, Miles (Rhetoric and Media Studies, English)

**Queering Diaspora: White Hegemonic Masculinity and
National Belonging in *The Brief Wondrous Life of Oscar
Wao***

Sulc, Chanel (English, Women's and Gender Studies)

**Impossible Identity: An Analysis of Queer Existence Within
the Dominican Diaspora in *The Brief Wondrous Life of
Oscar Wao***

Tom, Matthew (English)

Respondents:

Bush, Chris (English)

LoBue, Sarah (English)

Session 4.6, 2:00-3:00, Eaton 307

Moderator: Xijuan Zhou

Asian Studies Grant Recipients

**The Benefits of Cram School Education for South Korean
Students**

Harwel, Jonathan

**Context and Conservation: The role of NGOs in Chinese
National Park management**

Dougan, Emilly (panel continues on next page)

Taoism in Chinese Gardens: Traditional and Modern Perspectives
Moody, Bailey

Session 4.8, 2:00-3:00, Ford 102

Moderator: Joyce Millen

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Part 1)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share

Mahajan, Surabhi; Steed-Elliott, Maxine; Ottomano, Taylor; Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas

Session 4.9, 2:00-3:00, Eaton 105

Moderator: David Altman

Research from the Physics Seniors

Electrolyte Variation in Purpurin Based Organic Lithium Ion Battery Electrodes

Loos, Jordan

Investigating the force- dependent function of Acanthamoeba myosin 1c activity

Howard, Jay

A Role for Myosin VI in Retinal Pigment Epithelium Phagocytosis

Daniel, Rebekah; Nagata, Bianca

Session 4.10, 2-3, Ford 106

Moderator: Jerry Gray

Waste, Risk, and Cash Transfer

Size and the Financial Sector: Scale Economies, Efficiency Measurements, and Systemic Risk in the American Economy

Adamson, Peter

An Analysis of the Externality Issues in Informal WEEE Markets in China: A Coase Theorem Approach

Hayashi, Raymond

The Effects of Conditional Cash Transfers on Maternal Health in India

Waltz, Shannon

SESSION 5

Session 5.1, 3:10-4:10, Ford 304

Moderator: Wendy Petersen Boring

Educational Alternatives: Rethinking the Journey

Pieces Aren't Enough: Why a Wholesome Education Matters in today's World

Hannemann, Kristen

Own Your Education: The Student's Integrative Experience

Altuzarra, Cole

Are We There Yet? Service-Learning Across Space, Time, and Gender @ Willamette University

Utne, Eli

Session 5.2, 3:10-4:10, Eaton 307

Moderator: Ellen Eisenberg

Researching Salem, Oregon

First Generation Students of Color at Willamette University: Understanding and Valuing Experiences

Olmos-García, Delia; Hernandez, Isabel; Miranda-Gracida, Reina

Understanding the Forgotten: An Archival Look into the Fairview Training Center

Oregon State Hospital Museum Internship

Rice, TeAnna

Urban Forestry: Defining Criteria for Significant Groves in Salem, OR

Edging, Sean

Session 5.3, 3:10-4:10, Eaton 105

Moderator: Anthony Coleman

The Will, Identity, and the Extended Mind

Wittgenstein and the Freedom of the Will

Bowen, Matthew

The Extended Human

Mason, Taylor

Session 5.4, 3:10-4:10, Eaton 311

Moderators: Courtney Stevens and Erik Noffle

Psychology Poster Session

Regional Personality Differences in the United States: A Comparison of Three Competing Paradigms

Nanry, Megan

Executive Functioning in Children Exposed to Trauma

Feinberg, Ziv

The Relation of Age and Question Type in Sexual Abuse Forensic Interviews

Elwood, Chloe; Goldberg Edelson, Meredyth

Tracking Study Abroad Impacts on Japanese Students' Expected Personality Changes

Christensen, Cody

Modulation of ERP Amplitudes As A Function of Word Type in Logographic Scripts

Miller, Emily; Wiggins, Eve; Tamaoki, Yuko

Surface and Depth in Personality: Behavioral and Motivational Aspects of the Big Five and Parallel Development across Two Years of College

Gust, Charleen; Wiester, Nina

Session 5.5, 3:10-4:10, Ford 201

Moderator: Roy Perez

Gender and Genre in The Brief Wondrous Life of Oscar Wao; Roundtable 2: Dictating Diaspora

Participants in this second roundtable organized by the Humanities Senior Seminar on *Oscar Wao* explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction. "Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunior, end and the protagonist, Oscar, begin? Who's the real "ghettonerd" in Diaz's (or is it Yunior's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* and remix the tradition of Latin American historical fiction?

What Happens If You Laugh? Humor in the Bowels of The Brief and Wondrous Life of Oscar Wao

Gutierrez, Blanca (English and American Ethnic Studies)

Anti-Haitianism and the Negotiation of Afro-Dominican Diasporic Identity in The Brief Wondrous Life of Oscar

Wao

Guzmán Steimel, Evelyn (Spanish and Latin American Studies)

Textual and Historical Control: Yunior's Prosopopeia and Autobiography in The Brief Wondrous Life of Oscar Wao

Heisterkamp, Rachel (English)

Untranslated Nerd: Code-Switching Language and Genre in The Brief Wondrous Life of Oscar Wao

Peck, Dillon (English)

Respondents:

McKenzie, Noah (English); Ontiveros Galindo, Tania (Spanish and Latin American Studies)

Session 5.6, 3:10-4:10, Ford 302

Moderator: Melissa Michaux

More Money, More Problems

The Forging of a 21st-Century Congressional Independent: Campaign Finance, Grassroots Campaigns, and Overcoming Barriers to Entry

Peter Adamson

Predatory Practices and the Earned Income Tax Credit

Borriello, Nick

Taxing Obsessions: How the Development of U.S. Tax Expenditures and the Rise of Income Inequality have

Lancourt, Paige

Session 5.7, 3:10-4:10, Putnam Theater

Moderator: Jon Cole

Frenzied Loneliness, A Theatrical Exploration of Belonging

Naomi in the Living Room

Wirta, Rebecca

Spaceships: A Dream Drama

Fathi, Karina

Session 5.8, 3:10-4:10, Ford 102

Moderator: Joyce Millen

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Part 2)

Mahajan, Surabhi; Steed-Elliott, Maxine; Ottomano, Taylor; Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas

Session 5.9, 3:10-4:10, Eaton 106

Moderator: Scott Nadelson

Coping with Violence: Representing Trauma in the Contemporary Bildungsroman

Dark Waters: Exploring the Depths of the Young Psyche

Alyssa Wilsey

Memory in Fiction: Accessing and Healing Trauma

Gibson, Caitlin

Depth of Darkness

Chávez, Claudia

SESSION 6

Session 6.2, 4:20-5:20, Ford 302

Moderator: Monique Bourque

Grants 101

Have a terrific project idea or research question? Need funding, but not sure how to proceed? Come and get a crash course in grant planning. We will cover the basics of how to search for funding, and the central components you will need for most grant applications. We will consider self assessment (how do you decide whether you are a viable candidate?), what is required for a strong personal statement, how to plan and construct a budget, and how to approach writing a goals and methods section.

Session 6.3, 4:20-5:20, Ford 301

Moderators: María Hernández and Renee Jaime

Empowering the Generation, Latinos Rise Up!

Hernández, María D.; Casas, Giovanna; Marquez Guerrero, Cristina; Garcia, Grecia

Session 6.5 4:20-5:20, Collins 201

Scott Pike

Archeology in Orkney, Scotland

A pXRF-based Chemostratigraphy at the Ness of Brodgar in Orkney, Scotland

Heupel, Jessica

The use of X-Ray Florescence in Determining the Source of Archaeological Paints

Kwader, Garnet

Session 6.6 4:20-5:20 Ford 122

Moderator: Jenny Orr

3D Visualization and Animation

Visualizing Wind Flow at H. J. Andrews Long Term Ecological Research Forest

Schmal, Kendra

3D Animation

Barton, James

Session 6.7, 4:20-5:20, Eaton 209, Debate between College Democrats and Republicans

Moderator: Bill Duvall

College Democrats and College Republicans Debate raising the national minimum wage

College Republicans: Jarrett Oseran, Jorden Noyes, Andrew Mittendorf

College Democrats: Dylan Sheldon, Anna Carlin, Jacob Van Baalen

SPECIAL SESSION

Special Session, 7:30-9pm, Rogers Rehearsal Hall

Moderator: James Miley

Willamette Jazz Ensembles In Concert

End the day with the Willamette University Jazz and Improvisational Music program as we feature five of our finest student jazz ensembles in a performance of original compositions and new arrangements. Program is approximately 90 minutes long.

ABSTRACTS*

Adachi, Andrea

Session 3.6, 12:50-1:50, Ford 301

Social Spaces

There no Blank Walls/No hay Muros Blancos
This project investigates how graffiti is utilized as a tool for political protest in Ecuador. The artists responsible for the graffiti on buildings and walls create a space for discussion regarding the country and the everyday conditions of life in Ecuador. This projects seeks to understand how this seemingly simple art form has generated public discourse within the nation.

Adamson, Peter

Session 4.10, 2-3, Ford 106

Waste, Risk, and Cash Transfers

Size and the Financial Sector: Scale Economies, Efficiency Measurements, and Systemic Risk in the American Economy
What does contemporary scholarly literature have to say about the current size and the growing levels of market share possessed by large financial institutions? This analysis questions the legitimacy of size in the financial sector through the application of the economic theme of scale economies and the nature of systemic risk amidst many big finance institutions. A comparison of various economic approaches to measuring scale economies will thus be included.

Adamson, Peter

Session 5.6, 3:10-4:10, Ford 302

More Money, More Problems

The Forging of a 21st-Century Congressional Independent: Campaign Finance, Grassroots Campaigns, and Overcoming Barriers to Entry

This study attempts to shed light on the political factors that lead to electoral success for Independent Congressional candidates in the 21st century. The broad subjects include campaign finance, grassroots campaigning and name recognition, and the overcoming of both formal and informal barriers to entry in each state's respective election. While various candidates who experienced unsuccessful bids will be included, the focus will mainly draw from the successes of Bernie Sanders (Vermont) and Angus King (Maine).

Aki, Dan; Bumgarner, Josh; Fukunaga, Kristi; Hernandez, Amala

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

The Many Roles of Polymers in Society
This project explains the structures and methods of synthesis of chemically synthesized compounds called polymers. Objects we encounter almost everyday, including the windshields on our cars, the clothes we wear, and the glass from aquarium tanks are all made of polymers. The unique chain-like structure that comprises polymers contributes to their immense range of properties. Polymers are used in several industries. In many aspects they can bring us safety and comfort. Conversely, the synthesis of polymers can lead to disruption of the environment. When working with polymers, it's important to balance the benefits and detriments they impose on society.

Albright, Winnie

Session 1.7, 9:30-11:00, Art 212

Revisoning Art History

Whodunnit? Bruegel, Brueghel or Bruegel?

The paper will explore the controversy regarding the attribution to Pieter Bruegel the Elder of the painting representing The Fall of Icarus, in the Musées Royaux des Beaux-Arts in Bruxelles. From a methodological standpoint, the paper will adopt Erwin Panofsky's triadic development of the iconological analysis to verify how attributive issues directly affect our understanding of the meaning(s) of a painting. This study will provide also a historiographical approach to reveal the complexities surrounding this masterpiece. Copy, replica or original, The Fall of Icarus embodies, at any event, relevant ideals of sixteenth-century Northern society.

Altuzarra, Cole

Session 5.1, 3:10-4:10, Ford 304

Educational Alternatives: Rethinking the Journey

Own Your Education: The Student's Integrative Experience
Creating a major at Willamette, Social Interaction & Creative Design, my student experience has been atypical. This presentation addresses my senior project, for which the goal is to empower high school and college students to own their student experiences by encouraging them to pursue their true academic interests. I've developed a website, presented at the National Conference on Individualized Major Programs, and helped a couple students create majors here at Willamette.

Andrews, Spencer

Session 1.1, 9:30-11:00, Eaton 211

Insults, Judgments, Barbarians, and Gladiators

Barbarians Can Be Romans Too

I examine one way Caesar attempts to justify his warfare in Gaul. By deploying Roman political idiom in the Gallic context, coupled with underlying Stoic models of thought, Caesar creates a portrayal of the Gauls as Proto-Romans, posing a huge potential threat to the Romans, a threat which must be dealt with. I will explore this concept through the examination of one such word Caesar plays upon, *auctoritas*. In this examination, I will not only be exploring one important element of Caesar's strategy of justification, but I will also be providing a method for future analysis of his discourse.

Angell, Dylan

Session 2.9, 11:10-12:40, Eaton 105

Research from the Physics Seniors

Pulsation Analysis of δ -Scuti Stars: Triple Mode Pulsator V829 Aquila

This study involves the analysis of observed light curves of V829 Aquila, a triple-mode radially pulsating δ -Scuti type star. The pulsations of the star were observed at Zena Farm over the course of four months during the summer of 2013 using an 11" Celestron telescope and CCD camera. The resulting images then underwent Fourier analysis to extract the component frequencies at which the star pulsates. Further study of these frequencies and their relationships to each other has resulted in insight as to the nature of these stars and why they exhibit the behavior they do.

Balonek, Courtney

Session 4.2, 2:00-3:00, Ford 302

Time Lords, Superheroes, and Brave New Worlds: Remaking Conventions through Science Fiction

John the Savage as Imperial Subject: Discourses of Empire in Huxley's *Brave New World*

Aldous Huxley's *Brave New World* is generally viewed as a critique of a dystopian government and its scientific

* Please note that science posters are listed under the name of the first author only.

ABSTRACTS

totalitarianism. Few critics have read *BNW* through the lens of a postcolonial critique, although the representation of John the Savage invites such a reading. Moreover, a few years before writing *BNW*, Huxley wrote a travel narrative entitled *Jesting Pilate* that reveals the ways in which the concept of empire shaped his later ideas. I will show how *BNW* participates in an imperialist discourse that seeks to control representation of the colonized, and how representation and political action informed Huxley's writing of *BNW*.

Barton, James

Session 6.6, 4:20-5:20, Ford 122

3D Visualization and Animation

3D Animation

A presentation on the creation of 3D animation using the modeling program Maya. Includes a screening of the award winning short film "Automaton" created at Willamette University.

Beeson, Alexandra; Flattum, Megan; Smith, Sydney; Miracle, Kathrin; Fish, Eva

Session 1.5, 9:30-11:00, Collins 201

Moving Bodies: Studies in Exercise Science

Comparison of Nike Dri-FIT and Cotton T-shirts after a VO₂max Test

Evidence has shown, compared to other fabrics, wicking fabrics increase heart rate and reduce sweat retention. PURPOSE: Assess Dri-FIT and cotton t-shirts effects on thermoregulatory and physiological factors. HYPOTHESIS: Dri-FIT will increase heart rate due to decreased skin temperature and increased core temperature. METHODS: Eight Willamette University men's soccer team members took a VO₂max test evaluating changes in heart rate, core and skin temperature between the two shirts. RESULTS: No significant differences were found in the pre-test, post-test or 10 minutes post-test between Dri-FIT and cotton t-shirts. CONCLUSION: The Dri-FIT t-shirts capacity to improve performance wasn't support by this study.

Berg, Ethan; Higley, Tyler; Schmal, Kendra

Session 2.10, 11:10-12:40, Ford 302

Manipulating, Multiplexing and Visualizing: Studies in Computer Science

Parallel Bioinformatics: String Searching in pMatlab

Parallel computing is the process by which computer programs are broken down into smaller components which are executed simultaneously in order to reduce computation time, or otherwise cut down on computing costs. In this project, we implemented a simple, brute-force string matching algorithm for DNA sequence searching in parallel using the free, third-party MATLAB toolbox, pMatlab, available from MIT. We then produced comparison results using the results from our implementation and the theoretical results obtained using Gustafson's Law.

Bishop, Caroline

Session 1.7, 9:30-11:00, Art 212

Revisioning Art History

From Vandal to Valor: Banksy and the Reception of Graffiti Art
This paper will examine the images created by Banksy, a street artist popular in the UK. It will investigate how his art has challenged commonly shared ideas about graffiti art. Throughout his career, Banksy has caused a ruckus with his street art, such as selling some of his original pieces in the street for about 60 dollars. The central part of the paper will focus on the analysis of people's reactions to Banksy in order to verify the different reception of his works, from 1960s 'vandalism' to its more recent recognition as a stimulating, thought provoking, field of artistic experimentation.

Bolen, Adam; Weger, Travis; Wiltbank, Xavier; Kalidindi, Shrujan

Session 2.10 11:10-12:40 Ford 302

Manipulating, Multiplexing and Visualizing: Studies in Computer Science

Pixel Interpolation for Geometric Image Manipulation

Image interpolation is a method that, given known data, generates new data within the range of the given data. A variety of interpolation methods exist to determine the process of data creation. We investigate different algorithms for image interpolation, including Nearest Neighbor, Bi-linear, and Bi-cubic.

Boltwood, Allison; Vaughn, Jacqueline; Bennett, Parker

Session 1.5, 9:30-11:00, Collins 201

Moving Bodies: Studies in Exercise Science

A Comparison of Resting Metabolic Rate after CrossFit and Traditional Aerobic Workouts

PURPOSE: To compare resting metabolic rate (RMR) after CrossFit and aerobic workouts to determine which burns more calories after the cessation of exercise. METHODS: Fifteen subjects completed both CrossFit and aerobic workouts (separately) each followed by RMR testing 2-3 hours post-workout. RESULTS: Dependent paired t-tests revealed higher RMR post-aerobic workout ($p=0.020$). Analyzed separately, this difference was significant in males ($p=0.007$) but not females ($p=0.316$). DISCUSSION: These results indicate that more calories are consumed post-aerobic workout compared to post-CrossFit workout.

Borriello, Nick

Session 5.6, 3:10-4:10, Ford 302

More Money, More Problems

Predatory Practices and the Earned Income Tax Credit

The Earned Income Tax Credit is meant to supplement already-existing income for low-income individuals and families. Contrary to other welfare programs, the EITC is distributed as a tax expenditure; this results in program participants receiving a lump sum rather than a regular monthly payment as in other programs. My research explores the potential for businesses in low-income neighborhoods to cater to these families, or to possibly even exploit them. Who truly gains from the current structure of the EITC, the recipients or the businesses around them? What does it mean to have a welfare system structured around tax expenditures?

Boucher, Ami; Thorp, Kaeleigh; Duff, Megan; Johnson, Dante

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50 Cat Cavern

Basic Chemistry in the Real World Poster Session

Eutrophication & You

Fertilizers have become a huge component in increasing the yield of crops while using less land and shortening cultivation. Nitrogen fertilizers are common due to the introduction of seed varieties that favor nitrogen fertilizers over others. In this report, nitrate forms of fertilizer will be discussed specifically because of its water solubility characteristic. The contamination of nitrates in agricultural runoff is contributing to algae bloom, death, and deoxygenation in bodies of water (eutrophication). The increased production of corn has increased the amount of nitrates in runoff. Alternative farming methods and other potential effects on the environment will also be discussed.

Bourque, Monique

Session 6.2, 4:20-5:20, Ford 302

Grants 101

Have a terrific project idea or research question? Need funding, but not sure how to proceed? Come and get a crash course in grant planning. We will cover the basics of how to search for funding, and the central components you will need for most grant applications. We will consider self assessment (how do

ABSTRACTS

you decide whether you are a viable candidate?), what is required for a strong personal statement, how to plan and construct a budget, and how to approach writing a goals and methods section.

Bowen, Matthew

Session 5.3, 3:10-4:10, Eaton 105

The Will, Identity, and the Extended Mind

Wittgenstein and the Freedom of the Will

This paper examines a relatively new interpretation of a philosophical problem ubiquitous throughout philosophical study, the problem of the freedom of the will. To do so, the paper examines how the worldview expressed in Wittgenstein's Philosophical Investigations regarding the nature of meaning impacts this fundamental philosophical problem. It first characterizes Wittgenstein's view on language, meaning, and understanding to provide a platform for analysis of the free will problem. That analysis will evaluate the orthodox arguments surrounding free will through a Wittgensteinian framework.

Branch, Lauren

Session 4.3, 2:00-3:00, Ford 301

Victimization in the United States

Protecting Child Witnesses: Why U.S. Courts Rarely Use Alternative Testimony for Child Victims of Sexual Abuse
Protections for child witnesses of sexual abuse are rarely utilized in the United States. However, these protections have been widely implemented internationally. With a focus on alternative modes for providing testimony, specifically the use of closed-circuit televised (CCTV) testimony, this project examines various constitutional, social constructionist, and common law explanations for why U.S. courts rarely use alternative testimony for child sexual abuse (CSA) victims. Through the interpretation of several Supreme Court cases and social science research, I expect to find how to best accommodate child witnesses in U.S. courtrooms as improving child testimony may lead to higher rates of conviction in CSA cases.

Brinster, Caroline

Session 2.5, 11:10-12:40, Eaton 211

College Colloquium

Making A Vision A Reality: Investigative Research On The Economics Of The Columbia River Gorge
I interned during the summer of 2013 for the Friends of the Columbia Gorge thanks to the College Colloquium Summer Research Grant. Friends staff provided the opportunity to perform a survey that would help understand the economic impact that hiking and trails bring to the Gorge, specifically Skamania County. The purpose of the study was to help provide more information to "Gorge Towns to Trails," a campaign to create a trail system that wraps around the Columbia Gorge connecting businesses to trails and encouraging multi-days visits.

Brotman, Julia

Session 3.6, 12:50-1:50, Ford 301

Social Spaces

Understanding the 'Hipster Mentality' Among Music Fans and its Effect on the Music Industry
'Hipster mentality' is the mindset some people have in our individualistic society that values knowledge of the obscure, the non-mainstream, the unpopular. Artists who want to make a living through music need a large number of people to buy their music and merchandise, which requires great exposure. This study draws from contemporary sociological theories to explore why some music fans reject formerly favored artists once they experience real success. It also asks music business

professionals to help explain what effect the 'hipster mentality' has on developing artists, and tries to evaluate its impact on the music industry as a whole.

Buonocore, Katie

Session 2.3, 11:10-12:40, Eaton 209

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

Dominant & Subordinated Narratives in Queer Communities and the Effects of the 'Marriage Equality' Movement
This project explores the history of the mainstream gay marriage movement in the United States, and the consequences of its rise to prominence in national politics, through original research and interviews with LGBTQ+ activists. It delves into the history of marriage and its role in maintaining capitalist white supremacist heteropatriarchy, as well as critically considers the contemporary push for marriage equality.

Bush, Chris; LoBue, Sarah, Respondents

Session 4.5 2:00-3:00 Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao* Roundtable 1: Queering Wao

The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name "Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

Busse Hopkins, Hana; Doan, Xengie; Carlson, Mandy; Warden, Kristen

Session 2.1, 11:10-12:10 and Session 3, 12:50-1:50 Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

The Diversity of Menthol

Refreshing spearmint gum or the cold medicine we have all been forced to throw back are typically what comes to mind when thinking of menthol. In actuality, this compound has a surprising number of uses, a rich history and composes a billion dollar industry. Menthol has been used since the first century as an herbal medicine, but is now found in cigarettes, cold medications, pesticides, cosmetics and many other products we use daily. In this poster, we will show how menthol is synthesized and how its unique biological effects are put to use in many different industries today.

Cabading, Rosemarie, flute

Session 2.11 11:10-12:40, Hudson Hall

"Zoom Tube," Ian Clarke

Cagaoan, Chelsea

Session 1.4, 9:30-11:00, Eaton 106

Asia Today and Tomorrow

The Rise of English in Japan: Second Language Acquisition and Foreign Language Education Policy
Although the Japanese Ministry of Education, Culture, Sports, Science, and Technology aims to promote globalization and internationalization through classroom instruction of the English language, the revisions of foreign language education reform policies have been extensively criticized. This project explores the intersection between second-language theories and past and present language education reform policies as well as the

ABSTRACTS

dynamic role of the English language in Japan's history. Ultimately, the goal of this project is to provide suggestions and directions for future language education reforms.

Callahan, Gregory; Coggeshall, Taylor; Ippolito, Stephen
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

Chemistry of Fireworks
This project is going to discuss how the metal compounds in the composition of the firework affect the color, intensity, and noise. The chemistry that goes into making fireworks and have them explode via precise timing was a stepping stone in advancing rocket ballistics and technology. Fireworks and their derivatives have many other practical applications such as in warfare, religious practices, chemical innovation, and entertainment. Fireworks are enjoyed across the world because of their colorful explosions, loud sounds and awe-inspiring sights

Campbell, Erica, soprano
Session 2.11 11:10-12:40, Hudson Hall

"Ah! Je veux vivre" from *Romeo and Juliet*, Charles Gounod

Carey, Alexis; Creasey, Amy; Weaver, Jessi
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Chemistry of Hair Dye
Most people are likely to use some form of hair dye in their life. Have you ever wondered how it works and what it does to you and your hair? Hair coloring is a complex combination of chemical reactions and intermolecular forces that take place between chemicals in the dye as well as with the hair itself. The main topics that will be covered in this presentation include a brief history of hair color, the three major types of hair coloring, the structure of hair and hair dyes, the intermolecular forces involved, and the dangers associated with hair dye.

Chase, Alec, tenor
Session 3.11, 12:50-1:50, Hudson Hall

Willamette University Chamber Choir
"I Gaze Upon You," Gabriel Jackson

Chase, Alec, tenor
Sweeney, Joellen, soprano,
Session 2.11 11:10-12:40, Hudson Hall

"Canticle II," Benjamin Britten

Chavez, Claudia
Session 5.9, 3:10-4:10, Eaton 106

Coping with Violence: Representing Trauma in the Contemporary Bildungsroman

Depth of Darkness
In my work of fiction, I explore how mental illness affects and changes a young woman's life forever. She learns to adapt to her family's lack of understanding and the public's perception of mental illness. Readers can understand the social and internal development of the character through first and third person narration that allows exploration into the mind and reality of a young woman diagnosed as a manic-depressive. Throughout the progression of her illness, readers can experience the highs and lows (at times life threatening) associated with manic depression.

Choy, Deanna; Yi, Happiness, marimba
Session 2.11 11:10-12:40, Hudson Hall
"2+1" Ivan Trevino (b. 1983)

Christensen, Cody
Session 5.4, 3:10-4:10, Eaton 311
Psychology Poster Session

Tracking Study Abroad Impacts on Japanese Students' Expected Personality Changes
Study abroad during college is often conceptualized by laypeople and educators alike as a transformative experience, during which individuals may rapidly change and mature. The current longitudinal study explores the possibilities of self-change across a year-long study abroad experience and how it leads to changes in Big Five personality traits, as well as expectations for future personality levels in the students from Japan, China, or Korea participating in the American Studies Program for the year 2013.

Clawson, Spencer
Session 2.1, 11:10-12:40, Ford 304
Speculative Fiction: Senior Seminar in Creative Writing

There
The year is 1908 and the Wild West is dead. Two teenage brothers are on the run after burning down their house with their father still inside it. They journey west in an attempt to start new lives, but the brothers are haunted by the violence that follows them. Their only chance at survival is to flee into the Olympic Peninsula region of Washington, where the west is still wild. This work of prose, intended to be the start of a novel, blends historical fiction and magical realism to create a vision of America that is both myth and fact.

Cleary, Dominique
Session 3.7, 12:50-1:50, Ford 204
French/Francophone Studies

Language Death and the Case of Walloon
It is currently estimated that over half of the 6000 languages currently spoken in the world will have disappeared by the end of the century. I explore the factors relating to language decline and eventual death. In particular I examine the case example of Walloon, and the social and political factors that have resulted in its decline and may well result in its death.

Cornes, Matilda
Session 3.7, 12:50-1:50, Ford 204
French/Francophone Studies

Paris: Poetry is in the Streets
May, 1968 was a time of considerable social, political and cultural upheaval in Paris. Many young people took to the streets to express their dissatisfaction with the state and recorded their ideas about the government, life, death and beauty on the walls of Paris. Graffiti has a long history, and in the history of France a distinct revolutionary iconography can be traced. Considering examples from the 18th century to the 20th, I argue that graffiti is a unique form of communication with the power to unite large groups of people during periods of revolt and revolution.

Cothrun, Kayla
Session 2.6, 11:10-12:40, Eaton 307
American Politics: Real or Imagined

"I'm Leslie Knope": *Parks and Recreation*, and a Feminist Rhetorical Perspective
This presentation examines the portrayal of Amy Poehler's character, Leslie Knope, in the prime-time award winning television sitcom *Parks and Recreation*. Considering television as a medium of consciousness raising and ideology creation and using the rhetorical framework of Kenneth Burke, Karlyn Kohrs Campbell, and John Fiske, this paper critically analyzes the feminist implications of the show's main character and examines how television can be both effective and problematic

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in modifying feminism for a mainstream audience.

Crabtree, Dusty; Compton, Lindsey; Glantz, Hayley; Tarnas, Kulananal

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

An Unexpected Medicine: Methadone

This poster describes a single molecule, Methadone, in terms of societal and scientific relevance. It will provide mechanisms for the industrial synthesis of Methadone as well as explore its biological activity, psychologically and biologically. The discovery, history, details of the structure and function as well as look into the relevance that Methadone has in society today. Additionally we will talk about some interesting facts about its development. Finally, the project will assess the importance of Methadone and take an in depth look at what it means to us and what we can learn from it.

Dallas, Johnathan; Mottarella, Malayka; Tolles, Traci

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

Chemistry of Cupcakes

Our project is about the "behind-the-scenes" chemistry of baking cupcakes. We focus not only on how smoothly ingredients work together to create a cupcake, but also their chemical and physical properties. The baking process and chemical reactions that occur are of key importance. We explore how varying amounts of different ingredients affect the final product and the importance of some ingredients over others, but they are all necessary to create the perfect cupcake. Lastly, we will show how substitute ingredients can be used in similar ways, even though their chemical and physical properties differ.

Daniel, Rebekah; Nagata, Bianca

Session 4.9, 2:00-3:00, Eaton 105

Research from the Physics Seniors

A Role for Myosin VI in Retinal Pigment Epithelium Phagocytosis

Retinal pigment epithelium (RPE) cell phagocytosis of shed photoreceptor rod outer segments (ROS) is vital for retinal function. We examined the role of myosin VI in this process by utilizing micron-diameter plastic beads as a proxy for ROS waste. When placed in the extracellular medium, the beads were phagocytosed by a cultured human RPE cell line (ARPE-19). Concurrently, these cells were made to over-express myosin VI with perturbed motor function. We observed that the rates of trafficking of beads were significantly reduced in the presence of the perturbed myosin VI, indicating that myosin VI plays a role in RPE phagocytosis.

Debate: College Republicans: Jarrett Oseran, Jordan Noyes, Andrew Mittendorf

College Democrats: Dylan Sheldon, Anna Carlin, Jacob Van Baalen

Session 6.7, 4:20-5:20, Eaton 209

College Democrats and College Republicans Debate Raising the National Minimum Wage

The motion of this debate is that "This house believes in supporting the Obama Administration's effort to raise the minimum wage to \$10.10 an hour." With the recent concern being expressed over the widening income inequality gap and the diminishing middle class, this topic is being debated at the appropriate time with both sides having legitimate arguments. For the purpose of this debate, The College Democrats will be arguing in support of the motion to raise the minimum wage, while the College Republicans will be arguing against the motion. Professor Duvall (History) will be acting as moderator.

Decker, Shelby; Phillips, Jill; Silva, Julio; Bowton, Maya

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Taurine: the Bull in US

Taurine is a major organic acid found in muscle tissue. After being first isolated from bull bile in the 19th century, taurine has also been found to be a major component in the cardiovascular systems. It is one of the few sulfonic acids found in the mammalian body and is also largely nonpolar, resulting in its use in basic osmotic processes. Industrially, taurine is produced by the ton for use in pet food, pharmaceuticals and, most recently, energy drinks such as Red Bull. The following presentation explores both the synthesis and biosynthesis of taurine, along with its primary uses.

Dennis, Lindsey

Session 1.3, 9:30-11:00, Eaton 311

Crises in the USA

Looking Outside Privacy: an Exploration into Five Alternative Legal Foundations for the Right to an Abortion

Since Roe v. Wade (1973) pro-life advocates have worked tirelessly to restrict, if not re-criminalize, abortion. These restrictions range from waiting periods to abortion clinic regulations. With such restrictions passing, pro-choice legal strategies must change in order to combat anti-abortion legislation. I ask if the right to an abortion should be based on the right to privacy or whether alternative legal foundations better protect the right to abortion. I explore five alternative legal theories to support the right to an abortion and then test these legal theories against four anti-abortion restrictions.

Doan, Xengie

Session 2.5, 11:10-12:40, Eaton 211

College Colloquium Summer Research Grant

Investigation of Antibiotic Resistance in Environmental Bacteria in the Mill Stream

Antibiotics are commonly used to fight bacterial infections, but are becoming increasingly ineffective due to antibiotic resistant strains of bacteria. Environmental bacteria can act as genetic pools for antibiotic resistance, and have largely been unstudied. The purpose of this study was to characterize the scope of antibiotic resistance of non-pathogenic bacteria in our local Mill Stream water and to investigate the depth of resistance towards rifampicin, an antibiotic that targets DNA synthesis.

Dougan, Emily

Session 4.6, 2:00-3:00, Eaton 307

Asian Studies Grant Recipients

Context and Conservation: The role of NGOs in Chinese National Park management

This project examined the role non-governmental groups, such as UNESCO have in the development of Chinese National Park management. Five parks were studied. NGOs not only played a significant role in creating a balanced and sustainable management plan in parks, but the standards of the organizations held parks accountable for any potential abuses or misuses of environmental conditions. For a deeper understanding of how this role is expressed, Zhangjiajie National Forest Park was studied further, since in 1998 the park was found not in compliance with UNESCO conservation standards, and thus had to restructure its conservation management ethic.

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Edging, Sean

Session 5.2, 3:10-4:10, Eaton 307

Researching Salem, Oregon

Urban Forestry: Defining Criteria for Significant Groves in Salem, OR

This study establishes, tests, and evaluates a method for prioritizing the acquisition of urban forest groves in the City of Salem. The Salem Revised Code 68.150. establishes a Tree Canopy Preservation Fund that allocates funding for the acquisition of tree groves. By developing a method that allows for an assessment of urban grove natural resources, my project develops a process to prioritize the acquisition of significant tree groves.

Edging, Sean, saxophone; **Shiple, Thomas**, bass; **Tracey, Jarrett**, drums; **Sazima, Matt**, piano

Session 3.11 12:50-1:50, Hudson Hall

The Dewey Decible System

"Blues for Phi,l, Matt Sazima (b. 1992)

":(, Thomas Shiple (b. 1994)

"¾ out of ½", Sean Edging (b. 1992)

Elwood, Chloe; Goldberg Edelson, Meredyth

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

The Relation of Age and Question Type in Sexual Abuse Forensic Interviews

Prosecution of child sexual abuse (CSA) cases is based largely on the disclosures of children in forensic interviews.

Specifically, question type has been examined to determine how best to obtain information from children. In the present study, the interviews of fifty children with CSA concerns were analyzed with regard to interviewer question type (free-narrative, direct, repeated, and option-posing) and response information (substantive, limited, inconclusive, or no response) in relation to the age of the child. The results of the study, implications for forensic interviewing of children of different ages, and the limitations of the study will be discussed.

Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas; Mahajan, Surabhi; Ottomano, Taylor

Sessions 4.8 and 5.8, 2:00-3:00 & 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 and 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share

Abstract under Mahajan, Surabhi.

Farr, Jaide; Taylor, Audrey; Olson, Liana; Santos, Malia

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

The history and chemical properties of the chemotherapeutic drug Eribulin

Cancer affects millions of people every year. Breast cancer is of particular concern to women; therefore, doctors and scientists are searching for more effective cancer treatments. When traditional forms of chemotherapy fail, other compounds, such as eribulin, have been used in order to increase life expectancy. In this poster, we present our investigation into the discovery, synthesis, characterization, biological activity and societal relevance of eribulin as a chemotherapeutic drug.

Fathi, Karina

Session 5.7, 3:10-4:10, Putnam Theater

Frenzied Loneliness, A Theatrical Exploration of Belonging

Spaceships: A Dream Drama

Dreams can be mysterious, perplexing, and often absurd. What began as a collection of dream journals soon evolved into my

first attempt at playwriting, "Spaceships: A Dream Drama." The narrative follows the adventures of a human being living in outer space. It explores the disconnected, nonsensical, episodic nature of dreams in an attempt to better understand the subconscious mind. By placing the ordinary in a fantastical realm, Spaceships forces audiences to confront our fear of insignificance as humans and take a look at what it really means to be alone.

Feinberg, Ziv

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

Executive Functioning in Children Exposed to Trauma

Executive functioning (EF) incorporates the set of cognitive skills that monitor and regulate behaviors and other cognitive functions. Relatively little research has been conducted on the relationships between EF in children and exposure to trauma from child sexual abuse (CSA). Data were collected from N = 197 evaluations of children at a child abuse assessment center. Parent-report data on concerning behaviors served as markers for EF deficits in two domains: behavioral inhibition and emotion regulation. The results of the study as well as limitations, clinical implications, and future research directions will be discussed.

Fernandez, Johnray; Forbush, Maura; Good, Kendra; Heia, Lindsay

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Gold Nanoparticles and Cancer Treatment

This project explores the chemical and biological basis behind gold nanoparticles (GNP's) to demonstrate its effectiveness in combatting cancer. The optical and chemical properties derived from elemental gold allow the gold nanoparticle to be synthesized into different configurations, such as spherical, urchin, nanorod, and other irregular shapes. The different GNP configurations further allow for numerous bonding components which can effectively create significant improvements for cancer treatment. Descriptions of how GNP can adopt different shapes to bind to various antibodies, drugs, and proteins to create a more effective means for cancer imaging and cancer treatment will be explained.

Fish, Sarah; Riley, Kayla; Sutherland, Kyra

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Bioplastics

This presentation discusses the derivation of bioplastic from cornstarch, including chemical processes of hydrolysis, fermentation, and polymerization. We will compare this process to the processes involved in making traditional plastic from petroleum-based polyethylene, which will demonstrate the differences between bioplastics and synthetic plastics. We will analyze some of the possible uses of bioplastics as replacement for synthetic plastic, and discuss how effective bioplastics are in these uses, including possible downfalls of composition, and the disposal benefits. This investigation serves to explore the emerging idea of bioplastic that becomes increasingly important as society pushes away from its dependency on fossil fuels.

Frederick, Dallas

Session 2.4, 11:10-12:40, Eaton 106

Human Rights, Environmental Justice, and Banana Wars

The United Fruit Company: the Flower and the Seed of Corruption

Through metaphor, imagery and design in a series of sculptures, I discuss and critique the current implications of the United States' love affair with bananas and the resulting

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exploitation of Latin America for them during the first half of the 1900s. The sculptures I make intend to shed light specifically on negative past and current effects of these Banana Wars and to reveal relationships between the fruit companies – specifically, the United Fruit Company – and political and military involvement by the U.S. government.

Freitas, Anna; Therrien, Jordan; Craig, Aaron

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50 Cat Cavern Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Imidacloprid: A Pesticide Under Scrutiny
Imidacloprid (IMI) is one of several neonicotinoid pesticides being scrutinized for their endangering honeybees, and subsequently could be banned under a bill proposed by Oregon and Michigan senators. IMI attacks the central nervous system of insects via nicotinic acetylcholine receptors. Although the mechanism is not the same in mammals due to chemical differences in receptor sites, exposure has been correlated with impaired growth and bone ossification, and enlarged livers in lab rats and rabbits. Toxicity in humans has also been reported. This project examines the history, societal relevance, biological impact, and chemical properties of imidacloprid

Fujimoto, Rachel

Session 1.6 9:30-11:00 Collins 205

Goats, Birds, Stress, and Cells: Studies in Biology

Influence of Fish Shape on the Individual Lateralization of Feeding Behavior in a Bill-load Holding Seabird
Behavioral lateralization is preferential use of one side of the body during a specified action/task, such as human handedness. Linked with differential brain function, lateralization is predominantly observed in primates. The Caspian tern, a bill-load holding seabird, in previous studies demonstrated individual level lateralization biases during the parental behavior of feeding chicks. This study investigated whether the individual chick feeding bias was affected by the shape of the fish being handled by the parent. Individual level coding of video found significant lateralization biases for two shapes of fish.

Garcia, Felicia; Gutierrez, Blanca; Marquez Guerrero, Cristina; Villa, Kelley

Session 3.8, 12:50-1:50, Hatfield Room

Indian Mascot Community Listening Project

Indian Mascot Community Listening Project
In May 2012, the Oregon State Board of Education banned Indian mascots. To promote dialogue at public high schools affected by the ban, our team was invited to develop the Indian Mascot Community Listening Project. Over a period of nine weeks during summer 2013, we traveled across Oregon to conduct archival research and interviews with various stakeholders from three communities. Our results, including a report and a forthcoming workshop in late April, reflect the deeply collaborative nature of our research design.

Gibson, Caitlin

Session 5.9, 3:10-4:10, Eaton 106

Coping with Violence: Representing Trauma in the Contemporary Bildungsroman

Memory in Fiction: Accessing and Healing Trauma
This collection of short fiction grapples with the ways in which memory can be accessed to heal trauma. It aims to process myriad psychological and emotional repercussions of coping with gender-based violence and substance abuse through a variety of narrative modes and points of view. These stories manage the influence of memory as it estimates the value of painful experiences and consider how trauma affects how someone chooses to or can comfortably tell their story. This

project tracks the effects of injustice, mental health, and violence on its characters in order to offer both its writer and readers validation and strategies for healing personal trauma.

Gilgan, Kaleb

Session 3.6, 12:50-1:50, Ford 301

Social Spaces

Perception of Greek Life At Willamette University Through Non-Affiliated(non greek) Students.

As a Greek affiliated student, I find it to be important to understand what the non affiliated (non-Greek) students' perceptions of Greek life are. This study outlines the impact and involvement that Greek Life has on Willamette University, the relationships they foster in the community and if they defy the stereotypical Greek Life idea. By gaining a comprehensive understanding of the perception of Greek Life at Willamette University through evaluating the stereotypes towards the organizations and the relationships between itself will contribute to a larger discussion of not only how the Greek community can better itself, but how it can help in improving the Willamette community.

Gray, Victoria

Session 1.7, 9:30-11:00, Art 212

Revising Art History

Marxism and Art. A Historical Analysis of 16th-Century Art in Florence

The paper will examine Marxism and Marxist-oriented theories in relation to the production and the consumption of artworks in the attempt to explore how art products are conditioned by political as well as economic factors. Particular attention will be devoted to the analysis of Arnold Hauser's influential study, *The Social History of Art*, in order to better understand the creation, circulation, and evaluation of artworks in 16th century Florence.

Greenblatt, Nichola

Session 2.6, 11:10-12:40, Eaton 307

American Politics: Real and Imagined

Gods and Gospels at the DNC: Finding Democratic Identity in the Faithfully Irreligious

The Democratic Party faces a changing religious constituency, defined by a consistent demand for faith-based identity and simultaneous resistance towards religion in American politics. As the Party seeks to repair an image of irreligion during a critical shift of growing public skepticism towards religio-political rhetoric, the past and future national conventions become a pivotal moment defining political identity through public address. This study will investigate how the Party responds to the contradictory attitudes within the Democratic voter base by identifying trends in the major speeches from 2000-2012 DNC oratorics, testing hypotheses related to Liberation Theology, Tolerance Transcendentalism, and Dechristianization.

Gregory, Gracie

Session 4.1, 2:00-3:00, Ford 304

Violence, Meaning, Gender, and Identity

The Art of Losing: Expatriation and Childhood Memories in the Autobiographies of Vladimir Nabokov and Marguerite Duras
Writers employ the genre of memoir to understand the past. For displaced artists (separated from the homeland by war, colonialism, and exile), this past is both personal and cultural. Autobiography thus becomes a voice for the long-lost child torn from its motherland. This phenomenon is illustrated by Vladimir Nabokov's "autobiography, revisited" *Speak, Memory* and Marguerite Duras' autobiographical novel *L'Amant*. This presentation will examine these specific memoirs to reveal what is to be gleaned from exploring loss and unveil Nabokov and

ABSTRACTS

Duras' ownership over two physical territories and life-stages that can never be regained.

Gust, Charleen; Wiester, Nina

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

Surface and Depth in Personality: Behavioral and Motivational Aspects of the Big Five and Parallel Development across Two Years of College

Personality traits contain distinct behavioral and motivational aspects, but little research has explored how they connect and compare. The current project examined how the behaviors and motivations underlying the Big Five personality traits are developmentally interrelated within a 2-year longitudinal study of college students. Three questions were posed: 1) How strongly related are the behavioral and motivational domains of the Big Five?; 2) How does the rank-order stability of the two domains compare?; and 3) How does mean-level change in the two domains compare? The results contribute to a deeper understanding of how fundamentally different aspects of personality are related.

Gutierrez, Blanca

Session 2.3, 11:10-12:40, Eaton 209

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

Into the Institute: From Chemawa to Willamette

The Whiteness of higher education across the nation can be blinding. What might it mean for Native students to enter such an environment? This ten-minute film follows three alumni of Chemawa Indian School—an all Native boarding school—as they transition into their first semester at Willamette University, a small, predominantly White, private institution. The students adapt to differing expectations both in the academic and social spheres.

Gutierrez, Blanca

Session 5.5, 3:10-4:10, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 2: Dictating Diaspora

What Happens If You Laugh?: Humor in the Bowels of *The Brief and Wondrous Life of Oscar Wao*

Participants in this second roundtable organized by the Humanities Senior Seminar on *Oscar Wao* explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction. "Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunior, end and the protagonist, Oscar, begin? Who's the real "ghettoner" in Diaz's (or is it Yunior's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* remix the tradition of Latin American historical fiction?

Gutierrez, Blanca; Marquez Guerrero, Cristina; Villa, Kelley; Garcia, Felicia

Session 3.8, 12:50-1:50, Hatfield Room

Indian Mascot Community Listening Project

Indian Mascot Community Listening Project

In May 2012, the Oregon State Board of Education banned Indian mascots. To promote dialogue at public high schools affected by the ban, our team was invited to develop the Indian Mascot Community Listening Project. Over a period of nine weeks during summer 2013, we traveled across Oregon to conduct archival research and interviews with various stakeholders from three communities. Our results, including a report and a forthcoming workshop in late April, reflect the deeply collaborative nature of our research design.

Guzmán Steimel, Evelyn

Session 5.5, 3:10-4:10, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao* Roundtable 2: Dictating Diaspora

Anti-Haitianism and the Negotiation of Afro-Dominican Diasporic Identity in *The Brief Wondrous Life of Oscar Wao*

Participants in this second roundtable organized by the Humanities Senior Seminar on *Oscar Wao* explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction.

"Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunior, end and the protagonist, Oscar, begin? Who's the real "ghettoner" in Diaz's (or is it Yunior's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* remix the tradition of Latin American historical fiction?

Hall, Madison, soprano; Samelson, Eric, piano

Session 2.11 11:10-12:40, Hudson Hall

"Cancion del naranjo seco," Federico Garcia Lorca

Hamer, William; Lev, Elise; Vine, Logan; Mithen, Tashana

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Photovoltaic Cells

Photovoltaic cells (solar cells) utilize the photovoltaic effect, which occurs when a photon excites an electron in an atom into another material. This creates a potential difference and subsequent current, collected as electrical energy. Energy to stimulate this effect comes from a combination of beam and diffuse solar radiation. Common materials used include silicon among other substances. The photovoltaic process is practical in this day and age because it utilizes a perpetually renewable clean energy source through the use of solar panels. We will discuss these factors as well as the monetary impact of creating and running photovoltaic cells.

Hannemann, Kristen

Session 5.1, 3:10-4:10, Ford 304

Educational Alternatives: Rethinking the Journey

Pieces Aren't Enough: Why a Wholesome Education Matters in today's World

Through research and experiential analysis, I strive to give folks a new way of viewing education and hope to instill in them the same joy for education that my alternative education did in me. This project synthesizes my first-hand experiences in a Waldorf school as a student, my experience working in a public school classroom as an undergrad, and research that I've done both on Waldorf and public school methods. The goal does not lie in making one seem superior to the other, but rather in showing the importance of a wholesome education in today's world, regardless of the methodology.

Harwel, Jonathan

Session 4.6, 2:00-3:00, Eaton 307

Asian Studies Grant Recipients

The Benefits of Cram School Education for South Korean Students

A hagwon is a for-profit cram school or institute in South Korea, which specializes in reinforcement of learned material from school and focuses mainly on academic subjects such as science, mathematics, and foreign languages. Many studies of hagwons focus on the negative impacts on student well being, such as high academic pressures from parents. The purpose of this research is to investigate if there are positive impacts hagwons can make on a typical Korean student. Does the

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hagwon experience contribute to Korean students' future endeavors and overall academic intelligence?

Hayashi, Macy; Matsuura, Stephanie; Morgan, Naomi; Cheney, John
Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern
Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Dangers of Bisphenol A
Bisphenol A (BPA) is a widely used chemical found in everyday materials; most notably containers made of epoxy resin or polycarbonate plastics. BPA can leach into the contents of these containers and subsequently enter your body. BPA behaves as an endocrine disruptor and interferes with fetal development. BPA-free plastics have been manufactured; however, elevated BPA concentrations are still prevalent in humans. Synthesis, structure, history, biochemical aspects, physiological effects, and ways to limit BPA exposure will be presented.

Hayashi, Raymond
Session 3.5, 12:50-1:50, Ford 302
Japan Sustainability

Successes and Failures in Japanese Waste Management Practices: A Multi-Disciplinary Approach
This presentation will focus on the sociological, historical and philosophical reasons for why Japan has been relatively successful in implementing a municipal waste management system but fails in regards to enforcing a WEEE management system. This presentation provides insight on how the success of waste management systems in general may rely on exogenous factors. And it demonstrates how and why the design of waste management systems should be designed region specifically.

Hayashi, Raymond
Session 4.10, 2-3, Ford 106
Waste, Risk, and Cash Transfers

An Analysis of the Externality Issues in Informal WEEE Markets in China: A Coase Theorem Approach
This study will focus on the externality issue caused by informal waste electronics processing in China. Specifically, this study attempts to observe the perpetuation of the issue, despite the possibility of achieving higher levels of efficiency, whereby individuals are maximizing their welfare through a decrease in activity in informal waste processing. This paper utilizes neo-classical economic theory and the Coase Theorem and demonstrates that economic rationale alone is insufficient in remedying the situation in China.

Hayes, Erica
Session 4.4, 2:00-3:00, Eaton 311
Psychology Symposium

Whose Beauty? Narratives of Otherness and Female Experiences of Beauty Norms
This analysis examines how women's experiences of the mainstream American beauty norm are influenced by both gender and racial identities, which interact to create unique narratives of otherness that differ from group to group. This project challenges assumptions about body image that are based largely on White focused research, and draws upon a wide variety of studies to argue that women of different racial identities develop unique perceptions of and reactions to the mainstream beauty norm, as their narratives of otherness influence the salience they assign to different components of beauty (e.g., skin tone, hair type, thinness).

Haynes, Aaron
Session 3.1, 12:50-1:50, Eaton 211
Law and Power

Law and Morality: A Study of Legal Positivism and Interpretivism
This presentation is a window into the rich theoretical debate surrounding the relationship between law and morality. The presentation will examine two contrasting legal theories that offer different conceptions of how to understand law's relationship with morality: Legal Positivism and Interpretivism. Through a study of the theoretical work of Ronald Dworkin and H.L.A. Hart, I show that Interpretivism judges legal validity based on a law's moral value, even when the law might be immoral, while Legal Positivism avoids collapsing legal validity into moral value.

Heckman, Taylor; Froehling, Emily; Judd, Salina
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Effect of Atmospheric Carbon Dioxide on Coral Health
This presentation investigates the detrimental impact of rising atmospheric carbon dioxide levels on coral reefs through its effect on the processes of global warming and ocean acidification. Carbon dioxide contributes to rising global temperatures, which influence coral bleaching. Additionally, approximately a third of atmospheric carbon dioxide is absorbed by the ocean, where it reacts with water to form carbonic acid. Carbonic acid dissociates into hydrogen and bicarbonate ions; the added hydrogen ions then combine with carbonate ions to form more bicarbonate. The formation of bicarbonate from hydrogen and carbonate ions depletes the amount of carbonate available for calcification by corals.

Heidenreich, Mitchel; Manzano, Emma; McClelland, Madeline; Thurman, Elizabeth
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Chemistry, History, and Biology Behind DDT
Dichloro-diphenyl-trichloroethane, or DDT, was used as an insecticide with applications ranging from agriculture to controlling mosquito populations in suburbs. Carcinogenic in humans in large quantities, DDT also leads to the weakening of raptor shells. This weakening prevented raptors from brooding and significantly decreased raptor populations. However, when the acceptance of DDT became more widespread, scientist Rachel Carson educated the public and started a movement that led to the eventual banning of these toxins. Our project will analyze the chemical structure of DDT, its synthesis, and the chemical reaction that led to the breakdown of the calcium carbonate in raptor shells.

Heisterkamp, Rachel
Session 3.7, 12:50-1:50, Ford 204
French/Francophone Studies

Absurd Theater in Post-War France
This project analyzes how absurdist theater and existentialism functioned as a source of solace in France in the period after the impact of World War II. The discrepancies between the values and ideas posed in absurd theater and the culture's conservative religious values show the impact of the war's devastation, as well as a trend within the French population towards a new understanding of their own existence.

Heisterkamp, Rachel
Session 5.5, 3:10-4:10, Ford 201
Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 2: Dictating Diaspora

Textual and Historical Control: Yunior's Prosopopeia and

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Autobiography in *The Brief Wondrous Life of Oscar Wao*
Participants in this second roundtable organized by the Humanities Senior Seminar on Oscar Wao explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction. "Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunior, end and the protagonist, Oscar, begin? Who's the real "ghettonerd" in Diaz's (or is it Yunior's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* enrich and remix the tradition of Latin American historical fiction?

Hernández, María D.; Casas, Giovanna; Marquez Guerrero, Cristina; García, Grecia,

Session 6.3, 4:20-5:20, Ford 301

Empowering the Generation, Latinos Rise Up!

Empowering the Generation, Latinos Rise Up!
We four attended the United States Hispanic Leadership Conference in Chicago where the motto and mentality is "Si se Puede!" The USHLI Conference cultivates one's confidence and inspiration to achieve our education goals while continuing to influence and inspire those in our communities, including upcoming Latino generations. This presentation is aimed to inform students of the conference and to encourage further and greater participation from Willamette University students. We will discuss the importance of this conference and promote student interest in the skill-building aspect of organizing for such a conference as well as greater Willamette participation in the USHLI conference.

Heupel, Jessica

Session 6.5, 4:20-5:20, Collins 201

Archeology in Orkney, Scotland

A pXRF-based Chemostratigraphy at the Ness of Brodgar in Orkney, Scotland
This project examines the use of the pXRF in the archaeological context of the Ness of Brodgar in Orkney, Scotland. It will explain how the pXRF can be used to determine geochemical signatures within a context of soil previously distinguished by its physical characteristics. This technique helps to inform archaeologists about the use of space and the activities occurring on the site.

Hinton, Bridget

Session 2.3, 11:10-12:40, Eaton 209

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

How do Guidance Counselors Adapt their Support Practices Taking into Account Students' Race and Gender?
This research delves deep into the questions: what type of outside of classroom support intervention strategies are used by guidance counselors and how do these strategies vary based on students' race and gender? These questions arose based on a 120 hour internship at Judson Middle School in Salem, Oregon. Drawing upon critical race theory and borderlands theory, this research provides a critical analysis of the intervention strategies used by guidance counselors and asks whether students and parents are best served by these strategies.

Howard, Jay

Session 4.9, 2:00-3:00, Eaton 105

Research from the Physics Seniors

Investigating the force- dependent function of Acanthamoeba myosin 1c activity
Myosin motors have the ability to convert the chemical energy associated with ATP hydrolysis into mechanical energy, allowing them to do work within the cell. Each of the various

myosin classes performs different tasks, ranging from assisting in locomotion of the cell to trafficking cargo within the cell. It has been hypothesized that class 1 myosins fit into two subclasses: subclass-2 myosins, which are thought to have force-dependence, and subclass-1, which are thought not to. While a functional response to external forces has been observed for a subclass-2 myosin 1 motor, a force-sensitivity in subclass-1 myosins has not yet been explored. Here I present the preliminary results of an investigation into the force-sensitivity of Acanthamoeba myosin 1c (AM1C) activity, a subclass-1 myosin.

Hudson, Cuyler; Jimenez, Christophe

Session 1.5 9:30-11:00 Collins 201

Moving Bodies: Studies in Exercise Science

Acute Effects of Whole Body Vibration on Power Output in American Football Lineman
Acute bouts of whole body vibration (WBV) have been shown to improve muscular performance, but the length of benefit is limited. Rate of play in American football may allow performance benefit from WBV. METHODS:12 Willamette football players were randomized into two groups. Each group received WBV after a dynamic warm-up. Participants performed a Sled Push Test immediately, five minutes, and ten minutes post warm-up to determine power output. A paired T-test compared the vibration vs. non-vibration groups. CONCLUSION: These findings suggest there is no significant benefit of using WBV on football lineman in improving horizontal power output or enhancing performance.

Huitt, Tobin; Dell, Evan; Schmidt, Ryan

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Health Effects and Risks of Carbon Monoxide Exposure
CO poisoning kills approximately 170 people in the U.S. each year. CO poisoning, how it occurs, the chemistry behind it, and symptoms and treatment will all be discussed in our presentation. Carbon Monoxide (CO) is an invisible, odorless, toxic gas. We will cover the reactions which form CO and the chemical bonding of CO to hemoglobin, including the significance of this bonding.

Jacoby, Kelci

Session 2.5, 11:10-12:40, Eaton 211

College Colloquium Grant 2013

Seeing with Emily: Emily Carr's vision of the Canadian Nation and its First Nations, then and now
I photographed the sites where Canadian painter Emily Carr once painted the First Nations and the forests of British Columbia. Carr painted to warn against, and to mourn, the passing out of existence of many of those First Nations; she painted their view of the world under the pressures, first of European colonial settlement, and then Canadian modernization. What has become of the places and people that Carr sought to represent? Would Carr be pleased with what time has done to her Canada? Has Canada heeded her lessons about what it should cultivate and value?

Jarvis, Shoshana; DeLappe, James; Martinez, Samantha; Ramos, Juan

Session 4.4, 2:00-3:00, Eaton 311

Psychology Symposium

The Influence of Aging on Episodic Memory, Prospection, and Theory of Mind
Self-projection refers to cognitive processes that involve orienting the self in different places in time and space, including episodic memory, future thinking, and theory of mind. Previous research has demonstrated that each of these abilities stems

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from the same core brain network (Buckner & Carroll, 2006). The current study compared performance of cognitively healthy older adults and young adults on several self-projection tasks. As predicted by the core brain system theory, the results demonstrate that aging influences theory of mind, prospection and episodic memory similarly: older adult participants showed declines on each of these measures compared to younger adults.

Johnson, Kylea; Roberts, Carmela; Hernandez, JoAnna
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

Ozone's Dual Nature

Our poster will discuss the dual roles of ozone in the upper atmosphere versus the lower atmosphere. Upper atmospheric ozone blocks ultraviolet radiation with a cycle of reactions, but the release of seemingly harmless chemicals has upset this process made a dent in this layer that is still healing. In the lower atmosphere O₃ is a component of smog that is formed from chemicals released during the combustion of fossil fuels and has harmful effects to human health. This chemical is both critically important to human life and an indicator of our current atmospheric crisis.

Joiner, Kate

Session 1.3, 9:30-11:00, Eaton 311

Crises in the USA

Felon Disenfranchisement

More than 5 million Americans are ineligible to vote in any election due to antiquated policies that strip voting rights from convicted felons, often for an indeterminate time. Men of color comprise the vast majority of this group. These policies defy citizenship rights enumerated by the constitution, and threaten the application of democracy. Since the late nineties, most states have been reforming such laws. But Massachusetts and Utah imposed restrictions for the first time. I explore court and legislative hearings, as well as election and public opinion polling data to illuminate the consequences of these policies, including fraudulent national elections.

Jones, Cameron

Session 3.9, 12:50-1:50, Eaton 105

Research from the Physics Seniors

Single Photon Interference and Weak Quantum Measurements
I made quantum weak measurements on single photons using No. 1 glass cover slips. Single photons were obtained by send a 405 nm diode pump laser through a beta barium borate crystal. The photons were then sent into a polarizing interferometer where horizontally and vertically polarized light were separated and rejoined. Changing the path length of the two polarizations of light made the photons interfere with each other upon rejoining. Weakly coupling the interferometer with different amounts of glass cover slips allowed me to observe the effects of varying weak measurements on the interference of polarized photons.

Jones, Julia; Smelt, Brenna; Zimmer, Anelise

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Effect Of pH on Cheese: Flavor, Hardness, Melting Behavior

The goal of this investigation is to educate others about the chemistry of their favorite dairy product, cheese. We will specifically focus on pH and the effect it has on the physical and flavor properties of cheese. The pH of cheese is the main determinant of its texture, melting point, and flavor. pH is extremely important because it determines the desired characteristics consumers want when purchasing their various

types of cheeses. When cheeses are exposed to chemicals that raise or lower their pH, they can experience changes in these characteristics. Cheeses with a lower pH are harder, more flavorful, and have more desirable melting characteristics. Cheeses with a higher pH are softer, less flavorful, and do not melt easily.

Josephson, Rebecca

Session 3.10 12:50-1:50, Collins 205

Presidential Scholars

NAMI-A Binding Interactions with RNA and DNA

NAMI-A, a ruthenium-based chemotherapeutic drug, shows promise in clinical trials at treating cancer with relatively low toxicity. Differences in NAMI-A interactions in healthy versus cancerous cells are likely due to disparate cellular environments, namely pH and reducing conditions. A goal of this study is to understand the binding interactions of NAMI-A with potential cellular targets, RNA and DNA, using experimental methods including fluorescence studies spectroscopy and RNA footprinting. Results indicate that difference in binding to RNA is correlated to the oxidation state of the ruthenium center of the drug rather than to the pH of the environment.

Kaltenbach, Audrey, piano

Session 2.11 11:10-12:40, Hudson Hall

Schubert A Minor, Op. Posth. 143

I. Allegro giusto

Kataras, Theo; Ruwitch, Margaret

Session 1.5 9:30-11:00 Collins 201

Moving Bodies: Studies in Exercise Science

Treadmill Walking Not Equivalent to Overground Walking for Harmonic Ratio

Falling becomes increasingly common and damaging as we age, so it is important to determine who is at risk for falls. Quantitative measures are preferred as they provide more certainty, but require long, uninterrupted trials. The Harmonic Ratio (HR) measures gait symmetry based on trunk acceleration data. The treadmill is appealing for use in collecting large amounts of data, but it is known to impact several aspects of gait, particularly in older adults. We collected trunk acceleration data from 40 participants aged 70 years and older during treadmill and overground walking to determine if HR was affected by treadmill use.

Keechler, Samuel

Session 2.5, 11:10-12:40, Eaton 211

Colloquium Grant Recipient Panel

College Colloquium Research Grant; Creating a Documentary
I created a documentary about the importance of a college education. In summer 2013, I went to San Francisco and interviewed and documented the lives of working men who lack a college or even a high school degree. I researched the daily challenges these men go through trying to live a comfortable life while searching for a steady paying job. In reality, getting by without a higher level of education, here in the 21st century is practically impossible, yet I show you how these men do it every day.

Keller, Jillian

Session 1.3, 9:30-11:00, Eaton 311

Crises in the USA

Homelessness in America

Since the late 1980's, thousands of American organizations have provided support to people experiencing homelessness, from day centers to permanent supportive housing. Despite years of evidence-based practices, homelessness continues to

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rise in many U.S. cities. I will contextualize the current state and federal services provided to the homeless, comparing Austin and Seattle. Seattle has more money and a smaller population, yet its rate of homelessness is larger than Austin's. I use a policy science perspective to evaluate circumstances that generate homelessness and analyze the services provided in order to develop a more effective strategy for ending homelessness.

Kingstad, Kristian

Session 2.1, 11:10-12:40, Ford 304

Speculative Fiction: Senior Seminar in Creative Writing

Quest of Ilio'ana: Novel in Progress

In a primitive world threatened by hate and destruction, a brother and sister find themselves thrown into fate when she harnesses a power that is prophesied in every part of the land. They embark on an epic journey where they discover new facets of the mystical world they live in, and struggle to define their identities when there seems little room for free will. This is the beginning of a novel, which emphasizes the magic hidden everywhere in the world, and our responsibility to preserve nature in light of our own destructive tendencies in our perpetual endeavor for progress.

Koll, Andrew

Session 3.9, 12:50-1:50, Eaton 105

Research from the Physics Seniors

Detecting Acanthamoeba Myosin 1C In Vitro with Shifting Optical Trapping Assays

To test the biological motor, Acanthamoeba Myosin 1C, for a function-regulating force dependence, this investigation modifies the actin-dumbbell assay to identify, with greater confidence, the motor's signal in the presence of overwhelming detection noise. Shifting the dumbbell back and forth by manipulating an acousto-optic deflector, we aim to enhance the signal arising from the interaction between myosin and actin. Enhancing the signal beyond the range of uncertainty, we expect to reveal the motor's strongly-bound state and dwell time. Finally we use this method to apply external forces to the motor to test for mechanical dependence in the motor's dwell time.

Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas; Mahajan, Surabhi; Ottomano, Taylor; Ewers, Veronica

Sessions 4.8 and 5.8, 2:00-3:00 and 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 & 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share
Abstract under Mahajan, Surabhi.

Kusnick, David; Wallace, Alec; Dunn, Steffany; Hari, Makayla

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Ginger Ale and Apple Charger

Internet rumors say that it is possible to charge a small electronic device by using an apple and ginger ale, but can it? As the apple is submerged in the ginger ale it is said to produce a small electrical charge that is sent through the charger. Apples contain weak acids, like ursolic acid and malic acid, which have weak electrolytes, and could be the source of the electrical charge. While this charge is small, it may be useful in a time of need and may be able to help us find a better source of electricity for the future.

Kwader, Garnet

Session 6.5, 4:20-5:20, Collins 201

Archeology in Orkney, Scotland

The use of X-Ray Florescence in Determining the Source of Archaeological Paints

Determining the origin of archaeological pigments could improve our knowledge of a culture's trade routes and mobility. The purpose of this study was to determine if the portable X-ray Fluorescence device (pXRF) could be used to connect pigments to their origin. I created paints from stones found in Orkney, Scotland on a Neolithic site, and painted them onto multiple stone surfaces. Using the pXRF I determined that the device can detect the paints, but that the binding agent unevenly skews the elemental readings from the pigments, making accurate sourcing impossible. However, this may not be the case with older paints.

Lancourt, Paige

Session 5.6, 3:10-4:10, Ford 302

More Money, More Problems

Taxing Obsessions: How the Development of U.S. Tax Expenditures and the Rise of Income Inequality have Combined Forces to Influence the Direction of American Politics
This project looks at how the development of tax expenditures has faced growing amounts of income inequality in America. To what extent do tax expenditures exacerbate or reinforce inequality, and conversely, in what ways has the development of tax expenditures aimed to address and mend inequitable wealth distribution? Recent initiatives through tax expenditures have the potential to push America in a new direction, and possibly address some of the most pressing political issues of our time.

Lawson, Elizabeth; Mead, Nicholas; Mahajan, Surabhi; Ottomano, Taylor; Ewers, Veronica; Kulander, Nina

Sessions 4.8 and 5.8, 2:00-3:00 and 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 & 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share
Abstract under Mahajan, Surabhi.

Li, Yumi

Session 1.2, 9:30-11:00, Ford 304

Explorations in Discrete Mathematics

Finite Geometry in the Card Game SET®

Besides being a great card game, SET® serves as an excellent model for the finite geometry AG(n,3). Using the SET® cards as a visual representation, we will explore the structure of maximal caps and how we can manipulate them to discover new properties and substructures of AG(n,3). This work was done at the Research Experience for Undergraduates program at Lafayette College.

Li, Yumi

Session 3.5, 12:50-1:50, Ford 302

Japan Sustainability

The Strange World of Waste Separation

This project will explore the Japanese method of recycling which involves separating trash into as many as twenty categories before being collected. It is motivated by the book *The Strange World of Waste Separation*, wherein two Japanese journalists criticize the waste separation system in Japan. I discuss how the authors reached their conclusions, and whether their dissatisfaction is shared within Japanese society as well as the outside world.

Liang, Sherry, piano

Session 2.11 11:10-12:40, Hudson Hall

Italian Concerto, Mvt. 1, J.S. Bach

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Liang, Sherry, piano; **Prendergast, Chloe**, violin; **Pegis, Jason**, cello
Session 3.11 12:50-1:50, Hudson Hall

Waller Piano Trio
Piano Trio in C Major, Op.87, Allegro Giocoso, Johannes Brahms

Liang, Sherry; Becquart, Ninon; Gangan, Carlo; Palm, Brianna
Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern
Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Tenofovir: Preventing Replication, Improving Procreation
Tenofovir is a drug used to treat people with HIV/AIDS or hepatitis B, illnesses that affect millions of people worldwide. The synthesis of tenofovir creates a molecule that mimics one of the main components of DNA: adenosine monophosphate. Thus, it acts as a reverse transcriptase inhibitor and prevents the replication of HIV. The oral medication, marketed as Viread, uses tenofovir disoproxil fumarate, the prodrug of tenofovir. Clinical trials have also demonstrated tenofovir's potential as a microbicide to improve women's health. This project describes the history, synthesis, biology, and societal implications of tenofovir disoproxil fumarate.

Librande, Dylan

Session 2.5, 11:10-12:40, Eaton 211
College Colloquium Summer Research Grants

Music and the Sense of Place in Video Games
This project shows how music in video games plays a pivotal role in the creation of place for the player. Through the power to create and enhance emotion, the listener's preexisting associations of instrumentation, and the emergent meanings from the relationship between music, graphics, and gameplay, music can effectively immerse the player in the world of the game. This project focuses on interviews with six current composers in the video game industry and on two case studies of games in which music plays a central role in the creation of place.

Lipton, Max

Session 1.2, 9:30-11:00, Ford 304
Explorations in Discrete Mathematics

Applying Functional Programming to Group Computations
In addition to being interesting in its own right, group theory has widespread applications ranging from chemistry to genetics. A group is a set combined with a binary operation satisfying certain axioms. Groups are often expressed with a Cayley table, which is like a multiplication table except that the numbers are replaced with abstract objects. Unfortunately, it can be difficult to determine various properties about a group from a Cayley table alone. This presentation shows how a functional programming language like Haskell can be used to read a Cayley table and compute various facts about the group's structure.

LoBue, Sarah, Bush, Chris, Respondents

Session 4.5 2:00-3:00 Ford 201
Gender and Genre in *The Brief Wondrous Life of Oscar Wao* Roundtable 1: Queering Wao

Abstract under Bush, Chris.

Loos, Jordan

Session 4.9, 2:00-3:00, Eaton 105
Research from the Physics Seniors

Electrolyte Variation in Purpurin Based Organic Lithium Ion Battery Electrodes
In an effort to develop sustainable and eco-friendly lithium ion batteries, reversible lithium ion storage properties of a naturally occurring organic compound purpurin have been reported. The carbonyl/hydroxyl groups present in purpurin molecules act as

redox centers and react electrochemically with Li-ions during the charge/discharge process. Specific charge and discharge capacities are reported in the literature with the electrolyte LiPF₆. By testing different and more organic-friendly electrolytes, we hope to be able to improve upon these capacities. Results will also be included.

Luetjen, Chris

Session 2.9, 11:10-12:40, Eaton 105
Research from the Physics Seniors

Constructing a Laser System to Trap and Cool Calcium Atoms for the Creation of Novel RbCa Molecules
These days, using lasers to trap and cool atoms in magneto-optical traps has become a common practice in many atomic and optical physics laboratories. However, the laser frequencies necessary to trap certain atoms are not always easily achievable. To by-pass this limitation, non-linear crystals in resonant cavities can be used to generate different wavelengths of light from standard laser diodes. In this talk, I focus on the construction of a cavity designed to frequency double 846 nm light into 423 nm light that will be used to trap Calcium atoms, and eventually, create novel RbCa molecules.

Lum, Brianna

Session 1.4, 9:30-11:00, Eaton 106
Asia Today and Tomorrow

Japanese Versus Other: The Japanese Perspective of Multiracialism
Japan is a nation infamous for its homogeneity, which tends to exclude many ethnic minorities, including multiracial Japanese. A survey was conducted on Japanese study abroad students (n=59) in a small private university in the Pacific Northwest. The survey required participants to rate different multiracial groups as compared to the Japanese ethnic group. The results demonstrated an expected preference for the Japanese ethnic group, a similar preference for Japanese-Caucasians, and a generally ambiguous reaction to Japanese-Koreans. The implications suggest that Japan may be working to accept multiracial Japanese, but has not yet fully embraced multiracial diversity.

Lyman, Natalie

Session 1.7, 9:30-11:00, Art 212
Revising Art History

Reflections on Revivalism: New Models and Theories
What is "revivalism" and what are its functions within art history? Through an examination of revival theory in the works of Giorgio Vasari, G.W.F. Hegel, and Erwin Panofsky, a new conception of revivalism as a cyclical-progressive model of describing time can be achieved. This model explores how revivalism works over time and across cultures/periods in addition to the social, political, and cultural factors that bring about revivals. Specific art revivals, such as Renaissance, Gothic, and Pre-Raphaelite movements will be discussed as relevant case studies.

Lyman, Natalie

Session 4.2, 2:00-3:00, Ford 302
Time Lords, Superheroes, and Brave New Worlds: Remaking Conventions through Science Fiction

Women of Steel: Gendering the 21st-century Superhero
Contrary to much writing on the subject, female superheroes are not just sexual objects devised for the pleasure of a "male gaze." They represent the subversive, gender-fluid potential of the superhero and sci-fi genres to push the boundaries of gender conventions in film and television. Using queer theory to deconstruct and reconstruct the female superhero reveals her potential for exploring gender possibilities beyond the

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heteronormative masculine/feminine binary that critics so often adhere to. Superheroes, male and female, can create new possibilities for what it means to be masculine, feminine, something in between, or something beyond.

Mahajan, Surabhi

Session 2.4, 11:10-12:40, Eaton 106

Human Rights, Environmental Justice, and Banana Wars

Social Disruption and the Evolution of the Sacred Cow
This interdisciplinary feminist project aims to understand "The Sacred Cow of India" from the perspectives of anthropologists and biologists. The cultural and religious history of non-violent attitudes towards cows has genetic, evolutionary, and materialistic implications. With the beginning of the Green Revolution in the 1960's, the introduction of industrialized farming has displaced the agriculture value of cows, thereby also diminishing the cultural non-violent attitudes towards cows. This project aims to understand the emerging environmental crisis for people and cows with the changes of the economic and cultural practices related to cows.

Mahajan, Surabhi; Ottomano, Steed-Elliott, Maxine; Taylor; Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas

Sessions 4.8 and 5.8, 2:00-3:00 and 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 & 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share
Why is there such hunger here in Marion and Polk Counties, an agriculturally rich area? This question drives research by a special medical anthropology service learning course. Seven students are investigating food insecurity within different demographic groups, including the under and unemployed, children, the elderly, the homeless, and the mentally and physically impaired. Working with Marion-Polk Food Share, they have conducted literature reviews and ethnographic field work in the community to examine political, economic, and social factors that contribute to short and long-term food insecurity. They have also investigated local responses to the growing hunger problem.

Manderbach, Cienna; Tahmassebi, Layla; Wert, Alex; Lee, Ben

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Vitamin C
Our presentation is about vitamin C and its uses within the body. Proper dosage, levels in food, and the role of vitamin C in the body will be discussed. People falsely believe that ingesting vitamin C pills in large amounts will prevent a cold, however, research shows that once you intake a biologically determined amount of the nutrient the excess will not be stored in the body and will be excreted through urine. Taking supplements will assist your body if they contain an assortment of nutrients, but vitamin C alone is not going to help in the prevention of illness.

Manion, Megan

Session 3.1, 12:50-1:50, Eaton 211

Law and Power

Rituals of Silence: Truth Telling by Child and Female Soldiers during Sierra Leone's Reconciliation
When children and women participate in war, they confound legal categories of "victim" and "perpetrator" because they simultaneously suffer and perpetrate brutal violence. Most reconciliation programs include legalist institutions like the Special Court for Sierra Leone (SCSL) and the Truth and Reconciliation Commission (TRC) and traditionalist rituals as practiced by Fambul Tok, to reintegrate former combatants. This paper explores how "truth telling" constructs participation

in violence to include only "victims" or "perpetrators" and therefore exclude victim-perpetrators from reconciliation. I explore why communal reconciliation in Sierra Leone re-initiates boy combatants and female combatants by collectively silencing their dual victim-perpetrator status.

Manion, Megan

Session 4.1, 2:00-3:00, Ford 304

Violence, Meaning, Gender, and Identity

Rituals of the Self: The Construction of Male, Female and Kamajor in Sierra Leone Before and During the Civil War
During Sierra Leone's civil war, rebels and soldiers forcibly conscripted boys and girls to their ranks of rebels, soldiers and kamajors. The initiation to combat was brutally violent. For most scholars, both the survival and perpetration of violence must be understood solely as trauma or evidence of culpability. This paper explores how rituals of violence defined selfhood for combatants by supplanting rituals of identity of the Poro and the Sande that are meaningful outside the landscape of conflict. Rather than engaging in questions of culpability, I consider how combatants' experiences of these rituals of selfhood became personally and culturally legible.

Manning, Sarah; Galligar, Ian; Leadon, Marie; McMillan, Josie

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

TTX: The Neurotoxin of the Sea
Tetrodotoxin (TTX), a neurotoxin found in puffer fish, is a key component of the Japanese delicacy fugu, which is known to cause tingling and numbness when consumed. TTX is 10,000 times more toxic than cyanide and when consumed in high concentrations can cause paralysis and death. This occurs because TTX blocks the voltage-gated Na⁺ channels in the neuron and muscle cells of the body. The inhibition of Na⁺ channels causes action potentials of the cells to stop, which effectively "turns off" the cells. This poster will illustrate the structure and binding action of TTX, and demonstrate its deadly nature.

Marquez Guerrero, Cristina; Villa, Kelley; Garcia, Felicia; Gutierrez, Blanca

Session 3.8, 12:50-1:50, Hatfield Room

Indian Mascot Community Listening Project

Indian Mascot Community Listening Project
In May 2012, the Oregon State Board of Education banned Indian mascots. To promote dialogue at public high schools affected by the ban, our team was invited to develop the Indian Mascot Community Listening Project. Over a period of nine weeks during summer 2013, we traveled across Oregon to conduct archival research and interviews with various stakeholders from three communities. Our results, including a report and a forthcoming workshop in late April, reflect the deeply collaborative nature of our research design.

Márquez Mendez, Humberto

Session 3.2, 12:50-1:50, Eaton 311

Northwest Nice? Understanding the Effects of Immigration Policy for Latina/os Today

Under One Roof: Conceptualizing the Experiences of Citizen Children in Mixed-Status Families
Current demographics of the Latina/o population reveal that households in the U.S. are mixed-status, consisting of people who are citizens, residents, and/or undocumented. The complex experiences of citizen children with parents without legal residency are overlooked when implementing federal and local immigration policies. After conducting 31 in-depth interviews with families in Oregon, this research project serves to explore the various ways in which citizen children of

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immigrant mixed-status families are affected by federal and local immigration policies.

Martin, Ben

Session 2.5, 11:10-12:40, Eaton 211

College Colloquium Summer Research Grants

Graffiti: Changing Image Through Imagery

Researcher presents a graffiti art gallery featuring artists from Salem and Portland and discusses the way in which the crime is being abated and possible alternative methods for doing so.

Mason, Taylor

Session 5.3, 3:10-4:10, Eaton 105

The Will, Identity and the Extended Mind

The Extended Human

If we are to take the Extended Mind hypothesis as being legitimate, what does it mean for human beings? Assuming that everything can be considered a part of the extended mind, and therefore the human mind, should we consider ourselves a part of a greater whole? It will be the object of this presentation to determine what can be considered a part of the extended mind, and what it might mean for one's conception of oneself.

McCulley, Daniel

Session 2.9, 11:10-12:40, Eaton 105

Research from the Physics Seniors

Modeling Pulsating Stars as Springs

For nearly a century, the mechanisms that determine the amplitudes of stellar pulsation modes have remained poorly understood. Out of the myriad modes that pulsation theory predicts will be excited within a single star, the most that have ever been observed is three (triple mode pulsation). In an attempt to understand what physical scenarios elicit single, double, and triple mode pulsation, I have modeled the nonlinear interactions of stellar pulsation modes using a simple system of coupled oscillators. In this talk, I explore what mechanisms within a star allow it to limit the number of pulsation frequencies that are excited.

McKenzie, Noah; Ontiveros Galindo, Tania; Gutierrez, Blanca; Guzmán Steimel, Evelyn; Heisterkamp, Rachel; Peck, Dillon

Session 5.5, 3:10-4:10, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 2: Dictating Diaspora

Participants in this second roundtable organized by the Humanities Senior Seminar on *Oscar Wao* explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction. "Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunió, end and the protagonist, Oscar, begin? Who's the real "ghettonerd" in Diaz's (or is it Yunió's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* and remix the tradition of Latin American historical fiction?

McLane, Ben; Abdie, Daniel; Salton, Zach

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

The History of Gold

Gold has been used for many years both in chemistry and throughout society. Gold occurs naturally as a soft metal with a characteristic color. Gold was discovered around 2500 BC and is still used to this day. Gold was the first means of a monetary system, and traditionally has been viewed as one of the most valuable metals on Earth. In addition to its power over world economies, gold is also influential in modern technology,

science, and medicine because of its chemical properties.

Mead, Nicholas; Mahajan, Surabhi; Ottomano, Taylor; Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth

Sessions 4.8 and 5.8, 2:00-3:00 and 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 & 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share

Abstract under Mahajan, Surabhi.

Merrill, Shelby; Cohen, Lucas; Maglinao, JR

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Salt Water Magneto-hydrodynamics

Using an electric current that passes through a magnetic field, while immersed in salt water, water will start to move. If the circumstances mentioned above are configured in a specific order, MHD (Magneto Hydrodynamics) can be used to propel craft. By exploring and explaining how salt ions (Na⁺, Cl⁻) interact with electric currents and magnetic fields we can better understand this scientific application and its worth to society, and giving the opportunity to understand the concepts, relating to this application, in a new light, showing us that salt water and the whole ocean has potential just waiting to be exploited.

Meyer, Kristiana

Session 2.4, 11:10-12:40, Eaton 106

Human Rights, Environmental Justice, and Banana Wars

Human Rights & The Right to Development: U.S. Foreign Policy under the Clinton Administration

The United States was the only country to dissent from the Declaration on the Right to Development of 1986. However, it did ultimately sign onto the Vienna Declaration in 1993, which reaffirmed the right to development as an integral component of human rights policy. The right to development doesn't restrict development to a solely economic framework, but recognizes development as a political extension of international human rights expectations. This paper asks why the United States changed its position. I evaluate explanations based on historical context, social movements and activist interests, and overall ideological shifts within the post-Cold War United States.

Michalak, Eva

Session 1.1, 9:30-11:00, Eaton 211

Insults, Judgments, Barbarians, and Gladiators

Colorful Insults: Light Imagery and Color in Catullus' Invective Poetry

Like the colors in Catullus' love poems, the colors used in his insults were meant to convey the passion of his emotions. However, the colors in Catullus' invectives have the added purpose of contributing to the insults being conveyed. Catullus limited the color palette of his insult poems to red, black, and white tones, and he limited light imagery to terms of burning and fire. He purposely restricted the use of color and light imagery in these poems in an effort to only employ terms with connotations that he could manipulate into heightening his insults and creating unpleasant imagery.

Miles, Sari

Session 4.5, 2:00-3:00, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao* Roundtable 1: Queering Wao

Conquering Queerness, Perpetuating Patriarchy: Reagan and Yunió's National Narratives of Masculinity in *The Brief Wondrous Life of Oscar Wao*

The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name

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"Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

Miller, Jennie

Session 4.2, 2:00-3:00, Ford 302

Time Lords, Superheroes, and Brave New Worlds: Remaking Conventions through Science Fiction

Estranged Mythologies: Pandora in the Sci-Fi Universe of *Gallifrey*
Pandora's box, the familiar classical Greek myth, reappears with strange new potency in *Gallifrey*, an offshoot of the popular sci-fi series *Doctor Who*. Using Barthesian mythologies as a model for meaning-making, I explore *Gallifrey's* Pandora myth as it estranges the reader from notions of feminine curiosity and female destruction usually understood in the classic myth. In doing so, this project will demonstrate how mythological re-telling in science fiction forces the reader to re-imagine meaning, and how science fiction operates as a critical genre which challenges our real-world meanings.

Miller, Emily; Wiggins, Eve; Tamaoki, Yuko

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

Modulation of ERP Amplitudes As A Function of Word Type in Logographic Scripts
The neural systems mediating fluent reading may vary for alphabetic (e.g., English) versus logographic (e.g., Kanji) scripts. Here, we used event-related brain potentials (ERPs) to examine the neural systems involved in reading a logographic script. Participants included both native Japanese speakers, fluent in reading logographic Kanji (JN group) and native English speakers, naïve to reading logographic scripts (EN group). Results indicated that the N170, typically left-lateralized in alphabetic scripts, exhibited greater right-hemisphere recruitment. In addition, both groups also differentiated between single and compound Kanji words, though these effects were apparent during different stages of processing in each group.

Montgomery, Thomas

Session 2.1, 11:10-12:40, Ford 304

Speculative Fiction: Senior Seminar in Creative Writing

Both Worlds
In another world, magical and surreal, a philosophical and spiritual conflict has broken out between two groups. One side is materialistic, valuing most what can be understood by the five senses. The other aims towards a metaphysical state of being that can only be obtained in the other, incorporeal plane of existence. The story focuses on a handful of individuals as they try to deal with their immediate issues while shaping their own roles and destinies within the grand scheme of things.

Moody, Bailey

Session 1.4, 9:30-11:00, Eaton 106

Asia Today and Tomorrow

Female Political Leaders in Asia
Asia has seen thirty-one female heads of state, prime ministers, and party leaders since 1959. However, scholars of Asian politics have yet to come up with a cohesive explanation as to why there have been so many female politicians during the last

sixty years. This project examines how women came to power in Asia. I analyze competing cultural, institutional, and activist-led explanations, giving examples and definitions of the schools of thought currently in place. Through performing this research I uncover gendered notions of power and attainment of political office.

Moody, Bailey

Session 4.6, 2:00-3:00, Eaton 307

Asian Studies Grant Recipients

Taoism in Chinese Gardens: Traditional and Modern Perspectives
Chinese gardens employ a number of religious and culturally-embedded influences within their structure, notably Taoist philosophy. This project documents the ways in which Taoism is represented within the structure of Chinese gardens. I argue that modern Chinese gardens (including parks and other structures that are not traditional gardens) feature the same elements of Taoist philosophy present in traditional Chinese gardens. This project demonstrates the significance of the existence of Taoist philosophy in both traditional and modern Chinese gardens.

Morse, Karlin, Peden, Cassandra, Brown, Teryan

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Methamphetamine is a well known name among high school and college aged students due to their education, but they lack the knowledge of how the drug actually interacts with the body; they lack the chemistry. The chemistry behind the drug makes understanding why the body reacts the way it does much more logical and much less of a horror story. It is important to know the chemical properties, the way the drug affects the T-Cells and interacts with the brain, and how the drug is synthesized in order to fully understand why and how the body reacts with this drug.

Murata, Kathryn

Session 3.5, 12:50-1:50, Ford 302

Asian Studies Panel

A Re-imagining of Japanese Societal Roles and Practices: Japanese Childcare Institutions and the New Generation of Working Mothers
Japanese life perpetuates an assimilation of traditional—and both political and social—and modern cultures as seen in clothing, business relationships, and other nuances we consider to comprise the meaning of being "Japanese." One institution exuding these cultural elements is the developing childcare system. My research includes observing public daycare centers linking disparate traditional, political, and modern sentiments of working women and considers how historical versions of these sentiments may remain today. I speculate upon grander implications this problem has for Japan's dwindling population and ask whether looking to the past may resolve Japan's related population issues.

Murphy, Korinn; Johnson, Julianne; Sievers, Colin; Conrad, Nathan

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

The Chemistry of Clozapine
Schizophrenia affects an estimated 2.2 million Americans every year. This mental illness can impede an individual's ability to function well within society. Antipsychotic medicine constitutes a main treatment option for schizophrenia. Clozapine is particularly effective for individuals with treatment resistant schizophrenia and in preventing suicidal behavior. This drug is capable of restoring the balance of neurotransmitters in the brain by binding to dopamine receptors. Possible drawbacks

ABSTRACTS

include potentially serious side effects as well as expense due to the complexity of its synthesis. This poster will outline both the chemistry and societal impacts of Clozapine.

Nagata, Bianca

Session 1.6 9:30-11:00 Collins 205

Goats, Birds, Stress, and Cells: Studies in Biology and Physics

The Role of Myosin VI in Internalization Rates of ARPE-19 Cells

Investigating the role of myosin VI in the endocytosis of ARPE-19 cells. Previous experiments showed that the overexpression of myosin VI resulted in increased trafficking velocity. Recent experiments involving RNA silencing are also being conducted to confirm the findings.

Nagata, Bianca; Daniel, Rebekah

Session 4.9, 2:00-3:00, Eaton 105

Research from the Physics Seniors

A Role for Myosin VI in Retinal Pigment Epithelium Phagocytosis

Abstract under Daniel, Rebekah.

Nanry, Megan

Session 4.4, 2:00-3:00, Eaton 311

Psychology Symposium

Regional Personality Differences in the United States: A Comparison of Three Competing Paradigms

Research on regional personality differences in the U.S. has been limited in conceptualizing regions along large, politically-defined boundaries (e.g., states). The current study employs three different paradigms for mapping U.S. regional differences, which are based on historical, social and economic, and geographical divisions. Over one million participants from outofservice.com were clustered into groups based on the three paradigms. Personality was assessed using ten-facet scales derived from the Big Five Inventory. Ultimately, the study suggested that the conceptualizations of regional differences based on historical, social, and economic divisions yielded stronger and more interpretable findings than the conceptualization based on political boundaries.

Nanry, Megan

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

Regional Personality Differences in the United States: A Comparison of Three Competing Paradigms

Research on regional personality differences in the U.S. has been limited in conceptualizing regions along large, politically-defined boundaries (e.g., states). The current study employs three different paradigms for mapping U.S. regional differences, which are based on historical, social and economic, and geographical divisions. Over one million participants from outofservice.com were clustered into groups based on the three paradigms. Personality was assessed using ten-facet scales derived from the Big Five Inventory. Ultimately, the study suggested that the conceptualizations of regional differences based on historical, social, and economic divisions yielded stronger and more interpretable findings than the conceptualization based on political boundaries.

Newcomer, Ashley; Stensaas, Elizabeth; Pratt, Alexia; Pulham, Bethan

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Chemistry of Baking Cookies

People often assume that chemistry involves extensive knowledge of atoms and elements; but chemistry is involved in most aspects of people's daily lives. Just walk through any kitchen to discover that food and cooking are chemistry. Cookie

dough goes through numerous chemical reactions in order to become the familiar all-American treat. It begins with the melting of butter and ends with the browning of the cookie. Maillard Reactions, Caramelization, and denaturation processes will be discussed in order to reveal the secret to a cookie's fluffiness, its golden brown color, and its sweet taste. Don't be fooled, bakers are mad scientists.

Oldham, Christian Alborz

Session 1.7, 9:30-11:00, Art 212

Revisioning Art History

Wish to Blaspheme Ikebana

This is not so much a paper about the history of ikebana as a critical attempt to explain the multilayered influence that such a practice has exerted on the raising of Contemporary Japanese art. While it is problematic to assume that ikebana is the result of a particular kind of sensibility, innate within the Japanese culture, its effect has produced fresh views in the creation of daily life objects, such as textiles, clothing, and furniture. This practice of arrangement, once exclusively ritualistic, eventually met the laxity of 20th-century abstraction, freshly interpreting previous rigid ikebana typologies with new implications.

Olmos-García, Delia

Session 3.2, 12:50-1:50, Eaton 311

Northwest Nice? Understanding the Effects of Immigration Policy for Latin@s Today

Under One Roof: Understanding the Effects of Immigration Policy on Mixed-Status Families in Oregon

"Mixed-status" families are those having U.S. born citizens, foreign born persons with legal residency, and/or a member who is not documented all living under the same roof. Immigration policies, developed at the federal level and implemented on the local level, are increasingly creating "divided fates". Through this research project, I examine the consequences of immigration policy on mixed-status Latina/o families and the larger Latina/o community by conducting in-depth interviews with families in Oregon.

Olmos-García, Delia; Hernandez, Isabel; Miranda-Gracida, Reina

Session 5.2, 3:10-4:10, Eaton 307

Researching Salem, Oregon

First Generation Students of Color at Willamette University: Understanding and Valuing Experiences

First-generation students are defined as being the first in their family to attend an institution of higher education. To understand their experiences we conducted semi-structured interviews with current Willamette students. We focus on the experiences of students of color and the relationship between racial identity and being a first-generation college student. We found: 1) tension in selecting a career pathway, 2) challenging dominant discourse of student independence, and 3) endurance guilt in understanding student experiences. Finally we recommend institutional support and highlight the importance of valuing the unique experiences first-generation students of color bring to campus.

Olson, Conner; Sharpe, Jimmy; Varrelman, Tanner; Antinson, Daniel

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Buffer Systems in the Blood

The buffer systems in our blood help maintain a specific pH range. We will cover the effects of any deviation from the specific pH range our body maintains, more specifically acidosis and alkalosis. Our body uses three different buffer systems to help maintain a specific pH range of 7.35-7.45: the bicarbonate, phosphate, and a protein buffer system. We discuss the chemical reactions and enzymes at work in the

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blood. In addition, we will explain treatments for people who have faulty buffer systems and cannot maintain a healthy pH range.

Ontiveros Galindo, Tania; McKenzie, Noah; Gutierrez, Blanca; Guzmán Steimel, Evelyn; Heisterkamp, Rachel; Peck, Dillon

Session 5.5, 3:10-4:10, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 2: Dictating Diaspora

Abstract under McKenzie, Noah.

Ottomano, Taylor; Ewers, Veronica; Kulander, Nina; Lawson, Elizabeth; Mead, Nicholas; Mahajan, Surabhi

Sessions 4.8 and 5.8, 2:00-3:00 and 3:10-4:10, Ford 102

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share (Parts 1 and 2)

The Paradox of Local Food Insecurity: A Collaboration with Marion-Polk Food Share

Abstract under Mahajan, Surabhi.

Parker, Hayden

Session 2.10 11:10-12:40 Ford 302

Manipulating, Multiplexing and Visualizing: Studies in Computer Science

Inverse multiplexing over TCP

The goal of this project is to create an application and API to transfer files between hosts over multiple internet connections. By inverse multiplexing a discretized data stream over TCP sockets, multiple gateways can be aggregated into a single channel with a throughput close to the sum of the aggregated networks. In the development of this project, I observed that a large socket count through a single gateway led to significant throughput increases as well. I also discovered that inverse multiplexing over TCP can provide performance increases on networks with some implementations of traffic shaping.

Parkinson, Erin

Session 1.6 9:30-11:00 Collins 205

Goats, Birds, Stress, and Cells: Studies in Biology

Caprine skeletal reconstruction and bone anatomy

An applied anatomical study through the identification and reconstruction of the osseous tissue of two juvenile Nubian goats.

Parnell, Jaclyn; Cackler, Emily; Beschel, Blair; Shields, Alex

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Irène Joliot-Curie

Irène Joliot-Curie dedicated her life and work to the concept of Radioactivity, and due to her research she earned a Nobel Prize in chemistry for the synthesis of new radioactive isotopes. Her research mainly consisted of observations of unstable nuclei and creating radioactive versions of Nitrogen(N), Phosphorus(P), Iodine(I), and Aluminum(Al). Her most famous radioactive isotope was Phosphorus from Aluminum. From Irène's work, we learned the different ways that nuclei break down and the reasons for breaking down. The results of her research also led to the discovery of uranium fission, the first nuclear reactor, and several medical technologies used today.

Parsagian, Alexandria

Session 3.10 12:50-1:50, Collins 205

Presidential Scholars

A permanent magnet Zeeman slower for calcium: Improving ultracold calcium trapping efficiency for creation of RbCa molecules

Ultracold heteronuclear molecules are of interest for their applications in ultracold chemistry, precision spectroscopy, tests of fundamental symmetries, and quantum computation.

Alkaline/Alkali-metal dimers possess a permanent electric and magnetic dipole moment, making them ideal for the study of strong long-range dipole-dipole interactions. We will discuss the design and construction of a permanent magnet Zeeman slower for calcium, which will be utilized in creation of RbCa molecules. This slower uses neodymium magnets, housed in a 3D printed structure, to closely match the ideal slowing field. The Zeeman slower will increase the density of trapped atoms, improving the ability to form RbCa.

Pate, Natalie

Session 3.7, 12:50-1:50, Ford 204

French/Francophone Studies

Violent, Incapable, Sexual: The Representation of Algerians in French Journalism

The French imaginary represents Algerian men as violent, savage or indolent, while it portrays women as sexual, seductive temptations, barely out of reach behind their veils. With hundreds of years of contorted media, Algerians are discriminated against in many ways, particularly those living in France. This misrepresentation leads to oppressive policies and daily racism. I evaluate how Algerians are represented in French journalism, the differences between colonial and modern representation and between men and women, the significance and influence of orientalism, and why representation is important.

Patterson, Kristen

Session 1.1, 9:30-11:00, Eaton 211

Insults, Judgments, Barbarians, and Gladiators

The Judgment of Paris in Art: A Critical Look at the Judge Himself

This project examines "The Judgment of Paris" scene in art and how artists have used it to criticize the character of the judge, Paris, as opposed to the beauty of the three goddesses. It focuses mainly on two paintings, one by Peter Paul Rubens ca. 1635-1638 and the other by Jack Levine from 1963, as well as two sculptures, *The Lansdowne Paris* from the 4th Century BC and the *Hercules Farnese* from the 3rd Century CE.

Peck, Dillon

Session 5.5, 3:10-4:10, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 2: Dictating Diaspora

Untranslated Nerd: Code-Switching Language and Genre in *The Brief Wondrous Life of Oscar Wao*.

Participants in this second roundtable organized by the Humanities Senior Seminar on *Oscar Wao* explore Junot Diaz's promiscuous use of generic conventions, from the comic/comedy, to historical drama and speculative fiction. "Dictation" here refers both to modes of storytelling and to the many manifestations of the dictator figure in Dominican history and literature. Where does the narrator, Yunior, end and the protagonist, Oscar, begin? Who's the real "ghettonerd" in Diaz's (or is it Yunior's) novel? How do the roles of narrator and dictator overlap, as the novel's footnotes suggest? How do inter-texts like Tolkien's *Lord of the Rings* and remix the tradition of Latin American historical fiction?

Paulson, George

Session 1.1, 9:30-11:00, Eaton 211

Insults, Judgments, Barbarians, and Gladiators

Amazon and Achillia: The Importance of Stage Names in the Identification of Female Gladiators and Their Characterization as Amazons

Female gladiators were a real – albeit rare – part of Rome's gladiatorial games. For cultural and artistic reasons, the Romans would have viewed female gladiators as Amazons; a

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characterization that would have fit the Roman practice of having different gladiator types represent conquered barbarian peoples. Female gladiators, however, could not make use of several characterizing stereotypes about Amazons, neither being able to fight in Amazon costume nor being able to fight against men. The stage names of female gladiators, particularly those fighting as the *provocator* gladiatorial class, was the way they identified themselves as women and characterized themselves as Amazons.

Pegis, Jason, cello

Session 2.11 11:10-12:40, Hudson Hall

Suite for Unaccompanied Cello in D Minor, BWV 1008, Prelude, J.S. Bach

Pegis, Jason, cello; **Prendergast, Chloe**, violin; **Liang, Sherry**, piano

Session 3.11 12:50-1:50, Hudson Hall

Waller Piano Trio
Piano Trio in C Major, Op.87, Allegro Giocoso, Johannes Brahms

Peterson, Maxfield

Session 2.6, 11:10-12:40, Eaton 307

American Politics: Real and Imagined

Charismatic Christianity, Latino Americans, and the Prospects of American Neoliberalism
Recently, the global religious landscape has experienced a massive and unprecedented expansion of the practice of Charismatic Christianity, which embraces a strand of theological conservatism that emphasizes supernatural appeal through liturgy such as speaking in tongues and divine intervention. Scholars have yet to extend research on the political impact of this growth beyond the context of developing nations. I explore this phenomenon's political impact on Latino Americans by investigating theoretical connections between Charismatic Christianity and neoliberal economics as well as empirical evidence of the faith's influence on Latino American voter attitudes.

Plunkett-de la Cruz, Shani; Sprague, Hannah; Lovitt, Rachel; Wutte, Stefan

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

Meth: The Truth Behind The Drug
For this project, we will research the effects of that Methamphetamine has on the brain and the body. By knowing the molecular formula and the structure of the compound, we can learn how Methamphetamine interacts with the neurotransmitters in the body. It is already known that meth causes irreversible damage to brain cells, specifically memory cells. With increasing media coverage of meth from the television show "Breaking Bad", there is an increase in curiosity about meth. We want to make sure that viewers understand the true dangers of methamphetamine that come along with taking the drug.

Pogue, Connor

Session 2.9, 11:10-12:40, Eaton 105

Research from the Physics Seniors

Laser Ablation with an Ultrafast Pulsed Laser
Laser ablation uses intense ultrafast laser pulses to remove material from samples of metals, glass, or semiconductors by vaporizing and expelling the plasma with high precision and little peripheral thermal energy transfer to the sample. The process is mostly utilized by micro-machining and semiconductor manufacturing industries. In this talk, I discuss our efforts to characterize the effects of different laser pulse powers and repetition rates on several different materials, and

present data taken with the scanning electron microscope (SEM) located here at WU.

Prendergast, Chloe, violin

Session 2.11 11:10-12:40, Hudson Hall

Concerto for Violin and Orchestra op. 47 D minor--- Jean Sibelius
I. Allegro Moderato

Prendergast, Chloe, violin; **Liang, Sherry**, piano; **Pegis, Jason**, cello;

Session 3.11 12:50-1:50, Hudson Hall

Waller Piano Trio
Piano Trio in C Major, Op.87, Allegro Giocoso, Johannes Brahms

Quinn, Nathaniel

Session 1.6 9:30-11:00 Collins 205

Goats, Birds, Stress, and Cells: Studies in Biology

Ton-B Dependent Transportation and Oxidative Stress in *Caulobacter Crescentus*
The CB15 strain of *Caulobacter crescentus* survives far more effectively than the NA1000 strain after 96 hours in liquid medium. It was found that the difference in mortality could be accounted for by differences in two TonB dependent receptor genes: CCNA_02910 and CCNA_03108. It has been hypothesized that the inability to cope with oxidative stress is involved with the difference, and an investigation of the primary literature has found that iron increases oxidative stress while manganese neutralizes it. Therefore, ongoing experimentation to test the connection between these receptors, the metals, and oxidative stress has been initiated.

Quinn, Nathaniel

Session 2.6, 11:10-12:40, Eaton 307

American Politics: Real or Imagined

Medical Civil Societies and Politics: How the American Medical Association was able to Thwart Single Payer
While the Canadian Medical Association was Not
In the 1960s, Canada implemented a single payer system, while proposals to implement single payer in the US were defeated under Presidents Franklin Roosevelt, Harry Truman, and Lyndon Johnson. The American Medical Association (AMA), was primarily responsible for their defeat, though interestingly, the comparable Canadian Medical Association (CMA) did not have the same success. To determine why the AMA was successful and the CMA was not, Power Resources theory, which emphasizes the importance of strong labor unions and labor parties, was found to best fit the available evidence and political outcomes.

Ramsey, Alexandra; Quintana, Miguel; Hsu, Lawrence

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Chocolate - What We Know That Just Ain't So
The primary chemical in chocolate is theobromine, which is an alkaloid and has a compound structurally similar to the well-known caffeine. Since its first laboratory synthesis during the 19th century, theobromine has been used as a diuretic, bronchodilator, and cardiotoxic. Theobromine's drug effects have not yet been fully studied, but some studies show that theobromine can lower LDL cholesterol. Theobromine is synthesized in the cocoa plant as well as tea leaves, and is a key intermediate in the synthesis of caffeine. Theobromine and its effects are yet to be fully understood; thus more research is needed.

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Raymond, Brynn

Session 3.6, 12:50-1:50, Ford 301

Social Spaces

Intersectionality, Queerness, and the Spectacle in the Social Spaces of 1920s Harlem
Focusing upon non-queer white tourists, non-queer African American Harlemites, queer African American Harlemites, and queer white tourists, this project uses intersectional methodology to look at how identities of race, gender, class, and sexuality were constructed relationally within 1920s Harlem. The project explores how these permutations of identities influenced how individuals experienced Harlem's social spaces--including cabarets, speakeasies, and rent parties--as well as how queer African American individuals in particular navigated the power dynamic of spectator and spectated, and balanced exploitation and agency in order to lay claim to non-heteronormative genders and sexualities that would have otherwise remained impermissible.

Raymond, Brynn

Session 4.5 2:00-3:00 Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*: Roundtable 1: Queering Wao

Junior's Big Gay Crush: Queer Triangulation of Desire Through Speculative Fiction in *The Brief Wondrous Life of Oscar Wao*. The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name "Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

Reinhart, Erik

Session 3.9, 12:50-1:50, Eaton 105

Research from the Physics Seniors

Decoupling the Expansion of the Universe and Bulk Flows
Cosmologists assume that everywhere in the Universe is expanding at the same rate. While this is true looking at the universe on very large scales, this assumption leads to very large bulk motion of galaxies. The project focuses on a way to computationally model anisotropy in the expansion of the Universe on small scales, taking into account the void-, wall-, and web-like small scale features using simulated model Universes.

Rice, TeAnna

Session 5.2, 3:10-4:10, Eaton 307

Researching Salem, Oregon

Understanding the Forgotten: An Archival Look into the Fairview Training Center
This project explores the legacy of the Fairview Training Center, an institution for individuals with developmental disabilities located in Salem, Oregon. Since opening its doors on December 1, 1908, the Fairview Training Center faced many controversies and changes until its closure in 2000. Through archival research, this project aims to re-define the public's understanding of Salem's forgotten institution. Topics to be discussed will include residential activities, the development of educational programming, Fairview's significance in understanding mental health, the progressive correlation between community and institution, and a comparison of

Fairview's history to that of mental health.

Rieger, Kayla; Keller, Ben; Richey, Laura; Weinhold, Mckenzie

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Chemistry of Solar Energy
In this project we will discuss the process and importance of solar energy as a system to our energy and electricity systems. The photovoltaic effect, semiconductor, release of electrons, and how this system can create electricity will be explored in the research as well as the benefits of solar energy for people to install into their homes and businesses. This topic, has recently gained lots of attention for its benefits and our increased need for renewable energy sources. Through our findings we will also investigate why solar energy is the most efficient and why it will save our energy crisis.

Robinson, Rachel

Session 1.2, 9:30-11:00, Ford 304

Explorations in Discrete Mathematics

Convergence of Sequences of Polygons
In 1932, Martin Rosenman proposed the following problem in the American Mathematical Monthly: Let P be a closed polygon in the plane. Taking the midpoints of the sides of P and reconnecting them in the same order, we derive a new polygon $P^{\wedge}(1)$. Apply the same procedure to derive the polygon $P^{\wedge}(2)$. After n constructions, we obtain polygon $P^{\wedge}(n)$. Show that the sequence of polygons converges, as n goes to infinity, to the centroid of the original points of P . I will present various approaches to the solution of this and related problems. Class Research Experience for Undergraduates (NSF)

Rogers, Melissa; Halas, Paige; Sohn, Alicia; Wax, Sophia

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

Capturing Chemistry in Photography
Photography is a complex chemical process that captures our daily lives, affecting us in ways that we may not even realize. Our experience of seeing advertisements, art, and preserving memories wouldn't be the same without photography. This poster explores the chemical makeup of photographic film and the development and fixing process. Film contains crystals of silver halide salts; when light hits the crystal, an electron is separated from the halide anion. This electron reacts with the silver cation to give metallic silver in the development process, producing darker parts on the film. Photography is a universal chemical method of communication.

Rolin, Emily; Diaz, Rolando; Carnes, Rachel

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Legality of Oxycodone
Our presentation will compare two semi synthetic opioids, heroin (illegal) and oxycodone (legal). Through this, the current legality of oxycodone will be challenged. What will be highlighted are the near identical chemical structures of the compounds, which mimic the effects of the natural compounds they are synthesized from (morphine and thebaine, respectively). These similar chemical structures lead to similar effects in the body. They act in place of the body's natural compound that binds to receptors in the brain and release endorphins.

Ross, Elli

Session 2.1, 11:10-12:40, Ford 304

Speculative Fiction: Senior Seminar in Creative Writing

Cause and Effect: A Novella in Progress
After following her sister to England, Lizzie Patterson finds

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herself caught up in a bigger mess than she imagined. Her time travel abilities might help her out to an extent, but how much can they do? Lizzie is in over her head, trying to figure out which side she's really on and who to trust. This novella-in-progress follows Lizzie's narrative, exploring issues of gender, sexuality, and family. Part of a larger project, it and other novellas in the series will deconstruct the traditional, larger-than-life superhero narrative and turn it into something much more personal.

Ross, Madeline, soprano

Session 2.11 11:10-12:40, Hudson Hall

"Don Pasquale", "Quel guardo, il cavaliere....So anch'io la virtu magica," Gaetano Donizetti

Ruwitch, Margaret

Session 1.5 9:30-11:00 Collins 201

Moving Bodies: Studies in Exercise Science

Development of a Stepping Test That Challenges Motion in Older Adults
Control of Medial-lateral (ML) movement is a particular challenge with aging. The purpose of this study was to develop a clinical test of rapid stepping that challenges ML control, to potentially improve functional assessment of seniors. Thirty-nine participants aged 70 and older completed a stepping test involving rapid ML weight shifts by tapping each foot alternately onto a step in front of them rapidly for 20 seconds. Trunk acceleration was measured in three directions; measurements of acceleration magnitude and variability, step time, and step time variability were correlated with number of steps completed, making this approach potentially useful.

Samelson, Eric, piano; **Hall, Madison**, soprano

Session 2.11 11:10-12:40, Hudson Hall

"Cancion del naranjo seco," Federico Garcia Lorca

Sargeant, Robert

Session 3.1, 12:50-1:50, Eaton 211

Law and Power

Law & Power: The Creation Of King Henry II's English Common Law
This project explains how law can serve as an instrument for ensuring stability, which then translates into power; how in the 11th and 12th centuries, King Henry II took advantage of the intellectual renaissance of the time to create a legal system so effective it would give him the image required to control the vast Angevin Empire. It discusses how through providing the common people with a fair and visible code of rules, Henry II was able to preserve his control of an empire against neighboring enemies and the rival ecclesiastical courts.

Saunders, Jonathan

Session 4.1, 2:00-3:00, Ford 304

Violence, Meaning, Gender, and Identity

Jouissance: Meaning and Violence
Concentrated sites of violence are a human ubiquity – from prisons to gulags and concentration camps – in civilizations that seem to us both excessively evil and virtually benign. The process of integrating these sites of violence into our understanding of symbolic scaffolding such as nations or identities allows us new insight on the nature of violence itself. The result is, following in the footsteps of Lacan and Žižek, a theory of violence cast at the level of the symbol, subject, and society as an obscene, enjoyment laden communication of definition aimed at eliminating contingency and affirming the boundaries of the self.

Saunders, Jonathan; Riffenburg, Ravella; Betton, Forrest; Davis, Trevor

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

DMT: Dimethyltryptamine

DMT is a psychoactive hallucinogen in the tryptamine family synthesized from tryptophan, and is structurally similar to serotonin and melatonin. It is produced in the pineal gland in mammals and is found throughout the plant kingdom. DMT affects Serotonin5-HT1A, 5-HT2A and 5-HT2C receptors, the G-protein-coupled trace amine receptors – receptors thought to be responsible for other tryptamines' hallucinogenic effects, and is the only known ligand for sigma-1 receptors. The advantage of widespread presence of DMT among diverse species is unknown but speculated to be associated with religious experience in humans, as it is only reliably released during birth or near-death experiences

Sazima, Matt, piano; **Edging, Sean**, saxophone; **Shiple, Thomas**, bass; **Tracey, Jarrett**, drums

Session 3.11 12:50-1:50, Hudson Hall

The Dewey Decible System

"Blues for Phi,I, Matt Sazima (b. 1992)

":(" , Thomas Shiple (b. 1994)

"¾ out of ½ ", Sean Edging (b. 1992)

Schmal, Kendra

Session 2.10 11:10-12:40 Ford 302

Manipulating, Multiplexing and Visualizing: Studies in Computer Science

Building an Online Concordance for Project Gutenberg
A concordance lists all of the words used within a given text, and the frequency with which each word occurs. Some concordances also provide textual analysis, including topic frequency, word pairing frequency, etc. and serve as a valuable resource for classics, literary and linguistic scholars. Using a computer, producing a basic concordance (which provides word lists and frequency) is a relatively straightforward task, yet only a few digital concordances exist for non-biblical texts. My goal for this project is to produce a basic online concordance for Project Gutenberg, a free online database of over 42,000 public domain texts.

Schmal, Kendra

Session 6.6, 4:20-5:20 Ford 122

3D Visualization and Animation

Visualizing Wind Flow at H. J. Andrews Long Term Ecological Research Forest

The goal of this project is to create a wind visualization tool in WebGL, a Javascript API for rendering browser-based, 3D graphics. The project is being developed tangentially to the VISTAS Research Group based out of Evergreen State College in support of the Oregon State University-based VALCEX (Valley Circulation Experiment) project.

Schreiner-McGraw, Jeff

Session 1.2, 9:30-11:00, Ford 304

Explorations in Discrete Mathematics

Unipancyclic Matroid Theory

Matroid Theory is a wonderful abstraction of Graph Theory and Linear Algebra. Our project studied a family of objects within Matroid Theory called Unipancyclic Matroids. This talk will introduce listeners to the basics of Graph Theory, Linear Algebra and Matroid Theory and share some interesting results about Unipancyclic Matroids. Further, it will provide insight into the process of mathematical research and the importance of abstraction in mathematics.

ABSTRACTS

Schultz, Joslin

Session 2.3, 11:10-12:40, Eaton 209

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

The Power of Language in Public Policy: Naming and Anti-Racism

Oregon's tuition equity policy (HB 2787 in the 2013 regular session) was not written as an anti-racist policy, but the program it has turned into is anti-racist. The language of the bill was chosen to strike a balance between progressive policy, practicality, and appeasement of those who expressed concern about the bill in its previous forms. HB 2787 was approved because its language was constructed to gain political support so it could become an anti-racist policy.

Sewall, Emily; Parker, Racyne; Wulfing, Bridget

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Artem Oganov and Newly Discovered Sodium Chloride Compounds

Classical chemistry says that atoms obey the octet rule and become stable by attaining the electron configuration of the nearest noble gas. Artem R. Oganov took the basic compound of NaCl and discovered that with an excess of either sodium or chlorine, and at certain pressures and temperatures, this octet rule is not obeyed. To predict these compounds, Oganov used an evolutionary algorithm and was able to find various stoichiometric relationships between sodium and chlorine, which he then verified through experimentation. Oganov's discovery has many applications in modern science, and proves that supposedly cemented theories should continue to be explored.

Shipley, Thomas, bass; Tracey, Jarrett, drums; Sazima, Matt, piano;

Edging, Sean, saxophone;

Session 3.11 12:50-1:50, Hudson Hall

The Dewey Decible System

"Blues for Phi.I, Matt Sazima (b. 1992)

":(" , Thomas Shipley (b. 1994)

"¾ out of ⅓ ", Sean Edging (b. 1992)

Smith, Lark; Shepherd, Clair

Session 4.1, 2:00-3:00, Ford 304

Violence, Meaning, Gender, and Identity

Double Standards: The Man of Feeling and the Woman who Suffers

This project analyzes the dichotomy of expectations for men and women in the 18th century through Sentimental Fiction. It explores concepts such as gender, male privilege, decorum, and social values of the time through late 18th-Century English Literature. It will discuss the sexism of the age from a medical and historical perspective as well as through canonical novelists. The project is geared towards people interested in literature, history, and women's and gender studies.

Snur, Ami

Session 4.4, 2:00-3:00, Eaton 311

Psychology Symposium

Electrophysiological Indices of Economic Decision-Making in the Ultimatum Bargaining Game (UBG)

This project uses event-related brain potentials (ERPs) to examine the neural correlates of economic decision-making in the UBG. We sought to examine why participants' decisions in the UBG often deviate from the strategies predicted by classical economic theory. Results will focus on changes in the N350 component, believed to index decision complexity, and the P300, believed to index evaluation of reward satisfaction.

These components will be examined as a function of perceived alterability of offers, with results suggesting that participants' behavior may reflect strategic use of operant conditioning

techniques when offers are perceived as alterable.

Stratton, Amanda; Lee, Gunnar; Rogers, Sawyer; Smith, Brittany; Vetter, Kyler

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Biotin - The Forgotten Vitamin

Biotin is ubiquitous in the human body and is a component of every cell. A member of the water-soluble B vitamin complex, biotin goes by many names, including coenzyme R and vitamin H. Unlike many vitamins or supplements the conscious intake is unnecessary because it is available in many food sources. Biotin deficiency, though extremely rare, is a serious disorder that can be fatal if not treated. Biotin is utilized for carbon dioxide fixation in the Krebs cycle, the central metabolic pathway in all aerobic organisms. This poster will cover the structure and important biological functions of biotin.

Sulic, Chanel

Session 4.5 2:00-3:00 Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao* Roundtable 1:

Queering Wao

Queering Diaspora: White Hegemonic Masculinity and National Belonging in *The Brief Wondrous Life of Oscar Wao*

The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name "Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

Sumida, Chase; Duyar, Madeleine; Nagao, Lauren; Carias, Mikayla

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Depletion of Stratospheric Ozone

In this project, we will explore ozone (O₃), an allotrope of oxygen, and its depletion in the stratosphere. Because of its structure, ozone reacts with other elements and compounds, breaking up the ozone into oxygen. The ozone-depleting substances are free radicals, meaning they have an unpaired electron, which can bond with the ozone molecule. Stratospheric ozone is important because it protects Earth from ultraviolet radiation through absorption. We are choosing to study the depletion of the stratospheric ozone because we are interested in how the results of depletion negatively impact the human body, in terms of skin cancer and cataracts.

Sweeney, Joellen, soprano; Chase, Alec, tenor

Session 2.11 11:10-12:40, Hudson Hall

"Canticle II," Benjamin Britten

Sup, Derek; organ

Session 2.11 11:10-12:40, Hudson Hall

"Le Carillon de Westminster," Louis Vierne

Tait, Ethan; Herr, Kathryn; Rosenstein, Wendy

Session 2.1, 11:10-12:10 and Session 3, 12:50-1:50 Cat Cavern

Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Schizophrenic Success

Paliperidone is an antipsychotic which has drastically improved the treatment of schizophrenic patients today. This drug works

ABSTRACTS

in the brain by controlling the quantities of serotonin and dopamine by blocking their receptors and slowing the firing of neurotransmitters. This reduces hallucinations and the symptoms of schizophrenia, but does not cure it. The drug has been successful in helping those affected by schizophrenia to have normal, productive lives. Paliperidone is a complex molecule with a marked benefit for the schizophrenically impacted population. This poster will discuss the chemical structure and positive effects of paliperidone in the treatment of schizophrenia.

Tom, Matthew

Session 4.5, 2:00-3:00, Ford 201

Gender and Genre in *The Brief Wondrous Life of Oscar Wao*; Roundtable 1: Queering Wao

Impossible Identity: An Analysis of Queer Existence Within the Dominican Diaspora in *The Brief Wondrous Life of Oscar Wao*
The title of Junot Diaz's Pulitzer-winning novel invites queer reading: "Wao," a vaguely ethnic sounding cognate of the name "Wilde," marks Oscar's status as both sexual and racial outsider among his Dominican American peers at Rutgers University. It also offers Oscar a kind of queer literary belonging, beyond his immediate life in New Jersey. Participants in this first roundtable organized by the Humanities Senior Seminar on *Oscar Wao* deconstruct the intersections of race, gender, genre, sexuality and diaspora in the novel, from the racial and sexual "impossibility" of Oscar's identity to the cultural notions of American masculinity encoded in the speeches of Ronald Reagan, who held office during the era in which the novel takes place.

Townsley, Jasmine; Fortnam, Briana; Tibbetts, Clara; Fallon, Jewels
Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern
Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Prozacly What You Need

In the United States, the frequency at which antidepressants are prescribed has increased dramatically over the last thirty years. Antidepressant use has been correlated with a reduction in depressive symptoms; however, inquiries have been made into the effectiveness and safety of these drugs. Conflicting data over the benefits and detriments of antidepressants have caused an ongoing debate concerning their availability. Fluoxetine, more commonly known as Prozac, is central to this debate as it was one of the first antidepressants commercialized. The synthesis, physiological, and sociological concerns of fluoxetine will be addressed by this riveting poster presentation.

Tracey, Jarrett, drums; **Sazima, Matt**, piano; **Edging, Sean**, saxophone; **Shipley, Thomas**, bass

Session 3.11 12:50-1:50, Hudson Hall

The Dewey Decible System

"Blues for Phi,I, Matt Sazima (b. 1992)

":(" , Thomas Shipley (b. 1994)

"¾ out of ⅓ ", Sean Edging (b. 1992)

Tyndall, Will

Session 1.4, 9:30-11:00, Eaton 106

Asia Today and Tomorrow

Examining Healthcare Cost Efficiency in Japan

This project looks at the great success Japan has seen in controlling costs in healthcare. Japan is considered one of the healthiest developed countries, while maintaining a health-care budget of 8% of GDP, half that of the US. The presentation will examine Japan's government controlled fee schedule, internal spending, and other factors that make up its success.

Utne, Eli

Session 3.1, 12:50-1:50, Eaton 211

Law and Power

The Bioneers: Power, Structure, and Agency in the Environmental Movement

This research examines the roles of power, structure, and agency in the environmental movement as they pertain to the annual Bioneers Conference. This project has three, related, analyses: power as 'fertile ground' for the creation of the organization, the appropriation of the biological archetype as a structure for the conference, and the restriction of access to information as a limitation of agency. Ultimately, I offer an anti-authoritarian action anthropology that seeks to dislodge the stereotypes of modern environmentalism as elite and to provide alternatives to the current model of activist discourse.

Utne, Eli

Session 5.1, 3:10-4:10, Ford 304

Educational Alternatives: Rethinking the Journey

Are We There Yet? Service-Learning Across Space, Time, and Gender @ Willamette University

In this research I used participant-observation of a colloquium class to explore the relationship between the content and requirement of the service-learning course and the experiences of the students in conducting service as a requirement. I analyze the ways in which student's time serves as cultural capital, physical space as a barrier to academic pedagogy, and gender as a predictor of engagement coalesce to form a unique environment of service at Willamette and offer suggestions as to how engagement in service learning can be maximized in the future at Zena Farm and Forest.

Van Hook, Kelley; Ruwitch, Maggie; Jones, Catherine; McKendrick, Holly

Session 1.5 9:30-11:00 Collins 201

Moving Bodies: Studies in Exercise Science

The Effectiveness of Nitrate-rich Beetroot Supplements as an Ergogenic Aid in College-age Females

Nitric oxide regulates blood pressure and vasodilation, enhancing oxygen delivery. This study examined nitrate supplementation on six female subjects, aged 21.17 ± 0.753 years, who completed handgrip strength and VO₂ max tests before and after supplementation. No significant differences in handgrip strength and time to exhaustion were found ($p > 0.05$), although time to exhaustion generally improved. VO₂ max nearly significantly improved ($p = 0.055$), and respiratory exchange ratio (RER) significantly decreased ($p < 0.05$). Results were consistent with previous studies conducted on males. Nitrate supplementation can improve female VO₂ max performance. Larger population and gender comparisons are needed to further understand nitrates' effects.

Vanbuskirk, Caleb; Cook, Katherine; Waite-Himmelwright, Jackson; Radler, Seth

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern
Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

DDT: A Danger at High Yield and Low Cost

Dichlorodiphenyltrichloroethane, commonly referred to as DDT, was the subject of a major investigation in the '60s regarding its detrimental effects on the environment and human health. Because it could be produced cheaply at high yields, it was used in WWII to control vector-borne diseases such as malaria, and continues to be used today in developing regions such as Southern Africa. Our report will focus on both the chemistry of DDT and its adverse effects on the environment and human health.

ABSTRACTS

Vermilion, Lauren

Session 2.4, 11:10-12:40, Eaton 106

Human Rights, Environmental Justice, and Banana Wars

The World on Coke

Following the 1992 Dublin Conference, water was defined as an "economic good," and the Bretton Woods organizations required/encouraged countries to privatize their water rights. The Coca-Cola Company capitalized on this and purchased local water, over-extracting it, then undercutting the price of their bottled water with coke. This practice was detrimental to environmental and human health. As a result, indigenous grassroots organizations began protesting the corporation. However, not all of these groups were able to gain political access. My thesis looks into socio-political factors that led to a successful elimination of Coca-Cola in India, while Mexico remains its number-one consumer.

Vidrio Palomino, Maribel

Session 3.2, 12:50-1:50, Eaton 311

Northwest Nice? Understanding the Effects of Immigration Policy for Latin@s Today

Mixed Status Labor Organizing: Lessons we can learn from Pacific Northwest Braceros

Labor organizing is extremely difficult, particularly when not all workers hold the same immigration status. While living in a country that increasingly racializes and polices immigrants, Braceros in the Pacific Northwest were able to organize for the negotiation of worker conditions and pay. To begin understanding these experiences, I look at the Braceros case study as a way to examine past mixed-status organizing accomplishments. More specifically, the role this history plays for Pacific Northwest Latino forest workers, also known as Pineros, their possibilities for future organizing and change.

Villa, Kelley; Garcia, Felicia; Gutierrez, Blanca; Marquez Guerrero, Cristina

Session 3.8, 12:50-1:50, Hatfield Room

Indian Mascot Community Listening Project

Indian Mascot Community Listening Project

In May 2012, the Oregon State Board of Education banned Indian mascots. To promote dialogue at public high schools affected by the ban, our team was invited to develop the Indian Mascot Community Listening Project. Over a period of nine weeks during summer 2013, we traveled across Oregon to conduct archival research and interviews with various stakeholders from three communities. Our results, including a report and a forthcoming workshop in late April, reflect the deeply collaborative nature of our research design.

Villa, Kelley

Session 2.3, 11:10-12:40, Eaton 209

Resistance & Antiracism Praxis: Applying Ethnic Studies for Social Change

Oregon's Indian-Themed Mascots: Accounting for Markers of Continued Coloniality

In May 2012, the Oregon State Board of Education banned official Indian-themed mascots in public high schools. Fifteen communities are required to change their mascot by 2017, or risk losing state funding. I suggest that transitions away from these mascots remain inadequate until all stakeholders have working understandings of racism and settler colonialism. I interpret participant interviews, media, and government documents through Pauline Turner Strong's "mascot slot," arguing that Indian-themed mascots are racist markers of settler colonialism that help to relegate Native people to an allegorical, incomplete citizenship status through settlers' pseudo-ownership and commodification of Indian-themed mascots.

Vyhmeister, Kirsten; Van Kessel, Rachel; Romero, Marcos; Ayala, Jose

Special Session 2.13, 11:10-12:10 & Session 3.13, 12:50-1:50, Cat Cavern
Organic Chemistry Poster Session: Drugs, Plastics, and Poisons

Cannabidiol: A Lesser Known Cannabinoid

Cannabidiol (CBD) is a non-psychoactive compound isolated from the Cannabis sativa plant. Originally isolated by Roger Adams in 1940, CBD is used to treat seizures, schizophrenia, severe cases of epilepsy, and encephalopathies like Dravet Syndrome. It is very effective because of its anticonvulsant, sedative, antipsychotic, and neuroprotective properties as well as its lack of severe side effects. CBD attaches to cannabinoid receptors which regulate certain inflammatory responses and cognitive function. This poster will describe the synthesis of CBD, its chemical and medicinal properties, as well as its history and relevance to society.

Wahl, Danica

Session 4.3, 2:00-3:00, Ford 301

Victimization in the United States

Law Enforcement Agencies and the Use of a Victim-Centered Approach

Over the past 40 years, law enforcement agencies in the US have adopted the use of a victim-centered approach. Researchers show that victims do not always benefit from the use of this approach. Why then has this method spread? I examine several competing explanations. First, I focus on institutions and how laws like VAWA influence the spread of the approach. Next, I examine how social movements like the feminist and tough on crime movements affected the spread of this method. Finally, I analyze the prison industrial complex and how it accounts for the spread of the victim-centered approach.

Waltz, Shannon

Session 4.10 2-3, Ford 106

Waste, Risk, and Cash Transfers

The Effects of Conditional Cash Transfers on Maternal Health in India

This project examines the effectiveness of financial incentives designed to improve maternal health in India. It was inspired by a ground level research trip to Ranchi, India last summer and focuses specifically on institutional delivery rates and perinatal and postnatal maternal health. Review of current literature and qualitative observations expose a stark disconnect between the program's theoretical design and material implementation. In short, the inaccurate assumptions and conditions of the program's theoretical model render the program less effective in practice.

Wehe, Julia; Bars, Kersey; Hallberg, Juliette

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern

Basic Chemistry in the Real World Poster Session

Enzymes: The Chemistry of Their Structure and Function Within the Digestive System

In this presentation we will cover the structure and function of digestive enzymes. We chose to research digestive enzymes due to a mutual interest in health, as well as a fascination with how digestive enzymes aid the body in producing energy. After an explanation of digestive enzymes and how they function, we will explore different enzyme deficiencies, the causes behind them, and the resulting physiological effects on the body. We will examine the chemistry behind different enzyme deficiencies, and how these disorders affect people's everyday lives, such as lactose intolerance, Nieman-Pick Disease, Lysosomal storage disorders and Mucopolysaccharidoses. We will conclude by reiterating the importance of enzymes to human life and function.

ABSTRACTS

Weinhold, Mckenzie

Session 1.3, 9:30-11:00, Eaton 311

Crises in the USA

Can Urban Farming save American Cities before it is Too Late?

This project explores whether or not urban farming would be beneficial in eradicating food deserts and the problems that surround them: lack of health education, lack of local control, issues of poverty. Urban farming aims to solve these problems better than the simple addition of a grocery store to the food desert. In addition, urban farming policies and community gardens in US cities will be analyzed to see what action is not only best for these cities and their communities but also for possible national implementation.

West, Nathaniel

Session 1.3, 9:30-11:00, Eaton 311

Crises in the USA

America's Teaching Deficit

In America, only 23% of teachers graduated in the top third of their class cohorts. In a country that spends so much on education, why aren't the best and brightest going into teaching? This presentation will explore the cultural status of teachers and present a way to ensure that we are attracting top students into teaching.

Wiester, Nina; Gust, Charleen

Session 5.4, 3:10-4:10, Eaton 311

Psychology Poster Session

Surface and Depth in Personality: Behavioral and Motivational Aspects of the Big Five and Parallel Development across Two Years of College

Abstract under Gust, Charleen.

Willamette Jazz Ensembles

Special Evening Session, 7:30-9pm Willamette Jazz Ensembles In Concert, Rogers Rehearsal Hall

End the day with the Willamette University Jazz and Improvisational Music program as we feature five of our finest student jazz ensembles in a performance of original compositions and new arrangements. Program is approximately 90 minutes long.

Willamette Singers

Session 3.11 12:50-1:50, Hudson Hall

"Hey Jude," arr. by Matt Sazmina

"Sinking," arr. Matt Sazima

"Love, my old friend," arr. Matt Sazima

Wilsey, Alyssa

Session 5.9, 3:10-4:10, Eaton 106

Coping with Violence: Representing Trauma in the Contemporary Bildungsroman

Dark Waters: Exploring the Depths of the Young Psyche
My novella aims to create psychological stressors for a group of adolescents on the verge of their sexual awakening and embracing adulthood. While the plot is a suspense or horror fiction, the true focus for me as the author is on how young minds process psychological effects. Through the continuous narrative form and the creation of characters, I hope to embody emotional and mental complexities that readers connect to and sympathize with.

Wilson, Clark; Logan, Matthew; Thorn, Catherine

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

Effects of Adderall

Everyone knows someone who has used the drug Adderall in college. It's intended use is for people diagnosed with Attention

Deficit Hyperactivity Disorder but has been found to give benefits of focus and motivation to those without the disease. Because the drug causes an emotional high, it has grown in popularity and availability. The chemistry of ADHD, will be discussed and used to explain its effects on users. The main chemical in Adderall is an amphetamine which causes an increase in dopamine levels as well as other positive and negative effects that will be presented.

Wilson, Olivia; Kepple, Jeffrey; Manoukian, Greg

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

Women in Science

Women have impacted the science community since 2700 BCE. The field of science would not be the same without the help of three major scientists. Marie Curie, Rosalind Franklin, and Anna Jane Harrison have made great advancements in x-ray technology, DNA structure, and toxic smoke research. Throughout time, women have made large contributions to science, continuously breaking down inequality barriers. While men have generally dominated the science community, women have had significant impacts on the progress of science. All of these women's accomplishments have improved the science world by making groundbreaking discoveries that have shaped how we view science today.

Wirta, Rebecca

Session 5.7, 3:10-4:10, Putnam Theater

Frenzied Loneliness. A Theatrical Exploration of Belonging

Naomi in the Living Room

Naomi in the Living Room is a ludicrous comedy that explores themes of polarization, loneliness, and desperation in families. The play follows three family members, all of them attempting to cope with loneliness by reaching out to one another in different and ineffective ways. The play changes the concept of a typical family gathering as Naomi switches back and forth from welcoming hostess to hostile attacker. Naomi in the Living Room provides a commentary on the expectations, formations, and functions of a family unit, and how those expectations of perfection and normality can lead to absurd problems of polarization.

Yakubovsky, Yulya; Hu, Laura; Sia, Whitney; Barber, Bailey

Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern Basic Chemistry in the Real World Poster Session

Buckyballs

This poster will explore the structure of Buckyballs and how they're used to treat osteoporosis. Buckyballs are our subject of interest because we're curious to see how they're used to help cure patients. Buckyballs are carbon compounds that form a spherical shape, and have a hollow cavity. The hollowness and strength of their structure allows pharmacists to use Buckyballs to transport medicine to infected portions of a human's body. Buckyballs have impacted medicine through its capability to deliver drugs inside a human without breaking down inside the body. These sophisticated structures have impacted many individuals, treating and targeting various diseases.

Yi, Happiness; Choy, Deanna, marimba

Session 2.11 11:10-12:40, Hudson Hall

"2+1" Ivan Trevino (b. 1983)

Yoshioka, Kai

Session 3.5, 12:50-1:50, Ford 302

Japan Sustainability

Japan's Biophysical Limits to Economic Growth

The topic of this study is Japan's prospects for further economic growth in the context of current economic, demographic, and

ABSTRACTS

energy conditions, including the Lost Two Decades, the lowering birthrate and aging population, and Japan's post-Fukushima nuclear accident energy plan. I argue that the Japanese economy is near, if not at, its biophysical limits to growth as defined by Herman E. Daly in his 1987 publication "The Economic Growth Debate: What Some Economists Have Learned But Many Have Not," using classical and neoclassical economic theory in conjunction with population forecasts, modern Japanese history, and energy studies to support my claim.

Zelenak, Breanne; Jensen, Daniel; Clark, Kaiya; Acevedo, Alejandra
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

The Chemistry of Rocket Fuels

Various rocket propulsion energy sources, their chemical processes, and the history behind their developments are discussed. These energy sources include chemical, nuclear, electric, and solar. This presentation focuses on chemical rocket fuels, the most common form of modern day rockets. Solid rocket fuel was first used in 1232 in early Chinese fireworks, but it was not until 1932 that more efficient liquid fuel paved the way for space exploration via rocketry. Recent research has also developed gaseous and hybrid (combination liquid and solid) chemical rocket propellants. This poster presents specific combustion reactions for common solid, liquid, and hybrid rocket fuels.

Zetzsche, Lara; Silva, Valeria; Silva, Vanessa; Smithson, Russell
Special Session 2.12, 11:10-12:10 & Session 3.12, 12:50-1:50, Cat Cavern
Basic Chemistry in the Real World Poster Session

Sarin Gas

Sarin Gas is one of the most well known and most deadly chemical warfare agents ever used. With its most recent display of grotesque chemistry being on the Kurdish people in northern Iraq and the Tokyo terrorist bombings that occurred in the mid 1990s, this chemical agent is deadly and effective. Originally developed in 1938 in Germany as a pesticide, Sarin is a clear, colorless, and tasteless liquid that has no odor in its pure form. Sarin is so deadly because of its hazardous chemical reactions it causes in your brain as well as all throughout your nervous system.

Acknowledgements

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Kelley Villa

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David Craig

Stas Vysotsky

James Miley

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2013-2014 SSRD Committee

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