

Kinesiology

Committed to nurturing the development of the whole person—in body, mind, and spirit.

Diversity in Kinesiology
Lecture:

LEGACY MAKERS



This year marked the first diversity lecture sponsored by the Department of Kinesiology. The event, "Legacy Makers: Historical Narratives on Gender and Sport" was held on February 27 in the Anderson University Center. Student members of the Diversity in Sport and Exercise (DSE) Club played a significant role in helping set up and organize the event. The panel discussion was moderated by Dr. Colleen Hacker with a video introduction by Dr. Mann. And, our esteemed panelists, Judy Sweet and Sharon Taylor, both tireless gender equity advocates and former presidents of the National Association of Collegiate Women Athletic Administrators (NACWAA). Judy Sweet is the only woman to have served as NCAA membership president, was named one of the top 100 most influential sport educators in the U.S. and is co-Chair of the NCAA Gender Equity Task Force, as well as an ESPNW Advisory Board member and Title IX consultant. Sharon Taylor served on the

continued on page 2

Dr. Karen McConnell
and Asta Kvitne at
Vestfold campus.



Kinesiology embrace

STUDY AWAY

This past fall, **Associate Dean Karen McConnell** accompanied the Executive Director of the Wang Center, **Tamara Williams**, and Norwegian and Scandinavian Area Studies Associate Professor **Claudia Berguson** to Oslo, Norway, to explore options for Kinesiology students to engage in semester long study away programs. The trip included visits to three universities and the development of two new programs. Students can elect to study at the **University College of Southeast Norway** in Outdoor Life, Culture and Eco-philosophy at the Bo campus or Exercise and Health Management at the Vestfold campus.

The outdoor education program explores Norwegian perspectives on outdoor education and eco-philosophy and includes advanced instruction in a wide array of outdoor education and survival activities including kayaking, canoeing, sailing and mountaineering. This program is unique and provides an opportunity for any PLU student (not just Kinesiology majors) to learn fundamental principles of outdoor education from the Norwegian perspective while earning credit

toward a KINS major or minor. The second program is catered toward the Kinesiology major who wants to receive a more global perspective in the area of health and fitness promotion. Classes in this program focus on physical activity, health promotion and project development. Students are required to develop a health promotion program and to deliver it during a three-week practicum experience at the end of the term.

While the department has maintained a long-standing tradition of providing a January term study away course in New Zealand, opportunities for in-depth, semester-long study away in the major have been limited or difficult for students to find. In addition to the new Norway programs, the department has identified other opportunities for students in New Zealand, Australia, Scotland and Namibia. Study away opportunities are central to the mission of Pacific Lutheran University and the department strongly encourages students to explore the wide range of programs available through PLU.



Diversity in Kinesiology Lecture

continued from page 1

USOC Board of Directors and was president of USA Field Hockey along with more than 41 years in college athletics. Sharon has also received the NAGWS Pathfinder Award. Each panelist shared her own experiences in sport and leadership to highlight the history, significance, challenges and opportunities of Title IX.

The event was wildly successful with more than 100 students, faculty and administrators in attendance and even more participated via live stream or viewed the archived video of the event. Many students in attendance recognized the benefits of the "Legacy Makers" panel and valued the experience. Feedback from students suggested:

"It was such an eye-opening experience to be in the room with two of the most influential women who helped pave the way for women to have equal opportunity in sport," and "What really stuck in my mind was the fact that Title IX and its effects were so recent; all these accomplishments of great women were in the last 20 years." Students felt moved to action, stating, "These women gave me motivation...I owe it to future generations to fight for what's right and "I PROMISE that I will do what I can to continue what you began." Overall, the Legacy Makers event was a night to remember for students, faculty and administrators across campus.

Undergraduate Research SYMPOSIUM

On April 8, the university hosted the first annual Undergraduate Research Symposium. The symposium provided an opportunity for students to showcase their research and creative works with faculty in a multi-disciplinary format. Students from across campus participated and Kinesiology students were well represented in both the oral and poster sessions. Below are the students and their faculty mentors who participated in the event. **Congratulations to all presenters!**

Damion Baker, Kayla Obrero and Savannah Schumacher with Dr. Papadopoulos. *The Effects of Acute -Alanine Supplementation on Lactic Acid Clearance after Anaerobic Exercise*

Doug James with Dr. Papadopoulos. *Relationship Between Lactic Acid Concentration and Expiratory CO₂ During Exercise*

Lisa Hartwell and Micaela Bickel. *Effect of Stretching on Lactic Acid Clearance after Acute High Intensity Interval Training*

Steven Barber with Dr. Papadopoulos. *The Effect of Lower Body Fatigue on Balance in Young Adults*

Jessica Stenberg and Sarah Stafford with Dr. Katica. *Effectiveness of Cold-water Immersion and Recovery in Swimmers*

Kirsten Kenny, Ingrid Ericksen, Lisa Hartwell, Bianca Lindberg, and Sarah Hashman with Dr. Papadopoulos. *Mapping of Exercise Programs for Older Adults in Pierce County*

Morgan Commander and Jessica Stenberg with Dr. Hacker. *Imagery as a Mental Skills Tool for Collegiate Swimmers*

Kelsie Green and Jennifer Boldra with Dr. Hacker. *Guided Imagery for ACL Injury Rehabilitation*

Anna Hurd with Dr. McConnell. *The Effects of Dietary Phytoestrogens on Cancer*

ANNA HURD
Mentor: Dr. McConnell

The Effects of Dietary Phytoestrogens on Cancer

Anna Hurd, Pacific Lutheran University
Mentor: Dr. Karen McConnell

Introduction:

- Phytoestrogens are plant-derived hormonal compounds that act similarly to human estrogen.
- Phytoestrogens can mimic human estrogen functions or act as anti-estrogens because of their similar structure.
- Countries that consume the highest amounts of phytoestrogens in their diets also have the lowest rates of cancer.
- The effect of phytoestrogens on breast cancer is the most heavily researched cancer but lung cancer, gastric cancer and uterine fibroids have also been researched.
- In breast cancer, the phytoestrogens can stimulate growth of cancerous cells (mimic estrogen) or block the effects of estrogen by competing for the same receptors (anti-estrogenic).

| Isomones (products) | Lignans (fiber-rich products) |
|---------------------|-------------------------------|
| Soybeans | Legumes |
| Soy milk | Beans |
| Tofu | Whole grains |
| Tempeh | Flaxseed |
| | Vegetables |
| | Fruit |

Foods containing the highest amount of phytoestrogens in order are: nuts and oils; legumes, meat products, vegetables, fruit.

Evidence in Breast Cancer:

- Breast Cancer Prevention:**
 - There was a significant decrease of breast cancer risk when there was high consumption of phytoestrogens in women who were newly diagnosed with breast cancer (Ingram et al. 1997).
 - Increased consumption of isoflavones showed a decrease in mortality and recurrence of cancer in women (Cai et al. 2009).
- Breast Cancer Concentration Dependent Effects:**
 - Genistein and daidzein fueled tumor growth in ranges between 0.001-10µmol/L while genistein inhibited cell growth at concentrations greater than 10µmol/L (De Lemos, 2001).
 - Decrease in breast cancer cell growth in newly diagnosed postmenopausal women who ate a 25g flaxseed muffin daily versus women who ate placebo muffin (De Lemos & O'Brien, 2004).
- Menopause and Breast Cancer:**
 - Postmenopausal women had a 28% lower risk of dying due to breast cancer after increase of lignans in diet compared to premenopausal women that experienced a positive correlation of risk after increase of lignans (Dossus et al. 2015).
- Tamoxifen and Breast Cancer:**
 - At lower concentrations phytoestrogens counteract tamoxifen's tumor reduction but, at higher concentrations they enhance tamoxifen's tumor reduction effects (Jones, 2008).

Evidence in Other Cancers:

- Lung cancer:**
 - Soy foods significantly decreased risk of lung cancer only in non-smoking women (Koh, Lee, Seo, Wang & Yu, 2009).
 - There was no correlation between soy foods and the risk of lung cancer in smoking or non-smoking men (Koh, Lee, Seong, Wang & Yu, 2009).
- Gastric Cancer:**
 - Isoflavones in higher concentrations lowered risk of gastric cancer a large amount while lignans had no effect (Cho, Kang, Ko, Park, Park & Yang, 2010).
- Uterine Fibroids:**
 - At concentrations of less than 1µg/ml of genistein cell growth was stimulated but, at concentrations 210 µg/ml of genistein, apoptosis occurred (Castro, Di, Moore, Sifre, Yu & Zheng, 2007).

Conclusion:

Overall, in the different types of cancer studied it is suggested that at lower concentrations of phytoestrogens there is a proliferation of tumor cell growth and risk. Whereas, at higher concentrations there is a reduction of cancerous cell growth and risk. There is the potential that phytoestrogens are medicinal in regards to certain types of cancer.

Student Presentations

ACADEMIC CONFERENCES

Students present at regional meeting of the American College of Sports Medicine.



In addition to the symposium, several other events brought faculty and students together around research, programming and service.

STUDENT TEACHER PLACEMENTS

Josh Hornal - Thompson Elementary School, Bethel School District

Kayla Turcott - Black Hills High School, Tumwater School District

Ali Nausid-Nichols - Thompson Elementary School, Bethel School District

Casey Glass - Columbia Junior High School, Fife School District

Erika Wilson - Franklin Pierce High School, Franklin Pierce School District

Michael Hatlen - Washington High School, Franklin Pierce School District

Maurice Rodriguez - Bethel High School, Bethel School District

Faculty

ACCOLADES AND ACHIEVEMENTS

This year, **Dr. Colleen Hacker** was elected to **Distinguished Fellowship in the National Academies of Practice**. The National Academies of Practice is an inter-professional health care organization that requires nomination and selection into membership. Achieving fellowship in the Academy is a highly selective and substantial honor bestowed upon a very small number of professionals from specific health care professions each year. Dr. Hacker's Fellowship is in the Academy of Psychology. She is the only person from Pacific Lutheran University ever selected for the academy, and is the first and only sport psychologist in the nation honored. Congratulations Dr. Hacker!

Dr. Papadopoulos received the **ACSM NW Service Award** and was elected as **President of ACSM NW**. Congratulations, Dr. P.!

Dr. Mann and **Dr. Hacker** published an article titled, *Talking across*

the divide: Reflections and recommendations for context driven, cultural sport psychology in the Journal of Sport Psychology in Action.

Dr. Katica co-authored an article with former Kinesiology major **Alex Dasso** in the **International Journal of Exercise Science**. The title of the article is *"Differences between grab start and track start in collegiate swimmers"*.

Dr. Farrar presented a session titled, *"Creating an Inclusive Classroom Environment for Our LGBTQ Students"* and co-presented another session, *Physical Education Grading Philosophy: Link it to the State Standards* at **SHAPE Washington**.

Dr. Mann co-authored a chapter titled, *Fair Treatment in Sport* published in the **Reference Module in Neuroscience and Biobehavioral Psychology**.

Visiting Assistant Professor **Dr. Mara Nery-Herwitt** published the article titled, *Stakeholder evaluation of an*

online program to promote physical activity and workplace safety for individuals with disability in the journal **Evaluation and Program Planning**.

Dr. Hacker was featured on the **Olympic Channel** in a series called *Gold Medal Entourage*. The episode featuring Dr. Hacker's work with USA Women's Soccer is titled *The Mastermind Behind an Historic Win* and features commentary from legendary soccer star Mia Hamm.

Dr. Martin and **Ayla Schmick** have had their article *Assessing Student Knowledge and Incorporation of Smart Technology into Daily Physical Activity* accepted for publication in **The Physical Educator** and also presented the work at the **Applied Sport Psychology Annual Conference** in September. **Dr. Papadopoulos** published *Differences in Physical Activity and Built Environment Perceptions between Younger and Older*

continued on page 4

Faculty ACCOLADES AND ACHIEVEMENTS

continued from page 3

Adults Living in The Same Rural Environment in the International Journal of Public Health Sciences.

Dr. Hacker and **Dr. Mann** presented *Unleash the tiger in the mirror: Performance enhancement through imagery and confidence training* at the **National Coaching Conference**.

Dr. Papadopoulos received a grant from the **West Region Emergency Medical Service** for his project "Mapping Exercise Locations in Pierce County".

Dr. McConnell and **Dr. Farrar** added a new set of supplemental resources to their high school health book, *Health for Life* that included brand new student reading guides and lesson planning guides for teachers.



U.S.A.
ICE HOCKEY TEAM

Congratulations Dr. Hacker and TEAM USA.

2017 International Ice Hockey Federation Women's World Champions

Graduate School ADMISSIONS

Elizabeth Parkhurst
Emory University, Doctor of Physical Therapy

Kaelyn Voss
University of Western States, Doctor of Chiropractic

Jessica Stenberg
Eastern Washington University, Doctor of Physical Therapy

Anela Barber
Pacific Lutheran University, Master of Science in Nursing

Erika Bakner
Eastern Washington University, Master of Occupational Therapy

Hunter Cosgrove
Life Chiropractic College West, Doctor of Chiropractic

Joey Domek
Eastern Washington University, Doctor of Physical Therapy

Angela Fischer
Eastern Washington University, Doctor of Physical Therapy

Student AWARD WINNERS

Jessica Stenberg

SHAPE Major of the Year Award, 2016

Erika Wilson

SHAPE Washington Emerging Leader Award, 2016

Sam Geislinger

American Kinesiology Association Undergraduate Scholar of the Year Award, 2016

Faith Heimich

SHAPE Major of the Year Award, 2017

Charene Stovall

SHAPE Washington Emerging Leader Award, 2017

Elizabeth Parkhurst

American Kinesiology Association Undergraduate Scholar of the Year Award, 2017

Internships

PLACEMENTS 2017

Thanks to all of our external partners who have welcomed Kinesiology students this year!

Alliant Physical Therapy

Connor Schilling

ATI Physical Therapy

Dawn Brown

Katie Ecklund

Ilianexis Moret Diaz

Tram Nguyen

Buckley Fire Department

Darin Hardgrove

Curtis High School

Somsaron Pheth

Davidson Prosthetics

Wes Wynn

Elite Physical Therapy

Allison Denison

Courtney Kelley

Garth West

Falck Northwest (Fife)

Tim Mason

Griffin Golf LCC

Madison Lavergne

Ground Five

Darin Hardgrove

Somsaron Pheth

Kory VanderStaay

Mary Bridge Hospital

Morgan Commander

Meridian (PT)

Heather Ross

Meridian (RET)

Beau Lockmer

Metro Parks Tacoma/Star Center

Charles Brass

Jordan Lee

Mount Si High School

Sophie Rockow

MultiCare/Allenmore

Samantha Kelleigh

MultiCare/Good Samaritan

Kristin Kenney

Jessica Stenberg

MultiCare/Good Samaritan**(Cardiac Rehab)**

Jennifer Boldra

Tim Mason

MultiCare/Good Samaritan**(CTU)**

Jennifer Boldra

Lisa Hartwell

Jessica Stenberg

Multicare/Good Samaritan**(Orthopedics & Sport Medicine)**

Elizabeth Parkhurst

MultiCare/Tacoma General

Anela Barber

Ingrid Ericksen

MVP Physical Therapy

Erika Bakner

Suzanne Bjornson

Katie Ecklund

Leah Johnson

Madison LaVergne

**Olympic Sport and Spine
Rehabilitation**

Erika Bakner

Leah Johnson

Sarah Magee

**Adam Turley, Outpatient
Physical Therapy**

Jason Reveira

Pacific Wellness

Hunter Cosgrove

Michelle Michael

Kaelyn Voss

Parkland Pacific Dental

Savannah Schumacher

Pierce College

Steven Barber

Pinnacle Physical Therapy

Courtney Kelley

Tram Nguyen

PLU Athletic Training Room

Jeff Hendrix

Allison Lance

Proactive Sports Medicine

Allison Lance

**Providence St. Peter Hospital
(Cardiac Rehab)**

Anela Barber

Steve Barber

Puyallup Activity Center

Charles Brass

St. Joseph Medical Center

Joey Domek

St. Joseph (Inpatient Rehabilitation)

Elizabeth Parkhurst

Starfire MVP Sports Performance

Thea Cady

Samantha Kelleigh

Steilacoom High School

Steve Barber

Summit Physical Therapy

Connor Schilling

Summit Strength and Conditioning

Brady Daly

Richard Johnson

Tacoma Public Schools

Hannah Johnson

Garth West

Volt Athletics

Zachary Walther

West Pierce Fire & Rescue

Isak Visser

YMCA

David Gunnarson

Tanner Hummelt

Tim Kruse

Sarah Magee

Monique Morey

Anna Murnen

Adam Potts

Sam Song

Frances Steelquist

Isak Visser

Student Clubs

HIGHLIGHTS

**Kinesiologists of the
Future Club**

This year the Kinesiologists of the Future Club has hosted several whole-campus events; the 5K Turkey Trot and St. Patrick's Day Bake Sale. To promote academics, the club partnered with the Kinesiology tutor to put on open classrooms, brought in a graduate school admission counselor, and held a meeting in which current graduate program destined students gave advice about graduate school applications and interviews. Additionally, KFC members presented research and competed in the knowledge bowl at the NWACSM conference in Bend, Oregon

**CURRENT OFFICERS
(2016-17)**

Jessica Stenberg - President

Elizabeth Parkhurst - Vice President

Erika Bakner - Secretary

Charles Brass - Treasurer

Leah Johnson - Chief Officer

**ELECTED OFFICERS
(2017-18)**

Kristen Kell - President

Blakely Sanders - Vice President

Faith Heimlich - Secretary

Sarah Stafford - Treasurer

Jackson Conn - Chief Officer

**Diversity in Sport and
Exercise Club**

The 2016-17 academic year served as the first year of the Diversity in Sport and Exercise (DSE) club. **Founding student members included Danelle and Micaela Bickel.** The club worked together to help organize the Kinesiology department's first diversity lecture, "Legacy Makers." The group is also collaborating with Dr. Katica and the Special Olympics club to volunteer at the Washington State Special Olympics Spring Games.

Student

GRADUATES 2017

KINESIOLOGY
GRADS CELEBRATE
IN XAVIER



Congratulations to all of our Graduates!

Jessica C. Babbitt

Erika R. Bakner

Anela L. Barber

Steve B. Barber

Jennifer A. Boldra

Dawn E. Brown

Thea P. Cady

Morgan R. Commander

Hunter S. Cosgrove

Brady C. Daly

Joseph C. Domek

Katie E. Ecklund

Ingrid E. Ericksen

Angela M. Fischer

Cassandra J. Glass

David J. Gunnarson

Darin T. Hardgrove

Allyson R. Harris

Lisa A. Hartwell

Michael S. Hatlen

Jeffrey M. Hendrix

Joshua H. Hortal

Tanner O. Hummelt

Hannah T. Johnson

Leah R. Johnson

Courtney R. Kelley

Kirsten R. Kenny

Tim R. Kruse

Allison J. Lance

Madison N. LaVergne

Beau S. Lockmer

Sarah E. Magee

Timothy G. Mason

Monique S. Morey

Anna R. Murnen

Alexandrea N.
Nausid-Nichols

Tram T. Nguyen

Elizabeth C. Parkhurst

Somsaron S. Pheth

Adam D. Potts

Jason I. Reveira

Sophie E. Rockow

Maurice F. Rodriguez

Heather L. Ross

Connor M. Schilling

Sam C. Song

Jessica A. Stenberg

Kayla M. Turcott

Kory A. VanderStaay

Isak W. Visser

Mikhail G. Vlasenko

Kaelyn E. Voss

Matt J. Wehr

Garth A. West

Erika R. Wilson

Wesley J. Wynn

Graduation

CAPSTONES 2017

Literature REVIEW

Jessica Babbitt
Erika Bakner
Steve Barber
Jennifer Boldra
Thea Cady
Morgan Commander
Hunter Cosgrove
Brady Daly
Joey Domek
Ingrid Ericksen
Angela Fischer
Lisa Hartwell
Jeff Hendrix
Hannah Johnson
Leah Johnson
Courtney Kelley
Kirsten Kenny
Allison Lance
Madison LaVergne
Beau Lockmer
Sarah Magee
Monique Morey
Anna Murnen
Tram Nguyen
Elizabeth Parkhurst
Som Pheth
Jason Reveira
Sophie Rockow
Heather Ross
Sam Song
Jessica Stenberg

Kory VanderStaay
Kaelyn Voss
Matt Wehr
Garth West
Wesley Wynn

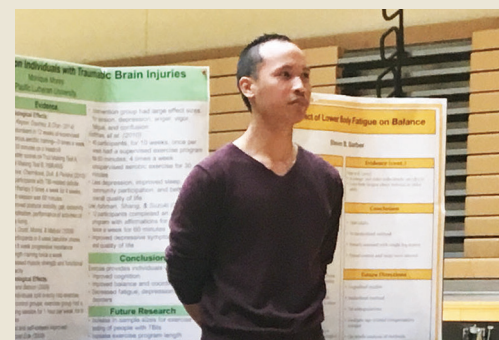
Demonstration of KNOWLEDGE AND EVIDENCE

Anela Barber
Dawn Brown
Katie Ecklund
David Gunnarson
Darin Hardgrove
Tanner Hummelt
Tim Kruse
Tim Mason
Adam Potts
Connor Schilling
Isak Visser

Education Teacher PERFORMANCE ASSESSMENT

Casey Glass
Michael Hatlen
Josh Horal
Ali Nausid-Nichols
Maurice Rodriguez
Kayla Turcott
Erika Wilson

Some Capstone MOMENTS



PLU Kinesiology on FACEBOOK

Just over a year ago, the department began a targeted effort to reach program alumni through a PLU Kinesiology Facebook page. The page started with an invitation to complete an alumni survey which was followed up with regular posting covering a range of faculty, student and alumni activities and achievements. This year several stories reached more than 800 views-the most viewed postings are highlighted on this page!



Join us in congratulating Dr. Colleen Hacker. She has been elected to Distinguished Fellowship in the National Academies of Practice.

**2,172 people reached; 67 likes
Posted: Jan. 25*



Congratulations to the 2017 Phi Kappa Phi Inductees: Morgan Commander, Elizabeth Parkhurst, Erika Bakner, Allison Denison, Doug James and Charene Stovall.

(not pictured: Faith Heimlich)



We're baaaaack! With 48 new first-year students and 16 transfers joining PLU Kinesiology

Dr. Hacker, Dr. McConnell, Dr. Mann, Dr. Nery, and Dr. Katika at Convocation this morning. (not pictured: Dr. Farrar and Dr. Papadopoulos) — at Pacific Lutheran University.

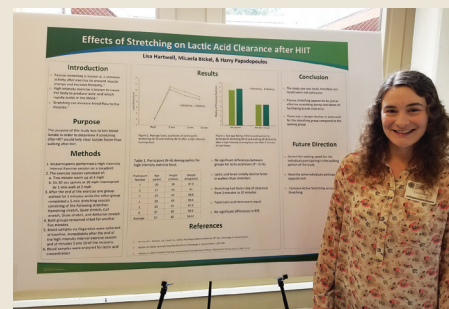
*1,126 people reached; 41 likes
Posted: Sept. 6, 2016*



Lisa Cole '97 became the First PLU Kinesiology alum to coach in a World Cup event.

Coach Cole was the head coach of the Papua New Guinea (PNG) U-20 women's team that competed in the FIFA U-20 World Cup in November!

**804 people reached; 27 likes
Posted: Jan. 30*



Kinesiology students presented their scholarly work (e.g., mental skills tools, nutrition research papers and their own primary research) at the first annual Undergraduate Student Research Symposium.

Congratulations to all of the presenters!

*829 people viewed; 24 likes
Posted: April 9*



PACIFIC LUTHERAN UNIVERSITY