Vanessa R. Yingling, Ph.D., FACSM

California State University, East Bay
Department of Kinesiology
25800 Carlos Bee Boulevard
Hayward, CA 94542

EDUCATION

Post-doctoral Fellow (1997-1999)
Washington University, School of Medicine
Department of Orthopaedic Surgery
Advisor: Matthew Silva, Ph.D.

Ph.D. Biomechanics, October 1997
University of Waterloo
Department of Kinesiology
Advisor: Stuart M. McGill, Ph.D.

M.S. Exercise Science (Biomechanics), 1993
State University of New York at Buffalo (SUNY)
Department of Physical Therapy and Exercise Science
Advisors: Scott White, Ph.D. & H. John Yack, Ph.D.

B.S. Bioengineering, 1991
University of California; San Diego
(Revelle College)

Additional Training

National Institute on Aging 2002 Summer Institute on Aging Research July 27- August 2, 2002

National Institute on Aging Technical Assistance Workshop:November 14 & 15, 2001

POSITIONS HELD

Professor September 2022- present
California State University, East Bay
Department of Kinesiology

Associate Professor September 2017- 2022
California State University, East Bay
Department of Kinesiology

Assistant Professor September 2013 - 2017
California State University, East Bay
Department of Kinesiology

Assistant Professor August 2006- 2013
Temple University
Department of Kinesiology
Temple University, School of Medicine
Department of Anatomy and Cell Biology

Assistant Professor: Sept. 2001 – 2006 (Tenured)
Substitute Line: Sept. 1999 – August 2001
Brooklyn College (CUNY)
Department of Physical Education and Exercise Science

Graduate Deputy Chairperson: January 2004- 2006
Brooklyn College (CUNY)
Department of Physical Education and Exercise Science

CURRENT POSITIONS HELD – PROFESSIONAL ORGANIZATIONS

Past Chair 2023: Society for Transparency Openness and Replication in Kinesiology - https://storkinesiology.org/

Associate Editor 2022: Journal of Science and Medicine in Sport

Fitness Gram Advisory Board 2022 – The Cooper Institute

AWARDS & SCHOLARSHIPS

Founding Member: Temple University Provost's Undergraduate Mentors, Fall 2012

Fellow of the American College of Sports Medicine, Fall 2009

Tow Faculty Travel Fellowship, Brooklyn College (CUNY), 2004

National Research Service Award (NIH): September 1997-1999

University of Waterloo Graduate Scholarship: (1995, 1996)

Mark Diamond Research Fund, Graduate Student Association
(SUNY at Buffalo, Granting Period: April 1993 - March 1994).

Research Scholar, University of California; San Diego (1990).

RESEARCH

INTERESTS

Osteoporosis is NOT a disease of the elderly, it is "*a pediatric disease with geriatric consequences*" and therefore, maximizing bone mass during growth is one strategy to prevent osteoporosis and fragility fractures later in life. However, there are currently no easy screening tools to determine a child's bone strength. Over 10 million children complete the FitnessGram®, a non-competitive health-related fitness assessment based on the scientifically established Healthy Fitness Zone, however, current tests do not include measures of bone health. A low cost easy to apply general screening tool is needed and should be integrated into schools, youth sport leagues, community centers and clinics.

RESEARCH GRANTS AND PROJECTS:

Mentor for the 2023 Beckman Scholars Award- Cal State East Bay

Undergraduate Research Experience Lead, McNair Post Baccalaureate Achievement Grant- Cal State East Bay- 2022-present

California State University East Bay,Faculty Support Grant for Mentoring Student Researchers- 2019-20 "Muscle Power and Bone Strength in Youth*"*

California State University East Bay,Faculty Support Grant for Mentoring Student Researchers- 2017-18 "Muscle Power and Bone Strength*"*

California State University East Bay,Faculty Support Grant for Mentoring Student Researchers- 2016-17
"Attentional Focus and its Effects on the Validity and Reliability of the MyJump App.''

California State University East Bay, Faculty Support Grant 2015-16
"Weight Bearing vs Non-Weight Bearing Loading and Bone Strength"

California State University East Bay, Collaborative Faculty Support Grant 2014-15
"Bone Functionality and Collegiate Athletes"

California State University East Bay, Faculty Support Grant 2014-15
"Bone Functionality and Collegiate Athletes"

N**ational Institute of Health NIAMS**; **R03 AR057518-01A1: Funded**
Impact/Priority Score: 21
Source: NIH - NIAMS
Title: "Delayed pubertal development on the mechanism of bone loss at maturity"
Goal: Therefore, our overall goal is to ascertain the affect of delayed pubertal development on the mechanism of bone loss at maturity.
Time Period: 09-2010 – 08-2013
Total Funding: $100,000.00
Role: PI

Source: NIH-NCRR 1S10RR026727-01
Title: "High resolution ex vivo micro-computerized tomography system."
Awarded: September 2010
Role: Major User: 7.5%

Title: The interaction of delayed puberty and exercise on peak bone strength accrual
Source: College of Health Professions, Dean's Incentive Grant
Time Period: 2006-07
Total Funding: $7500.00

Title: The effect of estrogen and exercise on bone strength
Source: CUNY Research Equipment Grant Program
Time Period: 2005
Total Funding: $40,000.00
Role: Co-PI

Title: The effect of delayed menarche on peak bone mass in rats.
Source: National Institute on Aging R15 AREA grant
Time Period: 2002 – 2005
Total Funding: $100,000.00
Role: PI

Title: The effect of estrogen and exercise on bone strength
Source: PSC CUNY Research Award Program 65282-00-34
Time Period: 2003 – 2004
Total Funding: $3700.00

Title: The effect of delayed menarche on peak bone mass in rats.
Source: PSC CUNY Research Award Program 64293-00-33

Time Period: 2002 – 2003
Total Funding: $4500.00

Student Grants:

2019 CSR Student Researcher Training Program (SRTP)

Grant supported research students up to 20 hours per week to work on research projects. Main focus is mentoring of undergraduate students.

Title: Effects of Short Term, High Impact Jumping on Bone Metabolism on Female College Age Non-Athletes
Source: CREATIVE ARTS, RESEARCH, AND SCHOLARSHIP (CARAS) PROGRAM
Time Period: 2009-10
Total Funding: $3500.00

Title: The effect on bone architecture and strength of food restriction in post-pubertal female rats.
Source: CREATIVE ARTS, RESEARCH, AND SCHOLARSHIP (CARAS) PROGRAM
Time Period: 2011-12
Total Funding: $3500.00

Title: The Effect of Delayed Puberty on Bone Strength Development.
Source: CREATIVE ARTS, RESEARCH, AND SCHOLARSHIP (CARAS) PROGRAM
Time Period: 2012
Total Funding: $3500.00

Teaching Grants:

Title: Alternative Textbook Project
Source: Teaching & Learning Technology Roundtable; Temple University
Total Funding: $1000.00

Title: Bones on the Road: A musculo-skeletal anatomy outreach program
Source: American Association of Anatomists (AAA) EDUCATION OUTREACH GRANT – 2011-2013
Co- PI's Dr. Haviva M. Goldman and Dr. Vanessa Yingling
Total Funding: $3000.00

PUBLICATIONS

PEER REVIEWED

Denys, A. T., Bugayong, J. C., *Juhala, C. C., *Ma, E. J.,* Kwong, S. M., & **Yingling, V. R**. (n.d.). *Predictors of Bone Strength in Healthy Male and Female Adults*. 27.[Preprint] SportRxiv. https://doi.org/10.51224/SRXIV.1 (ACCEPTED- Jan 2022- J Musculoskelet Neuronal Interact)

Twomey, R., **Yingling, V**., Warne, J., Schneider, C., McCrum, C., Atkins, W., Murphy, J., Romero Medina, C., Harlley, S., & Caldwell, A. (2021). The Nature of Our Literature: A Registered Report on the Positive Result Rate and Reporting Practices in Kinesiology. *Communications in Kinesiology*, *1*(3). https://doi.org/10.51224/cik.v1i3.43

Yingling, V., *Reichert, R.,*Denys, A., *Franson, P., *Espartero, K., *Alvarez, M. ., *Huynh, K., *Serrano Vides, K., & *Mazzarini, A. (2021). Peak vertical jump power predicts radial bone strength better than hand grip strength in healthy individuals . *Communications in Kinesiology*, *1*(2). https://doi.org/10.51224/cik.v1i2.13 (Original work published March 9, 2021)

Chellaiah, M. A., Moorer, M. C., Majumdar, S., Aljohani, H., Morley, S. C., **Yingling, V**., & Stains, J. P. (2020). L-Plastin deficiency produces increased trabecular bone due to attenuation of sealing ring formation and osteoclast dysfunction. *Bone Research*, *8*(1). https://doi.org/10.1038/s41413-019-0079-2

Yingling VR, Ferrari-Church B, Strickland A. 2018 Tibia functionality and Division II female and male collegiate athletes from multiple sports. *PeerJ* https://doi.org/10.7717/peerj.5550

Carson, J. A., Petrella, J. K., **Yingling, V**., Marshall, M. R., O, J., & Sherwood, J. J. (2018). Undergraduate Research in Kinesiology: Examples to Enhance Student Outcomes. *Kinesiology Review*, *7*(4), 305–313. https://doi.org/10.1123/kr.2018-0038

Yingling VR, Castro DA, Duong JT, Malpartida FJ, Usher JR, O J. 2018 The reliability of vertical jump tests between the Vertec and *My Jump* phone application. *PeerJ* https://doi.org/10.7717/peerj.4669

Yingling, V. R.; Webb, S.; Inouye, C.; O, J.; Sherwood, J. J. Muscle Power Predicts Bone Strength in Division II Athletes. *J Strength Cond Res* **2017**, 1657–1665. https://doi.org/10.1519/JSC.0000000000002222.

O, J., Sherwood, J. J., & **Yingling, V. R**. (2017). Undergraduate Research and Service-Learning Programs in a Kinesiology Program at a Teaching University. *Quest*, *69*(3), 331–347. https://doi.org/10.1080/00336297.2016.1226908

Yingling VR, Mitchell KA, Lunny M. (2016) Acute hypothalamic suppression significantly affects trabecular bone but not cortical bone following recovery and ovariectomy surgery in a rat model. *PeerJ* 4:e1575https://doi.org/10.7717/peerj.1575

Frara N, Abdelmagid SM, Sondag GR, Moussa FM, **Yingling VR**, Owen TA, Popoff SN, Barbe MF, Safadi FF. Transgenic Expression of Osteoactivin/gpnmb Enhances Bone Formation In Vivo and Osteoprogenitor Differentiation Ex Vivo. J Cell Physiol. 2016 Jan;231(1):72-83. doi: 10.1002/jcp.25020.

Reiger, Jamie, **Vanessa R. Yingling**, The Effects of Short-term Jump Training on Bone Metabolism in Females using Oral Contraceptives. Journal of Sports Sciences, 2015 34(3):259-266.DOI10.1080/02640414.2015.1048520

Forrester, Steven; Kawata, Keisuke; Lee, Hojun; Kim, Ji-Seok; Sebzda, Kelly; Butler, Tiffiny; **Yingling, Vanessa**; Park, Joon-Young, Bioinformatic Identification of Connective Tissue Growth Factor as an Osteogenic Protein within Skeletal Muscle. Physiological Reports, December 2014, Vol. 2, no. e12255, DOI: 10.14814/phy2.12255

Butler, Tiffiny A, **Yingling Vanessa R**, "The effects of delayed puberty on the growth plate." J Pediatr Orthop. 2013 Jan;33(1):99-105

Kohei Kishimoto, Ryan P. Lynch, Jamie Reiger, **Vanessa R. Yingling**, Short-term jump activity on bone metabolism in college female non-athletes. Journal of Sports Science and Medicine (2012) **11,** 31-38

Tracy Brennan, Naga Suresh Adapala, Mary F. Barbe, **Vanessa Yingling** and Archana Sanjay, "Abrogation of Cbl-PI3K Interaction Increases Bone Formation and Osteoblast Proliferation" Calcif Tissue Int. 2011 Nov;89(5):396-410. doi: 10.1007/s00223-011-9531-z. Epub 2011 Sep 28.

R.N. Joshi, F.F. Safadi, M.F. Barbe, Fe Del Carpio-Cano, S.N. Popoff and **V.R. Yingling**, "Different effects on bone strength and cell differentiation in pre pubertal caloric restriction versus hypothalamic suppression" Bone. 2011 Oct;49(4):810-8. Epub 2011 Jul 23

Judith Gold, Sc.D.; Jeffrey B Driban, PhD; **Vanessa R Yingling**, PhD; Eugene Komaroff, (2011) "Characterization of posture and comfort in laptop users in non-desk settings Appl Ergon. 2012 Mar;43(2):392-9. Epub 2011 Jul 2.

Saine, M.E., Barbe, M.F., Agah M.R., Yingling, V.R. (2011). Hypothalamic Suppression during Adolescence Varies By Bone Envelope. *Med. Sci. Sports Exerc.* 43(4):608-16. *(Aug 23, 2010 Epub ahead of print).*

Yingling, V. R., **Saine, M.E., Joshi, R.** (2009). Hypothalamic suppression decreases bone strength pre and post puberty in a rat model. *Calcified Tissue Int.* 84: 485-493
{Also cited in Progress in Osteoporosis Vol. 10, Issue 4, 2009}

Yingling, V. R. (2009). A delay in pubertal onset affects the covariation of body weight, estradiol and bone size in female rats. *Calcified Tissue Int.,* 84(4):286-296.

Yingling, V. R., Taylor, G., (2008). Delayed pubertal development by hypothalamic suppression causes an increase in periosteal modeling but a reduction in bone strength in growing female rats. *Bone*, 42(6), 1137-43.

Yingling, V. R., Y. Xiang, T. Raphan, M. Schaffler, K. Koser, R. Malique. (2007) The effect of a short-term delay of puberty on trabecular bone mass and structure in female rats: A texture-based and histomorphometric analysis. *Bone*, 40(2):419-424.

Y. Xiang**, Yingling, V. R**., T. Raphan, M.B. Schaffler, R. Malique. (2007) Comparative Assessment of Bone Mass and Structure Using Texture-Based and Histomorphometric Analyses., *Bone*, 40(2):544-552.

Yingling, VR , Khaneja, A. (2006) Short-term delay of puberty causes a transient reduction in bone strength in growing female rats. *Bone*. Jan;38(1):67-73

Wendy M. Kohrt, Ph.D., FACSM (chair), Susan A. Bloomfield, Ph.D., FACSM, Kathleen D. Little, Ph.D., Miriam E. Nelson, Ph.D., FACSM, and **Vanessa R. Yingling, Ph.D.,** American College of Sports Medicine Position Stand: physical activity and bone health.
Med Sci Sports Exerc. 2004 Nov;36(11):1985-96.

Yingling, VR, Davies, S, Silva,MJ (2001) The effects of repetitive physiologic loading on bone turnover and mechanical properties in adult female and male rats. *Calcif Tissue Int*. 68(4):235-239

Yingling VR, McGill SM (1999) Anterior shear of spinal motion segments. Kinematics, kinetics, and resultant injuries observed in a porcine model. *Spine* Sep 15;24(18):1882-9.

Yingling VR, McGill SM (1999) Mechanical properties and failure mechanics of the spine under posterior shear load: observations from a porcine model. *J Spinal Disord.* Dec;12(6):501-8.

McGill, S.M., **Yingling, V.R.** (1999) Traction may enhance the imaging of spine injuries with plane radiographs: Implications for the laboratory versus the clinic. *Clinical Biomechanics* 14(4):291-295.

Yingling, V.R., Callaghan, J.P., and McGill, S.M. (1999) The porcine cervical spine as a model of the human lumbar spine: An anatomical, geometrical and functional comparison. *J Spinal Disord.* Oct;12(5):415-23.

McGill SM, **Yingling VR**, Peach JP (1999) Three-dimensional kinematics and trunk muscle myoelectric activity in the elderly spine - a database compared to young people. *Clin Biomech* Jul;14(6):389-95.

Yingling, V.R., Callaghan, J.P., McGill, S.M. (1997) Dynamic loading affects the mechanical properties and failure site of porcine spines. *Clinical Biomechanics.* 12(5):301-305. {*Also reprinted in: Year book of Sports Medicine, Mosby Year Book, 1999.}*

Yingling, V.R., Yack, H.J., White, S.C. (1996) The effect of rearfoot motion on attenuation of the impulse wave at impact during running. *Journal of Applied Biomechanics.* 12:315-328.

UNDER REVIEW

PRE-PRINTS

Denys, A. T., Bugayong, J. C., Juhala, C. C., Ma, E. J., Kwong, S. M., & Yingling, V. R. (n.d.). *Predictors of Bone Strength in Healthy Male and Female Adults*. 27.[Preprint] SportRxiv. https://doi.org/10.51224/SRXIV.1 (Published- J Musculoskelet Neuronal Interact)

Yingling, V. R., Reichert, R., Denys, A., Franson, P., Espartero, K., Alvarez, M., Huynh, K., Vides, K. S., & Mazzarini, A. (2019). *Peak vertical jump power predicts radial bone strength*

better than hand grip strength in healthy individuals [Preprint]. SportRxiv. https://doi.org/10.31236/osf.io/2t39k (Published in CIK)

PRE-REGISTRATIONS

Vanessa Yingling, Jordan Garcia, Eden Yeh, Thomas Salazar, Michael White, David Arce, Alisia Sierras, Sita Naranjan. Association between muscle power and bone strength in healthy populations: a systematic review and meta analysis. PROSPERO 2021 CRD42021291621 Available from: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42021291621

IN PROGRESS

The National Osteoporosis Foundation (NOF) and the American College of Sports Medicine (ACSM) "Effect of Physical Activity and Exercise on Bone Health Across the Lifespan" Position Stand- Member of the Writing Group- Sections Submitted (Animal Models, Peak Bone Mass &. Falls, Sleep & Bone)

THESIS AND DISSERTATION

Dissertation (1997): Shear loading of the lumbar spine: Modulators of motion segment tolerance and resulting injuries.

Master's Thesis (1993): The effect of rearfoot motion on the attenuation of the impulse wave and impact during running.

ABSTRACTS

* Students (Graduate and Undergraduate)

Vanessa Yingling Ellen Fung, Elliott Vichinsky, Janet Kwiatkowski "Bone strength dependent on robusticity in young female and male patients with Thalassemia " Presented at the International Conference on Children's Bone Health July 2022.

Vanessa Yingling, PhD, *Emily J. Van Horn, *Michael Sam,.Kathleen F Janz, EdD "Variation in skeletal robustness is an important determinant of bone strength in youth and young adults in both males and females" Presented at the International Conference on Children's Bone Health July 2022.

*Michael Sam, *Emily J. Van Horn, Vanessa Yingling, FACSM. "Bone robusticity values - non weight bearing vs weight bearing bones: The Iowa Bone Development Study" Presented at the 69th Annual Meeting of the American College of Sports Medicine May 2022.

*Emily J. Van Horn, *Michael Sam, Vanessa Yingling, FACSM. "Male vs Female Robusticity and Bone strength pre and post puberty: Iowa Bone Development Study" Presented at the 69th Annual Meeting of the American College of Sports Medicine May 2022.

*Sena Harlley, *Claudia Romero-Medina, *Daniel Den Briones, *Jorge Gonzalez, Vanessa Yingling, FACSM. “Radial Strength Differences In Trabecular Bone In Female Volleyball Players Compared To Controls” Presented at the American College of Sports Medicine Virtual Conference June. 2021.

*Claudia Romero Medina, *Sena Harlley, Vanessa R. Yingling, FACSM, *Daniel Den Briones, *Jorge Gonzalez. “Side-Side Radial Strength Differences In The Cortex In Female Volleyball Players Compared To Controls” Presented at the American College of Sports Medicine Virtual Conference June. 2021.

*Candace C. Juhala, *Andrew T. Denys, *Jastine C. *Bugayong, *Eric J. Ma, *Sarah M. Kwong, *Katelyn E. Carvalho, Vanessa R. Yingling, FACSM. “Peak Power And Body Mass As Indices Of Bone Loading In A Healthy Adult Population” Presented at the American College of Sports Medicine Virtual Conference June. 2021.

*Juhala, Candace C., *Denys, Andrew T. M.S., *Bugayong, Jastine C. B.S., *Ma. Eric J., *Kwong, Sarah M. B.S., *Carvalho, Katelyn E. B.S., Vanessa R. Yingling Ph.D, FACSM “*Peak Power and Body Mass as Indices of Bone Loading in a Healthy Adult Population*” Presented at the South West American College of Sports Medicine (SWACSM) Virtual Conference, October-November 2020.

*Joaquin Tabera, *Stephanie Cromwell, *Rosarin Saraburin, *Derrek Lee, Vanessa R. Yingling Ph.D. FACSM. “*Myth Busters: Analyzing and Evaluating Scholarly Journal Articles for Credible Evidence*” Presented at the Western Society for Kinesiology and Wellness Virtual Conference, October 2020.

*Claudia Romero-Medina, *Daniel Den Briones, *Jorge Gonzalez, *Sena Harlley, Vanessa R. Yingling Ph.D. FACSM “Female Volleyball Players: A within-subject controlled model of the lower limb” Presented at the American Society of Bone and Mineral Research Virtual Conference, September 2020

*Claudia Romero-Medina, *Daniel Den Briones, *Jorge Gonzalez, *Sena Harlley, Vanessa R. Yingling Ph.D. FACSM “Bilateral Bone Strength Differences in DII Female Volleyball Players (Pilot Study)” Presented at the American College of Sports Medicine Virtual Conference, June 2020

*Claudia Romero-Medina, *Daniel Den Briones, *Jorge Gonzalez, Vanessa R. Yingling Ph.D. FACSM “Bilateral Bone Strength Differences in DII Female Volleyball Players (Pilot Study)” Presented at the South West American College of Sports Medicine (SWACSM) Conference, Newport Beach, CA October 2019

Kirstie Huynh*, Karen Serrano Vides*, Kimberly D. Espartero*, Andrew Denys*, Rebekkah J. Reichert*, Maria G. Alvarez*, Priscilla Franson*, Arianna M. Mazzarini*, Vanessa R. Yingling Ph.D. FACSM Lower Limb Peak Power and Cortical and Trabecular Bone Strength in the General Population. Presented at the 66th Annual American College of Sports Medicine (ACSM) Conference, Orlando, FL May 2019

Cristopher Lara*, Candace Juhala*, Jose Alvarez*, Bianca Lagamon*, Angel Quintero*, Adam Murphy*, Cameron LeBato*, Shruti Bali*, Vivy Hua*, Derrick Gardner*, Marcela Fernandes-Alvez*, Vanessa R Yingling, James Mouat IV. Relationship Between Cumulative Training Loads and Treatments of Division II Swimmers. Presented at the 66th Annual American College of Sports Medicine (ACSM) Conference, Orlando, FL May 2019

*Huynh, Kirstie; *Vides, Karen Serrano; *Espartero, Kimberly; *Reichert, Rebekkah; *Alvarez, Maria; *Franson, Priscilla; *Mazzarini, Arianna; *Denys, Andrew; Yingling, Vanessa “Perceived Quantity of Physical Activity as a Reflective Measure in Muscle and Bone Strength”. Presented at the 66th Annual American College of Sports Medicine (ACSM) Conference, Orlando, FL May 2019

*Vides, Karen Serrano; *Huynh, Kirstie; *Espartero, Kimberly; *Reichert, Rebekkah; *Alvarez, Maria; *Franson, Priscilla; *Mazzarini, Arianna; *Denys, Andrew; Yingling, Vanessa “Middle School Recreational Sport Participation as a Determinant of Adult Muscle and Bone Strength”. Presented at the 66th Annual American College of Sports Medicine (ACSM) Conference, Orlando, FL May 2019

Bianca Lagamon*, Angel Quintero*, Derrick Gardner*, Vanessa R. Yingling, James Mouat IV. “Relationship Between the Perceived Training Loads of Division II Swimmers and Coaches” Presented at the 66th Annual American College of Sports Medicine (ACSM) Conference, Orlando, FL May 2019

Bianca Lagamon*, Angel Quintero, Adam Murphy*, Cameron LeBato*, Shruti Bali*, Vivy Hua*, Sujata Rai*, Derrick Gardner,* Cristopher Lara*, Jose Alvarez*, Nicole Kahur*, Sandra Ruiz*, Arianna Mazzarini*, Marcela Fernandes-Alvez*, Alejandro Acosta*, Vanessa R Yingling, James Mouat. Relationship Between the Perceived Training Loads of Division II Swimmers and Coaches Presented at the South West American College of Sports Medicine (SWACSM) Conference, Costa Mesa, CA October 2018

Kirstie Huynh*, Karen Serrano Vides*, Kimberly D. Espartero*, Andrew Denys*, Rebekkah J. Reichert*, Maria G. Alvarez*, Priscilla Franson*, Arianna M. Mazzarini*, Vanessa R. Yingling Ph.D. FACSM Lower Limb Peak Power and Cortical and Trabecular Bone Strength in the General Population. Presented at the South West American College of Sports Medicine (SWACSM) Conference, Costa Mesa, CA October 2018

Priscilla Franson*, Kimberly D. Espartero*, Andrew Denys*, Maria G. Alvarez*, Arianna M. Mazzarini*, Rebekkah J. Reichert*, Vanessa R. Yingling,FACSM “Lower Limb Peak Power As A Predictor Of Radial Trabecular Bone Strength” Presented at 65th Annual American College of Sports Medicine (ACSM) Conference, Minneapolis MN May 2018

Rebekkah J. Reichert*, Maria G. Alvarez*, Andrew Denys*, Kimberly D. Espartero*, Priscilla Franson*, Arianna M. Mazzarini*, Vanessa R. Yingling, FACSM “Bone Strength Differences According to Peak Power Norm Table Categories” Presented at 65th Annual American College of Sports Medicine (ACSM) Conference, Minneapolis MN May 2018

Kimberly D. Espartero*, Andrew Denys*, Maria G. Alvarez*, Priscilla Franson*, Arianna M. Mazzarini*, Rebekkah J. Reichert*, Vanessa R. Yingling, FACSM “Common Muscle Tests As Related To Trabecular Bone Strength In Division II Athletes.” Presented at 65th Annual American College of Sports Medicine (ACSM) Conference, Minneapolis MN May 2018

Vanessa R. Yingling, *Rebekkah Reichert, *Andrew Denys, *Lily Azadi, *Kimberly Espartero, *Priscilla Franson. Muscle function tests as field measures of tibial bone strength. Oral Presention at International Workshop on Musculoskeletal and Neuronal Interactions 2017. Montreal Canada.

*Andrew T. Denys, *Rebekkah J. Reichert, *Philip Richardi, *Ariana Strickland, *Benjamin Ferrari-Church, Vanessa Yingling, FACSM “Measurement of Radial Bone Strength as Related to Common Muscle Function Tests in College Athletes” Presented at 64th Annual American College of Sports Medicine (ACSM) Conference, Denver CO May 2017

*Rebekkah J. Reichert, *Andrew Denys, *Sherah McCurdy, Vanessa R. Yingling, FACSM. “Muscle Function Tests as Field Measures of Tibial Bone Strength” Presented at 64th Annual American College of Sports Medicine (ACSM) Conference, Denver CO May 2017

*Justin Usher, *Rajab Imtair, *Dimitri Castro, *Evranjeet Brar, *Julio Gomez, Vanessa Yingling, FACSM, Jenny O. “Vertical Jump Height Measurements: Correlation Between Vertec And My Jump App.” Presented at 64th Annual American College of Sports Medicine (ACSM) Conference, Denver CO May 2017

*Rajab Imtair, *Justin Usher, *Dimitri Castro, *Evranjeet Brar, *Julio Gomez, Vanessa Yingling, FACSM, Jenny O. “The Influence Of Attentional Focus Cueing On Jumpandreach Performance” Presented at 64th Annual American College of Sports Medicine (ACSM) Conference, Denver CO May 2017

Sherwood, J.J., Cox-Tomich, L., Yingling, V.R. Bone health for 6 kids. Panel presented at California Association for Health, Physical Education, Recreation and Dance (CAPHERD) Conference, San Diego, CA February 2017

*Usher, Justin; *Castro, Dimitri; *Brar, Evranjeet; *Imtair, Rajab; *Gomez, Julio; Yingling, Vanessa; O, Jenny "The Influence of Attentional Focus Cueing on Jump-and-Reach Performance. Southwest Chapter American College of Sports Medicine 36th Annual Meeting. Costa Mesa, CA. October, 2016

*Reichert, Rebekkah J. *Denys, Andrew , *McCurdy, Sherah , Yingling, Vanessa R. FACSM "Measures of Muscle Function as Related to Bone Strength" Southwest Chapter American College of Sports Medicine 36th Annual Meeting. Costa Mesa, CA. October, 2016

*Ariana Strickland, Vanessa R. Yingling,
Bone Functionality and Division II Male and Female Collegiate Athletes from Multiple Sports Presented at 63rd Annual American College of Sports Medicine (ACSM) Conference, Boston, MA June 2016

*Dimitri Castro, *Ariana Strickland, Vanessa R. Yingling,High Impact Loading Vs Repetitive Non-impact L oading And Radial Diaphysis Structure Presented at 63rd Annual American College of Sports Medicine (ACSM) Conference, Boston, MA June 2016

*Evranjeet Brar, *Benjamin Ferrari-Church, *Sundeep Bhangu, Vanessa Yingling, My Phung (Jenny) O. Physical and Sedentary Activity in a College Population: The influence of undergraduate major and gender Presented at 63rd Annual American College of Sports Medicine (ACSM) Conference, Boston, MA June 2016

*Gonzalez-Mejia, J., Webb, S., Sherwood, J., *Brizendine, E., **Yingling, V**., *Lansangan, S., *Tran, T., & Inouye, C. Ventilatory Threshold Correlates with Autonomic Function in Endurance-Trained Young Men and Women. Presented at 62nd Annual American College of Sports Medicine (ACSM) Conference, San Diego, CA, May 2015.

*Ferrari-Church, B., *Strickland, A., *Brizendine, E., *Tran, T., Webb, S., **Yingling, V**., Inouye, C., & Sherwood, J. Cardiovascular Autonomic Function Correlates with Bone Health Indices in Collegiate, Cross Country Runners. Presented at 62nd Annual American College of Sports Medicine (ACSM) Conference, San Diego, CA, May 2015.

*Strickland, A., *Ferrari-Church, B., *Brizendine, E., Webb, S., *Yang, D., Inouye, C., Sherwood, J., & **Yingling, V**. Bone Functionality and Collegiate Cross Country Athletes. Presented at 62nd Annual American College of Sports Medicine (ACSM) Conference, San Diego, CA, May 2015.

*Richardi, P., *Strickland, A., *Ferrari-Church, B., *Yang, D., Webb, S., *Tran, L., *Rigdon, S., Inouye, C., **Yingling, V**., & Sherwood, J. Measures Of Muscle Function As Related To Bone Strength. Presented at 62nd Annual American College of Sports Medicine (ACSM) Conference, San Diego, CA, May 2015.

Vanessa Yingling, Rita Liberti, Benjamin Ferrari-Church. "Gendering Skeletons: A Textual Analysis of the *Best Bones Forever* Campaign" 90th Annual Conference Western Society for Physical Education of College Women, Pacific Grove, CA. November 2014.

Goldman, H.M & **Yingling, V.R**. "Bones on the Road:" Development and Implementation of a skeletal anatomy outreach program serving elementary and middle school students in the School District of Philadelphia" American Association of Anatomists Regional Meeting 2014, Philadelphia, PA.

O. J., Sherwood, J.J., **Yingling, V. R**. (2014) Partnering Undergraduate Research and Service Learning Programs at a Teaching University. In Dominguez, N. & Gandert, Y. (Eds.). 7th Annual Mentoring Conference Proceedings: Development Networks: Mentoring & Coaching at Work, Albuquerque, NM: University of New Mexico.

VR Yingling, TA Butler, K. A.Mitchell; M. Lunny; "Acute hypothalamic suppression does not affect bone loss at maturity." 2014 American College of Sports Medicine (ACSM) Orlando, FL May 2014

Steven Forrester, Hojun Lee, Keisuke Kawata, Ji Seok Kim, **Vanessa R. Yingling** and Joon-Young Park,

"Bioinformatic Identification of CTGF as an Osteogenic Protein Expressed within Human Skeletal Muscle", 2014 American College of Sports Medicine (ACSM) Orlando, FL May 2014

TA Butler, A McCoy, M Lunny, **VR Yingling** "**Food Restriction Post Puberty is Positive For Bone Structure Long Term**." 2013 American College of Sports Medicine (ACSM) Indianapolis, IN June 2013

TA Butler, **VR Yingling** "Caloric Restriction during Growth, Serum Irisin and Bone Mass loss at Maturity." 2013 American Society of Bone and Mineral Research Annual Meeting Baltimore, MD

Nathanael Raber, Cushla McGoverin, Kathleen Axen, Kenneth Axen, Nancy Pleshko, **Vanessa Yingling** "Infrared Spectroscopic Assessment of Bone Mineral Differences Induced by Diet" Orthopaedic Research Society 2013 Annual Meeting January 26-29, San Antonio, Texas

Vanessa R. Yingling, Kathelyne M. Pichardo, Allison Kaplan, Madon Maile, Kathleen Axen "Effects of Dietary Fat on Bone Histomorphometry." XIIth Congress of the International Society of Bone Morphometry October 16-19, 2012 Minneapolis, MN,

KA Mitchell, A McCoy, M Lunny, **VR Yingling** "Caloric Restriction Attenuates Bone Loss during Hypothalamic Suppression." 2012 American Society of Bone and Mineral Research Annual Meeting Minneapolis, MN. Oct. 2012

TA Butler, A McCoy, **VR Yingling** "The Effects of Post Pubertal Food Restriction on Bone Strength." 2012 EFF/ASBMR Sixth Fellows Forum on Metabolic Bone Disease, Minneapolis, MN

KA Mitchell, A McCoy, M Lunny, **VR Yingling** "Caloric Restriction Attenuates Bone Loss during Hypothalamic Suppression." 2012 American Society of Bone and Mineral Research Special Topics Meeting (Bone and Skeletal Muscle Interactions) Kansas City, MO. July 2012

TA Butler, A McCoy, **VR Yingling** "The effects of post pubertal food restriction on bone strength." 2012 American College of Sports Medicine (ACSM) San Francisco, CA June 2012

KA Mitchell, A McCoy, M Lunny, **VR Yingling** "The effects of calorie restriction and hypothalamic suppression on bone strength during puberty." 2012 American College of Sports Medicine (ACSM) San Francisco, CA June 2012

Kathleen Axen, Vanessa Yingling, Joseph Vasselli, Tiffiny Butler, Julie Roddy, Kenneth Axen, "Effects of Dietary Fat and Vitamin D on Adipose Tissue and Bone Development in Female Weanling Rats, Obesity 2011–Annual Scientific Meeting of – The Obesity Society, Orlando, FL.

Butler TA, **Yingling VR** * FACSM, Axen KV ~ "The Effect of High Fat and Low Fat Diet on Bone Structure and Strength During Puberty." 2011 American College of Sports Medicine (ACSM) Denver, CO June 2011

Butler TA, **Yingling VR** * FACSM, Axen KV ~ "The Effect of High Fat and Low Fat Diet on Bone Structure and Strength During Puberty." GNYRC ACSM 2010

M Rastgar Agah & **VR Yingling**, "Evaluation of Frost's 3-way rule equation for bone adaptation to mechanical stimulation." American Society of Biomechanics Providence, Rhode Island, August 18-21, 2010.

VR Yingling, T Raphan, Y Xiang "Texture Analysis of Bone Architecture in a Low Estrogen Post Pubertal Model." American Society for Bone and Mineral Research ASBMR 32th Annual Meeting, Toronto, Ontario Canada October 15-19, 2010

Seigenfuse, MD, Goldman, HA, **Yingling, VR**. "Delayed Puberty Results in Decreased Percentage of Lamellar Bone and Decreased Mechanical Strength in Female Rats" 2010 American College of Sports

Medicine (ACSM) Baltimore, MD June 2010

VR Yingling, M.E. Saine "No periosteal response post puberty saves bone strength." 56th Annual Meeting of the Orthopaedic Research Society New Orleans, Louisiana March 6 - 9, 2010

VR Yingling, M.E. Saine "Periosteal response to hypothalamic suppression during growth is maturity dependent." American Society for Bone and Mineral Research ASBMR 31th Annual Meeting, Denver, Colorado September 11-14, 2009 Plenary Poster

VR Yingling, R Joshi "Energy restriction does not affect bone strength during puberty."
American Society for Bone and Mineral Research ASBMR 31th Annual Meeting, Denver, Colorado September 11-14, 2009

T Butler, **VR Yingling** "The Effect of Delayed Puberty on the Growth Plate" National Athletic Trainers' Association. June 2009. San Antonio, Tx.

R Joshi, **VR Yingling** Environmental Perturbations during Puberty and Bone strength.
College of Health Professions Day, Temple University, April 16th, 2009.

T Butler, **VR Yingling "**The Effect of Delayed Puberty on the Growth Plate".
College of Health Professions Day, Temple University, April 16th, 2009. *Meritorious Poster Award Winner*

M.E. Saine, **V.R. Yingling** "*The Effects of Suppressed Gonadotrophin-Releasing Hormone on Femoral Cortical Bone Structure in Growing Female Rats"* Temple Undergraduate Research Forum and Creative Works Symposium (TURF-CreWS) March 25, 2009.

M.E. Saine, **V.R. Yingling** *The Effects of Suppressed Estradiol on Femoral Cortical Bone Structure in Growing Female Rats.* 78th Annual Meeting of the American Association of Physical Anthropologists. Chicago, Illinois, March 31-April 4, 2009.

R Joshi, **VR Yingling** Environmental Perturbations during Puberty and Bone strength.
4th Asia West Pacific regional conference of World Confederation for Physical Therapy (WCPT), Mumbai, India, January 22-25, 2009.

T. Brennan[1], S. Adapala[1], **V. Yingling[2]**, F. Safadi[1], S. Popoff[1], P. Marie[3], M.Barbe[1] and A.Sanjay[1]
Abrogation of Cbl-PI3K interaction increases bone volume and osteoblast proliferation. American Society for Bone and Mineral Research ASBMR 30th Annual Meeting, Montreal, QB. September 12-16, 2008

VR Yingling Path Analysis (Structural Equation Modeling) and Covariation of Bone Traits following Delayed Puberty**.** American Society for Bone and Mineral Research ASBMR 30th Annual Meeting, Montreal, QB. September 12-16, 2008

R Joshi, **VR Yingling** Environmental Perturbations during Puberty and Bone strength.
American Society for Bone and Mineral Research ASBMR 30th Annual Meeting, Montreal, QB. September 12-16, 2008

Yingling, VR, Joshi, R Estradiol Suppression during Adolescence Results in Increased Body Weight but Comparable Cortical Bone Strength in Female Rats. A Model of Secondary Amenorrhea? 53rd Annual Meeting of the Orthopaedic Research Society, San Diego, CA. March 2-5, 2008.

R Joshi, **VR Yingling** A Model of Secondary Amenorrhea in the Adolescent Female Rat. American Society for Bone and Mineral Research ASBMR 29th Annual Meeting, Honolulu, HA. September 16-20, 2007

Delayed Pubertal Development by Hypothalamic Suppression causes an Increase in Periosteal Modeling

but a Reduction in Bone Strength in Growing Female Rats. 53rd Annual Meeting of the Orthopaedic Research Society, San Diego, CA. February 12-15, 2007.

The Effect of a Short-term Delay of Puberty on Bone Development in Young Female Rats. American Society for Bone and Mineral Research ASBMR 28th Annual Meeting, Philadelphia, PA. September 15-19, 2006

Bone strength deficits result from delayed pubertal development caused by hypothalamic suppression in female rats. American Society of Biomechanics (ASB) Annual Meeting, Blacksburg, VA, Sept, 2006

Direct Loading in a Low Estrogen Environment in Prepubescent Female Rats. American Society for Bone and Mineral Research ASBMR 27th Annual Meeting, Nashville, TN. September 23-29, 2005

Delayed Menarche Causes A Transient Reduction In Cancellous Bone Area In Female Rats. American College of Sports Medicine 52nd Annual Meeting, Nashville, TN. June 1-5, 2005.

Short-term suppression of estrogen during growth causes a transient reduction in bone strength in growing female rats. 51st Annual Meeting of the Orthopaedic Research Society, Washington D.C. February 20-23, 2005.

The Effect of Delayed Menarche on Bone Strength. American College of Sports Medicine 51st Annual Meeting, Indianapolis, IN. June 1-5, 2004

The Effect of Delayed Menarche on Bone Strength. Mid Atlantic Region of the American College of Sports Medicine, Bushkill, PA. October, 2003

Quantification of Trabecular Bone Mass and Orientation Using Gabor Wavelets. ACM Symposium on Applied Computing (SAC 2003), Melbourne, Florida, March, 2003

The Combined Effects of Disuse and Gonadectomy on Bone Mechanics in Male and Female Rats. World Congress on Biomechanics, Calgary, Alberta, Canada August, 2002

Incidence and intervention of musculoskeletal injury in females. 4th Annual Faculty Day, Brooklyn College May 24, 2000.

The response of bone to repetitive physiologic loading in skeletally mature rats. American Society of Bone and Mineral Research St. Louis MO October 1999.

The response of the intervertebral disc, the pars interarticularis and the posterior ligaments to external anterior shear loading. North American Congress on Biomechanics (University of Waterloo) Waterloo, ON. August 1998.

Mechanical properties and injuries resulting from anterior and posterior shear loading of the spine at different load rates. American Society of Biomechanics, (Georgia Tech) Atlanta, GA. October 1996.

Mechanical properties and injuries resulting from anterior and posterior shear loading of the spine. Canadian Society of Biomechanics, (Simon Frasier University) Vancouver, B.C. August 1996.

The effect of load rate on the mechanical properties of a porcine spinal motion segment. American Society of Biomechanics, (Stanford University) Stanford, Ca. August 1995.

The effect of rearfoot motion on the attenuation of the impulse wave at impact during running. Canadian Society of Biomechanics (University of Calgary) Calgary, CA. August 1994.

A Comparison of Five Models for Estimating Mechanical Work With Actual Metabolic Cost For Variable Load Running. Second North American Congress on Biomechanics. Chicago,Il. 1992

The Effects of Endurance Training on Muscle Capacity for Blood to Tissue Transfer in Humans. Third Annual UCSD Undergraduate Research Conference. May 1990.

STUDENT COMMITTEES

Thesis Examiner- 2019- Griffith University QLD Australia
Conor Lambert "A comparison of the bone response to impact loading and resistance training in young adult women: The OPTIMA-Ex trial"

Doctoral Dissertations

Tiffiny A. Butler (December, 2013) "The effects of post pubertal food restriction on bone architecture, strength, and medullary adipose composition." (Committee Chair)

Rupali Naranyan Joshi (November, 2009) "Identification of mechanisms of delayed puberty on bone strength deficits during development." (Committee Chair)

Angela Tate (February 2007) "Reliability and validity of a scapular motion classification system." (External Reviewer)

Master's Theses

Katy Mitchell (May 2012) "The Effect of Hypothalamic Suppression and Caloric Restriction on Bone Strength and Geometry during Puberty." (Committee Chair)

Jamie Reiger (May 2012) "The effect of short-term high-impact jump activity on bone metabolism in college females using oral contraceptives." (Committee Chair)

Matthew Seigenfuse (August, 2010) "Low Estrogen Model and Percent Lamellar Bone Pre and Post-Puberty" (Committee Chair)

Kohei Kishimoto (May, 2010) "Effect of short-term high-impact jump activity on bone metabolism in college female non-athletes" (Committee Chair)

Tiffiny Butler (May, 2009) "Effects of delayed puberty on the growth plate." (Committee Chair)

Danielle Holland (May 2008) "Comparative analysis of the roles of Cbl proteins in bone remodeling under basal and dynamic conditions." (Committee Member) (College of Engineering and School of Medicine)

Undergraduate Honors

M.Elle Saine (Summer, 2008) Diamond Research Scholar, (May, 2009) Diamond Award, Presented at Undergraduate Research at Temple University, Harrisburg, PA Jan, 2009, Temple Undergraduate Research Forum (TURF) and Creative Works Symposium

(CreWS) (April 2009)

Giorvahny V Augustin (Summer 2010 – 2012) McNair Research Scholar, Temple Undergraduate Research Forum (TURF) and Creative Works Symposium (CreWS) (April 2011)

Student High Impact Practices: Mentor and Research Programs

Myth Busters: 2019- present
Myth Busters was born out of a graduate course. The co-curricular experience allows students to develop their skills in literature analysis, critical thinking and knowledge translation

Dartfish Mentors and Professional Development: 2015-present
Dartfish mentors provide individual and group peer-facilitated mentoring for current students in Biomechanics 303 on topics related to the Dartfish video analysis program. Dartfish mentors also intern with the United States Olympic Committee helping teams organize and analyze video. The relationship with both the USOC and Dartfish continues to develop as students take on leadership roles in the program that will ensure the sustainability of the program from quarter to quarter and year to year.

Kinesiology Research Group (KRG)- co-Founder 2013-present
The KRG serves to create a broad Kinesiology-based research group to encourage multidisciplinary research and to exchange ideas between faculty mentors and students. To develop students' understanding of how to translate Kinesiology theory and research into professional applications of Kinesiology.

INVITED LECTURES

2021 ACSM Brown Bag Webinar Muscle - Bone: A match made for strength".
560 registered participants
https://www.acsm.org/learn-develop-professionally/brown-bag-series

2018 Invited Oral Presentation at the Annual Meeting of the South West American College of Sports Medicine, Costa Mesa, CA "Muscle – Bone Match Across the Ages. Can Muscle Power Predict Bone Strength across the Life Span?"

2015 Invited Oral Presentation at the Annual Meeting Western Society for Physical Education of College Women, Pacific Grove, CA "Biomechanics in 10 Years".

2014 CEAS Fall Forum "How do you grow a strong skeleton and prevent fracture"

2014 California School of Podiatric Medicine "My Obsession to Run Faster: Biomechanics of the Lower Extremety"

2003 GNYRC-ACSM Regional Meeting (Greater New York Regional Chapter of the American College of Sports Medicine) Nov. 22-23, 2003 "Stress Fractures".

2007 The University of Minnesota, Department of Kinesiology. "Delayed Pubertal Development by Hypothalamic Suppression causes an Increase in Periosteal Modeling but a Reduction in Bone Strength in Growing Female Rats."

2008 The Pennsylvania State University, Department of Kinesiology. "The Effect Of Delayed Menarche On Bone Strength".

2008 Temple University Department of Anatomy and Cell Biology, **"**The Effect Of Delayed Menarche On Bone Strength".

2009 Philadelphia Bone and Hard-Tissue Discussions and Seminars (Philadelphia BoneHeaDS) "Hypothalamic suppression and bone strength in a rat model: Is puberty an important time point?"

Student Presentations

2011 Philadelphia Bone and Hard-Tissue Discussions and Seminars (Philadelphia BoneHeaDS) Tiffiny Butler "Effect of post pubertal food restriction on bone strength, architecture and medullary fat : FRE 2011" May 2011.

EXPERIENCE

Laboratory Director: Temple University, **Skeletal Adaptation and Development Laboratory**, 2006-present

http://www.temple.edu/chp/departments/kinesiology/SkAD_Lab.htm

Responsibilities:

- Development of research program
- Development of research protocols
- Supervision of students (graduate, undergraduate)

Equipment:

- Histomorphometry system (Bioquant)
- Bone Saw
- Bose Materials Testing Machine

Laboratory Director: **Brooklyn College- Bone and Exercise Laboratory**, 2002-2006

Responsibilities:

- Development of research program
- Development of research protocols
- Supervision of students (graduate (MS), undergraduate, high school)
- Maintenance of animal colony
-

Equipment:

- Histomorphometry system (Osteomeasure)
- Bueller Bone Saw
- Fluorescent Microscope (Nikon Eclipse 400) & imaging camera
- Molecular Devices Microplate Reader

Research Fellow: **Washington University, School of Medicine,** [1997 - 1999]
Biomechanics Laboratory
Advisor: Matthew J. Silva, Ph.D.

Responsibilities:

- Development of torsional mechanical testing on rat bones (monotonic and cyclic)
- Development and implementation physiologic loading protocols of rat tibiae
- Development of biochemical bone marker collection procedures
- Ovariectomy surgery on rats

Equipment:

- Instron 8500R
- PC Reflex Motion Analysis System
- Dual Energy X-ray Absorptiometry

Research Assistant: **University of Waterloo**, [1993 - 1997]
Spine Mechanics Laboratory
Advisor: Stuart M. McGill, Ph.D.

Responsibilities:

- Spinal motion segment tissue testing under compressive and

shear loads
- Design and development of a custom jig for investigating the effect of applied shear loads
- Development of a kinematic and EMG database of spinal motion in elderly subjects
- Supervision of undergraduate kinesiology student research projects

Equipment:
- Instron 8500
- Electromyographic collection system
- Isotrak 3space system
- Planar X-ray.

Research Assistant: **State University of New York at Buffalo** [1991-1993]
Biomechanics Laboratory
Advisors: Scott White, Ph.D./ John Yack, Ph.D.

Responsibilities:
- Collection and reduction of running and walking data: kinematics, kinetics and EMG

Equipment:
- Kistler force plates
- Accelerometry
- Standard and high speed video collection
- Fiber optic and portable EMG systems
-

Research Assistant: **University of California; San Diego** [1990-1991]
Advisor: Odile Mathieu-Costello, Ph.D.

Responsibilites:
- Analysis of muscle biopsies using stereological techniques.

TEACHING

PHILOSOPHY

Engaging students in their education and their quest for knowledge is my primary objective. Multiple pedagogical approaches are necessary when teaching both undergraduate and graduate students including lecture, case study, laboratories, group discussions and presentations. Furthermore, I use a “Flipped” class design and all lecture modules for my courses are available on my You Tube channel.
https://www.youtube.com/c/VanessaYingling/null

EXPERIENCE

Professor, CSU East Bay 2022- present
Associate Professor, CSU East Bay 2017-2022
Department of Kinesiology

* Biomechanics (undergraduate)
* Musculoskeletal Anatomy (undergraduate)
* Spine Biomechanics & Low Back Disorders (undergraduate)
* Bone and Exercise (undergraduate)
* Myth Busters (graduate)

Assistant Professor, CSU East Bay 2013-2017
Department of Kinesiology

* Biomechanics (undergraduate)
* Special Topics: Spine Biomechanics (graduate)
* Structural Anatomy (undergraduate) - HYBRID

Assistant Professor, Temple University
Department of Kinesiology, [2006 - 2013]

* Skeletal Biomechanics (graduate)
* Mentored Research I (graduate)
* Independent Study (undergraduate)
* Biomechanics (undergraduate)

Department of Anatomy and Cell Biology, [2006 - present]

* Musculoskeletal Biology (graduate)

Invited Lectures:

Introduction to Kinesiology
(2006 – present)
Topics in Athletic Training
(2007, 2011)

Assistant Professor, Brooklyn College (CUNY)
Department of Physical Education and Exercise Science, [2001- 2006]
Substitute Line [1999-2001]

* Kinesiology and Applied Anatomy
* Human Anatomy
* Practical Applications in Exercise Science
* Biomechanics (graduate)
* Research Seminar (graduate)
* Special Topics: Bone Health and Exercise (service learning course)

Guest Lecturer: **Saint Louis University, Department of Physical Therapy,** [1999]

* Biomechanics
  Topic: Tissue Mechanics

Guest Lecturer: **Washington University, School of Medicine**
Division of Physical Therapy, [1999]

* Biomechanics
  Topic: Tissue Mechanics

Teaching Assistant: **University of Waterloo**, [1993 - 1997]

* Undergraduate laboratories (1st year and senior level courses)
  * Biomechanics
  * Occupational Biomechanics
  * Biomechanics and Motor Control of Human Gait.

Guest Lecturer:

* Undergraduate Biomechanics course
* Senior level Occupational Biomechanics course

Teaching Assistant: **State University of New York at Buffalo**, [1991-1993]

* Undergraduate laboratories
  * Biomechanics

Curriculum development:

* Running mechanics tutorial series for undergraduate biomechanics laboratories

COURSE DEVELOPMENT, TECHNOLOGY AND PROFESSIONAL DEVELOPMENT

Course Development:

Kin 310-Bone and Exercise - The relationship between bone health and exercise from adolescence to aging. Review current guidelines and literature and apply the guidelines to communities.

Kin 409- Spine Mechanics and Low Back Disorders - A multidisciplinary (e.g., biomechanical, psychosocial, physiological, motor control, clinical and legislative) approach to low-back disorders to improve decision-making about assessment, injury prevention, and rehabilitation.

Kin 301 Hybrid Applied Musculoskeletal Anatomy Course- 2017 QM Certified:
An on-line course was transformed into a hybrid course to allow a hands-on laboratory experience**.**

CSUEB Continuing Education Courses: Sport Performance 2014-2016
2014-Bone Health and Female Athletes: Exercise is King, Nutrition is Queen

2016- Running Mechanics and Gait Analysis
2016- The Mechanics of Flying – The Science of Swimming Faster:

Special Topics: Graduate Course- Spine Biomechanics

Graduate Course: Myth Busters

January 2011, CHPSW Technology Fee $23,180.00
Funded improvements in the Biomechanics Laboratory for Kinesiology 3202. Bought a mobile laboratory with 5 laptops and a server. PowerLab, ADInstruments, Inc.

Revisions to Graduate Biomechancs Courses: Temple University

Kin 9311 Biomechancs of Human Motion
` Kin 5202 Biomechanics of Skeletal Tissues

Service Learning Curriculum:

Bone Health & Exercise: A service-learning course was developed to improve communication between academics and the general public. Specifically, to ulitize current research in an applied setting.

Hybrid Human Anatomy Course:

Human Anatomy PEES 22.75 was offered with an in-class laboratory experience and an on-line lecture series. (CUNY Online Seminar: Spring 2002)

On-Line Pedagogy Project:

A faculty mentoring group, whose purpose is to develop web modules to enhance teaching. I have been developing "Bone E-Modules" on bone structure and the modules are currently being assessed in courses this term (Fall 2004).

Professional Development:

September 2020- May 2021, Certificate in Effective College Instruction
Association of College and University Educators and the American Council on Education

May 2021 Alliance for the Black Community at CSUEB- Anti-Racist Syllabus Workshop

June 20-21, 2020, Academics for Black Survival

Academics for Black Survival and Wellness (A4BL) is a personal and professional development initiative for Non-Black academics to honor the toll of racial trauma on Black people, resist anti-Blackness and white supremacy, and facilitate accountability and collective action.
https://www.academics4blacklives.com/

February 2018 – May 2019: Student Success Analytics Certificate Program (CSU Chancellors Office- Supski Grant)

Project: Benefits of a hybrid undergraduate research program on performance

and graduation rates.

March 14-15, 2014: Dartfish Certified Technologist (Webinar Series and On-site training)

February 28- March 2, 2014. LimitedPermit X-ray Technician-Bone Densitometry – Foundation for Osteoporosis Research and Education **(Certified by the State of California)**

December 11, 2014 "Utilizing Video Technology in Education" Webinar Dartfish USA

February 11, 2011 3rd Annual STEM Educators' Lecture, "Process Oriented Guided Inquiry Learning" Richard Moog, Professor of Chemistry, Franklin & Marshall College

January 13, 2011 9th Annual Winter Faculty Conference. "How to maximize student learning. Keynote: Dr. Maryellen Weimer

January 2010 8th Annual Winter Faculty Conference. What the Best College Teachers Do Keynote. Dr. Ken Bain

Oct 16, 2009**Temple University Teaching and Learning Center**
The Interteach Format: Facilitating Students' Consistent Preparation, Attendance, and Active Participation..: Dr. Philip Hineline

Teaching Portfolio: Teaching and Learning Center, Temple University
February 17, 2009: Introduction and Initial Steps
February 24, 2009: Developing a Teaching Philosophy
March 3, 2009: Item Selection, Suggestions and Samples

January 13, 2009 7th Annual Winter Faculty Conference. "Engaging Students in Critical Thinking. Keynote: Dr. Stephen D. Brookfield

July 15 & 22, 2008 Temple University Teaching and Learning Center
Summer Book Group: "Discussion as a way of teaching" Stephen D. Brookfield and Stephen Preskill

October 10, 2007 Temple University Teaching and Learning Center
Interteaching: A noncoercive way to foster students' consistent preparation, attendance, and active participation in class.: Dr. Philip Hineline

February 23, 2007 Temple University Teaching and Learning Center
Power Point and Lecture Effectiveness

SERVICE

ACADEMIC

Cal State East Bay Presidential Search Advisory Committee
California State University, East Bay, 2020-21

Open Access Policy Task Force- Committee on Research
California State University, East Bay, 2019-21

Institutional Review Board (IRB)
California State University, East Bay, 2015-present

Faculty Advising Fellow
California State University, East Bay, 2017-2020

General Education Overlays and Code (GEOC) Subcommittee of Committee on Instruction and Curriculum
California State University, East Bay, 2017-2018

College of Education and Allied Studies Curriculum Committee
California State University, East Bay, 2020-21

Chair-Kinesiology Department Curriculum Committee
California State University, East Bay, 2020-present

Chair-Kinesiology Department Search Committee Tenure Track Position
California State University, East Bay, 2020

Chair-Kinesiology Department Search Committee Tenure Track Position
California State University, East Bay, 2019

Pioneer Success Coach Search Committee
California State University, East Bay, 2019

Chair-KIN-HRT Collaborative Advisor Search Committee
California State University, East Bay, 2019

Kinesiology Department – Chair Review Committee
California State University, East Bay, 2018

Kinesiology Department – Retention Committee
California State University, East Bay, 2018 & 2020

Kinesiology Department – Culture Committee
California State University, East Bay, 2019-20

Kinesiology Department – 1.0 Lecturer Search Committee
California State University, East Bay, 2019

Chair-Kinesiology Department Search Committee Tenure Track Position
California State University, East Bay, 2016

Committee on Academic Program Review (CAPR)
California State University, East Bay, 2015-2017

Kinesiology Department Search Committee Tenure Track Position
California State University, East Bay, 2014

Kinesiology Department Chair Search Committee
California State University, East Bay, 2013

Somatic Group Chair Department of Kinesiology
Temple University, 2011 - 2012

Ad Hoc Committee on Research Coordination Department of Kinesiology
Temple University, 2011 - 2012

WinK Women in Kinesiology
Co-organizer of the group for female graduate students and faculty in the Department of Kinesiology at Temple University. 2010-2013

College of Health Professions Research and Study Leave Committee
Temple University, September 2007 – 2011

Assembly Chair-Department of Kinesiology
Temple University, September 2007 – 2008

College of Health Professions Research Day Judge
Temple University, 2009-11

College of Health Professions Research Day Abstract Reviewer
Temple University, April 2009

University Committee on Research Awards
Liason for PSC-CUNY research awards: Health Panel
Administers review process
City University of New York, September 2003 -2006

STAR High School, Early College Initiative
Faculty, 2003-2006

Campus Planning Committee
Brooklyn College (CUNY), September 2004

Graduate Curriculum Committee
Brooklyn College (CUNY), September 1999 – 2006
Chair: January 2004- August 2005

Library Liason
Brooklyn College (CUNY), January 2000- 2004

Women's Studies Steering Committee
Brooklyn College (CUNY), September 2001 – 2006

WebMaster
Department of Physical Education & Exercise Science Website
http://depthome.brooklyn.cuny.edu/physed/

Faculty Council Committee on Intercollegiate Athletics
Brooklyn College (CUNY), September 2002 – 2003

Technology Representative
Brooklyn College (CUNY), September 2002 – 2004

ACAC: Advisory Committee on Academic Computing
Brooklyn College (CUNY), September 2001 – 2004
Chair Subcommittee: Incentives for Technology Engagement

Organizer of Faculty/ Graduate Student Seminar
Brooklyn College (CUNY), January 2000- 2001

Grants and Research Committee
Brooklyn College (CUNY), September 1999 - 2000

Nominating Committee for the Dean of Applied Health Sciences
University of Waterloo; March 1995.

Senate Graduate Council University of Waterloo; 1995.

Senate Graduate Council Subcommittee (The Supervisory Process)
University of Waterloo**,** 1995.

Faculty of Applied Health Sciences: Committee on Issues of Gender and Inclusivity, University of Waterloo; 1995 - 1996.

University of Waterloo Graduate Student Association Board
1993-1994.

State University of New York at Buffalo, Graduate Student Association, 1991 - 1993.

Video: Low Back Exercises for Seniors

Habitat for Humanity: St. Louis 1999

PROFESSIONAL

2021 Guest Editor - JOVE Journal
"Imaging methodologies to measure bone strength in humans"
https://www.jove.com/methods-collections/1063/imaging-methodologies-to-measure-bone-strength-in-humans

2020 – present Senior Contributor Sports Ed TV
https://sportsedtv.com/coach/vanessa-yingling/

2020- 2023 Executive Chair of STORK (Society for Transparency Openness and Replication in Kinesiology) http://storkinesiology.org/

2018-2019 Member and Chair of the Diversity Committee for STORK (Society for Transparency Openness and Replication in Kinesiology) http://storkinesiology.org/

2017-2019 Chair American College of Sports Medicine (ACSM) Bone & Osteoporosis Network Exchange Interest Group

2014-2017 Co-Chair American College of Sports Medicine (ACSM) Bone & Osteoporosis Network Exchange Interest Group

2013- 2015 Chair Presidential Committee on MERLOT, American Kinesiology Association.

2010-2013 National Policy Committee: Health and Science Policy Committee of the American College of Sports Medicine

2009 Reviewer American Society of Biomechanics, abstracts for Annual Meeting

2008- present: Philadelphia Bone and Hard-Tissue Discussions and Seminars: Coordinator

2008: Second Philadelphia Regional Postdoc Symposium: Invited Speaker

Reviewer: Calcified Tissue International, 2009 – present

Reviewer: Current Women's Health Review, 2009 - present

Reviewer, Medicine and Science in Sport and Exercise, 2007- present

Reviewer, Journal of Biomechanics, January 2000- present

Reviewer, Bone, 2008-present

Reviewer, Journal of Sports Science and Medicine, 2012-present

Reviewer, BMC Musculoskeletal Disorders, 2013 – present

Reviewer, International SportMed Journal, 2013 - present

American College of Sports Medicine (ACSM) Writing Group for the Bone Health and Physical Activity Position statement, September 2002

ACSM Greater New York Chapter: Continuing Education Committee, September 2001 – 2005

Judge, Science Research Day 2001, 2003, 2004

New York Marathon Medical Team Volunteer, November 2001

COMMUNITY

2019-20 Bone Health Afterschool Program – Oakland Boys and Girls Club and American Bone Health

2017- present Exercise is Medicine on Campus committee

2016-2020 Best Bones Forever (BBF!) Bone Health Clinic- Developing an interactive curriculum for children 9-14 years of age in collaboration with American Bone Health.

2016 Best Bones Forever (BBF!) ACT Now: A Parent's Guide to Bone Health (Physical Activity Section) Developing an information packet for parents and guardians of children 9-14 years of age in collaboration with American Bone Health.

2015 American Bone Health Assessment Videos (Posture, Balance, Strength)

2015 Extraordinary Humans-Episode 2 for Insight TV

2015 Los Altos High School STEM Week Program

2014 Bones on the Road: Skeletal Anatomy activities Edison and Otis (Alameda School District) (3rd Grade)

2013 Bones on the Road: Skeletal Anatomy activities Edison and Otis (Alameda School District) (2nd Grade, 5th Grade)

2012 Grant Reviewer: Mt. Airy/ Chestnut Hill Teacher's Fund

2009 -2013 Bones on the Road: Skeletal Anatomy activities J.S. Jenks Elementary School (Philadelphia School District) (Kindergarten, 1st Grade, 2nd Grade, 3rd Grade, 4th Grade, 6-8 Grades (6 week session)

May 11, 2010 Science Fair at General George A. McCall School (Philadelphia School District)

Scientist for www.nationallabday.org

2008-2010 Martin Luther King Day of Service: Health Fair participant

2007, 2008 The Miquon School-Bone Day:
Skeletal Anatomy Education Module for Nursery Children

PROFESSIONAL DEVELOPMENT

Health/Fitness Instructor$_{SM}$ – American College of Sports Medicine
Certificate Number: 16682, Valid: 2002-2006

PROFESSIONAL CONTINUING EDUCATION

Temple University School of Medicine Continuing Education
Women in Medicine May 2008

Pennsylvania Governor's Conference on Women
November 2007

7th Annual Boning Up on Osteoporosis, October 27, 2004
NYU School of Medicine

National Osteoporosis Foundation Conference, Washington D.C., October, 2003

6th Annual Boning Up on Osteoporosis, October 29, 2003
NYU School of Medicine

4th Annual Boning Up on Osteoporosis, October 24, 2001
NYU School of Medicine

Restorative Yoga Workshop: Integrating Yoga into Current Practice, May 11, 2002, Long Island University, Division of Physical Therapy

Diagnosis and Treatment of Movement Impairment Syndromes,
October 20-21, 2001, Advanced Rehabilitation Institutes

The Dancer and Aging: Current Concepts in Dance Medicine, January, 2000
Harkness Center for Dance Injuries

PROFESSIONAL ASSOCIATIONS

American Society of Biomechanics (ASB) [1999-present]
American College of Sports Medicine (ACSM) [1999-present]
American Association of University Women (AAUW) [2001-present]
American Society of Bone and Mineral Research (ASBMR) [2003-present]
Orthopaedic Research Society (ORS) [2004-present]
Sigma Xi [2006-present]
National Science Teachers Association (NSTA) [2008- present]
National Strength and Conditioning Association (NSCA) [2001-2006, 2015-present]
Female Athlete Triad Coalition [2011 – present]
SHAPE- Society of Health and Physical Educators [2016-2018]