

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

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"

National 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

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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 bxvxcrci: [(T)5 (1o .002 Tc 0vx)4 (er)7 tTs-ex

CIB ÀÀ´ ç*ð•9- <Ñ@Tice: NIH

Time Period: 2002 –

Twomey, R., Yingling, V ., Warne, J., Schneider, C., McCrum, C., Atkins, W., Murphy, J., Romero Medina, C., Harley, 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/10.1177/2168459521101666>

Forrester, Steven; Kawata, Keisuke; Lee, Hojun; Kim, Ji-Seok; Sebzda, Kelly; Butler, Tiffany; 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, Tiffany 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 TissA.261o389.76 Tm[S]9 ()11.3 (M)o Tfi(e)10.5ffact*

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_rec ET /Artifact BMC 1 gi24C ET BT /Link <</MC

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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*, Vivvy Hua*, Sujata Rai*, Derrick Gardner*, Christopher 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 DD 9 >>BDC ra (e/Span <</ .1 ()0.5 (Y)-9.7 (i)3.1 e Tf 0 -1-8.5 (r)-9.4 (Sout.4 (i)d [We Ameriolna M5.627.3.11 Tw 0.386 0 Td Tc 0 Tw (*ar)-6.3.11 [1 (d

"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 McGovern, 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 "

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

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.

1 ()-12.5842 (-)Tj -0.002 Tcses a trans w7(c)-8 07 Tda4ct004-

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 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

Tiffany 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

(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: 20 19- present

Myth Busters: 20 19- present

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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 Extremity"

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) Tiffany 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 (MTj /T078>T5(r)720 (en)10 (t)Tj EMC

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:

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 , Lu:P(s U)6 (k2 (ssu)yc)4 w33-1.1BT /TT0 1 Tf 9.96 i(s)4

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 Biomechanics Courses: Temple University

Kin 9311 Biomechanics of Human Motion

Kin 5202 Biomechanics of Skeletal Tissues

MyoElastic (v18) and MyoElastic (v10) (a (e

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

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

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]