



**Thursday, November 19 - 8:00 A.M.**  
**Carolina Inn**

**OPEN SESSION**

1. Convene Meeting
2. Roll Call
3. Consent Agenda
  - a. [Approval of September 2015 Minutes \(Regular Meeting\)](#) (Tab 1)
  - b. [Ratification of Mail Ballot dated October 21, 2015](#) (Tab 2)
  - c. [Ratification of Mail Ballot dated October 28, 2015](#) (Tab 3)
4. Chair's Remarks
5. Student Body President's Remarks
6. Chancellor's Remarks
7. [Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center](#) – Kevin Guskiewicz, Co-Director, and Senior Associate Dean for Natural Sciences
8. [Connect NC Bond Act of 2015](#) – Representative Dean Arp, NC House of Representatives
9. Report of the Commercialization & Economic Development Committee
10. Report of the External Relations Committee
11. Report of the Finance & Infrastructure Committee
12. Report of the University Affairs Committee

**CLOSED SESSION**

13. \*Report of the External Relations Committee
14. \*Report of the University Affairs Committee
15. \*Legal Advice

**OPEN SESSION**

16. Report of the External Relations Committee
17. Report of the University Affairs Committee
18. Adjournment

**BOARD OF TRUSTEES MEETING**  
**The University of North Carolina at Chapel Hill**  
**October 1, 2015**

The Board of Trustees met in regular session on Thursday, October 1, 2015 in the Kenan Center Dining Room. Chair Stone convened the meeting at 8:03 a.m.

**ROLL CALL**

Secretary Duckett called the roll and the following members were present:

Dwight D. Stone, Chair	Julia Sprunt Grumbles
Haywood D. Cochrane, Vice Chair	Kelly Matthews Hopkins
Charles G. Duckett, Secretary	William A. Keyes IV
Jefferson W. Brown	Allie Ray McCullen
W. Lowry Caudill, Past Chair	William E. McMahan
Donald Williams Curtis	Hari H. Nath
	Houston L. Summers

**CONSENT AGENDA**

**Approval of Minutes and Mail Ballots**

On motion of Chair Stone and duly seconded, the minutes of the meeting of July 23, 2015 were approved as distributed; as were the ratifications of the following mail ballots dated:

- August 21<sup>st</sup> - Personnel actions, actions conferring tenure, and compensation actions
- September 24<sup>th</sup> - Appointments to the Board of Trustees of the Endowment Fund and UNC Chapel Hill Foundation Board of Directors

(ATTACHMENT A)

**ACC GOVERNING BOARD CERTIFICATION 2015-2016**

Chair Stone read the annual ACC Governing Board Certification for the 2015-2016 school year. The agreement was then signed by Chancellor Folt and Chair Stone.

(ATTACHMENT B)

**CHAIR'S REMARKS**

- Chair Stone began his remarks by welcoming everyone to the meeting, and acknowledging the support he has received since being elected chair at the July meeting.
- Thanked the committee chairs and members for their hard work so far this year.
- Reminded everyone of the four Board goals for 2015-2016:
  - Support Chancellor Folt and her senior leaders as they formulate and implement a new strategic plan;
  - Tell our story: Carolina improves the lives of people across North Carolina, our nation, and our world;
  - Accelerate, measure and communicate the growth and economic impact of our innovation and entrepreneurship initiatives; and
  - Help Carolina become more efficient in key operational areas, particularly finance, administration, teaching and research.
- Chair Stone then spoke on some of the events that he has attended over the last few weeks.
  - For the second consecutive year he represented the Board at the kick-off event for C-STEP (Carolina Student Transfer Excellence Program), which helps low-to moderate-income students who transfer from a partner community college.
    - Praised the leadership of Vice Provost for Undergraduate Admissions

Steve Farmer and C-STEP Director Rebecca Egbert.

- Attended a luncheon for the Carolina Advising Corp led by Steve Farmer and Yolanda Keith.
- Last Friday, attended an Endowed Scholarship Dinner hosted by the Educational Foundation for UNC student athletes.
  - Chair Stone shared a quote from Vanessa Wittman, former tennis player and currently the CFO of Dropbox, Inc. Her quote was “get comfortable with being uncomfortable”.
- Highlighted some of the recent rankings released in U.S. News and World Report “America’s Best Colleges”.
  - Carolina is #5 among national public universities for the 15<sup>th</sup> year in a row.
  - Tied for 30<sup>th</sup> overall with both privates and publics.
  - 1<sup>st</sup> among publics in the “Great Schools, Great Prices” category (academic quality and net cost of attendance) for the 11<sup>th</sup> consecutive year.
- Chair Stone remarked that Carolina’s ongoing success in maintaining its top 5 public status is an important indication of sustained quality. It’s just one recent example of highly positive national recognition the University is receiving under the leadership of Chancellor Folt.
- Chair Stone continued and thanked the trustees for their hard work in the recent weeks and months in helping articulate the University’s needs and value to North Carolinians during the budget deliberations that recently came to a closure.
- He emphasized that these efforts came in coordination with Chancellor Folt, her leadership team and the Board of Governors.
- To conclude, Chair Stone remarked that one clear reason why the efforts our board members have been making to communicate with our legislators have resonated is because of the excellent work Chancellor Folt and her team are doing to advance the University.

[A copy of these remarks is located in the Office of the Assistant Secretary and at [bot.unc.edu](http://bot.unc.edu).]

### **STUDENT BODY PRESIDENT’S REMARKS**

- Student Body President Houston Summers began his remarks by highlighting some of his recent activities.
  - Met with Vice Chancellor Matt Fajack about Student Stores and scooter parking on campus.
  - Spoke with Michael Morrison and the National Pan-Hellenic Council about plots on campus.
  - Continued to work with the Carolina Conversations committee and began drafting a mission statement.
  - Provided tours and attended lunches and forums for candidates for the Deanship of the College of Arts and Sciences.
  - Met many times with Mayor Mark Kleinschmidt to discuss town relations, student housing, and voter engagement.
  - Spoke to the Parent’s Council as well as the Governor’s Cabinet about a new mental health program that could benefit the entire UNC System.
  - Recently, they held two Student Government orientations. About 2.1% of the undergraduate student population is now engaged with unique positions throughout Student Government.
  - Lastly, Trustee Summers spoke about his meetings for “The Shirt”. This is a model that is done at Notre Dame and he is hoping to have students involved with the Athletics Department to bring this to life. At Notre Dame, they have raised over \$21 million that goes back to students and student programs.

[A copy of these remarks is located in the Office of the Assistant Secretary and at [bot.unc.edu](http://bot.unc.edu).]

### **CHANCELLOR'S REMARKS**

- Chancellor Folt began her remarks by giving highlights of the opening weekend of the semester. This year's Convocation was one of the most highly-attended, and the weather for Fallfest was perfect.
- She continued and highlighted some of the items from yesterday's committee meetings including the strategic plan for the University, philanthropy, teaching revolutions through STEM education, and research.
- Remarked on how honored she was to be able to meet Professor Stephen Hawking this past summer in Stockholm, Sweden.
  - The conference was organized by UNC Associate Professor Laura Mersini-Houghton.
  - They were able to present Professor Hawking with a scarf designed by Alexander Julian that he wore to meet with the King.
  - Chancellor Folt explained that this type of conference on this specific topic wouldn't happen again.
- Chancellor Folt then gave an overview of some of the recent campus news.
  - Barbara Rimer, Dean of the Gillings School of Global Public Health was nominated by President Obama to chair the President's Cancer Panel for a third term.
  - Students from the Dental School organized the "Deah Day of Service" to honor Deah Barakat, Yusor Abu-Salha and Razon.
  - The Eshelman School of Pharmacy will host a Structural Genomic Consortium that will encourage a widespread and unrestricted use of its findings to accelerate discovery of breakthrough medicines for diseases ranging from cancer to rheumatoid arthritis to Alzheimer's.
  - School of Medicine researchers have pinpointed how a gene linked to autism changes the brain. Dr. Mark Zylka, who presented at the January 2014 meeting, was one of those researchers.
  - Awarded more than \$800,000 in study abroad support to 182 students.
  - Earlier this week, Joe DeSimone received the \$250,000 Kabiller Prize in nanoscience and nanomedicine from Northwestern.
- Thanked the legislature for their commitment to the UNC system. This included some of the following provisions:
  - Temporary increase for UNC Carryforward
  - Bond bill which includes \$68M for Berryhill Hall, a medical education building replacement project
  - \$1M in recurring funds for UNC Core course development
  - \$1M recurring for a medical scholars program for students who want to practice in rural areas
  - \$8M recurring for MAHEC
- Chancellor Folt gave a follow up to the Wainstein report by sharing updates on two faculty led committees:
  - Ethics and Integrity – Chaired by Norma Houston from the School of Government & Jean Elia from the Provost's Office
  - Policy & Procedure Audit – Chaired by Todd Nicolet from the School of Government
- Chancellor Folt continued by sharing info on the co-chairs of the Task Force on UNC-CH History that was created from a resolution passed by the Board of Trustees in May 2015. The three co-chairs are Jim Leloudis, Associate Dean for Honors and Professor of

History, Winston Crisp, Vice Chancellor for Student Affairs, and Amy Hertel, Director of the American Indian Center.

- Announced that Mary Sue Coleman, former president at the University of Michigan (2002-2014) and the University of Iowa (1995-2002), is the new president of the AAU. Mary Sue earned her Ph.D. in biochemistry from Carolina in 1969 and also served as Vice Chancellor for Research and Graduate Education at UNC Chapel Hill.
- Chancellor Folt previewed University Day which will be on Monday, October 12<sup>th</sup>. This will be UNC's 222<sup>nd</sup> birthday.
- Chancellor Folt ended her remarks by introducing the presenters.

[A copy of these remarks is located in the Office of the Assistant Secretary and at [bot.unc.edu](http://bot.unc.edu).]

### **BIOMEDICAL ENGINEERING: BRIDGING TRADITIONAL ACADEMIC AND RESEARCH BOUNDARIES**

Chancellor Carol Folt introduced Nancy Allbritton, Professor and Chair of the UNC/NCSU Joint Department in Biomedical Engineering (BME). Dr. Allbritton brought along two students with her, Michaela Rickard, an undergraduate BME student at NCSU, and John Larson, an undergraduate BME student at UNC. Dr. Allbritton explained how BME bridges boundaries and brings UNC and NCSU together. BME also attracts large-scale collaborative funding from the NIH, and donor funding that is helping to build the next generation of student entrepreneurs. She then showed a clip of alumnus Jeff Powell who 3D printed a hand for a little boy who was born without fully formed fingers on his left hand. Dr. Allbritton then turned it over to Ms. Rickard who explained the core values of the program and how the collaboration makes this a unique program in the United States. Mr. Larson then went on to explain the three pillars of a successful BME program: academic excellence, community, and professional development. Following their presentation, Dr. Allbritton and the students entertained questions from the Board. This presentation can be found on [bot.unc.edu](http://bot.unc.edu) and on file in the Office of the Assistant Secretary.

### **INNOVATION AND ENTREPRENEURSHIP**

Chancellor Folt introduced Judith Cone, Interim Vice Chancellor for Commercialization and Economic Development and Special Assistant to the Chancellor for Innovation and Entrepreneurship to give a presentation on innovation at Carolina. Ms. Cone began by explaining the challenges and goals for innovation at Carolina and where we currently stand. The impact of innovation at UNC is seen worldwide through entrepreneurially minded faculty, staff, and students. UNC business startups contribute a great deal to North Carolina's economy. There are currently over 150 startups in NC which have created over 38,000 jobs and generated \$7 billion in annual revenue. Recently, UNC was ranked the number 15 most innovative university by Thomson Reuters.

Ms. Cone then introduced Dr. Shawn Hingten from the UNC Eshelman School of Pharmacy to explain his stem-cell based therapeutic approach to fighting cancer. Dr. Hingten's work focuses on the challenges of treating glioblastoma (GBM), a common form of primary brain cancer. Through his work they have been able to utilize stem cells to carry drugs directly to cancer cells and help treat GBM. Next, Ms. Cone introduced 2011 alumna, Shruti Shah, who co-founded Move Loot. During her time at UNC, Ms. Shah was president of the Chancellor's Student Innovation Team and also helped work on the Innovate Carolina Roadmap. Ms. Shah got the idea for Move Loot when she saw an opportunity to make the moving process easier and to help reduce the amount of furniture waste ending up in landfills. With Move Loot you can buy and sell your furniture online through their website. The furniture is then picked up or shipped to you. They currently have over 100,000 buyers and sellers in six cities, and over 150 employees. Since 2014, Move Loot has helped to divert 605 tons of trash from landfills.

Following the presentation, Ms. Cone, Dr. Hington, and Ms. Shah entertained questions from the Board. This presentation can be found on [bot.unc.edu](http://bot.unc.edu) and on file in the Office of the Assistant Secretary.

#### **REPORT FROM THE COMMERCIALIZATION & ECONOMIC DEVELOPMENT COMMITTEE**

Trustee Caudill presented a review of the Commercialization and Economic Development Committee meeting. There were no action items for this committee in open session. Trustee Caudill then shared the items presented for information:

- Overview of the Chancellor's Innovation Summit given by Dana McMahan, Professor of the Practice in the School of Media and Journalism
- Overview and goals for Commercialization and Economic Development given by Judith Cone, Interim Vice Chancellor for Commercialization and Economic Development and Special Assistant to the Chancellor for Innovation and Entrepreneurship
- Lastly, they heard a presentation on the Reese News Lab given by John Clark, Lecturer and Director in the School of Media and Journalism

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary, and at [bot.unc.edu](http://bot.unc.edu).

#### **REPORT OF THE EXTERNAL RELATIONS COMMITTEE**

Trustee Hopkins presented a review of the External Relations Committee meeting. There were no action items for this committee in open session. Trustee Hopkins then shared the items presented for information:

- Community Relations Update from Linda Convisser, Director of Community Relations
- Legislative Update from Jennifer Willis, Director of Public Affairs
- Federal Affairs Update from Beau Mills, Director of Federal Affairs
- Communications Update given by Joel Curran, Vice Chancellor for Communications and Public Affairs
- Development report given by David Routh, Vice Chancellor for University Development (ATTACHMENT C)

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary, and at [bot.unc.edu](http://bot.unc.edu).

#### **REPORT OF THE FINANCE & INFRASTRUCTURE COMMITTEE**

Vice Chair Cochran presented the report from the Finance and Infrastructure Committee. The following items were approved as part of the consent agenda:

- 2015-2016 Audit Plan for Approval:
  - Phyllis Petree, Director of Internal Audit presented the 2015-2016 Audit Plan for approval. Each year, the Internal Audit Department develops an audit work plan based on a university-wide assessment of risk. These plans on risk help ensure that audit resources are allocated effectively and efficiently. Revisions are made throughout the year based on changes at the University and in higher education. (ATTACHMENT D)
- Disposition – Utility Easement to the Town of Pittsboro:
  - This request is for approval to authorize permanent disposition by easement of approximately 0.27 acres of University property to the Town of Pittsboro. This easement will provide for the ongoing maintenance of a sanitary sewer pump station owned and operated by the Town of Pittsboro and serving the University's Carolina Living and Learning Center. The Carolina Living and Learning Center (CLLC) is an integrated vocational and residential program of the UNC-CH

School of Medicine for adults with autism located in Pittsboro. The permanent easement will be in place for as long as the Town of Pittsboro continues to use the property for this purpose.

(ATTACHMENT E)

A motion was made from committee to approve the consent agenda items, it was seconded by Trustee Keyes and passed unanimously.

Vice Chair Cochrane continued with one final item for approval:

- Designer Selection – Parking and Transportation Five-Year Plan:
  - The Five-Year Plan will evaluate the University's existing parking and transportation operations and programs, develop plans and strategies to address University and UNC Health Care short-term development and programmatic growth, identify operational efficiencies and opportunities for transportation and parking services, develop financial models to support transportation and parking services and develop programmatic strategies for the next 5-7 years. The project budget is \$150,000 and will be funded by University funds.

This project was advertised on July 27, 2015. Three (3) proposals were received. Three (3) firms were interviewed on August 26, 2015. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

1. Kimley Horn Raleigh, NC
2. VHB Raleigh, NC
3. Chance Management Philadelphia, PA

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

A motion was made from committee to approve these firms in the above priority order, it was seconded by Trustee Keyes, and passed.

(ATTACHMENT F)

Vice Chair Cochrane shared that a resolution of appreciation for Bruce Runberg, Associate Vice Chancellor for Facilities Services was shared and approved at yesterday's meeting.

Vice Chair Cochrane briefly reviewed the other items presented to committee for information only:

- Internal Audit Report given by Phyllis Petree, Director of Internal Audit (ATTACHMENT G)
- Development Report given by David Routh, Vice Chancellor for University Development (see attachment C in the External Relations report)
- Financial Update given by Matt Fajack, Vice Chancellor for Finance and Administration (ATTACHMENT H)
- Financing Update given by Brian Smith, Assistant Vice Chancellor for Financial and Accounting Operations
- University Master Plan Presentation given by Anna Wu, Assistant Vice Chancellor for Facilities Operations, Planning and Design (ATTACHMENT I)

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary, and at [bot.unc.edu](http://bot.unc.edu).

### **REPORT OF THE UNIVERSITY AFFAIRS COMMITTEE**

Secretary Duckett presented the report from the University Affairs Committee. There were no action items for this committee in open session. Secretary Duckett continued and shared the items presented for information:

- Graduate and Professional Student Federation Update given by Brandon Linz, President
- Employee Forum Update given by Charles Streeter, Chair of the Employee Forum
- Faculty Update given by Peter Mucha, Acting Chair of the Faculty
- Campus Update given by Winston Crisp, Vice Chancellor for Student Affairs
- Presentation on the Intercollegiate Athletics Report given by Jim Dean, Executive Vice Chancellor and Provost (ATTACHMENT J)
- STEM Quality Enhancement Plan given by Ron Strauss, Executive Vice Provost and Chief International Officer; Kevin Guskiewicz, Senior Associate Dean for Natural Sciences; and Leslie Parise, Professor and Chair of Biochemistry and Biophysics

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary, and at bot.unc.edu.

### **MOTION TO CONVENE IN CLOSED SESSION**

On motion of Secretary Duckett, and duly seconded, the Board voted to convene in closed session pursuant to North Carolina General Statutes Section 143-318.11 (a) (1) (to prevent the disclosure of privileged information under Section 126-22 and the following); and also pursuant to Section 143-318.11 (a) (2), (3), (5), and (6).

### **RECONVENE MEETING IN OPEN SESSION**

Chair Stone reconvened the meeting in open session.

### **OPEN SESSION**

### **REPORT OF THE UNIVERSITY AFFAIRS COMMITTEE**

Secretary Duckett referred the members to the personnel matters submitted for review. A motion to approve the actions was made; it was duly seconded, and passed. Chair Stone stated that the personnel and salary actions voted on in open session had been distributed. (ATTACHMENT K)

### **ADJOURNMENT**

There being no further business to come before the Board, Chair Stone called for a motion to adjourn. The motion was made by Trustee Keyes, seconded by Trustee Duckett and passed. Chair Stone adjourned the meeting at 1:42 p.m.

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Dwayne Pinkney, Assistant Secretary





THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

CAROL L. FOLT  
Chancellor

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**MEMORANDUM**

**TO:** Members of the Board of Trustees  
**FROM:** Carol L. Folt *CLF*  
**RE:** Mail Ballot  
**DATE:** October 21, 2015

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You have authorized my office to poll you by mail concerning personnel matters which require attention by the Board. Accordingly, we are transmitting to you herewith personnel actions as follows:

EPA Faculty Compensation & Tenure Actions

Attachment A

Please mark and return the enclosed mail ballot indicating whether or not you agree with the actions proposed. Thank you.

## EXECUTIVE SUMMARY

Board of Trustees

October 22, 2015

No.	College/Division	Name	Dept./School	Current Rank	New Rank	Tenure Request Reason	Effective Date	Salary
<b>Personnel Actions</b>								
<b>New Appointments without Tenure</b>								
0								
<b>Addition of Joint Appointment without Tenure</b>								
0								
<b>Promotion to Full Professor</b>								
0								
<b>Reappointments to the same Rank</b>								
1	Academic Affairs	Rosa Tamara Branca	Physics & Astronomy	Assistant Professor	Assistant Professor		1/1/2017	\$103,980.00
2	Health Affairs	Samir Kelada	Genetics	Assistant Professor	Assistant Professor		9/1/2016	\$134,090.00
<b>Designation/Reappointments to Departmental Chair</b>								
1	Health Affairs	Jane Brice	Emergency Medicine	Professor	Chair		7/1/2015	\$410,180.00
<b>Designation/Reappointments to Distinguished Professorship</b>								
1	Health Affairs	Mauricio Castillo	Radiology	Distinguished Professor	James H. Scatliff Distinguished Professor		10/23/2015	\$325,000.00
2	Health Affairs	Paul Godley	Medicine	Professor	Rush S. Dickson Distinguished Professor		12/1/2015	\$229,900.00
3	Health Affairs	William Kim	Medicine	Associate Professor	Rush S. Dickson Distinguished Associate Professor		12/1/2015	\$216,600.00
<b>Actions Conferring Tenure</b>								
<b>Promotion Conferring Tenure</b>								
1	Health Affairs	Cheryl Giscombe	Nursing	Assistant Professor	Associate Professor	Promotion based on excellence in research and strong records of service and teaching	1/1/2016	\$115,609.00
2	Health Affairs	Garret Stuber	Psychiatry/Cell Biology & Physiology	Assistant Professor	Associate Professor	Promotion based on excellence in research	11/20/2015	\$135,797.00
<b>New Appointments Conferring Tenure</b>								
1	Health Affairs	Deborah Givens	Allied Health Sciences	Nominated Professor	Professor	Promotion based on excellence in clinical scholarship	11/1/2015	\$128,000.00
2	Health Affairs	Arti Pandya	Pediatrics	Nominated Associate Professor	Associate Professor	Promotion based on excellence in clinical scholarship	11/1/2015	\$204,000.00
<b>Addition of Joint Appointment Conferring Tenure</b>								
0								
<b>Corrections</b>								
1	Health Affairs	Yanguang Cao	Eshelman School of Pharmacy	N/A	Assistant Professor		10/1/2015*	
2	Health Affairs	Daniel Crona	Eshelman School of Pharmacy	N/A	Assistant Professor		10/1/2015*	

## EXECUTIVE SUMMARY

Board of Trustees

October 12, 2015

No.	College/Division	Name	School	Department	Rank	Reason	Requested Amount of Increase **	Percent of Increase **	June 30 Salary	Current Salary	New Salary	Effective Date
<b>Compensation Actions</b>							** Based on cumulative increase(s) to 6/30 salary					
1	Health Affairs	Emma Allott	Public Health	Nutrition	Post Doc Research Associate	Increase due to new faculty appointment as Research Assistant Professor via external competitive event	\$28,000	54.90%	\$51,000	\$51,000	\$79,000	10/19/2015
2	Academic Affairs	Robert Anderson	Arts and Sciences	Romance Studies	Lecturer	Increase due to new secondary administrative appointment as Language Across the Curriculum (LAC) Program Coordinator	\$15,000	33.33%	\$45,000	\$45,000	\$60,000	1/1/2016
3	Health Affairs	Julie Marchesan	Dentistry	Periodontology	Post Doc	Increase due to new faculty appointment as Research Assistant Professor via external competitive event	\$31,000	56.36%	\$55,000	\$55,000	\$86,000	11/1/2015
4	Health Affairs	Terry Noah	Medicine	Pediatrics	Professor	Increase due to new secondary administrative appointment as Division Chief for Pediatric Pulmonology	\$30,495	12.20%	\$249,903	\$260,398	\$280,398	12/1/2015
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No.	College/Division	Name	Department/School	Rank	Reason	Total Monetary Value of Non-Salary Compensation	Duration of Non-Salary Compensation	Effective Date	End Date
<b>Non-Salary Compensation Actions</b>									
0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

**CAROL L. FOLT**  
*Chancellor*

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## Mail Ballot

### Board of Trustees

**October 21, 2015**

Chancellor Carol Folt submits for your review and approval the EPA Faculty personnel salary and compensation actions as recommended for October 2015. This mail ballot will be approved as part of the consent agenda at the Full Board meeting on Thursday, November 19, 2015.

The undersigned votes as follows with recommendation to these proposed actions as presented by the Chancellor.

	Approve	Disapprove
EPA Faculty Salary Increases and Tenure Promotions (Attachment A)	<input type="checkbox"/>	<input type="checkbox"/>

Signature\_\_\_\_\_

Printed Name\_\_\_\_\_

Date\_\_\_\_\_

Please fax to TJ Scott at (919) 962-1647 or email at [tj\\_scott@unc.edu](mailto:tj_scott@unc.edu)

This ballot was approved by majority vote on October 23, 2015 by the following trustees: Dwight Stone, Haywood Cochrane, Chuck Duckett, Lowry Caudill, Julia Grumbles, Bill Keyes, Allie Ray McCullen, Ed McMahan, and Houston Summers.



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

**CAROL L. FOLT**  
*Chancellor*

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TO: Members of the Board of Trustees

FROM: Carol L. Folt

RE: Personnel Mail Ballot

DATE: October 28, 2015

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You have authorized me to poll you by mail ballot concerning personnel matters which require the immediate attention of the Board.

I am seeking approval to appoint Dr. Kevin Guskiewicz as Dean of the College of Arts and Sciences. The appointment is effective January 1, 2016. Attached is the formal offer letter and a copy of Dr. Guskiewicz's CV.

Please complete the attached mail ballot and return to TJ Scott at your earliest convenience.



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

OFFICE OF THE EXECUTIVE VICE CHANCELLOR  
AND PROVOST

104 SOUTH BUILDING  
CAMPUS BOX 3000  
CHAPEL HILL, NC 27599-3000

T 919.962.2198  
F 919.962.1593

October 26, 2015

Kevin M. Guskiewicz, PhD  
College of Arts and Sciences  
205 South Building, CB #3100  
UNC Chapel Hill 27599-3100

Dear Dr. Guskiewicz:

I am pleased to write this letter to request your permission to put your name forward for the position of Dean of the College of Arts and Sciences at The University of North Carolina at Chapel Hill on the terms and conditions outlined herein. Subject to the approval of the Board of Trustees, your appointment will be effective January 1, 2016.

Your initial twelve month salary will be \$302,500 which includes your \$23,500 professorship stipend, plus a \$40,000 administrative supplement for the Dean's position, for a total of \$342,500 annual salary. Your salary will be reviewed at least annually, subject to the compensation policies of the Board of Trustees and Board of Governors. Your appointment will report to the Chancellor with administrative assignment to the Executive Vice Chancellor and Provost, and you will be a member of the Chancellor's Cabinet. This will be an "at will" appointment of indeterminate length with a review every five years and subject to continuation or discontinuation at the discretion of the Chancellor.

You will have a reserved parking space subject to the usual costs for parking on campus. You will receive two season tickets to the men's football and men's basketball games. The basketball tickets will be in the Ring Section where the other deans are positioned. Please note that the tickets are considered taxable income.

This appointment is subject to the "Employment Policies for EPA Non-faculty Tier I Senior Academic and Administrative Officer Employees of the University of North Carolina at Chapel Hill" as originally adopted and as they may be periodically revised from time to time. According to the Policies, you will be entitled to 26 days of annual leave per year. Sick leave is earned at the rate of 1 day per month or 12 days per year. On December 31 of each year, any annual leave accrued in excess of 30 days will automatically be converted to sick leave. There is no limit to the amount of sick leave you may accrue. The full Policies are available for reference online at <http://hr.sites.unc.edu/files/2012/11/Employment-Policies-for-EPA-Non-Faculty%20Tier-I-SAAO.pdf>.

This appointment is contingent upon the successful completion of the required Background Check.

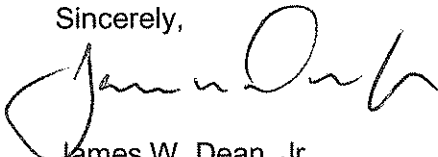
Kevin M. Guskiewicz  
October 26, 2015  
Page 2

You will maintain your tenured faculty position as distinguished professor in the Department of Exercise and Sports Science. At the end of your deanship, you will retreat to your tenured faculty appointment in accordance with the provisions of the "Separation and Retreat Policy for Senior Academic and Administrative Officers (as Amended, 05/02/2010) available for reference online at <http://hr.unc.edu/policies-procedures-systems/epa-non-faculty-employee-policies/appointment-and-end-of-appointment/separation-and-retreat-policy-for-senior-academic-and-administrative-officers/> . To determine your base salary when you return to a faculty position, your 12-month salary at the time (excluding your distinguished professorship stipend), minus the administrative supplement, will be divided by 12 and multiplied by 9. Your professorship salary will remain subject to the conditions of its award and duration.

I look forward with great enthusiasm to our working together and offer congratulations to you. As we have discussed, I realize the importance of sustaining your research program and the need to engage a postdoctoral fellow to ensure its continued progress. We will discuss the funding model for this postdoc soon.

If you agree to these terms, please sign and return this copy of the letter at your earliest convenience. We can then move forward with the first phase of the approval process with our Board of Trustees.

Sincerely,



James W. Dean, Jr.  
Executive Vice Chancellor and Provost

Enclosure: Employment Policies for EPA Non-faculty Tier I SAAO Employees  
Form AP-2a (Non-faculty)

Acknowledgement and Acceptance by Appointee:

  
Name

10-27-15  
Date

cc: Personnel File  
EPA Non-faculty Human Resources

FACULTY APPOINTEE CERTIFICATIONS AND  
CONDITIONS OF EMPLOYMENT (PAGE 1 OF 3 PAGES)

Appointee's Full Name:	KEVIN MICHAEL GUSKIEWICZ
Primary Rank Title:	Dean
Base Department / Name:	College of Arts & Sciences

In order to receive an appointment with the University of North Carolina at Chapel Hill, you must agree to the following conditions of employment:

1. Federal law requires each new employee to complete the "Employee Information and Verification" section of the Federal Immigration Service Form I-9 and to submit certain original documents for examination in order to verify and certify identification and employment eligibility. The University requires the completion of these requirements no later than three (3) business days of the employee's first day of work counting the first day.
2. In compliance with North Carolina law, the University verifies each employee's legal status or authorization to work in the United States after hiring using the Department of Homeland Security's Basic Pilot Program. Your employment will be terminated if you fail to comply with the employment authorization requirements or if it is determined that you are not authorized to work in the United States.
3. North Carolina law requires notice to every applicant for state employment that willfully providing false or misleading information or failing to disclose relevant information shall be grounds for rejection of an application or later disciplinary action or criminal prosecution. Dismissal from employment shall be mandatory in any case in which a false or misleading representation is made in order to meet position qualifications. The employer is required by law to verify an applicant's representations about credentials and other qualifications relevant to employment. By executing this document, you authorize the release to The University of North Carolina at Chapel Hill of any document or information within the possession of a third party, such as an educational institution or licensure board, that may serve to verify any representations made by you on this Form AP2a and on the University's "Recommendation for EPA Personnel Action" (Form AP-2) which must also be completed prior to employment.
4. The University will complete a criminal conviction check prior to the appointee's first scheduled day of work. A criminal conviction does not in and of itself prevent an applicant from being employed by the University. The nature of some convictions, however, may cause certain positions to be unavailable to you. Failure to completely disclose information about a criminal conviction or plea on an employment application is considered falsification of the employment application and will result in the applicant not being eligible for employment at the University. All permanent and temporary faculty and staff of the University including post-doctoral scholars, medical fellows and adjunct faculty are required to report any criminal conviction(s) within five business days of the conviction or other covered criminal disposition or at the first possible opportunity if the employee is incarcerated. The employee is required to report this information to the Employee and Management Relations Department of the Office of Human Resources or, at the employee's option, to his/her Supervisor or Department Head. A willful failure to report a criminal conviction or to cooperate with University authorities in regards to a reportable matter under this policy may subject the employee to appropriate disciplinary action, up to and including termination of University employment. The full text of this policy may be viewed at [http://hr.unc.edu/policies-procedures-guidelines/spa-employee-policies/employment/CCM3\\_025868](http://hr.unc.edu/policies-procedures-guidelines/spa-employee-policies/employment/CCM3_025868).
5. The University requires all of its employees hired on or after July 1, 1999 to be paid by "direct deposit" into a bank or credit union account. In order to satisfy this requirement, you understand you must submit the direct payroll deposit authorization (Form PR-8) to the University Payroll Department by the end of your first workweek. Your signature below certifies that you understand you will not receive a paycheck from the University until the appropriate payroll forms have been completed and submitted.

Appointee Initials: KMG

Date: 10-27-15



FACULTY APPOINTEE CERTIFICATIONS AND  
CONDITIONS OF EMPLOYMENT (PAGE 2 of 3 PAGES)

Appointee's Full Name: KEVIN MICHAEL GUSKIEWICZ

6. You understand that you are required to provide your U.S. Social Security Number (if one has been issued to you) so the University can satisfy its income-reporting and withholding obligations under North Carolina and federal laws. Unless this sentence is marked through and initialed by you, you voluntarily permit the use of your social security number for internal record keeping and information management operations. However, you understand you will be randomly assigned a University-generated personal identification number (PID) which the University will instead use whenever possible.
7. Consistent with any applicable wage-hour laws, you authorize the University to withhold from your final paycheck the cost of any State-owned property you fail to return when your appointment ends. You also authorize the University to withhold from your final paycheck the amount of any other debt you owe to the University.
8. You understand that you are required to comply with the University's Department of Environment, Health and Safety (EH&S) policies and procedures regarding vaccines, medical surveillance or other required safety training within the first 10 days of your employment. Information regarding these policies and procedures is available on the web at: <http://www.ehs.unc.edu/manuals/ehsmanual/docs/5appendixb.pdf> or may be obtained by either asking your supervisor, your departmental Human Resources Facilitator or Manager, or contacting EH&S at telephone 919-962-5507. You further understand that if your position places you in a healthcare environment or your duties involve healthcare, you must also complete the items outlined in the "EHS Conditions of Employment" document in accordance to the time frames and frequency specified. This document will be provided to you by your appointing department. If you do not receive this document and your position places you in a healthcare environment or your duties involve healthcare, you may also obtain a copy on the web at: <http://www.ehs.unc.edu/manuals/ehsmanual/docs/5appendixb.pdf> or by contacting EH&S at 919-962-5507.
9. You understand that to comply with University policy if your position's duties include engaging in University healthcare activities you must disclose to your Department Head, Dean, Division Chief, the Office of Human Resources Employee & Management Relations Division or the Chair of the University's AIDS Task Force if you are currently, or later become, infected with either the HIV or the Hepatitis B viruses.
10. State law requires each permanent employee regularly scheduled to work 30 hours or more each workweek to participate in either the Teachers' and State Employees' Retirement System (TSERS) or the Optional Retirement Plan (ORP). The appointee makes an irrevocable election of one of these retirement plan options within 60 days of his/her hire effective date. Each employee presently is required to contribute six percent of his/her gross salary by payroll deduction, and that the State retains the right to amend the contribution rate.
11. North Carolina law requires certification that you are in compliance with the registration requirements of the Military Selective Service Act (<http://www.sss.gov/must.htm>) prior to appointment. The University is required by law to verify such compliance. If you do not answer affirmatively to either Question A, B or C listed below, you will be notified that a proposed finding of ineligibility for employment will be finalized, unless, within 30 days, you provide information which establishes compliance with the registration requirements of the Military Selective Service Act.

(Select A, B, or C)

A. ☒ I certify that I am registered with Selective Service.

B. ☐ I certify that I am not required to be registered with the Selective Service because (select one):

- ☐ I am a female. ☐ I am under the age of eighteen years.  
☐ I was born before 1960. ☐ I am a non-immigrant alien.  
☐ I am in the armed services on active duty (Reserves and National Guard are not considered on active duty.)  
☐ I am a permanent resident of the Trust Territory of the Pacific Islands or Northern Mariana Islands.

C. ☐ I certify that my requirement to be registered with the Selective Service has expired or is inapplicable, and (select one):

- ☐ I was registered when the requirement was applicable to me.  
☐ I was not registered when the requirement was applicable to me, but my failure to register was not a knowing and willful failure to register. Please explain on attached signed and dated sheet.

Appointee Initials: KMG

Date: 10-27-15

**FACULTY APPOINTEE CERTIFICATIONS AND  
CONDITIONS OF EMPLOYMENT (PAGE 3 of 3 PAGES)**

12. I understand that I must comply with University guidance regarding the Ebola outbreak, including certain travel restrictions, screening, and reporting requirements if I travel to/from Ebola-affected nations and/or may have been exposed to Ebola. I understand that if I travel to an Ebola-affected area, I must contact both the NC Communicable Disease Branch and UNC Environment, Health and Safety for a risk assessment prior to my return to campus and/or UNC Health Care facilities. Further, I understand that employees should register all international travel in the UNC Global Travel Registry (<http://globaltravel.unc.edu/>). This registry provides specific travel and risk-related guidance. UNC has placed additional information about its response to the Ebola outbreak on the following website: <http://ehs.unc.edu/emergency/ebola.shtml>.

**Important Benefits Notifications:** For your information, you should also note the following time-sensitive enrollment deadlines regarding certain benefits for eligible appointees following your hire effective date:

- If you are eligible for employee health insurance, election to participate in the State's employee health insurance plan must be received within 30 days of your hire effective date. The employee has the option of choosing this health insurance coverage to begin on the first day of either the first or second month following employment. Health insurance coverage for hire effective dates prior to the selected coverage effective date is the appointee's responsibility.
- If you are eligible for retirement benefits, you are required within sixty (60) days of your hire effective date to elect participation in either the North Carolina Teacher's and State Employees' Retirement System (TSERS) or the University of North Carolina Optional Retirement Plan (ORP). Your failure to make this election within this period on the required forms irrevocably results in the automatic election of TSERS as your retirement plan. Please ensure you take timely action following your hire to exercise this important option.

Appointee's Signature: <u>Kevin M. Gushkin</u>	Date: <u>10-27-15</u>
Appointing Department Representative Signature: _____	Date: _____

## **KEVIN M. GUSKIEWICZ**

### **ADDRESS**

#### ***Home:***

803 E. Franklin Street  
Chapel Hill, North Carolina 27514  
919-932-1429  
gus@email.unc.edu

#### ***Office:***

205 South Building, CB# 3100  
University of North Carolina at Chapel Hill  
Chapel Hill, North Carolina 27599-3100  
Telephone: 919-962-1165 (Deans Office)  
919-962-5175 (Research Office)

### **EDUCATION**

#### **University of Virginia, Charlottesville, Virginia**

Doctor of Philosophy, Sports Medicine, 1995

Major areas of study: Orthopedic and Neuromuscular Research  
Mild Traumatic Brain Injury Research  
Research Design and Statistics

Dissertation: Effect of Mild Head Injury on Postural Stability

#### **University of Pittsburgh, Pittsburgh, Pennsylvania**

Master of Science, Exercise Physiology/Athletic Training, 1992

#### **West Chester University, West Chester Pennsylvania**

Bachelor of Science, Athletic Training (NATA Approved Undergraduate Curriculum), 1989  
Minor: Journalism

### **ACADEMIC & ADMINISTRATIVE APPOINTMENTS**

#### **College of Arts and Sciences, University of North Carolina at Chapel Hill**

*Senior Associate Dean for the Natural Sciences*, July 1, 2013 to present

Direct 13 academic departments and programs in the Division of Natural Sciences and Mathematics; Oversee the physical space for all College of Arts and Sciences departments (55 academic buildings); Participate in the development efforts for 13 departments and programs with the assistance of four Arts & Sciences Foundation development officers; Serve on several committees, including the Research Dean's Council, MOOC Taskforce, UNC BEST Board of Directors, and Biomedical Imaging Research Center Advisory Board; and Serve as Co-Principal Investigator on UNC-Chapel Hill's AAU STEM grant on Classroom Innovation: Redesigning Large Gateway Science Courses.

#### **Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, University of North Carolina at Chapel Hill**

*Founding Director*, May 1, 2010 to present

#### **Department of Exercise and Sport Science, College of Arts and Sciences, University of North Carolina at Chapel Hill**

***Kenan Distinguished Professor***, 2009 to present  
***Department Chair***, 2005 to 2013  
***Professor***, July 1, 2004 to present  
***Academic Leadership Fellow***, Institute for the Arts & Humanities, January to May 2008  
***Associate Professor***, July 1, 2001 to 2004  
***Assistant Professor***, 1995 to 2001  
***Director***, Graduate Studies & Graduate Admissions, 1998 to 2005  
***Director***, Sports Medicine Research Laboratory, 1996 to 2008  
***Director***, Undergraduate Athletic Training Education Program, 1995 to 2002

Teaching Responsibilities: Gross Anatomy (graduate)  
Applied Statistics & Research Design in Exercise and Sport  
Science (graduate)  
Human Movement Science Doctoral Seminar (graduate)  
Therapeutic Modalities (undergraduate)  
Evaluation of Athletic Injuries (undergraduate)  
Human Anatomy (undergraduate)

**Department of Physical Medicine and Rehabilitation, School of Medicine, University of North Carolina**

*Professor*, July 1, 2013 to present

**Department of Orthopaedic Surgery, School of Medicine, University of North Carolina**

*Professor*, July 1, 2004 to present  
*Associate Professor*, 2001 to 2004  
*Assistant Professor*, 1998 to 2001

**Department of Allied Health Sciences, School of Medicine, University of North Carolina**

*Adjunct Professor*

**Curriculum in Human Movement Science (Interdisciplinary Doctoral Program), School of Medicine, University of North Carolina**

*Professor*

**Injury Prevention Research Center, University of North Carolina at Chapel Hill**

*Interim Director*, January 2005 to July 2005  
*Core Faculty Member*, September 2001 to present

**Curry School of Education, University of Virginia, Doctoral Student, 1992 to 1995**

*Instructor:* Gross Anatomy Laboratory (undergraduate)  
Advanced Athletic Injuries & Lab (undergraduate)  
*Teaching Assistant:* Anatomical Basis of Sports Medicine (graduate)  
Research in Athletic Training (graduate)  
Seminar in Educational Research (graduate)

*Research Advisor:* Thesis Advisor, NATA Approved Graduate Program

**St. Anne's-Belfield High School, Charlottesville, Virginia: 1992 to 1995**

*Athletic Training Clinical Supervisor:* Supervised students seeking NATA certification  
*Teacher:* Seventh grade Health - Nutrition/First Aid (1993)

## **UNIVERSITY SERVICE**

### **UNC's Quality Enhancement Plan (QEP) for Southern Association of Colleges and Schools:**

Co-Chair, Steering Committee for SACS reaffirmation process. Identify priorities to improve student learning; provide guidance on implementation of the QEP; and recommend how to effectively communicate the QEP to the campus community (September 2014 to present).

### **UNC Representative to Southern Association of Colleges and Schools' review team:**

Georgia Tech On-Site Reaffirmation Committee; Serving as observer in preparation for UNC's 2016 reaffirmation process (February 2015 to March 2015).

### **Association of American Universities (AAU) Undergraduate STEM Initiative:**

Co-Leader, UNC's AAU STEM grant to foster cultural change and widespread implementation of active learning methods in gateway STEM courses (June 2013 to present).

### **Administrative Search Committees:**

Chancellor, UNC-Chapel Hill (September 2012 to April 2013)  
Director, Academic Support Program for Student-Athletes (September to December 2012)  
Director, UNC Sports Medicine, *Chair* (June to November 2009)  
Assistant Vice Chancellor for UNC Campus Health, *Chair* (January to June 2006)  
Dean, College of Arts and Sciences (May 2006 to April 2007)

### **Administrative Reviews:**

Director, UNC Highway Safety Research Center (November 2010 to February 2011)  
Vice Chancellor for Student Affairs (August 2008 to December 2008)  
Director, UNC Office of Human Research Ethics (January 2008 to May 2008)  
UNC Sports Medicine Program (October 2007 to August 2008)  
Dean of the UNC-Chapel Hill Graduate School (October 2004 to April 2005)  
Director, UNC Injury Prevention Research Center (January 2003 to May 2004)

**Faculty Executive Committee**, July 2008 to December 2008 (interim appointment); July 2009 to present (elected appointment)

**UNC's Classroom Policy Steering Committee**, July 2013 to present

**UNC's Space Use Committee**, July 2013 to present

**UNC's Buildings and Grounds Committee**, July 2013 to present

**UNC's Biomedical Research Imaging Center (BRIC) Senior Advisory Committee**, September 2013 to present

**Fundraising Campaign Co-Coordinator** – *Stallings-Evans Sports Medicine Center* (July 2005 to May 2010)

**University Committee on Teaching Awards** (July 2008 to January 2009)

**Administrative Board of the General College**, July 2008 to 2011

**Administrative Board of the Graduate School**, August 2000 to July 2005

## CLINICAL EXPERIENCE

**Athletic Trainer: University of North Carolina at Chapel Hill:** Head Athletic Trainer for Women's Lacrosse (1995-1998); Clinical supervisor for undergraduate and graduate athletic training students (1995-1999); General athletic training coverage & director of the UNC concussion testing program for all UNC athletic teams (1998 to present).

**Head Athletic Trainer: St. Anne's-Belfield School,** Charlottesville, Virginia (1992-1995).

**Graduate Assistant Athletic Trainer: Pittsburgh Steelers Football Club,** Pittsburgh, Pennsylvania (1990-1992).

**Clinical Athletic Trainer: Chester County Orthopaedic and Sports Physical Therapy,** West Chester, Pennsylvania (1989 to 1990).

## HONORS AND AWARDS

*Order of the Golden Fleece, University of North Carolina,* April 10, 2014

*2013 Commencement Speaker, University of North Carolina,* December 15, 2013.

*West Chester University's Sturzebecker Hall of Fame Inductee,* October 26, 2013.

*2013 Distinguished Alumnus Award, Curry School of Education, The University of Virginia,* October 4, 2013.

*2013 Commencement Speaker & Recipient of The University of Pittsburgh's 225th Medallion,* School of Health and Rehabilitation Sciences, University of Pittsburgh. April 27, 2013.

*2013 TEDxUNC Speaker,* Memorial Hall, University of North Carolina-Chapel Hill, February 9, 2013.

*University of Pittsburgh Legacy Laureate,* Distinguished Alumnus Award. October 11, 2012.

*2011 December Commencement Speaker, West Chester University,* December 19, 2011.

*2011 MacArthur Fellow,* September 20, 2011.

*Sayers Bud Miller Educator of the Year.* National Athletic Trainers' Association Research and Education Foundation's annual award for outstanding educator. June 20, 2008.

*Clint Thompson Manuscript Award for Clinical Advancement* (Bailes JE, Petschauer M, Guskiewicz KM, & Marano, G. Management of cervical spine injuries in athletes. *Journal of Athletic Training*, 2007; 42(1): 126–134. Awarded June 2008.

*Kenneth L. Knight Award for the Outstanding Research Manuscript* (Cavanaugh JT,

Guskiewicz K, Giuliani C, Marshall S, Mercer VS, Stergiou N. Recovery of postural control after cerebral concussion: New insights using Approximate Entropy. *J Athl Train* 2006; 41(3):305-313.) Awarded June 2007.

**Jack Weakley Service Award, “Helping those who help others.”** College Athletic Trainers’ Society’s Annual Service Award. May 17, 2007.

**Fellow in the American Academy of Kinesiology and Physical Education.** September 16, 2006.

**Medal for Distinguished Athletic Training Research.** National Athletic Trainers' Association Research and Education Foundation's annual award for outstanding researcher. June 16, 2006.

**West Chester University’s Legacy of Leadership Alumnus Award.** April 30, 2005.

**Fellow in the American College of Sports Medicine (FACSM).** November 8, 2002.

**Kenneth L. Knight Award for the Outstanding Research Manuscript - second runner-up** (Guskiewicz, K.M., Ross S.E., and Marshall S.W. Postural stability and neuropsychological deficits following concussion in collegiate athletes. *Journal of Athletic Training*, 36(3), 263-273, 2001.) Awarded June 2002.

**2002 Research to Reality Award Recipient,** Eastern Athletic Trainers’ Association. January 8, 2002.

**Stevens Visiting Professorship.** University of Florida, Gainesville, FL. Awarded October 2000, Presented lectures on February 25-28, 2001.

**Kevin P. Speer, MD New Investigator Award.** National Athletic Trainers' Association Research and Education Foundation's annual award for outstanding young researcher. Awarded June 17, 1999.

**Outstanding Faculty Award.** University of North Carolina Alumni Association and Division of Student Affairs. Awarded April 15, 1998.

**Kenneth L. Knight Award for the Outstanding Research Manuscript** (Guskiewicz, K.M., Perrin, D.H., & Gansneder, B. Effect of mild head injury on postural stability. *Journal of Athletic Training*, 31(4)300-306, 1996). Awarded June 1997

**Junior Faculty Development Award (\$3,000) - UNC-CH Committee on Faculty Research and Study Leaves,** November 27, 1995

**Who's Who Among Students in American Universities and Colleges,** (1989)

**Swope Leadership Scholarship** (1988), West Chester University

**Physical Education Scholarship** (1988), West Chester University

## EDITORIAL BOARD SERVICE

**Journal of Athletic Training**, Associate Editor (2001 to 2013)

Board member (1997 to present)

Guest Editor for special issue on *Concussion in Sport* (October 2001)

**Journal of Sport Rehabilitation**, Board member (1995 to present); Editorial assistant (1993 to 1995)

**Current Sports Medicine Reports**, Board member (2010 to present)

**Frontiers in Neurology**, Board member (2010 to present)

**Journal of American Medical Association**, Reviewer (2002 to present)

**Neurosurgery**, Reviewer (2004 to present)

**Journal of Neurosurgery**, Reviewer (2011 to present)

**Annals of Biomedical Engineering**, Reviewer (2009 to present)

**Clinical Journal of Sports Medicine**, Reviewer (2003 to present)

**British Journal of Sports Medicine**, Reviewer (2000 to present)

**Medicine & Science in Sports & Exercise**, Reviewer (1998 to present)

**Journal of Biomechanics**, Reviewer (1998 to present)

**Athletic Therapy Today**, Board member (1995 to 1999)

## SCHOLARSHIP

### Refereed Journal Publications:

Pietrosimone BG, Golightly YM, Mihalik JP, Guskiewicz KM. Concussion Frequency Associates with Musculoskeletal Injury in Retired NFL Players. Submitted for consideration to *Medicine and Science in Sport and Exercise*. April 2015. Epub ahead of print.

Kerr ZY, Mihalik JP, Guskiewicz KM, Rosamond WD, Evenson KR, Marshall SW. (2015). Agreement between athlete-recalled and clinically documented concussion histories in former collegiate athletes. *Am J Sports Medicine*; 43(3):606-613.

Lynall RC and Guskiewicz KM. (2015). Concussion Research: New Horizons. *Lancet Neurology*. 14(1):14-6.



Kerr ZY, Littleton AC, Cox LM, DeFreese JD, Varangis E, Lynall RC, Schmidt JD, Marshall SW, Guskiewicz KM. (2015). Estimating Contact Exposure in Football Using the Head Impact Exposure Estimate. *J Neurotrauma*; 32(14):1083-1089.

Guskiewicz KM, Teel E, McCrea M. (2014). Concussion: key stakeholders and multidisciplinary participation in making sports safe. *Neurosurgery*; 75 Suppl 4:S113-8.

Schmidt JD, Guskiewicz KM, Mihalik JP, Blackburn JT, Siegmund GP, Marshall SW. (2014). Does Visual Performance Influence Head Impact Severity Among High School Football Athletes? *Clin J Sports Med*.

Broglio SP, Cantu RC, Gioia GA, Guskiewicz, KM, Kutcher J, Palm M, Valovich McLeod TC. (2014). National Athletic Trainers' Association Position Statement: management of sport concussion. *Journal of Athletic Training*. Epub ahead of print.

Mihalik JP, Moise KF, Ocwieja KE, Guskiewicz KM, & Register-Mihalik JK. (2014). The effects of player anticipation and involvement on head impact biomechanics in college football body collisions. *ASTM Selected Technical Papers 1552 on Symposium on the Mechanism of Concussion in Sports*. (In Press).

Ingriselli JM, Register-Mihalik JK, Schmidt JD, Mihalik JP, Goerger BM, & Guskiewicz KM. (2014). Outcomes, utility, and feasibility of single task and dual task intervention programs: Preliminary implications for post-concussion rehabilitation. *J Science and Medicine in Sport*; 17(6):580-585.

Rowson S, Duma SM, Greenwald RM, Beckwith JB, Chu JJ, Guskiewicz KM, Mihalik JP, Crisco JJ, Wilcox BJ, McAllister TW, Maerlender AC, Broglio SP, Schnebel B, Anderson S, & Broolinson PG. (2014). Can helmet design reduce the risk of concussion in football? Technical note. *Journal of Neurosurgery*. (In Press).

Kerr ZY, Evenson KR, Rosamond WD, Mihalik JP, Guskiewicz KM, and Marshall SW. Association between concussion and mental health in former collegiate athletes. *Injury Epidemiology*. (In Press).

Kerr ZY, Register-Mihalik JK, Marshall SW, Evenson K, Mihalik JP, Guskiewicz KM. Disclosure and non-disclosure of concussion and concussion symptoms in athletes: Review and application of the socio-ecological framework. *Brain Injury*. (2014), Epub ahead of print.

Siegmund GP, Guskiewicz KM, Marshall SW, DeMarco AL, and Bonin SJ. A Headform for Testing Helmet and Mouthguard Sensors that Measure Head Impact Severity in Football Players. *Ann Biomed Eng* (2014) 42:1834-1845.

Schmidt JD, Guskiewicz KM, Blackburn JT, Mihalik JP, Siegmund GP, Marshall SW (2014). The Influence of Cervical Muscle Characteristics on Head Impact Biomechanics in Football. *Am J Sports Med*. (Epub ahead of print).

Harpham JA, Mihalik JP, Littleton AC, Frank BS, & Guskiewicz KM. (2014). The effect of visual and sensory performance on head impact biomechanics in college football players. *Annals of Biomedical Engineering*, 42(1), 1-10.

Mihalik JP, Register-Mihalik JK, Kerr ZY, Marshall SW, McCrea MC, & Guskiewicz KM. (2013). The effect of posttraumatic migraine characteristics on concussion recovery in patients following sport-related concussion. *American Journal of Sports Medicine*. 41(7), 1490-1496.

Mihalik JP, Lengas E, Register-Mihalik JK, Oyama S, Begalle RL, & Guskiewicz KM. (2013). The effects of sleep quality and quantity on concussion baseline assessment. *Clinical Journal of Sports Medicine*, 23(5), 343-348.

Casa DJ, Almquist J, Anderson SA, Baker L, Bergeron MF, Biagioli B, Boden B, Brenner JS, Carroll M, Colgate B, Cooper L, Courson R, Csillan D, DeMartini JK, Drezner JA, Erickson T, Ferrara MS, Fleck SJ, Franks R, Guskiewicz KM, Holcomb WR, Huggins RA, Lopez RM, Mayer T, McHenry P, Mihalik JP, O'Connor FG, Pagnotta KD, Pryor RR, Reynolds J, Stearns RL, & Valentine V. (2013). The Inter-Association Task Force for preventing sudden death in secondary school athletics programs: Bestpractices recommendations. *J Athletic Training*, 48(4), 546-553

Kelly DF, Chaloner C, Evans D, Mathews A, Cohan P, Wang P, Swerdloff R, Shin M-S, Lee J, Wright MJ, Kernan C, Barkhoudarian G, Yuen KCJ, Guskiewicz KM. (2014). Prevalence of pituitary hormone dysfunction, metabolic syndrome and impaired quality of life in retired professional football players: a prospective study. *J Neurotrauma*. Vol. 31, 13:1161-1171.

Mihalik JP, Moise KF, Ocwieja KE, Guskiewicz KM, & Register-Mihalik JK. (2014). The effects of player anticipation and involvement on head impact biomechanics in college football body collisions. In A. Ashare & M. Ziejewski (Eds.), *ASTM Selected Technical Papers 1552 on Symposium on the Mechanism of Concussion in Sports* (pp. 41-55). West Conshohocken, PA: ASTM International.

Randolph C, Karantzoulisa S, Guskiewicz KM. (2013). Prevalence and Characterization of Mild Cognitive Impairment in Retired National Football League Players. *JINS*. 19(08). 873-880.

Register-Mihalik JK, Guskiewicz KM, Littleton AC. (2013). Are divided attention paradigms useful in the assessment and management of sports-related concussion? *Neuropsychology Review*. 23(4). 300-314.

Ford, JH, Giovanello, KS, Guskiewicz, KM. (2013). Episodic Memory in Former Professional Football Players with a History of Concussion: An Event-Related Functional Neuroimaging Study. *J Neurotrauma*. 30(20): 1683-701.

Guskiewicz KM, Register-Mihalik JK, McCrory P, McCrea M, Johnston K, Makdissi M, Dvorak J, Davis G, Meeuwisse W (2013). Evidence-based approach to revising the SCAT2: Recommendations for the SCAT3. *British Journal of Sports Medicine*. Epub Ahead of Print, doi: 10.1136/bjsports-2013-092225.

Trinidad KJ, Schmidt JD, Register-Mihalik JK, Groff D, Goto S, Guskiewicz KM. Predicting Clinical Concussion Measures at Baseline Based on Academic Profile and Motivation. *Clin J Sports Med*. 2013; Epub ahead of print.

Mihalik JP, Lengas E, Register-Mihalik JK, Oyama S, Begalle R, Guskiewicz KM. The effects of sleep quality and sleep quantity on concussion assessment. *Clin J Sport Med*. 2013; 23(5):343-348.

Register-Mihalik JK, Linnan LA, Marshall SW, Valovich McLeod TC, Mueller FO, Guskiewicz KM. Using Theory to Understand High School Aged Athletes' Intentions to Report Sport-Related Concussion: Implications for Concussion Education Initiatives. *Brain Inj*. 2013; 27(7-8):878-886.

Register-Mihalik J, Guskiewicz KM, Valovich McLeod TC, Linnan LA, Mueller FO, Marshall S. Influence of Knowledge and Attitude on Concussion Reporting Behaviors Among High School Athletes. *J Athl Train*. 2013; 48(5): 645-563.

Harmon KG, Drezner JA, Gammons M, Guskiewicz KM, Halstead M, Herring SA, Kutcher JS, Pana A, Putukian M, Roberts WO. (2013). American Medical Society for Sports Medicine position statement: concussion in sport. *British J Sports Medicine*; 47(1):15-26.

Mihalik JP, Register-Mihalik JK, Kerr ZY, Marshall SW, McCrea MC, & Guskiewicz KM. (2013). The effect of posttraumatic migraine characteristics on concussion recovery in patients following sport-related concussion. *American Journal of Sports Medicine*, 41(7), 1490-1496.

Register-Mihalik JK, Kontos DL, Guskiewicz KM, Mihalik JP, Conder B, Shields EW. (2012) Age-related differences and reliability on a computerized and a paper-pencil neurocognitive assessment battery. *J Athletic Training*. 47(3) 297-305.

Beckwith JG, Greenwald RM, Chu JJ, Crisco JJ, Rowson S, Duma SM, Broglio SP, McAllister TW, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, Brolinson PG, & Collins MW. (2013). Timing of concussion diagnosis is related to head impact exposure prior to injury. *Medicine & Science in Sports & Exercise*, 45(4), 747-754.

Beckwith JG, Greenwald RM, Chu JJ, Crisco JJ, Rowson S, Duma SM, Broglio SP, McAllister TW, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, Brolinson PG, & Collins MW. (2013). Head impact exposure sustained by football players on days of diagnosed concussion. *Medicine & Science in Sports & Exercise*, 45(4), 737-746.

Register-Mihalik JK, Guskiewicz KM, Mihalik JP, Schmidt JD, Kerr ZY, & McCrea MA. (2013). Reliable change, sensitivity, and specificity of a multi-dimensional concussion assessment battery: Implications for caution in clinical practice. *Journal of Head Trauma Rehabilitation*, 29(4), 278-283.

Teel ER, Register-Mihalik JK, Blackburn TJ, Guskiewicz KM. (2013). Balance and cognitive performance during a dual-task: Implications for use in concussion assessment. *Journal of Science and Medicine in Sport*, 16(3), 190-194.

McCrea, M., Guskiewicz, K.M., Randolph, C., Barr, W.B., Hammeke, T.A., Marshall, S.W., Powell, M.R., Ahn, K.W., Wang, Y., Kelly, J.P. Incidence, Clinical Course and Predictors of Prolonged Recovery Time Following Sport-Related Concussion in High School and College Athletes. *JINS*, 2012;18, 1–12.

Kerr ZY, Marshall SW, Harding HP, Guskiewicz KM. Nine-Year Risk of Depression Diagnosis Increases With Increasing Self-Reported Concussions in Retired Professional Football Players. *Am J Sports Medicine*. August 24, 2012; published online before print August 24, 2012, doi:10.1177/0363546512456193.

Schmidt JD, Register-Mihalik JK, Mihalik JP, Kerr ZY, Guskiewicz KM. Identifying Impairments After Concussion: Normative Data vs. Individualized Baselines. *Med Sci Sports Exerc*. 2012;44(9):1621-8.

Aguilar AJ, Distefano LJ, Brown CN, Herman DC, Guskiewicz KM, Padua DA. A Dynamic warm-up model increases quadriceps strength and hamstring flexibility. *J Strength Cond Res* 2012 April;26(4): 1130-41.

Casa, D.J. (co-chair), Guskiewicz, K.M. (co-chair), Anderson, S.A., Courson, R.W., Heck, J.F., Jimenez, C.C., McDermott, B.P., Miller, M.G., Stearns, R.L., Swartz, E.E., Walsh, K.M. National Athletic Trainers' Association Position Statement: Preventing Sudden Death in Sport and Physical Activity. *J Athletic Training* 2011;47(1):1–24.

Gysland S.M., Mihalik J.P., Register-Mihalik J.K., Trulock S.C., Shields E.W., & Guskiewicz K.M. The relationship between subconcussive impacts and concussion history on clinical measures of neurological impairment in collegiate football players. *Annals of Biomedical Engineering*, 2011;40(1), 14-22.

Mihalik JP, Guskiewicz KM, Marshall SW, Blackburn JT, Cantu RC, & Greenwald RM. Head impact biomechanics in youth hockey: Comparisons across playing position, event types, and impact locations. *Annals of Biomedical Engineering*, 2011;40(1), 141-149.

Ocwieja KE, Mihalik JP, Marshall SW, Schmidt JD, Trulock SC, & Guskiewicz KM. The effect of play type and collision closing distance on head impact biomechanics. *Annals of Biomedical Engineering*, 2011;40(1), 90-96.

Herring SA, Cantu RC, Guskiewicz KM, Putukian M, Kibler WB, Bergfeld JA, Boyajian-O'Neill LA, Franks RR, Indelicato PA. Concussion (mild traumatic brain injury) and the team physician: a consensus statement- 2011 update. *Med Sci Sports Exerc*. 2011;43(12): 2412-22.

Guskiewicz KM and Broglio SP. Sport-Related Concussion: On-Field and Sideline Assessment. *Physical Medicine and Rehabilitation Clinics of North America*, 2011;22:603-617.

Krainin GM, Forsten RD, Kotwal RS, Lutz RH, Guskiewicz KM. Mild traumatic brain injury literature review and proposed changes to classification. *J Spec Oper Med*. 2011 Summer; 11(3): 38-47.

DiStefano LJ, Blackburn JT, Marshall SW, Guskiewicz KM, Garrett WE, Padua DA. Effects of an age-specific anterior cruciate ligament injury prevention program on lower extremity biomechanics in children. *Am J Sports Med*. 2011;39(5): 949-57.

Guskiewicz KM and Register-Mihalik JK. Post-concussive impairment differences across a multifaceted concussion assessment protocol. *Physical Med & Rehab*, 2011;3:S445-S451.

Kerr ZY, Marshall SW, & Guskiewicz KM. Reliability of concussion history in former professional football players. *Medicine and Science in Sports and Exercise*, 2011; 44(3):377-82.

Mihalik JP, Guskiewicz KM, Marshall SW, Greenwald RM, Blackburn JT, & Cantu RC. Does cervical muscle strength in youth ice hockey players affect head impact biomechanics? *Clinical Journal of Sports Medicine*, 2011;21(5), 416-421.

Guskiewicz KM and McLeod TCV. Pediatric Sport-related Concussion. *Physical Med & Rehab*, 2011; 3(4):353-364.

Guskiewicz KM. Physical Education Curriculum Priorities: “Safe” Exercise is Medicine. *Quest*, 2011;63:66-72.

Guskiewicz KM and Mihalik JP. Biomechanics of Sport Concussion: Quest for the Elusive Injury Threshold. *Exercise and Sport Science Reviews*, 2011; 39(1):4-11.

Guskiewicz KM. Balance Assessment in the Management of Sport-Related Concussion. *Clin Sports Med*, 2011;30:89–102.

Ross LM, Register-Mihalik JK, Mihalik JP, McCulloch KL, Prentice WE, Shields EW, & Guskiewicz KM. Effects of a single task vs. a dual task paradigm on cognition and balance in healthy subjects: A feasibility and reliability study. *Journal of Sport Rehabilitation*. 2011 Aug;20(3): 296-310.

Mihalik JP, Blackburn JT, Greenwald RM, Cantu RC, Marshall SW, & Guskiewicz KM. Collision type and player anticipation affect head impact severity in youth ice hockey players. *Pediatrics*, 2010; 125(6):e1394-401.

Mihalik JP, Greenwald RM, Blackburn JT, Cantu RC, Marshall SW, & Guskiewicz KM. The effect of infraction type on head impact severity in youth ice hockey. *Medicine & Science in Sports & Exercise*, 2010; 42(8):1431-8.

Distefano LJ, Padua DA, Blackburn JT, Garrett WE, Guskiewicz KM, Marshall SW. Integrated injury prevention program improves balance and vertical jump height in children. *J Strength Cond Res*, 2010 Feb;24(2):332-42.

Cantu RC, Guskiewicz KM, Register-Mihalik JK. Clinical analysis of 215 moderate-severe athletic concussion. *Physical Medicine and Rehabilitation*. 2010;2 (12), 1088-93.

Thigpen CA, Padua DA, Michener LA, Guskiewicz KM, Giuliani C, Keener JD, Stergiou N. Head and shoulder posture affect scapular mechanics and muscle activity in overhead tasks. *J Electromyography & Kinesiology*, 2010; 20(4):701-709.

Boling M, Padua D, Marshall S, Guskiewicz KM, Pyne S, and Buetler A. Gender Differences in the incidence and prevalence of patellofemoral pain syndrome. *Scand J Medicine Science and Sports*, 2010; Vol 20(5):709–787.

Toler JD, Petschauer MA, Mihalik JP, Oyama S, Halverson SD, & Guskiewicz KM. Alternative airway access techniques in American football. *Clinical Journal of Sport Medicine*, 2010;20,92-97.

Broglia, S.P., Guskiewicz, K.M. Concussion in sport: The sideline assessment. *Sports Health: A Multidisciplinary Approach*, 2009; Vol. 1(5):361-369.

Register-Mihalik JK, Guskiewicz KM, Valovich McLeod T, Mann JD. Association between migraine-related disability and concussion history in collegiate athletes. *Athletic Training and Sports Healthcare*. 2009;1(5), 227-233.

McCrea M, Guskiewicz KM, Randolph C, Barr WB, Hammeke TA, Marshall SW, Kelly JP. Effects of a symptom-free waiting period on clinical outcome and risk of reinjury after sport-related concussion. *Neurosurgery*, 2009;65(5), 876-882.

Boling MC, Padua DA, Marshall SW, Guskiewicz KM, Pyne S, Beutler A. A prospective investigation of biomechanical risk factors for patellofemoral pain syndrome: the Joint Undertaking to Monitor and Prevent ACL Injury (JUMP-ACL) cohort. *Am J Sports Med*, 2009;37(11), 2108-2116.

Ellemberg D, Henry LC, Macciocchi SN, Guskiewicz KM, Broglia SP. Advances in sport concussion management: From behavioral to brain imaging measures. *J Neurotrauma*, 2009;26(12), 2365-2382.

Bell DR, Myrick MP, Blackburn JT, Shultz SJ, Guskiewicz KM, Padua, DA. The effect of menstrual-cycle phase on hamstring extensibility and muscle stiffness. *J Sport Rehabil*. 2009; 18(4): 553-63.

Randolph C, Millis S, Barr WB, McCrea M, Guskiewicz KM, Hammeke TA, Kelly JP. Concussion symptom inventory: An empirically derived scale for monitoring resolution of symptoms following sport-related concussion. *Arch Clin Neuropsychol*, 2009;24(3), 219-229.

Herman DC, Onate JA, Weinhold PS, Guskiewicz KM, Garrett WE, Yu B, Padua DA. The effects of feedback with and without strength training on lower extremity biomechanics. *Am J Sports Med*, 2009;37(7), 1301-1308.

Parsons TD, Notebaert AJ, Shields EW, Guskiewicz KM. Application of reliable change indices to computerized neuropsychological measures of concussion. *Int J Neurosci*, 2009;119(4), 492-507.

Ross SE, Guskiewicz KM, Gross MT, Yu B. Balance measures for discriminating between functionally unstable and stable ankles. *Med Sci Sports Exerc*, 2009;41(2), 399-407.

Brown C, Padua D, Marshall SW, Guskiewicz KM. Variability of Motion in Individuals with Mechanical or Functional Ankle Instability During a Stop Jump Maneuver. *Clinical Biomechanics*, 2009;24(9), 762-768.

Golightly YM, Marshall SW, Callahan LF, Guskiewicz KM. Early-Onset Arthritis in Retired National Football League Players. *J Physical Activity & Health*, 2009;6(5), 638-643.

Davis GA, Iverson GL, Guskiewicz KM, Ptito A, Johnston KM. Contributions of neuroimaging, balance testing, electrophysiology and blood markers to the assessment of sport-related concussion. *BJSM*, 2009;43, 36-45.

Mihalik JP, Ondrak KS, Guskiewicz KM, & McMurray RG. Clinical measures of concussion remain stable across the female menstrual cycle. *Journal of Science and Medicine in Sport*, 2009;12(3), 383-387.

Mihalik JP, Jeffries JA, Ciocca MF, & Guskiewicz KM. Biomechanical factors and clinical outcome of a youth ice hockey player following sports-related concussion: A case report. *Athletic Training & Sports Health Care*, 2009;1(1), 32-36.

Register-Mihalik JK, Mihalik JP, & Guskiewicz KM. Association between previous concussion history and symptom endorsement during preseason baseline testing in high school and collegiate athletes. *Sports Health: A Multidisciplinary Approach*, 2009;1(1), 61-65.

Horn S., Gregory P., Guskiewicz KM. Self-Reported Anabolic-Androgenic Steroids Use and Musculoskeletal Injuries: Findings from the Center for the Study of Retired Athletes Health Survey of Retired NFL Players. *J Physical Medicine & Rehabilitation*, 2009;88(3): 192-200.

Guskiewicz KM. Sports Medicine & Athletic Training in the 21st Century: Bridging the Gap Between Research and Clinical Practice. *Quest*, 2008;60,121-130.

Brown C, Padua D, Marshall SW, Guskiewicz KM. Individuals with mechanical ankle instability exhibit different motion patterns than those with functional ankle instability and ankle sprain copers. *Clinical Biomechanics*, 2008; Jul;23(6):822-31.

Mecham SC, and Guskiewicz KM. Head Case: An Agent's Guide to Protecting their NFL Clients From Concussions and Associated Risks, 76 *UMKC L. Rev.* 699, 2008.

Mihalik JP, Beard JR, Petschauer MA, Prentice WE, and Guskiewicz KM. Effect of ice hockey helmet fit on cervical spine motion during an emergency log roll procedure. *Clinical Journal of Sports Medicine*, 2008;18(5), 394-398.

Fox ZG, Mihalik JP, Blackburn JT, Battaglini CL, Guskiewicz KM. Postural control returns to baseline within 13 minutes following both anaerobic and aerobic exercise protocols. *Journal of Athletic Training*, 2008;43(5), 456-463.

Register-Mihalik JK, Mihalik JP, Guskiewicz KM. Balance deficits after sports-related concussion in individuals reporting post-traumatic headache. *Neurosurgery*, 2008;63(1), 76-82.

Mihalik JP, Guskiewicz KM, Jeffries JA, Greenwald RM, & Marshall SW. Characteristics of head impacts sustained by youth ice hockey players. *Journal of Sports Engineering and Technology*, 2008;222(P1), 45-52.

Blackburn JT, Padua DA, Guskiewicz KM. Musculotendinous stiffness and spinal stretch reflex sensitivity in the triceps surae. *Journal of Athletic Training*, 2008;43(1), 29-36.

Mihalik JP, Bell DR, Marshall SW, Guskiewicz KM. Measurement of head impacts in collegiate football players: An investigation of positional and event type differences. *Neurosurgery*, 2007; 61, 1229-1235.

McCaffrey MA, Mihalik JP, Crowell DH, Shields EW, Guskiewicz KM. Measurement of head impacts in collegiate football players: Clinical measures of concussion following high and low impact magnitudes. *Neurosurgery*, 2007;61, 1236-1243.

Guskiewicz KM, Mihalik JP, Shankar V, Marshall SW, Crowell DH, Oliaro SM, Ciocca MF, & Hooker DN. Measurement of head impacts in collegiate football players: Relationship between head impact biomechanics and acute clinical outcome following concussion. *Neurosurgery*, 2007; 61, 1244-1253.

Register-Mihalik J, Guskiewicz KM, Mann JD, & Shields EW. The effects of headache on clinical measures of neurocognitive function. *Clinical J Sports Medicine*, 2007;17, 282-288.

Guskiewicz, KM, Marshall, SW, Bailes, J, McCrea M, Harding HP Jr, Matthews A, Mihalik JRM, and Cantu R. Recurrent concussion and risk of depression in retired professional football players. *Medicine & Science in Sport & Exercise*, 2007;39(6), 903-909.

Brown CN, Guskiewicz KM, Bleiberg J. Effect of athlete characteristics on outcome scores for computerized neuropsychological assessment: A preliminary analysis. *Journal of Athletic Training*, 2007;42(4): 515-523.

Ross SE, Arnold BL, Blackburn JT, Brown CA, Guskiewicz KM. Enhanced balance associated with coordination training with stochastic resonance stimulation in subjects with functional ankle instability: an experimental trial. *Journal of NeuroEngineering & Rehabilitation*, 2007, 4:47.



Bailes JE, Petschauer M, Guskiewicz KM, & Marano, G. Management of cervical spine injuries in athletes. *Journal of Athletic Training*, 2007;42(1): 126–134.

Patel AV, Mihalik JP, Notebaert AJ, Guskiewicz KM, & Prentice WE. The effects of dehydration on symptomatology, neuropsychological integrity, and postural stability as related to concussion assessment. *Journal of Athletic Training*, 2007;42(1), 66-75.

Mihalik JP, McCaffrey MA, Rivera EM, Pardini JE, Guskiewicz KM, Collins MW, & Lovell MR. Effectiveness of mouthguards in reducing neurocognitive deficits following sports-related concussion. *Dental Traumatology*, 2007;23(1), 14-20.

Register JK, Mihalik JP, Essa MS, Hirth CJ, Guskiewicz KM, & Brickner TE. Exertional Rhabdomyolysis in Eight Division I Female Lacrosse Athletes: A Case Review. *Athletic Therapy Today*, 2006;11(4), 26-28.

Valovich McLeod TC, Barr WB, McCrea M, Guskiewicz KM. Psychometric and measurement properties of concussion assessments in youth sports. *Journal of Athletic Training*. 2006;41(4), 399-408.

Michell TB, Ross SE, Blackburn JT, Hirth CJ, Guskiewicz KM. Effects of exercise training with and without balance shows on static postural stability. *Journal of Athletic Training*. 2006;41(4), 393-398.

Knowles SB, Marshall SW, Guskiewicz KM. Issues in estimating injury risks and rates in sports injury research. *J Athl Train*. 2006;41, 207–215.

Buzzini SR and Guskiewicz KM. Sport-related concussion in the young athlete. *Current Opinion in Pediatrics*. 2006;18, 376-382.

Ross SE, Guskiewicz KM. Effect of coordination training with and without stochastic resonance on dynamic postural stability of subjects with functional ankle instability and subjects with stable ankles. *Clinical Journal of Sport Medicine*. 2006;16, 323-328.

Cavanaugh JT, Guskiewicz K, Giuliani C, Marshall S, Mercer VS, Stergiou N. Recovery of postural control after cerebral concussion: New insights using Approximate Entropy. *J Athl Train* 2006; 41(3), 305-313.

Guskiewicz KM, Bruce SL, Cantu RC, Ferrara MS, Kelly JP, McCrea M, Putukian M, Valovich McLeod TC. Research based recommendations on management of sport related concussion: summary of the National Athletic Trainers' Association position statement. *British Journal of Sports Medicine*. 2006;40(1), 6-10.

Piland, SG, Motl RW, Guskiewicz KM, McCrea M, and Ferrara MS. Structural validity of a self-report concussion-related symptom scale. *Med & Science in Sports & Exercise*, 2006;38(1), 27-32.

Guskiewicz, KM, Marshall, SW, Bailes, J, McCrea, M, Cantu, RC, Randolph, C, Jordan, BD. Association between recurrent concussion and late life cognitive impairment in retired professional football players. *Neurosurgery*, 2005;57, 719-726.

Notebaert, A.J., and Guskiewicz, K.M. The Current Trends in Athletic Training Practice for Concussion Assessment and Management. *Athletic Training*, 2005;40(4), 320-325.

Cavanaugh JT, Guskiewicz KM, Giuliani C, Marshall S, Mercer VS, Stergiou N. Detecting altered postural control after cerebral concussion in athletes without postural instability. *Br J Sports Med*, 2005;39(11), 805-811.

Cavanaugh JT, Guskiewicz KM, Stergiou N. A nonlinear dynamic approach for evaluating postural control: new directions of the management of sport-related cerebral concussion. *Sports Med*, 2005; 35(11), 935-950.

Ross SE, Guskiewicz KM, Yu B. Effects of functional ankle instability on single leg jump landing stabilization times. *Journal of Athletic Training*. 2005;40, 298-304

Yu B, McClure SB, Onate JA, Guskiewicz KM, Kirkendall DT, Garrett WE. Age and gender effects on knee motion patterns of youth soccer players in a stop-jump task. *American Journal of Sports Medicine*, 2005;33(9), 1356-1364.

McCrea, M., Barr, W.B., Guskiewicz, K.M., Randolph, C., Marshall, S.W., Cantu, R.C., Onate, J.A., Kelly, J.P. Standard regression-based methods for measuring recovery after sport-related concussion. *J. International Neuropsychological Society*, 2005, 11:58-69.

Onate JA, Guskiewicz KM, Marshall SW, Giuliani C, Yu B, Garrett W. Instruction of jump-landing technique utilizing videotape feedback: altering lower extremity movement patterns. *American Journal of Sports Medicine*. 2005; 33(6), 831-842.

Guskiewicz, K.M., Bruce, S.L., Cantu, R.C., Ferrarra, M.S., Kelly, J.P., McCrea, M., Putukian, M., and Valovich McLeod, T.C. National Athletic Trainers' Association Position Statement: Management of Sport-Related Concussion. *J Athletic Training*, 2004;39, 280-297.

Guskiewicz, K.M., Bruce, S.L., Cantu, R.C., Ferrarra, M.S., Kelly, J.P., McCrea, M., Putukian, M., and Valovich McLeod, T.C. Recommendations on Management of Sport-Related Concussion: Summary of the National Athletic Trainers' Association Position Statement. *Neurosurgery*, 2004;559, 891-896.

Valovich, T.C, Perrin, D.H., Guskiewicz, K.M., Shultz, S.J., Diamond, R., Gansneder, B.M. Serial administration of clinical concussion assessments and practice effects in healthy youth sports participants. *Clinical Journal of Sports Medicine*, 2004;14, 287-295.

Broglio, S.P., Guskiewicz, K.M., Sell, T.C., and Lephart, S.M. No acute changes in postural control after soccer heading. *Br J Sports Med*, 2004;38, 561-567.

Blackburn JT, Padua DA, Riemann BL, Guskiewicz KM. The relationships between active extensibility, and passive and active stiffness of the knee flexors. *J Electromyo & Kinesiol*, 2004; 14(6), 683-691.

Ross SE, Guskiewicz KM. Examination of static and dynamic postural stability in individuals with functionally stable and unstable ankles. *Clinical Journal of Sport Medicine*. 2004;14, 332-338.

Wisniewski J.F., Guskiewicz K.M., Trope M., Sigurdsson A. Incidence of cerebral concussions associated with type of mouthguard used in college football. *Dent Traumatol*, 2004;20(3), 143-149.

Guskiewicz, K.M., and Cantu, R.C. The concussion puzzle: Evaluation of sport-related concussion. *American Journal of Medicine and Sports*. 2004;6,13-21,

McCrea, M., Hammeke, T., Olsen, G., and Guskiewicz, K.M. Unreported concussion in high school football players. *Clinical Journal of Sports Medicine*. 2004;14(1), 13-17.

Blackburn JT, Riemann BL, Padua DA, Guskiewicz KM. Sex comparison of active extensibility, and active and passive stiffness of the knee flexors. *Clinical Biomechanics*, 2004;19(1),36-43.

Brown, C.N., Ross, S.E., Mynark, K., Guskiewicz, K.M. Assessment of functional ankle instability using joint position sense, time to stabilization, and electromyography. *Journal of Sport Rehabilitation*. 2004;13,122-134.

Ross, S.E., Guskiewicz, K.M., Schneider R.A., Prentice, W.E. Comparison of biomechanical factors between lower limbs during a static balance task, isokinetic strength assessment, and a jump-landing. *Journal of Sport Rehabilitation*, 2004;13, 151-166.

Guskiewicz KM, McCrea M, Marshall SW, Cantu RC, Randolph C, Barr W, Onate JA, Kelly JP. Cumulative Effects Associated with Recurrent Concussion in Collegiate Football Players: The NCAA Concussion Study. *Journal of American Medical Association*. 2003;290(19), 2549-2555.

McCrea M, Guskiewicz KM, Barr W, Marshall SW, Randolph C, Cantu R, Onate JA, Kelly JP. Acute effects and recovery time following concussion in collegiate football players: The NCAA Concussion Study. *Journal of American Medical Association*. 2003;290(19), 2556-2563.

Blackburn, JT, Hirth, CJ, Guskiewicz, KM. Balance shoes increase lower extremity electromyography activity during functional activities. *Journal of Athletic Training*, 2003;38(3), 198-203.

Guskiewicz, K.M. Assessment of postural stability following sport-related concussion. *Current Sports Medicine Reports*, 2003;2(1), 24-30.

Ross S.E., Guskiewicz K.M. Time to stabilization: A method for analyzing dynamic postural stability. *Athletic Therapy Today*, 2003;8(3),37-39.

Falsone, S., Gross, M, Guskiewicz, K.M., Schnieder, R. The One Arm Hop Test: Reliability and the Effects of Arm Dominance. *Journal of Orthopaedic and Sports Physical Therapy*, 2002;32(3), 98-103.

Guskiewicz, K.M., Marshall, S.W., Broglio,S.P., Cantu, R.C., and Kirkendall, D.T. No evidence of impaired neurocognitive performance in collegiate soccer players. *American Journal of Sports Medicine*, 2002;30(2), 157-162 .

Guskiewicz, K.M. Balance and Mild Head Injury in Athletes. *Orthopaedic Physical Therapy Clinics of North America: Balance (special issue)*, 2002;11(1), 143-158.

Mancuso, J.M., Guskiewicz, K.M., Petschauser, M.A. Posterior foot pain in a collegiate field hockey player, *Journal of Sport Rehabilitation*, 2002;11(1), 67-73.

Guskiewicz, K.M., Ross S.E., and Marshall S.W. Postural stability and neuropsychological deficits following concussion in collegiate athletes. *Journal of Athletic Training*, 2001;36(3), 263-273.

Guskiewicz, K.M. Postural stability assessment following concussion: One piece of the puzzle. *Clinical Journal of Sport Medicine*, 2001;11(3), 182-189.

Onate J.A., Guskiewicz KM, & Sullivan RL. Augmented feedback reduces jump-landing forces. *Journal of Orthopaedic & Sports Physical Therapy*, 2001;31(9), 511-517.

Ferrara, M.S., McCrea M., Peterson C.L., and Guskiewicz, K.M. A survey of practice patterns in concussion assessment and management. *Journal of Athletic Training*, 2001;36(2),145- 149.

Guskiewicz, K.M. Concussion in sport: The grading system dilemma. *Athletic Therapy Today*, 2001;6(1), 18-27.

Broglio, S.P., and Guskiewicz, K.M. Soccer Heading: Are There Risks Involved? *Athletic Therapy Today*, 2001;6(1), 28-32.

Galilee-Belfer, A., and Guskiewicz, K.M. Stress Fracture of the Eighth Rib in a Female Collegiate Rower: A Case Report. *Journal of Athletic Training*, 2000;35(4), 445-449.

Blackburn, J.T., Guskiewicz, K.M., Busby, M.A., Prentice, W.E. Balance and Joint Stability: The relative contributions of proprioception and muscular strength. *Journal of Sport Rehabilitation*, 2000;9(4), 315-328.

Guskiewicz, K.M., Weaver, N., Padua, D.A., and Garrett, W.E. Epidemiology of concussion in collegiate and high school football players. *American Journal of Sports Medicine*, 2000;28(5), 643-650.

Onate, J.A., Guskiewicz, K.M., and Riemann, B.L. A comparison of sideline versus clinical cognitive test performance in collegiate athletes. *Journal of Athletic Training*, 2000;35(2),155-160.

Riemann, B.L., and Guskiewicz, K.M. Effects of mild head injury on postural stability as measured through clinical balance testing. *Journal of Athletic Training*. 2000;35(1), 19-25.

Myers, J.B., Guskiewicz, K.M., Schneider, R.A., & Prentice, W.E. Proprioception and neuromuscular control of the shoulder following muscle fatigue. *Journal of Athletic Training*. 1999;34(4), 362-367.

Myers, J.B., Guskiewicz, K.M., and Riemann, B.L. Syncope and atypical chest pain in an intercollegiate wrestler. *Journal of Athletic Training*. 1999;34(3), 263-266.

Gribble, P.A., Guskiewicz, K.M., Prentice, W.E., & Schneider, R. Effects of static and hold-relax stretching on hamstring range of motion using the flexibility LE1000. *Journal of Sport Rehabilitation*, 1999;8(3), 195-208.

Ubinger, M.E., Prentice, W.E., Guskiewicz, K.M. and Schneider, R. Effect of closed kinetic chain training on neuromuscular control in the upper extremity using the Functional Activity System for Testing and Exercise (FASTEX). *Journal of Sport Rehabilitation*. 1999;8(3), 187-194.

Riemann, B.L., Guskiewicz, K.M., and Shields E.W. Relationship between clinical and forceplate measures of postural stability. *Journal of Sport Rehabilitation*, 1999;8(2), 1-7.

Guskiewicz, K.M., Riemann, B.L., and Onate, J.A. Comparison of three methods of external support for management of acute lateral ankle sprains. *Journal of Athletic Training*, 1999;34(1), 5-10.

Guskiewicz, K.M. Clinical research in sport related mild head injury. *Athletic Therapy Today*, 1998;3(3), 16-17.

Oliaro, S.M., Guskiewicz, K.M., and Prentice, W.E. Establishment of normative data on cognitive tests for comparison with athletes sustaining mild head injury. *Journal of Athletic Training*. 1998;33(1), 36-40.

Guskiewicz, K.M., Riemann, B.L., Perrin, D.H., & Nashner, L.M. Alternative approaches to the assessment of mild head injury in athletes. *Medicine & Science in Sports & Exercise*, 1997;29(7), S213-S221.

Riemann, B.L., & Guskiewicz, K.M. Assessment of mild head injury utilizing measures of balance and cognition: A case study. *Journal of Sport Rehabilitation*, 1997;6(3), 283-289.

Guskiewicz, K.M., Perrin, D.H., & Gansneder, B. Effect of mild head injury on postural stability. *Journal of Athletic Training*, 1996;31(4), 300-306.

Guskiewicz, K.M., & Perrin, D.H. Effect of orthotics on postural sway following inversion ankle sprains. *Journal of Orthopaedic and Sports Physical Therapy*, 1996;23(5), 326-331.

Hertel, J.N., Guskiewicz, K.M., Kahler, D.M., Perrin, D.H. Effect of lateral ankle joint anaesthesia on joint position sense, postural sway, and center of balance. *Journal of Sport Rehabilitation*, 1996;5(2), 111-119.

Guskiewicz, K.M. & Perrin, D.H. Research and clinical applications of assessing balance. *Journal of Sport Rehabilitation*, 1996;5(1), 45-63.

Guskiewicz, K.M., Perrin, D.H., Martin, D.E., Kahler, D.M., Gansneder, B.M., & McCue, F.C. Effect of ACL reconstruction and tibial rotation on anterior knee laxity. *Journal of Athletic Training*, 1995;30(3), 243-246.

Guskiewicz, K.M., Degnan, G., & Schildwachter, T. Scapholunate dissociation and dorsal intercalated segmental instability in an adolescent football player: A case study. *Journal of Sport Rehabilitation*, 1995;4(2), 116-121.

Martin, D.E., Guskiewicz, K.M., Perrin, D.H., Kahler, D.M. & McCue, F.C. Tibial rotation affects anterior displacement of the knee. *Journal of Sport Rehabilitation*, 1994;4, 275-281.

Guskiewicz, K.M., Lephart, S.M., & Burkholder, R. Relationship between sprint speed and hip flexor/extensor strength in Division I Intercollegiate Athletes. *Isokinetics and Exercise Science*, 1993;3, 111-116.

#### **Refereed Journal Publications – In Review:**

Lynall RC, Schmidt JD, Mihalik JP, Guskiewicz KM. (2014) The clinical utility of a concussion re-baseline protocol following concussion recovery (Submitted to *Clinical Journal of Sports Medicine* – December 2014).

Varangis E, Giovanello K, Foster C, Kerr Z, DeFreese J, Marshall SW, Guskiewicz KM. Effects of concussion history and football exposure on working memory performance in retired National Football League and college football players. (Submitted to *Lancet Neurology* – October 2014).

Kerr ZY, Littleton AC, Varangis E, DeFreese J, Marshall SW, Guskiewicz KM. Estimating contact exposure in football using the Head Impact Exposure Estimate (HIEE). (Submitted to *Neurotrauma* – August 2014).

Kerr ZY, Collins CL, Mihalik JP, Marshall SW, Guskiewicz KM, and Comstock RD. The role of impact location in concussion outcomes associated with player-to-player collisions among United States high school football players. (Submitted to *Neurosurgery* – January 2015).

Harpham JA, Mihalik JP, Littleton AC, Frank BS, & Guskiewicz KM. (2013). The effect of visual and sensory performance on head impact biomechanics in college football players. (Submitted to *Annals of Biomedical Engineering* – May 2013).

Littleton A, Guskiewicz K, Schmidt J, Register-Mihalik J, Gioia G, Waicus K, Mihalik J. The effects of attention deficit hyperactivity disorder (ADHD) and stimulant medications on performance on concussion assessment tools. (Submitted to *JAT* – January 2012).

### **Invited Editorials:**

Guskiewicz, K.M., and Pachman, S.E. Management of Sport-Related Brain Injuries: Preventing Poor Outcomes and Minimizing the Risk for Legal Liabilities. *Athletic Training and Sports Health Care*, 2(6):248–252, 2010.

Marshall, S.W., and Guskiewicz, K.M. Sports and Recreational Injury: The hidden cost of a healthy lifestyle. *Injury Prevention*, 9:100-102, 2003.

Guskiewicz, K.M. The concussion puzzle: 5 compelling questions. *Journal of Athletic Training*, 36(3), 225-226, 2001.

### **Textbook Sections Edited:**

Guskiewicz, KM. Basic Concepts (section) In *Athletic Training and Sports Medicine* (3<sup>rd</sup> Ed.). American Academy of Orthopaedic Surgeons, 2000.

### **Textbook Chapters:**

Guskiewicz, KM and Broglio SP. Acute Sports-Related Traumatic Brain Injury and Repetitive Concussion. In *Handbook of Clinical Neurology* Vol. 127 (3<sup>rd</sup> series). Grafman, J and Salazar, A. (Ed). Elsevier B.V., 2014.

Guskiewicz, KM. Clinical Management of Sport Related Head Injury. In *Emergency Care in Athletic Training*. Gorse K, Feld F, Blanc R. F.A. Davis Publishing, 2009.

Guskiewicz, KM and Mihalik, JP. The Biomechanics and Pathomechanics of Sport-Related Concussion. In *Foundations of Sport-Related Concussion*. Slobounov, SM. and Sebastianelli, WJ. Springer Publishing, 2006.

Guskiewicz, KM. Head Injuries. In *Clinical Sports Medicine*. Johnson, D.L. and Mair, S.D. Elsevier, 129-141, 2006.

Guskiewicz, KM and McCrea, M: Head Injuries in Sports Medicine. In *American Academy of Orthopaedic Surgeons- Athletic Training and Sports Medicine* (4<sup>rd</sup> Ed.). Starkey, C. and Johnson, G. (Ed). Jones & Bartlett, 2005

Guskiewicz, KM, and Onate, JA. Nonsurgical Therapy: Therapeutic Modalities and Orthopaedic Rehabilitation. In *Musculoskeletal Medicine*. Bernstein, J. (Ed). American Academy of Sports Medicine, 2003.

Guskiewicz KM. Comprehensive Approach to Concussion Assessment. In *Neurological Sports Medicine: A Guide for Physicians and Athletic Trainers*. Julian Bailes & Arthur Day (Eds). American Association of Neurological Surgeons (AANS), 2001.

Guskiewicz KM. Impaired Postural Stability: Regaining Balance. In *Techniques in Musculoskeletal Rehabilitation*. William Prentice & Michael Voight (Eds). McGraw Hill, 2001.

Guskiewicz KM and Barth J. Head Injuries. In *Athletic Training and Sports Medicine* (3<sup>rd</sup> Ed.). American Academy of Orthopaedic Surgeons, 2000.

Riemann BL and Guskiewicz KM. Contribution of the Peripheral Somatosensory System to Balance and Postural Equilibrium. In *The Role of Proprioception and Neuromuscular Control in the Management of Articular Pathology* for: Foundation For Sports Medicine Education and Research. Scott M. Lephart & Freddie Fu (Eds). Human Kinetics Publishers, 1999.

Guskiewicz KM. Regaining Balance and Postural Equilibrium. In *Rehabilitation Techniques in Sports Medicine* (3<sup>rd</sup> Ed). William E. Prentice (Ed). Brown & Benchmark Publishers, 1998.

### **Non-Refereed Publications:**

Guskiewicz, K., Echemendia, R. & Cantu, R. Assessment and return to play following sports-related concussion. President's Council on Fitness, Sports & Nutrition Research Digest, Series 12, No 1. January, 2012.

Guskiewicz KM. The Role of the Athletic Trainer in the Proper Management of Sports Concussion. *The Brain Injury Professional*. September 2007.

Hamerick, K, Guskiewicz KM, et al. Defense and Brain Injury Center's Working Group on the Acute Management of Mild Traumatic Brain Injury. *Clinical Practice Guideline and Recommendations*. December 2006.

Kirkendall, D.T., Guskiewicz, K.M., and Garrett, W.E. Soccer, Heading, and Head Protection. *Sports Medicine Update*. Newsletter of the American Orthopaedic Society for Sports Medicine. Summer 2002

Guskiewicz, K.M. Mild Traumatic Brain Injury in Youth Soccer. Position Statement for the Department of Health and Human Services, Maternal and Child Health Bureau, June 2002.

Guskiewicz, KM and Schmitz, R. North Carolina Criminal Justice & Sheriffs Commission's Police Officer Physical Ability Test: Recommendations for Y2K, March 2000

Guskiewicz, K.M. Assessment of athletes with mild head injury. *Clinical Applications, NeuroCom International, Inc.* Clackamas, OR. January 1997.

Perrin, D.H. & Guskiewicz, K.M. Mild head injury in sports. National Athletic Trainers' Association Exchange Lecture. Second World Congress on Sports Trauma/American Orthopaedic Society for Sports Medicine (AOSSM) 22nd Annual Meeting, Orlando, FL, June 17, 1996. Published in AOSSM's *Sports Medicine Update*, Fall 1996.

### **Symposium Presentations:**



Guskiewicz, K.M. The State of Sport Concussion: Legitimate Concern vs Paranoia? *Big Ten/CIC/Ivy League TBI Research Collaboration*. Chicago, IL., July 15, 2015.

Guskiewicz, K.M. Long Term and Cumulative Effects of Concussion: What Do We Know Now and What Can We Do? *NATA Annual Symposium*. St. Louis, Mo., June 23, 2015.

Guskiewicz, K.M. The State of Sport Concussion: Legitimate Concern vs Paranoia? *ACSM Annual Symposium*. San Diego, CA., May 29, 2015.

Guskiewicz, K.M. Mechanism of Injury and Head Impact Telemetry. *AMSSM Annual Symposium*. Hollywood, FL., April 17, 2015.

Guskiewicz, K.M. Sports-Related Concussion: Legitimate Concern vs. Paranoia? *Huffines Discussion 4*. College Station, TX., November 21, 2014.

Guskiewicz, K.M. Making Sport Safer Through Innovative Science. *University of Georgia Bernard Ramsey Lecture*. Athens, GA., November 6, 2014.

Guskiewicz, K.M. Best Practices for Acute Injury Evaluation. USA Soccer Sports Medicine Meeting. Chicago, IL., October 21, 2014.

Guskiewicz, K.M. Use of Innovative Technologies for Prevention and Management of Sport Related Concussion. *Ahead of the Game: Achieving best practices in youth concussions*. The Center: Orthopedic & Neurosurgical Care & Research, Bend, OR. September 27, 2014.

Guskiewicz, K.M. Concussion Management-Best Practices from Elementary School to the Professional Athlete. *Ahead of the Game: Achieving best practices in youth concussions*. The Center: Orthopedic & Neurosurgical Care & Research, Bend, OR. September 27, 2014.

Guskiewicz, K.M. Current research on concussion prevention and management. *Ahead of the Game: Achieving best practices in youth concussions*. The Center: Orthopedic & Neurosurgical Care & Research, Bend, OR. September 26, 2014.

Guskiewicz, K.M. Biomechanics: Impacting Youth Sports. *Johnson & Johnson Keynote Address. National Athletic Trainers' Association Annual Meeting*. Indianapolis, IN, June 27, 2014.

Adler, R., Herring, S., and Guskiewicz, K.M. Are You Prepared for Concussion Litigation? Case of a TBI in a College Football Player. *National Athletic Trainers' Association Annual Meeting*. Indianapolis, IN, June 27, 2014.

Guskiewicz, K.M. Concussion: Engaging Research to Affect Clinical Care. *The 11th Annual Sports-Related Conference on Concussion and Spine Injury*. Harvard Medical School, Boston, MA., May 23, 2014.

Guskiewicz, K.M. Use of Innovative Technologies for the Prevention and Management of Sport-Related Concussion. *Southern Neurological Society Annual Meeting*. Dallas, TX., April 25, 2014.

Guskiewicz, K.M. Hits, Helmets, and Behavior Modification: Biomechanical Considerations for Preventing Concussion in Youth Sport. *IOC World Conference on Injury Prevention in Sport*. Mote Carlo, Monaco, April 12, 2014.

Guskiewicz, K.M. International perspectives on prevention of sport-related concussion: Are we gaining ground? *IOC World Conference on Injury Prevention in Sport*. Mote Carlo, Monaco, April 10, 2014.

Guskiewicz, K.M., and Alberts, J. Use of innovative technologies for the prevention and management of sport-related concussion. *10<sup>th</sup> World Congress on Brain Injury*. San Francisco, CA., March 20, 2014.

Guskiewicz, K.M. Evidence-based Management and New Directions in Rehabilitation. *10<sup>th</sup> World Congress on Brain Injury*. San Francisco, CA., March 19, 2014.

Guskiewicz, K.M. Making Sport Safer Through Innovative Science. *Female Athletes and Injury: Prevention, Treatment and Recovery*. Greensboro, NC., October 23, 2013.

Guskiewicz, K.M. Sport-related Concussion in 2013: progress Toward International Consensus. *Medical College of Wisconsin*. Milwaukee, WI., July 30, 2013.

Guskiewicz, K.M. Biomechanics of Concussion: understanding the Forces Behind the Injury. *University of Pittsburgh Medical Center Concussion Conference*. Pittsburgh, PA., June 8, 2013.

Guskiewicz, K.M. Concussion Care for Youth Athletes – Recent Progress and The Road Ahead. *American College of Sports Medicine Annual Meeting*. Indianapolis, IN., May 31, 2013.

Guskiewicz, K.M. The Art & Science of Concussion: translating Data into Concussion Prevention. President's Lecture. *American College of Sports Medicine Annual Meeting*. Indianapolis, IN., May 30, 2013.

Guskiewicz, K.M. Concussion Consequences – Post Concussion Syndrome, Cognitive Impairment & Depression. *American College of Sports Medicine Annual Meeting*. Indianapolis, IN., May 29, 2013.

Guskiewicz, K.M. Making Sport Safer Through Innovative Science. *Tigerfest – Chapel Hill High School*. Chapel Hill, NC., May 23, 2013.

Guskiewicz, K.M. Concussion Updates: What's new from Zurich 2012. *College Athletic Trainers' Society Spring Symposium for Athletic Trainers and Team Physicians*. Las Vegas, NV., May 16, 2013.

Guskiewicz, K.M. Assessing Balance in the Concussed Athlete: A Practical Approach. *Sports Neuropsychology Society*. Minneapolis, MN, May 4, 2013.

Guskiewicz, K.M. Making Sport Safer Through Innovative Science (Keynote Address). *Annual Neuroscience Symposium: The Neuroscience of Mental Health*. Kent State University, Kent, OH., April 29, 2013.

Guskiewicz, K.M. Call for Player Safety in College Sport. *Collegiate Sports Summit*. Santa Monica, CA., April 19, 2013.

Guskiewicz, K.M. Hits, Helmets, and Behavior Modification: Biomechanical Considerations for Preventing Concussion. *American Medical Society for Sports Medicine Annual Meeting*. San Diego, CA., April 18, 2013.

Guskiewicz, K.M. Assessing Balance in the Concussed Athlete: A Practical Approach. *American Medical Society for Sports Medicine Annual Meeting*. San Diego, CA., April 18, 2013.

Guskiewicz, K.M. The Other Side of the Equation: Concussion Prevention. *American Academy of Orthopedic Surgeon's Annual Meeting*. Chicago, IL., March 22, 2013.

Guskiewicz, K.M. Neurotrauma: Engaging research to affect concussion prevention & clinical care. *Matthew Gfeller Sport-Related TBI Research Center's Bi-Annual Symposium*. Chapel Hill, NC, March 8, 2013.

Guskiewicz, K.M. The Other Side of the Equation: Concussion Prevention. *Andrews Institute Injuries in Football Conference*. Pensacola, FL., March 2, 2013.

Guskiewicz, K.M. The Role of Sports Rules and Training in the Prevention of Sports-Related Concussions in Youth. *National Academy of Sciences' (NAS's) Committee on Sports-Related Concussions in Youth*. Washington, DC., February 25, 2013.

Guskiewicz, K.M., *Improving Sport Through Innovative Science*. TEDxUNC Talk. Memorial Hall, University of North Carolina, Chapel Hill, NC., February 9, 2013.

Guskiewicz, K.M. Preventing Concussion in Sport: From the Lab to the Law. *Eastern Athletic Trainers' Association Annual Meeting*. Buffalo, NY., January 5, 2013.

Guskiewicz, K.M. Prevention of Sport Concussion: Improving Helmet Design vs. Modifying Behavior. *Eastern Athletic Trainers' Association Annual Meeting*. Buffalo, NY., January 4, 2013.

Guskiewicz, K.M. What is the role of balance testing in diagnosis given that some sports have practical difficulties? *4<sup>th</sup> International Consensus Conference on Concussion in Sport*. Zurich, Switzerland. November 1, 2012.

Guskiewicz, K.M. Cumulative effects of concussive and sub-concussive blows. *Concussion in Sports Symposium*. Penn State University, State College, PA. October 12, 2012.

Guskiewicz, K.M. Translating Objective Data into Concussion Prevention and Improved Management. *Mayo Clinic Symposium on Concussion in Sport*. Scottsdale, AZ. September 28, 2012.

Guskiewicz, K.M. Current state of concussion management and recommended best practices. *Division 1-A Athletic Directors Annual Meeting*. Grapevine, TX. September 24, 2012.

Guskiewicz, K.M. Considerations for Neuropsychological Testing in the Adolescent Athlete: Implications for the Playing Field and Classroom. *National Academy of Kinesiology Annual Meeting*. Portland, OR. September 21, 2012.

Guskiewicz, K.M. On-field preparedness for head injuries and concussion treatment. *American Orthopedic Society for Sports Medicine Annual Meeting*. Baltimore, MD. July 12, 2012.

Guskiewicz, K.M. Preventing Concussion in Sport: From the Lab to the Law. *Marietta Sports Med Symposium*. Marietta, OH. July 10, 2012.

Guskiewicz, K.M. Current Concepts in Evaluation and Management of Sports Related Concussion. *Marietta Sports Med Symposium*. Marietta, OH. July 10, 2012.

Guskiewicz, K.M. Case of a TBI in a College Football Player: Legal concerns about everyday athletic training tasks. *NATA Annual Meeting and Symposium*. St. Louis, MI. June 27, 2012.

Guskiewicz, K.M. The Art and Science of Making a Difference: Translating Concussion Data into Concussion Prevention. *Art & Science of Sports Medicine Conference*. The University of Virginia. Charlottesville, VA; June 7, 2012.

Guskiewicz, K.M. Is concussion the same the world around? Rugby in the U.S., Ireland, Australia & more. *ACSM Annual Meeting*. San Francisco, CA; May 31, 2012

Guskiewicz, K.M. Hits & Helmets: Improving Helmet Design vs Modifying Behavior. *ACSM Annual Meeting*. San Francisco, CA; May 30, 2012.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data into Concussion Prevention. *Medical College of Wisconsin's Annual Neurosciences Symposium*. Milwaukee, WI; May 18, 2012.

Guskiewicz, K.M. Instituting a Comprehensive Concussion Program. *National Sports Medicine and Sports law Conference*. Clearwater, FL; May 14, 2012.

Guskiewicz, K.M. Current state of concussion management & recommended best practices for emergency planning. *Biltmore Resort, Fiesta Bowl Summit*. Phoenix, AZ; May 3, 2012.

Guskiewicz, K.M. Biomechanics of Sports Concussion. *Youth Sports Concussion Conference: Definition, Assessment, Research, and Oregon's Max's Law*. Bend, OR; April 21, 2012.

Guskiewicz, K.M. Sports Concussion- From sideline to office. *Youth Sports Concussion Conference: Definition, Assessment, Research, and Oregon's Max's Law*. Bend, OR; April 21, 2012.

Guskiewicz, K.M. Sports Concussion Management in Schools. *Youth Sports Concussion Conference: Definition, Assessment, Research, and Oregon's Max's Law*. Bend, OR; April 21, 2012.

Guskiewicz, K.M. *The Science and Technology of Sport Concussions, Bennan and Smith Lecture Series*. Texas State University, San Marcos, TX; April 5, 2012.

Guskiewicz, K.M. Clinical Spectrum of Sports TBI. *Keystone Symposia on Molecular and Cellular Biology*. Keystone, CO; February 27, 2012.

Guskiewicz, K.M. Preventing Concussion in Sport: From the Lab to the Law. *Southeast American College of Sports Medicine 2012 Annual Meeting*. Jacksonville, FL; February 11, 2012.

Guskiewicz, K.M. Concussion Prevention: Improving Helmet Design vs Modifying Behavior. *Big Sky Athletic Training Sports Medicine Conference*. Big Sky, MT; January 30, 2012.

Guskiewicz, K.M. Concussion in the Athlete. *Sooner Sports Medicine Symposium Concussion & C-Spine*. Norman, OK; January 13, 2012.

Guskiewicz, K.M. The Science of sport concussion: Translating data collection into concussion prevention. *Cleveland Clinic*. Cleveland, OH; November 29, 2011.

Guskiewicz, K.M. The Science of sport concussion: Translating Data Collection into concussion prevention and improved management. *American Academy of Physical Medicine and Rehabilitation Annual Assembly Concussion Symposium*. Orlando, FL; November 18, 2011.

Guskiewicz, K.M. Pathophysiology of Sport Concussion and Headache; Implication for Return to Play. *Scottsdale Headache Symposium*. Scottsdale, AZ; November 10, 2011.

Guskiewicz, K.M. The science and technology of sport concussion: Translating data collection into concussion prevention. *Knuttggen Keynote Lecture, New England Chapter of ACSM Annual Fall Conference*. Providence, RI; November 4, 2011.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data Collection into Concussion Prevention. *Licht Lectureship*. Minneapolis, MN; October 20, 2011.

Guskiewicz, K.M. Youth Concussion: Why Be concerned? *Concussion in Sports: Nothing Mild About it: NASHIA Pre-Conference Workshop*. Kansas City, Missouri; October 3, 2011.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data Collection into Concussion Prevention. *MossRehab's Concussion Management and Sports Medicine Conference*. Fort Washington, PA; July 8, 2011.

Guskiewicz, K.M. Concussion and Post-Concussion Syndrome: When to Rest and When to Rehab? *Concussion Management and Sports Medicine Conference*. Fort Washington, PA; July 8, 2011.

Guskiewicz, K.M. Emerging Technologies in Helmeted Sports: A look at Football, Ice Hockey, and Lacrosse. *National Athletic Trainers' Association Annual Meeting*. New Orleans, LA; June 20, 2011.

Guskiewicz, K.M. Rehabilitation Following mTBI. *National Athletic Trainers' Association Annual Meeting*. New Orleans, LA; June 20, 2011.

Guskiewicz, K.M. Can You Hear Me Now? Communication Skills for the Athletic Trainer. *National Athletic Trainers' Association Annual Meeting*. New Orleans, LA; June 20, 2011.

Guskiewicz, K.M. Identification of mTBI, with an Emphasis on Sports-Related Injury. *Federal Interagency Conference on Traumatic Brain Injury*. Washington, D.C; June 13, 2011.

Guskiewicz, K.M. The Natural History of Mild Traumatic Brain Injury; Lessons Learned from Sports Concussion Research on Acute and Chronic Effects. *Federal Interagency Conference on Traumatic Brain Injury*. Washington, D.C; June 15, 2011.

Guskiewicz, K.M. What We Need to Know About Concussions. *Pennsylvania Athletic Trainers' Society Annual Symposium*. Lancaster, PA; June 10, 2011.

Guskiewicz, K.M. Diagnosis, Treatment, Management of Concussion. *Jacksonville Concussion Summit*. Jacksonville, FL; June 4, 2011.

Guskiewicz, K.M. Neuropsychological Examination of the Concussed Athlete. *Jacksonville Concussion Summit*. Jacksonville, FL; June 4, 2011.

Guskiewicz, K.M. Return to Play Considerations. *Jacksonville Concussion Summit*. Jacksonville, FL; June 4, 2011.

Guskiewicz, K.M. Balance Assessment. *Biological Assessment of Brain Dysfunction*. Washington, DC; May 25, 2011.

Guskiewicz, K.M. Quantitative Assessment in Mild TBI. *Johns Hopkins Traumatic Brain Injury, A National Conference; From Impact to Recovery*. Baltimore, MD; May 21, 2011.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data Collection into Concussion Prevention. *Sanford Sports Medicine Symposium*. Soix Falls, SD; May 5, 2011.

Guskiewicz, K.M. Concussion and Post-Concussion Syndrome: When to Rest and When to Rehab? *Sanford Sports Medicine Symposium*. Soix Falls, SD; May 5, 2011.

Guskiewicz, K.M. Preventing Sudden Death in Sport: Head Injury. *Sanford Sports Medicine Symposium*. Soix Falls, SD; May 5, 2011.

Guskiewicz, K.M. Concussions: Where We Are and Where We're Going. *2011 Multidisciplinary Concussion Summit*. Erie, PA; April 29, 2011.

Guskiewicz, K.M. Athlete Education and Behavior Modification in Preventing Concussion. *International Sport Injury Prevention Congress*. Monaco; April 9, 2011.

Guskiewicz, K.M. Concussion Management Update. *NCCA's 2011 Nurse Practitioner Spring Symposium*. Pinehurst, NC; March 29, 2011.

Guskiewicz, K.M. What is the Role of Balance Assessment in Understanding Concussion Severity and Recovery? *National Football League's "NFL Combine - Team Physician Meeting."* Indianapolis, IN; February 24, 2011.

Guskiewicz, K.M. Helmet Testing and On-Field Monitoring of Safety Equipment & Player Behavior. *National Football League's "NFL Combine – Competition Committee Meeting."* Indianapolis, IN; February 22, 2011.

Guskiewicz, K.M. Sport Concussion: Facts, Fallacies and Frontiers. *North Carolina Neurologic Society Annual Meeting.* Cary, NC; February 19, 2011.

Guskiewicz, K.M. Sports Concussion: Facts, Fallacies and Frontiers. *Danish Congress of Medicine and Science in Sports.* Odense, Denmark; February 4, 2011

Guskiewicz, K.M. Sport-Related Concussion: Considerations for Football Coaches. *American Football Coaches Association's Annual Meeting.* Dallas, TX; January 10, 2011.

Guskiewicz, K.M. Preventing Sudden Death in Sport: Head Injury Considerations; *National Strength and Conditioning Association Annual Meeting.* Dallas, TX, January 8, 2011.

Guskiewicz, K.M. Challenges we face: Equipment standards and rules changes based on empirical evidence. *The National Football League's Head, Neck, and Spine Committee's Summit.* New York, NY; December 8, 2010.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data Collection into Concussion Prevention. *The American Academy of Neurological Surgery - 75<sup>th</sup> Annual Meeting.* Pebble Beach, CA; November 6, 2010.

Guskiewicz, K.M. Sports Concussion: Facts, Fallacies and Frontiers. *Missouri Brain Injury Association.* St. Charles, Missouri; October 22, 2010.

Guskiewicz, K.M. The Science of Translation from Data Collection to Concussion Prevention: Changing the Practice Profile. *Mayo Clinic's Ice Hockey Summit: Action on Concussion,* Rochester, MN; October 19, 2010.

Guskiewicz, K.M. Physical Education Curriculum Priorities: Athletic Training & Biomechanics Perspectives – Safe Exercise is Medicine. *American Academy of Kinesiology and Physical Education Annual Symposium,* Williamsburg, VA; October 8, 2010.

Guskiewicz, K.M. Sport Concussion: Are We Headed in the Right Direction? *New Hampshire Musculoskeletal Institute's 17<sup>th</sup> Annual Symposium,* Bedford, NH, September 11, 2010.

Guskiewicz, K.M. The Concussion Dilemma: Are We Headed in the Right Direction? 56<sup>th</sup> *Southwestern Athletic Trainers' Association's Annual Meeting and Clinical Symposium.* Arlington, TX, July 23, 2010.

Guskiewicz, K.M. Preventing Sudden Death in Sport: Head Injury Considerations; Johnson & Johnson Featured Symposium. *National Athletic Trainers' Association.* Philadelphia, PA, June 24, 2010.

Guskiewicz, K.M. Concussion and Post-Concussion Syndrome: When to Rest, Exercise, or Return to Sport. *American Physical Therapy Association.* Boston, MA, June 17, 2010.

Guskiewicz, K.M. Emotional and Cognitive Problems in Football Players. *Traumatic Brain Injury in Professional Football: An Evidence-Based Perspective*. Sponsored by Johns Hopkins Medical Center and The National Football League, Washington, DC, June 2, 1010.

Guskiewicz, K.M. Sports-Induced Concussion Biomechanics. *National Concussion Summit*. Los Angeles, CA, May 14, 2010.

Guskiewicz, K.M. and Bytowski, J.R. Concussion Management Update and Challenges with Return to Play. *College Athletic Trainers' Society Annual Meeting*. Las Vegas, NV, May 13, 2010.

Guskiewicz, K.M. Removing the Guesswork in the Management of PCS: Strategies for Assessment and Rehabilitation. *American Medical Society for Sports Medicine Annual Meeting*, Cancun, Mexico, April 21, 2010.

Guskiewicz, K.M. Concussion Prevention: Facts, Fallacies and Frontiers. *American Medical Society for Sports Medicine Annual Meeting*, Cancun, Mexico, April 19, 2010.

Guskiewicz, K.M. Clinical Sequelae of Multiple Traumatic Brain Injuries. *62<sup>nd</sup> Annual American Academy of Neurology Annual Meeting*, Toronto, Ontario, April 2, 2010.

Guskiewicz, K.M. Epidemiology of Traumatic Brain Injury in Football. *Wecht Institute of Forensic Science and Law*, Duquesne University, Pittsburgh, PA, March 12, 2010.

Guskiewicz, K.M. Sports Concussion Across the Lifespan: A Cause for Concern? *University of Washington*, Seattle, WA, March 6, 2010.

Guskiewicz, K.M. New Research in Athletic Brain Injury. *Athletic Trainers' Society of New Jersey Annual Conference*, Plainsboro, NJ, March 1, 2010.

Guskiewicz, K.M. Sideline Evaluation of Sport Concussion. *Athletic Trainers' Society of New Jersey Annual Conference*, Plainsboro, NJ, February 28, 2010.

Guskiewicz, K.M. Sports Concussion Across the Lifespan: A Cause for Concern? *UNC-Chapel Hill Athletic Training Symposium*, Chapel Hill, NC, February 27, 2010.

Guskiewicz, K.M., Whitney, S., Cantu, R., and Nowinski, C. Concussion and Mild Traumatic Brain Injury Update 2010. *American Physical Therapy Association, Sports Physical Therapy Association*, San Diego, CA, February 18, 2010.

Guskiewicz, K.M. The Long Term Effects of mTBI in Football. *The Inaugural Meeting of the Mackey-White Committee*. Sponsored by the NFLPA, West Palm Beach, FL, January, 26 2010.

Guskiewicz, K.M. The Long Term Effects of mTBI: Using Sport as a Laboratory. *The National Institute of Aging: TBI and the Risk of Dementia*, Bethesda, MD, September 16, 2009.

Guskiewicz, K.M. Sport-Related Concussion: Navigating the Latest Research Findings & Clinical Recommendations. *International Symposium on Prevention and Management of Sport Injuries*. Beijing Sport University, Beijing, China, July 4, 2009.

Guskiewicz, K.M., Brogio, S., Mihalik, J. Sport-Related Concussion: Navigating the Latest Research Findings and Clinical Recommendations. *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX, June 20, 2009.



Klossner, D., Marshall, S.W., Guskiewicz, K.M., Hootman, J. Evidence Based Medicine: Breaking down the stats on injury surveillance and sport related concussion: what do the statistics mean and how can I apply them? *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX, June 20, 2009.

Guskiewicz, K.M. Learning Lab: Sideline Concussion Assessment. *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX, June 20, 2009.

Guskiewicz, K.M. Current Trends in Concussion Assessment and Intervention. *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX, June 18, 2009.

Guskiewicz, K.M. The Concussion Delimma: Are We Headed in the Right Direction? *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX, June 18, 2009.

Guskiewicz, K.M. *Updates on Concussion Management: Are We Headed in the Right Direction?* The Ohio State University – Sports Medicine Grand Rounds, Columbus, OH, June 5, 2009.

Guskiewicz, K.M., Herring, S., Putukian, M. Managing Sports-Related Concussion in the Youth and Adolescent Athlete. *American College of Sports Medicine 2009 Annual Meeting*. Seattle, WA, May 27, 2009.

Guskiewicz, K.M. Catastrophic Brain Injuries in Sport. *Mid-Atlantic athletic Trainers' Association Annual Symposium*. Virginia Beach, VA, May 17, 2009.

Guskiewicz, K.M. & Cantu, R. Current Concepts in Concussion Management. *2009 College Athletic Trainer's Society Spring Symposium for Athletic Trainers and Team Physicians*. Las Vegas, NV, May 14, 2009

Guskiewicz, K.M. Concussion Management. *North Carolina Athletic Trainers' Association 32<sup>nd</sup> Annual Business Meeting and Symposium*. Concord, NC, March 7, 2009.

Guskiewicz, K.M. Concussion Assessment: Athletic Trainers and Physicians Under the Microscope. *Emory University Sports Medicine Symposium*, Atlanta, GA, March 11, 2009

Guskiewicz, K.M. Sports-Related Concussion Management. *North Carolina Neurological Society*. Chapel Hill, NC, February 20, 2009.

Guskiewicz, K.M. Long-Term Effects of Sport Concussion: A Study of Retired Professional Football Players. *National Academy of Neuropsychology*. New York, NY, October 21, 2008.

Guskiewicz, K.M. Working across campus to build an interdisciplinary research team: drafting the best players. *78<sup>th</sup> Annual Meeting of the American Academy of Kinesiology*. Chicago, IL, September 26, 2008.

Guskiewicz, K.M. Epidemiology of Sport-Related Concussion in Sport and Recreation. *19<sup>th</sup> Annual State of the States in Head Injury Conference*; Hosted by: *National Association of State Head Injury Administrators*, Williamsburg, VA, September 11, 2008.

Guskiewicz, K.M. Sport-Related Concussion: Is Research Driving Clinical Practice? *Head Injury and Concussion Symposium*; Hosted by: *Bone & Joint Injury Prevention & Rehabilitation Center*, University of Michigan, Ann Arbor, MI, August 4, 2008.

Guskiewicz, K.M., Kaminski, T., and Putukian, M. Heading in the Right Direction? An In-Depth Analysis of Head Safety in Sport. *National Athletic Trainers' Association Annual Meeting*, St. Louis, MO, June 18, 2008.

Guskiewicz, K.M., Cantu, R.C., Broglio, S., Mihalik, J.A., and Bailey, C. Neuropsychological Assessment of the Concussed Athlete: Only One Piece of the Concussion Puzzle. *American College of Sports Medicine Annual Symposium*. Indianapolis, IN, May 28, 2008.

Guskiewicz, K.M. What's New in Concussion Research. *Brigham and Women's Hospital - Neurological Sport Trauma Symposium*. Boston, MA, May 9, 2008.

Guskiewicz, K.M. The NCAA Concussion Study: Recovery and Cumulative Effects. The National Concussion Summit. Marina Del Rey, CA. April 19, 2008.

Guskiewicz, K.M. Concussion and equilibrium: diagnosis and treatment. International Consensus Conference Concussion in Football: Diagnosis, Prevention and Rehabilitation. Chelsea Football Club, Stamford Bridge, London, UK, March 28, 2008.

Guskiewicz, K.M., Barth, J., Echemendia, R., Cantu, R., et al. Controversies in the World of Sports Concussion: Sheldon Berrol Memorial Chautauqua. *American Congress of Rehabilitation Medicine and the American Society of Neurorehabilitation Annual Meeting*. Washington, DC. October 4, 2007.

Guskiewicz, K.M. Sport Medicine & Athletic Training in the 21<sup>st</sup> Century: Bridging the Gap Between Research and Clinical Practice. *American Academy of Kinesiology and Physical Education*. Savannah, GA. September 29, 2007.

Guskiewicz, K.M. Return to Play Decisions & Rehabilitation Following Concussion. *National Athletic Trainers' Association Annual Meeting*. Anaheim, CA. June 29, 2007.

Guskiewicz, K.M. Co-morbidities Related to Osteoarthritis in Retired Athletes. *National Athletic Trainers' Association Annual Meeting*. Anaheim, CA. June 28, 2007.

Guskiewicz, K.M., Burkholder, R., & Tucker, A. Assessing mTBI Cases & Return to Play in the Same Game. *NFL Player Health and Safety Meeting*. Chicago, IL, June 19, 2007.

Guskiewicz, K.M., Biomechanics of Concussion: New Technologies for Assessing Concussion Impacts. *American College of Sports Medicine*. New Orleans, LA, May 31, 2007.

Guskiewicz, K.M. Updates on Management of Sport Related Concussion. *College Athletic Trainers' Society Spring Symposium for Athletic Trainers and Team Physicians*. Las Vegas, Nevada. May 17, 2007.

Guskiewicz, K.M. Biomechanics of Sport Related Concussion. *The Concussion Summit*. Marina Del Rey, CA. April 20, 2007.

Guskiewicz, K.M. The NCAA Concussion Study and the Cumulative Effects of Concussion. *The Concussion Summit*. Marina Del Rey, April 20, 2007.

Guskiewicz, K.M. and Mihalik J.P. Real-Time Analysis of Impacts in Collegiate Football and Youth Hockey. Third International Meeting on Minor Traumatic Brain Injuries in Sport. St. Moritz, Switzerland, March 14, 2007.

Guskiewicz, K.M. Postural Stability Assessment & Rehabilitation Following Sport-Related Concussion. Third International Meeting on Minor Traumatic Brain Injuries in Sport. St. Moritz, Switzerland, March 14, 2007.

Guskiewicz, K.M. Great Lakes Athletic Trainers' Association's *Annual Pinky Newell Lecture*. Sport-Related Concussion: Is Research Driving Clinical Practice? St. Charles, IL. March 9, 2007.

Guskiewicz, K.M. American Physical Therapy Association - Sport Section. *Team Concept Conference*. A,B,C's of on-field management of concussion. Las Vegas, NV, December 3, 2006.

Guskiewicz, K.M. American Physical Therapy Association - Sport Section. *Team Concept Conference*. The Concussion Puzzle: Putting all the pieces together. Las Vegas, NV, December 3, 2006.

Guskiewicz KM, Case Definition and Natural History of Mild Traumatic Brain Injury. *Defense and Brain Injury Center's Working Group on the Acute Management of Mild Traumatic Brain Injury*, Washington DC, November 9, 2006.

Guskiewicz, K.M. 2006 Todd Bell Memorial Lecture: Risk of Cardiovascular Disease in Retired NFL Players. The Ohio State University, Columbus, OH. July 28, 2006.

Guskiewicz, K.M. Current Concepts in Concussion Management. *National Athletic Trainers' Association Annual Meeting*. Atlanta, GA, June 15, 2006.

Guskiewicz, K.M. Postural Stability as an Assessment Tool and Rehabilitation Strategy Following Sport Concussion. *Second International Meeting on Minor Traumatic Brain Injuries in Sport*. St. Moritz, Switzerland, March 16, 2006.

Guskiewicz, K.M. Recurrent Concussion in a Collegiate Football Player Equipped with the Head Impact Telemetry System. *Second International Meeting on Minor Traumatic Brain Injuries in Sport*. St. Moritz, Switzerland, March 16, 2006.

Guskiewicz, K.M. Association Between the Incidence of Cerebral Concussions & Dental Injuries, and Mouthguard Usage Among Collegiate Ice Hockey Players. *Second International Meeting on Minor Traumatic Brain Injuries in Sport*. St. Moritz, Switzerland, March 16, 2006.

Guskiewicz, K.M. Concussion by the Numbers: An Epidemiologic Look at Sports Related Concussion. *Second Federal Interagency Conference on Traumatic Brain Injury*. Bethesda, MD, March 9, 2006.

Guskiewicz, K.M. Sport-Related Concussion: Understanding and Using Sideline Management Tools. *Canisius College Visiting Scholars Lecture Series*. Buffalo, NY, February 14, 2006.

Guskiewicz, K.M. Researcher's Forum: An Awardee's Perspective. *National Athletic Trainers' Association Annual Meeting*. Indianapolis, IN, June 15, 2005.

Valovich-Mcleod, T., Guskiewicz, K.M., and McCrea, M. Incorporating the NATA Concussion Position Statement Into Clinical Practice. *National Athletic Trainers' Association Annual Meeting*. Indianapolis, IN, June 12, 2005.

Guskiewicz, K.M. Management of Sport-Related Concussion. *The Art & Science of Sports Medicine 2005*. University of Virginia, Charlottesville, VA, June 9, 2005.

Guskiewicz, K.M. Using Sideline Tools in the Management of Sport-Related Concussion. *The Art & Science of Sports Medicine 2005*. University of Virginia, Charlottesville, VA, June 9, 2005.

Guskiewicz, K.M. Return to play decisions following concussion: Is research providing the right answers? *American College of Sports Medicine Annual Meeting*. Nashville, TN, June 4, 2005.

Guskiewicz, K.M. Current Concepts in Concussion Management. *College Athletic Trainers' Society Spring Symposium for Athletic Trainers and Team Physicians*. Las Vegas, Nevada, May 13, 2005.

Guskiewicz, K.M. Sideline Assessment and Management of Sport-Related Concussion. *Brain Injury Association of Maryland – Best Practices in Sports Concussion Management: On the Field, With the Physician, In the Classroom*. Ellicott City, Maryland, April 15, 2005

Cantu, R.C., Guskiewicz, K.M., McCrea, M., Valovich-McLeod, T. Open Scientific Paper Session: Recommendations from 2004 NATA Position Statement on Management of Concussion in Sport and 2004 Prague International Concussion Conference Consensus Statement. *5<sup>th</sup> Annual Sports Medicine and Neurotrauma Review*. Orlando, Florida, March 12, 2005.

Guskiewicz, K.M. Biomechanics of Concussion: New Technologies for Assessing Concussion Impacts. *5<sup>th</sup> Annual Sports Medicine and Neurotrauma Review*. Orlando, Florida, March 12, 2005.

Guskiewicz, K.M. Understanding and Using Sideline Management Tools. *5<sup>th</sup> Annual Sports Medicine and Neurotrauma Review*. Orlando, Florida, March 12, 2005.

Guskiewicz, K.M. Current Health Survey (2003) of Retired Professional Football Players. (part of mini-symposium on Cardiovascular Health Patterns in Elite Athletes: Bigger May Not be Better in NFL Players. *American College of Cardiology Annual Scientific Session – 2005*. Orlando, Florida, March 7, 2005.

Guskiewicz, K.M. Sport-Related Concussion: Understanding and Using Sideline Assessment Tools. *Brain Injury Association of New York State – 2004 Sports and Concussion Symposium*. Madison Square Garden, New York City, NY, December 10, 2004

Guskiewicz, K.M. Concussion by the Numbers: An Epidemiological Look at Sport-Related Concussion. *20<sup>th</sup> Annual Hawkeye Sports Medicine Symposium*. Iowa City, Iowa, December 3, 2004.

Guskiewicz, K.M. Biomechanics of Concussion: Relationship Between Biomechanical, Neuroanatomical, and Clinical Measures. *20<sup>th</sup> Annual Hawkeye Sports Medicine Symposium*. Iowa City, Iowa, December 3, 2004.

Guskiewicz, K.M. Piecing Together the Concussion Puzzle – Clinical Considerations for Athletic Trainers and Team Physicians *20<sup>th</sup> Annual Hawkeye Sports Medicine Symposium*. Iowa City, Iowa, December 3, 2004.

Guskiewicz, K.M. Concussion in Sport: New Insights into an Old Problem. *New England American College of Sports Medicine*. Providence, RI, November 12, 2004.

Guskiewicz, K.M. Postural Stability as an Assessment Tool and Rehabilitation Strategy. *Second International Symposium on Concussion In Sport*. Prague, Czech Republic, November 5, 2004.

Guskiewicz, K.M. Life After Football: A Life of Hard Knocks? *Inter-Urban Orthopedics Society Annual Meeting*. Chapel Hill, NC, October 1, 2004.

Guskiewicz, K.M. Concussion By the Numbers: NATA's Mild Brain Injury – Special Interest Group. *National Athletic Trainers' Association Annual Meeting*. Baltimore, MD, June 18, 2004.

Guskiewicz, K.M. NCAA Concussion Study: Bridging the Gap Between Research and Clinical Practice. *Brigham and Women's Hospital - Neurological Sport Trauma Symposium*. Boston, MA, May 15, 2004.

Guskiewicz, K.M. Sport Related Concussion: Update on Research and Clinical Practice. *College Athletic Trainers' Society Spring Symposium*. Las Vegas, Nevada, May 6, 2004.

Guskiewicz, K.M. Sport-Related Concussion: Bridging the Gap Between Research and Clinical Practice. *Contemporary Management of Sports-Related Concussion Symposium*. West Chester, PA, March 20, 2004.

Guskiewicz, K.M. Standardized Sideline Assessment of Sport-Related Concussion *Contemporary Management of Sports-Related Concussion Symposium*. West Chester, PA, March 20, 2004.

Guskiewicz, K.M. Sport-Related Concussion: Bridging the Gap Between Research and Clinical Practice. *North Carolina Athletic Trainers' Association 27<sup>th</sup> Clinical Symposium*. Wrightsville Beach, NC, March 14, 2004.

Guskiewicz, K.M. Alternative Approaches to Evaluation of Concussion. *17<sup>th</sup> Annual Family Practice Weekend and Sports Medicine Conference*. Huntington, WV. November 16, 2003.

Guskiewicz, K.M. Management of Sport-Related Concussion. *North Carolina Health Education Foundation*. Barton College, Wilson, NC. November 12, 2003.

Guskiewicz, K.M. Pathophysiology and Anatomical Considerations in Traumatic Brain Injury. National Basketball Athletic Trainers' Association Student Workshop. *National Athletic Trainers' Association Annual Meeting*. St. Louis, MO. June 28, 2003.

Guskiewicz, K.M. Mild Brain Injury – Special Interest Group. *National Athletic Trainers' Association Annual Meeting*. St. Louis, MO. June 28, 2003.

Guskiewicz, K.M. Sport-Related Concussion Options. *National Athletic Trainers' Association Annual Meeting*. St. Louis, MO. June 28, 2003.

Guskiewicz, K.M. Grant Writing and Funding Opportunities. *National Athletic Trainers' Association Annual Meeting*. St. Louis, MO. June 25, 2003.

Guskiewicz, K.M. Mild Traumatic Brain Injury – Return to Activity Criteria. *Hawaii Athletic Trainers' Association Annual Symposium*. Honolulu, HI. June 6, 2003.

Guskiewicz, K.M. Major orthopaedic injuries in former NFL players: Arthritic sequelae and reductions in physical functioning (part of mini-symposium on Life After Football: The Health of NFL Retirees). *American College of Sports Medicine Annual Meeting*. San Francisco, CA. May 30, 2003.

Guskiewicz, K.M., and J. Troy Blackburn. Assessment of Mild Traumatic Brain Injury (MTBI). Pre-conference workshop sponsored by the National Athletic Trainers' Association. Virginia Beach, VA. May 15, 2003.

Guskiewicz, K.M. Life After Football: Is it a Life of Hard Knocks? *7<sup>th</sup> Annual Symposium on Neurotrauma in Sports*. Orlando, FL. February 6, 2003.

Guskiewicz, K.M. Assessment of Sport-Related Concussion: Considerations for the Athletic Trainer. *7<sup>th</sup> Annual Symposium on Neurotrauma in Sports*. Orlando, FL. February 6, 2003.

Guskiewicz, K.M. MTBI as a Risk Factor for Progressive Neurologic Disorder. *International Conference on Closed Head Trauma: Traumatic Brain Injury (TBI) Mechanisms and Design Criteria for Effective Protection Strategies*. San Juan, Puerto Rico. January 28, 2003.

Guskiewicz, K.M. Assessment of Balance and Vestibular Function. *International Conference on Closed Head Trauma: Traumatic Brain Injury (TBI) Mechanisms and Design Criteria for Effective Protection Strategies*. San Juan, Puerto Rico. January 28, 2003.

Guskiewicz, K.M. Concussion Management in the Athlete. *4<sup>th</sup> Annual Sooner Sports Medicine Symposium*. Oklahoma City, OK. January 10, 2003.

Guskiewicz, K.M. The Concussion Puzzle. *8<sup>th</sup> Annual Triangle Sports Medicine Symposium*. Raleigh, NC. December 14, 2002.

Guskiewicz, K.M. Sport Related Concussion: Bridging the Gap Between Research and Clinical Practice. *10<sup>th</sup> Anniversary Celebration of The National Center for Injury Prevention and Control*, Baltimore, MD. June 20, 2002.

Guskiewicz, K.M. The Concussion Puzzle: Putting All the Pieces Together. *Johnson and Johnson Symposium; National Athletic Trainers' Association Annual Meeting*. Dallas, TX. June 16, 2002.

Guskiewicz, K.M. Future Directions of Sport Related Mild Head Injury Research. Mild Head Injury Special Interest Group: *National Athletic Trainers' Association Annual Meeting*. Dallas, TX. June 15, 2002.

Guskiewicz, K.M. Assessment of Postural Stability Following Athletic Injury. *American College of Sports Medicine Annual Meeting*. St. Louis, MO. May 30, 2002.

Guskiewicz, K.M. Life After The NFL: A Life of Hard Knocks? *National Football League Retired Players' Association Annual Meeting*. Phoenix, AZ. May 23, 2002.

Guskiewicz, K.M. Sport-Related Concussion: Five Compelling Questions. *Southeastern Athletic Trainers' Association*. Atlanta, GA. March 15, 2002.

Guskiewicz, K.M. Bridging the gap between research and clinical practice. *Eastern Athletic Trainers' Association*. Boston, MA. January 7, 2002.

Guskiewicz, K.M. No evidence of neuropsychological impairment in collegiate soccer players. *Neuropsychological consequences of head impact in youth soccer*. Institute of Medicine (National Academy of Sciences). Washington, DC. October 12, 2001.

Guskiewicz, KM. Clinical applications of balance and postural stability assessment. *2001 N.A.T.A. Annual Meeting-Symposium*. Los Angeles, CA. June 21, 2001.

Guskiewicz, KM. Management of Sports-related Concussion: New Insights into and Old Problem. *2001 American College of Sports Medicine Annual Meeting*. Baltimore, MD. May 31, 2001.

Guskiewicz, KM. Sport-related concussion: Bridging the gap between research and clinical practice (*Keynote speaker*). NATA District III Annual Symposium. May 18, 2001.

Guskiewicz, K.M. Concussion in Sport: Bridging the Gap Between Research and Clinical Practice. *Wisconsin Athletic Trainers' Association Symposium*, Madison, WI. April 5, 2001.

Guskiewicz, K.M., (moderator & discussant), Bailes, J., Cantu, R., and Kelly, J. Expert Opinions on Concussion Grading Scales. *National Athletic Trainers' Association Annual Meeting*. Nashville, TN. June 29, 2000.

Guskiewicz, K.M. Alternative Approaches to the Assessment of Mild Head Injury in Sport. *American Medical Society for Sports Medicine-Annual Meeting*. San Diego, CA. April 12, 2000.

Guskiewicz, K.M. Mild head injury in sport: Current research trends. Consumer Product Safety Commission's Symposium on Head Injury and Youth Sports. Bethesda, MD. May 2, 2000.

Guskiewicz, K.M. Alternative Approaches to the Assessment of Mild Head Injury in Sport. *Athletic Institute: Focus on Function*. Pittsburgh, PA. March 25, 2000.

Guskiewicz, K.M. Alternative Approaches to the Assessment of Mild Head Injury in Sport. *West Virginia Athletic Trainers' Association Annual Symposium*. Parkersburg, WV. March 24, 2000.

Guskiewicz, K.M. Alternative Approaches to the Assessment of Mild Head Injury in Sport. *National Athletic Trainers' Association Annual Meeting*. Kansas City, MO. June 17, 1999.

Guskiewicz, K.M. Selection of Graduate Programs and Graduate Assistantships in Athletic Training. *National Athletic Trainers' Association Annual Meeting*. Kansas City, MO. June 16, 1999.

Guskiewicz, K.M. Alternative Methods of Concussion Assessment. *Sports Related Concussion and Nervous System Injuries Annual Conference*. Orlando, FL. May 28, 1999.

Guskiewicz, K.M. Athletic Trainers' Perspectives of Concussion Classifications. *Clemson Sports Medicine & Rehabilitation Annual Symposium*. Clemson, SC. July 21, 1998.

Guskiewicz, K.M. Research Design & Methods. *1998 American Medical Society for Sports Medicine Research Workshop for Primary Care Sports Medicine Fellows*. Chapel Hill, NC. July 18, 1998.

Guskiewicz, K.M. Effect of Mild Head Injury on Postural Stability. *1998 N.A.T.A. Annual Meeting-Symposium*. Baltimore, MD. June 20, 1998.

Guskiewicz, K.M. Clinical Guidelines for Assessing and Returning Patients with Mild Head Injuries to Work and Play. *The Colloquia on Orthopedic Rehabilitation and Sports Medicine*, Joe W. King Orthopedic Institute. Houston, TX. April 17, 1998.

Guskiewicz, K.M. Athletic Trainers Perspectives of Concussion Classifications. *Sports Related Concussion and Nervous System Injuries Annual Conference*. Lake Buena Vista, FL. March 7, 1998.

Guskiewicz, K.M. Mild Head Injury in Sport: Developing Objective Criteria for Return to Play. *1997 Distinguished Lecture Series in Sports Medicine*. Hope College, Holland, MI. October 15, 1997.

Guskiewicz, K.M. Experiences of a young investigator seeking external funding. *1997 N.A.T.A. Annual Meeting-Symposium*. Salt Lake City, UT. June 21, 1997.

Guskiewicz, K.M. Evaluation of mild head injury. *1996 N.A.T.A. Annual Meeting-Workshop*. Orlando, FL. June 14 1996.

Guskiewicz, K.M. Evaluation of mild head injury in sports: Assessment of postural stability and cognitive function. *1996 American College of Sports Medicine Annual Meeting*. Cincinnati, OH. May 31, 1996.

Guskiewicz, K.M. Mild head injury in athletics: Effect on postural stability. *Mid-Atlantic Athletic Trainers' Association Annual Meeting*. Virginia Beach, VA. May 20, 1995.

#### **Refereed Published Abstracts/Presentations:**

Mihalik JP, Guskiewicz KM, Blackburn JT, Cantu RC, Greenwald RM, & Marshall SW. The effects of cervical muscle strength and player anthropometrics on biomechanical measures of head impact severity in youth ice hockey players. *2010 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Philadelphia, PA.; June 22-25, 2010. *Journal of Athletic Training*, 45(3),S29.

Register-Mihalik JK, Linnan L, Marshall SW, Valovich McLeod TK, Mueller FO, Guskiewicz KM. Influence of previous concussion history on knowledge, attitude, and reporting of concussion in high school athletes: A preliminary analysis. *2010 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Philadelphia, PA.; June 22-25, 2010. *Journal of Athletic Training*. 45(3),S-19.

Gysland SM, Mihalik JP, Register-Mihalik JK, Trulock SC, Shields EW, & Guskiewicz KM. The relationship between subconcussive impacts and concussion history on clinical measures of concussion in collegiate football players. *2010 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Philadelphia, PA.; June 22-25, 2010. *Journal of Athletic Training*, 45(3),S52.

Toler JD, Mihalik JP, Petschauer MA, Oyama S, Halverson SD, & Guskiewicz KM. Helmet and head movement during emergency airway access techniques in American football. *2010 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Philadelphia, PA.; June 22-25, 2010. *Journal of Athletic Training*, 45(3),S89.

Toler JD, Petschauer MA, Mihalik JP, Oyama S, Halverson SD, & Guskiewicz KM. (2010). Alternative airway access techniques in American football. *2010 American College of Sports Medicine Annual Meeting*, Baltimore, MD.; June 2-5, 2010. *Medicine & Science in Sports & Exercise*, 42(5 Suppl),813.



Mihalik JP & Guskiewicz KM. The cumulative effects of subconcussive head impacts on clinical measures of concussion in youth ice hockey players. *2009 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, San Antonio, TX; June 17-20, 2009. *Journal of Athletic Training*, 44(3),S91.

Register-Mihalik JK, Mihalik JP, & Guskiewicz KM. Sex differences in balance performance prior to and acutely following sports-related concussion. *2009 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, San Antonio, TX; June 17-20, 2009. *Journal of Athletic Training*, 44(3),S91-S92.

Ross LM, Register-Mihalik JK, Mihalik JP, Shields EW, Prentice WE, & Guskiewicz KM. Cognitive and balance performance during a single task and a dual task in physically active healthy young adults. *2009 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, San Antonio, TX.; June 17-20, 2009. *Journal of Athletic Training*, 44(3),S93.

Mihalik JP, Petschauer MA, Beard JR, Prentice WE, & Guskiewicz KM. Effect of helmet fit on cervical spine motion during emergency cervical inline stabilization procedures in collegiate ice hockey players. *2008 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, St. Louis, MO; June 17-21, 2008.

Fox ZG, Mihalik JP, Blackburn JT, Battaglini C, & Guskiewicz KM. Postural control returns to baseline within 13 minutes following both aerobic and anaerobic exercise protocols. *2008 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, St. Louis, MO; June 17-21, 2008.

Register-Mihalik JK, Mihalik JP, & Guskiewicz KM. Clinical balance performance recovery in individuals reporting posttraumatic migraine characteristics following sports-related concussion. *2008 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, St. Louis, MO; June 17-21, 2008.

Kontos DL, Register-Mihalik JK, Mihalik JP, Shields EW, & Guskiewicz KM. Investigation of age effects of the Immediate Postconcussion and Cognitive Test (ImPACT) and paper-pencil neuropsychological tests. *2008 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, St. Louis, MO; June 17-21, 2008.

Mihalik JP & Guskiewicz KM. Relationship between neuropsychological testing and other clinical measures of concussion. *2008 American College of Sports Medicine Annual Meeting*, Indianapolis, IN; May 28, 2008.

Mihalik JP, Petschauer MA, Beard JR, Prentice WE, & Guskiewicz KM. Emergency cervical inline stabilization procedures in collegiate ice hockey players: The effect of helmet fit on cervical spine motion. *2008 Canadian Athletic Therapists Association Annual Conference*, Montreal, QC, Canada; May 21-24, 2008.

Mihalik JP, Petschauer MA, Beard JR, Prentice WE, & Guskiewicz KM. Effect of helmet fit on cervical spine motion during emergency cervical inline stabilization procedures in collegiate ice hockey players. *2008 National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, St. Louis, MO; June 17-21, 2008.

Mihalik JP, Petschauer MA, Beard JR, Prentice WE, & Guskiewicz KM. Emergency cervical inline stabilization procedures in collegiate ice hockey players: The effect of helmet fit on cervical

spine motion. 2008 Canadian Athletic Therapists Association Annual Conference, Montreal, QC, Canada.; May 21-24, 2008.

Register-Mihalik JK, Guskiewicz KG. Association of previous concussion and presence of baseline symptoms in high school and collegiate athletes. 2008 Southeastern American College of Sports Medicine Annual Meeting; February 14, 2008.

Mihalik JP, Jeffries JA, & Guskiewicz KM. Characteristics of head impacts sustained by youth ice hockey players. 2007 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Anaheim, CA; *Journal of Athletic Training*, 42(2), S103. June 26-30, 2007.

Register-Mihalik J, Mihalik JP, & Guskiewicz KM. Posttraumatic migraine characteristics affect postural stability following sports-related concussion. 2007 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Anaheim, CA; *Journal of Athletic Training*. 42(2), S31. June 26-30, 2007.

Mihalik JP, Jeffries JA, & Guskiewicz KM. Characteristics of head impacts sustained by youth ice hockey players. *Fourth Annual Research Day of Human Movement Science*, Chapel Hill, NC; March 2, 2006.

Mihalik JP, Guskiewicz KM, Bell DR, Marshall SW, Crowell DH, Oliaro SM, Hooker DN, & Ciocca MF. Evaluation of impact biomechanics: The association between impact magnitudes and locations in collegiate football players. 2006 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Atlanta, GA. *Journal of Athletic Training*, 41(2), S40-S41; June 16, 2006.

Bell DR, Mihalik JP, Guskiewicz KM, Marshall SW, Crowell DH, Oliaro SM, Hooker DN, & Ciocca MF. An analysis of head impacts sustained during a complete season by Division I collegiate football players. 2006 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Atlanta, GA. *Journal of Athletic Training*, 41(2), S40; June 16, 2006.

McCaffrey MA, Mihalik JP, Guskiewicz KM, Crowell DH, Bell DR, Oliaro SM, Hooker DN, & Shields EW. Balance and neurocognitive performance in collegiate football players following head impacts at varying magnitudes. 2006 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Atlanta, GA. *Journal of Athletic Training*, 41(2), S41; June 16, 2006.

Patel AV, Mihalik JP, Notebaert AJ, Prentice WE, & Guskiewicz KM. The effects of dehydration on symptomatology, neuropsychological performance, and postural stability. 2006 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Atlanta, GA. *Journal of Athletic Training*, 41(2), S41; June 15, 2006

Register JK, Guskiewicz KM, & Mihalik JP. Recovery patterns of athletes reporting posttraumatic headache following sports-related concussion. 2006 National Athletic Trainers' Association Annual Meeting and Clinical Symposium, Atlanta, GA. *Journal of Athletic Training*, 41(2), S39; June 14, 2006.

Bell DR, Mihalik JP, Guskiewicz KM, Marshall SW, Crowell DH, Oliaro SM, Hooker DN, & Ciocca MF. An analysis of head impacts sustained during a complete season by Division I collegiate football players. *Third Annual Research Day of Human Movement Science*, Chapel Hill, NC; March 3, 2006.

McCaffrey MA, Mihalik JP, Guskiewicz KM, Crowell DH, Bell DR, Oliaro SM, Hooker DN, & Shields EW. Comparison of immediate effects in balance and neurocognitive performance due to impacts at varying magnitudes to the head in collegiate Division I football. *Third Annual Research Day of Human Movement Science*, Chapel Hill, NC; March 3, 2006.

Patel AV, Mihalik JP, Notebaert AJ, Prentice WE, & Guskiewicz KM. The effects of dehydration on symptomatology, neuropsychological performance, and postural stability. *2006 Eastern Athletic Trainers' Association Annual Meeting*, Philadelphia, PA; January 7-10, 2006.

Herman DC, Weinhold PS, Guskiewicz KM, Garrett WE, Yu B, Padua DA. The effects of strength training on the neuromuscular characteristics of a stop-jump task in female recreational athletes. *Accepted abstract for the 2006 Gender Bias in ACL Injury Retreat*. Lexington, KY.

Herman DC, Weinhold PS, Guskiewicz KM, Garrett WE, Yu B, Padua DA. The effects of strength training on the neuromuscular characteristics of a stop-jump task in female recreational athletes. *Accepted abstract for the National Athletic Trainers' Association 57<sup>th</sup> Annual Meeting and Clinical Symposia*. June 2006. Atlanta, GA.

Ross SE, Michell TB, Guskiewicz KM. Effect of coordination training with and without exercise sandals on static postural stability of individuals with functional ankle instability and individuals with stable ankles. *Journal of Orthopaedic and Sports Physical Therapy*, Ankle Symposium Supplement. 2005; 35:A22.

Brown CN, Ross SE, Guskiewicz KM. Comparing ankle joint ability of individuals with unilateral and bilateral chronic ankle instability using the ankle assessment questionnaire. *Journal of Orthopaedic and Sports Physical Therapy*. 2005; 35:A21.

Ross SE, Guskiewicz KM. Effect of balance training with and without subsensory electrical stimulation on postural stability of subjects with stable ankles and subjects with functional ankle instability. *2005 National Athletic Trainers' Association 56<sup>th</sup> Annual Meeting and Clinical Symposia*. June 12-16, 2005. Indianapolis, IN. *Journal of Athletic Training*, 40(2):S70.

Notebaert AJ, Guskiewicz KM. Association of post-concussion symptoms and standardized measure of concussion assessment. *2005 National Athletic Trainers' Association 56<sup>th</sup> Annual Meeting and Clinical Symposia*. June 12-16, 2005. Indianapolis, IN. *Journal of Athletic Training*, 40(2), S13.

Mihalik JP, Guskiewicz KM, Notebaert AJ, Hooker DN, Oliaro SM, Crowell DH, & Ciocca MF. Measurement of head impacts in Division I collegiate football players. *2005 National Athletic Trainers' Association 56<sup>th</sup> Annual Meeting and Clinical Symposia*. June 12-16, 2005. Indianapolis, IN. *Journal of Athletic Training*, 40(2), S45.

Guskiewicz KM, Mihalik JP, Notebaert AJ, Hooker DN, Oliaro SM, Crowell DH, & Ciocca MF.

Recurrent concussion in a collegiate football player equipped with the Head Impact Telemetry System. *2005 National Athletic Trainers' Association 56<sup>th</sup> Annual Meeting and Clinical Symposia*. June 12-16, 2005. Indianapolis, IN. *Journal of Athletic Training*, 40(2), S81.

Register JK, Mihalik JP, Essa ME, Hirth CJ, & Guskiewicz KM. Exertional rhabdomyolysis in Division I female lacrosse athletes. *2005 National Athletic Trainers' Association 56<sup>th</sup> Annual Meeting and Clinical Symposia*. June 12-16, 2005. Indianapolis, IN. *Journal of Athletic Training*, 40(2), S83.

Cavanaugh JT, Guskiewicz KM, Stergiou N. New insights into the recovery of postural control after cerebral concussion. *JOSPT* 2005;35(1):A77-78.

Mihalik JP, Guskiewicz KM, & Register JK. Recovery of athletes with characteristics of posttraumatic migraine following sports-related concussion. *First Annual University of North Carolina Research Symposium*. Chapel Hill, NC, March 31, 2005.

Mihalik JP, Guskiewicz KM, Register JK. Recovery of Athletes with Characteristics of Posttraumatic Migraine Following Sports-Related Concussion; Proceedings for the 5th Annual Sports Medicine and Neurotrauma Review. Orlando, Florida, March 12, 2005.

Notebaert AJ, Shields EW, Guskiewicz KM. Application of Reliable Change Indices on Measures of Postural Stability Following Concussion; Proceedings for the 5th Annual Sports Medicine and Neurotrauma Review; Orlando, Florida, March 12, 2005.

Register JK, Guskiewicz KM, Mihalik JP. Effect of Chronic Headache on Post-concussion Measures; Proceedings for the 5th Annual Sports Medicine and Neurotrauma Review. Orlando, Florida, March 12, 2005.

Onate, J.A., Guskiewicz, K.M., Yu, B., McClure B., Garrett, W.E., Belez, A.L. Lower extremity motion patterns and peak vertical ground reaction force in male and female youth soccer players performing a jump-landing task. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S67, 2004.

McClellan E.C., Padua, D.A., Guskiewicz, K.M., Prentice, W.E., Hirth, C.J. Effects of myofascial release and static stretching on active range of motion and muscle activity. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S98, 2004.

Padua, D.A., Marshall, S.W., Onate, J.A., Beutler, A.I., Guskiewicz, K.M., Thigpen, C.A., Knowles, S.B., Garrett, W.E. Reliability and validity of the landing error scoring system: Implications on ACL injury risk assessment. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S110, 2004.

Hawkey, T.J., Halverson, S.D., Padua, D.A., Guskiewicz, K.M. Reliability of three different strength testing protocols for hip abduction, extension and external rotation. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S116, 2004.

Notebaert, A.J., and Guskiewicz, K.M. Recovery patterns of symptomatology, neuropsychological function, and postural stability during the first three days following concussion. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S17, 2004.

Cavanaugh JT, Guskiewicz KM, Stergiou N. Effect of cerebral concussion on the complexity of center of pressure time series in college athletes after cerebral concussion. *Proceedings from the 27<sup>th</sup> annual meeting of the American Society of Biomechanics* (2003).

Cavanaugh JT, Mercer, VS, Guskiewicz, KM. Response stability estimates for the Sensory Organization Test: Approximate Entropy values and Equilibrium Scores in healthy young adults. *Proceedings from the 9<sup>th</sup> annual meeting of the Gait and Clinical Movement Analysis Society* (2004), pp. 252-253.

Cavanaugh, JT, Mercer, VS, Guskiewicz, KM. Effect of a secondary cognitive task on the irregularity of center of pressure time series in healthy young adults. *Proceedings from the 9<sup>th</sup> annual meeting of the Gait and Clinical Movement Analysis Society* (2004), pp. 248-249.

Cavanaugh, JT, Guskiewicz, KM, Stergiou, N. Detecting altered postural control after cerebral concussion in athletes without postural instability. *Med Sci Sports Ex* 36(5), 2004 (In Press). *2004 ACSM Annual Meeting*, Indianapolis, IN.

Culp, M.T., Guskiewicz, K.M., Ross, S.E., Brown, C.N., and Prentice, W.E. Prophylactic knee bracing and local fatigue have no effects on joint position sense of the uninjured knee in a closed kinetic chain. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S103, 2004.

Ross, S.E., Guskiewicz, K.M. Comparing stabilization times in individuals presenting functional ankle instability and mechanical instability. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S8, 2004.

Momsen, K.M., Guskiewicz, K.M., Sigurdsson, A., and Shields, E.W. Association between the incidence of cerebral concussions and dental injuries, and mouthguard usage among NCAA Division I men's ice hockey players. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S52, 2004.

Norcross, M. F., Guskiewicz, K.M., Prentice, W.E., Hooker, D.N., and Shields, E.W. Effects of electrical stimulating currents on pain perception, plasma cortisol, and plasma B-endorphin in experimentally induced DOMS. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S48, 2004.

Blackburn JT, Guskiewicz KM, Padua DA, Mynark RG, Giuliani CA, Weinhold PS. The relationship between muscle stiffness and spinal stretch reflex sensitivity in the triceps surae. *2004 N.A.T.A. Annual Meeting – Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 39(2)S71, 2004.

Blackburn JT, Mynark RG, Padua DA, Guskiewicz KM. Effects of dorsiflexion perturbation velocity and amplitude on sex comparison of soleus spinal stretch reflexes. *Med Sci Sports Ex* 36(5), 2004 (In Press). *2004 ACSM Annual Meeting*, Indianapolis, IN.

Ross, S.E., Guskiewicz, K.M., Harry, J.D., Niemi, J.B. Effect of somatosensory stimulation on time to stabilization in individuals with functionally stable and unstable ankles. *ACSM, SouthEast Regional Chapter Annual Meeting*, January 29, 2004, Atlanta, GA.

Cavanaugh, JT, Guskiewicz, KM, and Stergiou, N. Effect of cerebral concussion on the complexity of center of pressure time series in collegiate athletes. *2003 American Society of Biomechanics Annual Meeting – Free Communications*. Toledo, OH, September 15, 2003.

Guskiewicz, K.M., McCrea, M., and Marshall, SW. Cumulative consequences of recurrent concussion in collegiate football players. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S27, 2003.

Valovich TC, Perrin DH, Guskiewicz KM, Diamond R, Shultz SJ, Gansneder BM. Test-retest reliability and reliable change index scores of the Standardized Assessment of Concussion and Balance Error Scoring System in young athletes. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S27, 2003.

Brown, C.N., Guskiewicz, K.M., Bleiberg, J., McCrea, M., Marshall, S.W., and Matthews, A. Comprehensive assessment of concussion in high school and collegiate athletes. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S24, 2003.

Ludolph, D., McCrea, M., Guskiewicz, K.M., Marshall, S.W., et al. Acute effects and recovery time following concussion in collegiate football. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S25, 2003.

Santangelo, D.M., Guskiewicz, K.M., Prentice, W.E., Onate, J.A., and Ross, S.E. Effect of postural control training on static and dynamic balance in healthy subjects. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S23, 2003.

Broglio, S.P., Guskiewicz, K.M., Sell, T.C., and Lephart, S.M. No acute changes in measures of postural control following a soccer heading drill. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S104, 2003.

Padua, D.A., Ciolek, M., McIntyre, K., Onate, J.A., and Guskiewicz, K.M. Examination of gender differences and reliability of knee and hip kinematics at initial ground contact during side-pivot and single leg jump maneuvers. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S17, 2003.

Blackburn, J.T., Padua, D.A., Riemann, B.L., Guskiewicz, K.M. Sex comparison of passive and active knee flexor stiffness. *2003 N.A.T.A. Annual Meeting - Free Communications*. St. Louis, MO. *Journal of Athletic Training*,38(2)S15, 2003.

Ciolek, M., Guskiewicz, K.M., Padua, D.A., and Onate, J.A. Analysis of kinematics and muscle activity during a sidestep pivot in non-fatigued and dynamically fatigued lacrosse athletes. *2003*

N.A.T.A. Annual Meeting - Free Communications. St. Louis, MO. *Journal of Athletic Training*,38(2)S16, 2003.

Ross, S.E, Yu, B., Guskiewicz, K.M. Differences between ground reaction force measures of a static single limb stance and a single limb stance following a jump-landing. 2003 N.A.T.A. Annual Meeting - Free Communications. St. Louis, MO. *Journal of Athletic Training*,38(2)S24, 2003.

Guskiewicz, K.M., Bailes, J., Marshall, S.W., and Cantu, R.C. Recurrent sport-related concussion linked to clinical depression.” 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S50, 2003.

Brown, C.N., Guskiewicz, K.M., Marshall, S.W., Cantu, R.C. Cumulative consequences of recurrent concussion in high school athletes. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S247, 2003.

Onate, J.A., Guskiewicz, K.M., Marshall, S.W., and Garrett, W.E. Jump-landing knee flexion angle differences between gender. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S306, 2003.

Padua, D.A., Birkelo, J.R., Karas, S.G., Guskiewicz, K.M., and Thigpen, C.T. Reliability of scapulo-humeral rhythm during dynamic shoulder motion. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S62, 2003.

Ross, S.E., Guskiewicz, K.M., Garrett, W.E., Yu, B. Comparison of various force plate measures for the assessment of functional ankle instability. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S357, 2003.

Blackburn, J.T. Padua, D.A., Riemann, B.L., Guskiewicz, K.M. Relationship between active extensibility, passive stiffness, and active stiffness of the knee flexor. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S222, 2003.

Valovich, T.C., Guskiewicz, K.M., Diamond, R., Shultz, S.J., Gansneder, B.M., and Perrin, D.H. Practice effects with serial administration of clinical concussion assessments in healthy young athletes. 2003 A.C.S.M. Annual Meeting – Free Communications. San Francisco, CA. *Medicine & Science in Sports & Exercise*,35(5)S247, 2003.

Wisniewski, J., Sigurdsson, A., Trope, M., Guskiewicz, K.M. Incidence of cerebral concussion and dental injuries associated with types of mouthguards worn. Tampa, FL. *Journal of Endodontics*, April 2003.

Monroe, M.,Guskiewicz, K.M., Francisco, T., Mueller, F., Salvaterra, G. The impact attenuating capabilities of new and used ice hockey helmets. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S66, 2002.

Mancuso, J., Guskiewicz, K.M., Onate, J.A., Ross, S.E. An investigation of the learning effect for the Balance Error Scoring System and its clinical implications. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S10, 2002.

Ross, S.E., Guskiewicz, K.M., Yu, B. Time to stabilization differences in functionally unstable and stable ankles. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S22, 2002.

Blackburn, J.T., Hirth, C.J., Guskiewicz, K.M. EMG comparison of lower leg musculature during functional activities with and without balance shoes. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S97, 2002.

Carney, E., Guskiewicz, K.M., Hirth, C.J. Relationship between lower extremity physical markers and a step-up and over test. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S96, 2002.

Gardiner, L., Petschauer, M., Guskiewicz, K.M. Exertional rhabdomyolysis in a collegiate field hockey player: A clinical case report. 2002 N.A.T.A. Annual Meeting - Free Communications. Dallas, TX.. *Journal of Athletic Training*,37(2)S63, 2002.

Guskiewicz, K.M., McCrea, M., Marshall, S., Onate, J.A., Cantu, R.C. Objective assessment of concussion in collegiate football players. 2002 A.C.S.M. Annual Meeting – Free Communications. St. Louis, MO. *Medicine & Science in Sports & Exercise*,34(5)S3, 2002.

Ross, S.E., Guskiewicz, K.M., Yu, B, Garrett, W.E. Landing pattern difference between functionally stable and unstable ankles. 2002 A.C.S.M. Annual Meeting – Free Communications. St. Louis, MO. *Medicine & Science in Sports & Exercise*,34(5)S173, 2002.

Ross, S.E., Guskiewicz, K.M., Yu, B. Comparison of time to stabilization measures in functionally unstable versus stable ankles. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S76, 2001.

Blackburn, T., Guskiewicz, K.M., Marshall, S.W., McCrea, M.A. Effect of concussion history on postural stability and neuropsychological recovery following subsequent injury. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S60, 2001.

Onate, J., Guskiewicz, K.M., McCrea, M.A., Cantu, R.C. Analysis of concussion recovery in athletes with and without associated loss of consciousness and amnesia. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S59, 2001.

Crowell, D., Guskiewicz, K.M., Prentice, W.E., Onate, J.A. The effect of fatigue on postural stability and neuropsychological function. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S33, 2001.

Huffman,S., Guskiewicz, K.M., Hirth, C.J., Shields, E.W. Relationship between open chain isokinetic knee strength and step-up and over test performance in the assessment of lower



extremity neuromuscular control. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S35, 2001.

Broglio, S., Guskiewicz, K.M. Soccer athletes with concussion history show no deficits in balance or cognition. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S59, 2001.

Santangelo, D., Onate, J.A., Guskiewicz, K.M., Prentice, W.E. Acute knee injury in a female collegiate soccer player. 2001 N.A.T.A. Annual Meeting - Free Communications. Los Angeles, CA. *Journal of Athletic Training*,36(2)S16, 2001.

Guskiewicz, K.M., Marshall, S.W., Broglio, S.P., Cantu, R.C., Kirkendall, D.T. No evidence of impaired neurocognitive performance in collegiate soccer players. 2001 A.C.S.M.. *Annua Meeting - Free Communications*. Baltimore, MD. *Medicine & Science in Sports & Exercise*,33(5)S1047, 2001.

Ross, S.E., Guskiewicz, K.M., Cantu, R.C. Balance recovery following cerebral concussion in collegiate athletes. 2001 A.C.S.M.. *Annua Meeting - Free Communications*. Baltimore, MD. *Medicine & Science in Sports & Exercise*, 33(5)S145, 2001.

Onate J.A., Guskiewicz, K.M., Sullivan, R.J. A comparison of augmented feedback versus sensory feedback on reducing jump landing forces. 2001 A.C.S.M.. *Annua Meeting - Free Communications*. Baltimore, MD. *Medicine & Science in Sports & Exercise*,33(5)S1248, 2001.

Ross, S.E., Guskiewicz, K.M., Onate, J.A. Symptomatology following cerebral concussion and its relationship with neuropsychological and postural stability testing. 2000 N.A.T.A. Annual Meeting - Free Communications. Nashville, TN. *Journal of Athletic Training*,35(2)S53, 2000.

Onate, J.A., Guskiewicz, K.M., McCrea, M.A. A comparison of concussion incidence and recovery in collegiate football players with and without previous history of concussion. 2000 N.A.T.A. Annual Meeting - Free Communications. Nashville, TN. *Journal of Athletic Training*,35(2)S54, 2000.

Strapp, E.J., Guskiewicz, K.M., Hackney, A.C., Saliba, S., Hirth, C. The cumulative effect of multiple phonophoresis treatments on dexamethasone and cortisol concentrations in the blood. 2000 N.A.T.A. Annual Meeting - Free Communications. Nashville, TN. *Journal of Athletic Training*,35(2)S47, 2000.

Galilee-Belfer, A., Prentice, W.E., Mays, S.D., Guskiewicz, K.M., Onate, J.A. Effect of modified PNF trunk strengthening on functional performance in female rowers. 2000 N.A.T.A. Annual Meeting - Free Communications. Nashville, TN. *Journal of Athletic Training*,35(2)S93, 2000.

Stein, T.A., Yu, B., Guskiewicz, K.M., Hirth, C., Prentice, W.E. The effect of strengthening external hip rotators on abnormal pronation of the subtalar joint. 2000 N.A.T.A. Annual Meeting - Free Communications. Nashville, TN. *Journal of Athletic Training*,35(2)S92, 2000.

Peterson, S.A., Guskiewicz, K.M., Hackney, A.C., Prentice, W.E., Almekinders, L., and Petschauer, M.A. Response of bone mineral density and serum hormone levels following exercise modifications in two amenorrheic athletes. *N.A.T.A. Annual Meeting - Free Communications*. Nashville, TN. *Journal of Athletic Training*, 35(2)S88, 2000.

Mancuso, J.J., Guskiewicz, K.M., Petschauer, M.A. Posterior foot pain in a collegiate field hockey player. *N.A.T.A. Annual Meeting - Free Communications*. Nashville, TN. *Journal of Athletic Training*, 35(2)S68, 2000.

Peterson, C.L., Ferrara, M.S., McCrea, M., Guskiewicz, K.M. Concussion management practices of athletic healthcare providers. *2000 N.A.T.A. Annual Meeting - Free Communications*. Nashville, TN. *Journal of Athletic Training*, 35(2)S71, 2000.

Blackburn, J.T., Guskiewicz, K.M., Busby, M.A., Prentice, W.E. Balance and Joint Stability: The relative contributions of proprioception and muscular strength. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S30, 1999.

Gribble, P.A., Guskiewicz, K.M., Prentice, W.E., Shields, E.W. Effects of static and hold-relax stretching on hamstring range of motion using the FlexAbility LE1000. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S76, 1999.

Malley, C., Guskiewicz, K.M., Prentice, W.E., Hirth, C.J. The effects of three different ankle training programs of functional stability and single-limb stance. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S30, 1999.

Myers, J.B., Guskiewicz, K.M., Padua, D.A. Effect of fatigue on proprioception and neuromuscular control of the shoulder. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S9, 1999.

Padua, D.A., Guskiewicz, K.M., Myers, J.B. Effects of closed kinetic chain, open kinetic chain, and proprioceptive neuromuscular facilitation training on the shoulder. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S83, 1999.

Scibek, J.S., Guskiewicz, K.M., Prentice, W.E., May, S., Davis, J.M. The effects of core stabilization training of functional performance in swimming. *1999 N.A.T.A. Annual Meeting - Free Communications*. Kansas City, MO. *Journal of Athletic Training*, 34(2)S27, 1999.

Guskiewicz KM, Perrin DH. The Effect of Mild Head Injury on Cognition and Postural Stability. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S8, 1998.

Padua DP, Guskiewicz KM, Myers JB. Epidemiological investigation of mild head injuries sustained by participants in collegiate and high school football. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S59, 1998.

Guskiewicz KM, Padua DP, Myers JB. Return to play decisions following mild head injury in collegiate and high school football players. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S22, 1998.

Riemann BL, Guskiewicz KM. Objective assessment of mild head injury using a clinical battery of postural stability tests. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S18, 1998.

Onate JA, Riemann BL, Guskiewicz KM. Comparison of three external ankle support systems utilized for management of acute lateral ankle sprains. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S39, 1998.

Myers JB, Guskiewicz KM, Tuttle GH. Syncope in a collegiate wrestler caused by an OTC metabolic stimulant. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S57, 1998.

Gribble PA, McNally K, Guskiewicz KM. Rehabilitation of a college baseball pitcher emphasizing proprioception. *1998 N.A.T.A. Annual Meeting - Free Communications*. Baltimore, MD. *Journal of Athletic Training*, 33:S49, 1998.

Riemann, BL, Guskiewicz, KM, Onate, JA. Mild head injury in a high school football player: A case study. *1997 N.A.T.A. Annual Meeting-Free Communications*. Salt Lake City, UT. *Journal of Athletic Training*, 32:S17, 1997.

Onate JA, Guskiewicz, KM, Riemann BL. Comparison of normative data for cognitive tests performed in controlled versus uncontrolled environments in collegiate athletes. *1997 N.A.T.A. Annual Meeting-Free Communications*. Salt Lake City, UT. *Journal of Athletic Training*, 32:S43, 1997.

Oliaro SM, Guskiewicz KM, Prentice KM, Shields EW. Establishment of normative data on cognitive tests for comparison with athletes sustaining mild head injury. *1997 N.A.T.A. Annual Meeting-Free Communications*. Salt Lake City, UT. *Journal of Athletic Training*, 32:S44, 1997.

Trulock SC, Guskiewicz KM, Prentice KM, Shields EW. A comparison of static, dynamic and functional methods of balance assessment. *1997 N.A.T.A. Annual Meeting-Free Communications*. Salt Lake City, UT.

Ubinger ME, Guskiewicz KM, Prentice WE, Schneider R. Effect of closed kinetic chain training on neuromuscular control of the upper extremity using the Functional Activity System for Testing and Exercise (FASTEX). *1997 N.A.T.A. Annual Meeting-Free Communications*. Salt Lake City, UT. *Journal of Athletic Training*, 32:S10, 1997.

Guskiewicz KM, Perrin DH, Barth JT, Gansneder BM, Gieck JH, Kahler DM, Saliba EN. Effect of mild head injury on postural stability in athletes. *1996 N.A.T.A. Annual Meeting-Research & Education Foundation Sponsored Presentation*. Orlando, FL. June 15, 1996. *Journal of Athletic Training*, 31:S43, 1996.

Ford SE, Guskiewicz KM, Perrin DH, Gansneder BM, Szczerba JE. Weight preoccupation and pathogenic weight control behavior in female collegiate athletes. *1996 N.A.T.A. Annual Meeting-Free Communications (poster)*. Orlando, FL. June 15, 1996. *Journal of Athletic Training*, 31:S51, 1996.

Steinagel MC, Szczerba JE, Guskiewicz KM, Perrin DH. Ankle ice immersion effect on postural sway. *1996 N.A.T.A. Annual Meeting-Free Communications (poster)*. Orlando, FL. June 15, 1996. *Journal of Athletic Training*, 31:S53, 1996.

Riemann BL, Belle SE, Guskiewicz KM. Effect of mild head injury on postural stability in athletes. *Mid-Atlantic Athletic Trainers' Association Annual Meeting-Grant Recipient Presentation*. Virginia Beach, VA. May 18, 1996.

Guskiewicz KM, Perrin DH. Mild head injury in a high school football player: A case study. 1995 N.A.T.A. Annual Meeting-Free Communications. Indianapolis, IN. June 15, 1995. *Journal of Athletic Training*, 30:S25, 1995.

Hertel JN, Guskiewicz KM, Kahler DM, Perrin DH. Effect of lateral ankle joint anaesthesia on joint position sense, postural sway, and center of balance. 1995 N.A.T.A. Annual Meeting-Free Communications. Indianapolis, IN. June 14, 1995. *Journal of Athletic Training*, 30:S6, 1995.

Heydt WR, Guskiewicz KM, Perrin DH, Gansneder BM. Effect of seated vs. standing test positions on shoulder internal and external rotational strength in the frontal and scapular planes. 1995 N.A.T.A. Annual Meeting-Free Communications. Indianapolis, IN. June 14, 1995. *Journal of Athletic Training*, 30:S8, 1995.

Guskiewicz KM, Martin DE, Perrin DH, Kahler DM, McCue FC. Effect of ACL reconstruction and tibial rotation on anterior knee laxity. 1994 N.A.T.A. Annual Meeting-Free Communications. Dallas, TX. June 12, 1994. *Journal of Athletic Training*, 29(2), 1994.

Martin DE, Guskiewicz KM, Perrin DH, Kahler DM, McCue FC. Tibial rotation affects anterior displacement of the knee. *Medicine and Science in Sports and Exercise*, 26:5S, 1994.

Guskiewicz KM, Lephart SM, Burkholder R. Relationship between sprint speed and hip flexor/extensor strength in Division I Intercollegiate football players. 1991 N.A.T.A. Annual Meeting-Free Communications. New Orleans, LA. June 10, 1991. *Journal of Athletic Training*, 26(2), 1991.

### **Published Media Reviews:**

"NFL Players Head Concussion Brain Injury Seminar" (video). *Journal of Athletic Training*, 32(2):180, 1997.

"Cryotherapy in Sport Injury Management" (book). *Athletic Therapy Today*, 1(2):60-61, 1996.

"Jumping into Plyometrics" (video). *Journal of Sport Rehabilitation*, 3:177-178, 1994.

"The Upper Extremity in Sports Medicine" (book). *Journal of Sport Rehabilitation*, 2:217-218, 1994.

### **Additional Presentations:**

Guskiewicz, K.M. Innovative Technologies for the Prevention and Management of Sport-Related Concussion. *University of Utah Neurosciences*. Salt Lake City, UT., March 13, 2015.

Guskiewicz, K.M. Improving Safety in Sport Through Innovative Science. *UNC-Chapel Hill's General Alumni Association's Spring Meeting*. Chapel Hill, NC., April 13, 2013.

Guskiewicz, K.M., Concussion Updates. *NCAA's Annual Health and Safety Meeting*. Virtual meeting. April 12, 2013.

Guskiewicz, K.M. Concussion Prevention: Facts, Fallacies, and Frontiers. *Young President's Organization Spring Meeting*. Baltimore, MD., January 31, 2013.

Guskiewicz, K.M. The Science and Technology of Sport Concussion: Translating data Collection into Concussion Prevention. *Sports Legacy Institute's Hit Count Meeting*, Boston, MA. October 25, 2012.

Guskiewicz, K.M. Current Concepts in Evaluation and Management of Sports Related Concussion. *BI/SCI Expo at Carolinas Rehabilitation - Keynote Lecture*. Charlotte, NC. October 15, 2012.

Guskiewicz, K.M. Current state of concussion management & recommended best practices. *Atlantic Coast Conference Sports Medicine Association's 23<sup>rd</sup> Annual Clinical Symposium*. Greensboro, NC; May 6, 2012.

Guskiewicz, K.M. Examination of Concussion: Medical and Cognitive Considerations. *Rex Pediatrics Grand Rounds*. Raleigh, NC; May 9, 2012.

Guskiewicz, K.M. The Science and Technology of Sport Concussion: Translating Data Collection into Concussion Prevention. *Bioinformatics, Neuroscience Center*. Chapel Hill, NC; April 26, 2012.

Guskiewicz, K.M. Examination of concussion; medical and cognitive considerations. *Grand Round Series- St. Charles Medical Center*. Bend, OR; April 20, 2012.

Guskiewicz, K.M. The Science and Technology of Sport Concussion: Translating Data Collection into Concussion Prevention. *What's the Big Idea?* Friday Center. Chapel Hill, NC; April 12, 2012

Guskiewicz, K.M. Sport Related Concussion; From the Lab to the Law. *Raleigh Medical Society*. Raleigh, NC; April 12, 2012.

Guskiewicz, K.M. Solving the Concussion Problem The Carolina Way. *A Tar Heel Evening in Greensboro, Greensboro Coliseum Complex*. Greensboro, NC; April 10, 2012.

Guskiewicz, K.M. The Science and Technology of Sports Concussion: Solving Today's Problems for Tomorrow's Solutions. *Alumni Center, University of North Carolina Graduate Education Advancement Board Meeting*. Chapel Hill, NC; April 4, 2012.

Guskiewicz, K.M. The Science and Technology of Sport Concussion: Translating Data Collection into Concussion Prevention and Management. *West Virginia University College of Physical Activity and Sport Science Distinguished Lecturer Series*. Morgantown, WV; March 23, 2012.

Guskiewicz, K.M. Preventing Sudden death in sport; brain trauma. *National Summit on Safety in Youth Sports*. Washington, DC; December 6<sup>th</sup>, 2011.

Guskiewicz, K.M. Updates in Concussion Management. *Department of Physical Medicine & Rehabilitation*. Chapel Hill, NC; October 26, 2011.

Guskiewicz, K.M. Preventing Sudden Death in Sport: Head Injury. *Visiting Scholar in Exercise Science*. University of Wisconsin- La Crosse, La Crosse, WI; May 4, 2011.

Guskiewicz, K.M. Concussion and Post-Concussion Syndrome: When to Rest and When to Rehab. *Visiting Scholar in Exercise Science*. University of Wisconsin- La Crosse, La Crosse, WI; May 4, 2011.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data. *Visiting Scholar in Exercise Science*. University of Wisconsin- La Crosse, La Crosse, WI; May 4, 2011.

Guskiewicz, K.M. The Science of Sport Concussion: Translating Data Collection into Concussion Prevention. *University of Wisconsin's Centennial Celebration of Kinesiology*. Madison, WI; April 1, 2011.

Guskiewicz, K.M. The Science & Technology of Sport Concussion: Translating Data Collection into Concussion Prevention. *Human Physiology Lecture Series*. Eugene, OR; March 11, 2011.

Guskiewicz, K.M. Helmet Testing & On-Field Monitoring of Safety Equipment & Player Behavior. UNC's Human Movement Science Research Day. Chapel Hill, NC; February 25, 2011.

Guskiewicz, K.M. The Science of Translation from Data Collection to Concussion Prevention: Changing the Practice Profile. *National Operating Committee for Standards in Athletic Equipment*, Chatham, MA; October 23, 2010.

Guskiewicz, K.M. The science of sport concussion. *Institute of Medicine Workshop*. Washington, DC; October 1, 2010.

Guskiewicz, K.M. Advances in science, new trends, and the road to physical recovery. Congressional Hearing on Concussion in Youth Sports; Washington, D.C., September 23, 2010.

Guskiewicz, K.M. Long Term Effects of Sport-Related Concussion on Neurocognitive Function and Psychological Health, New Hampshire University, Durham, NH; September 10, 2010.

Guskiewicz, K.M. Ohio State University Sports Medicine. Sport-Related Concussion: Is Research Driving Clinical Practice? Columbus, OH. February 16, 2007.

Guskiewicz, K.M. A Synopsis of UNC Concussion Studies: 2000-2006. *ANAM Research Working Group Meeting*. Bethesda, MD, June 9, 2006

Guskiewicz, K.M. New Concepts in Physical Conditioning & Application of Strength Training. Maldonado – Punta del Este, Uruguay, August 28, 2006

Guskiewicz, K.M. New Concepts in Physical Conditioning & Application of Strength Training. Colonia, Uruguay, August 29, 2006

Guskiewicz, K.M. Therapeutic Modalities & Rehabilitation in Healing the Injured Athlete. Montevideo, Uruguay, August 30, 2006.

Guskiewicz, K.M. Update on Current Concepts in Concussion Assessment. Universidade Catolica de Brasilia, September 1, 2006

Guskiewicz, K.M. Evidence Based Approach to Injury Prevention in Sport and Exercise. Komotini, Greece, May 7, 2006.

Guskiewicz, K.M. Therapeutic Modalities & Rehabilitation in Healing the Injured Athlete Komotini, Greece, May 8, 2006

National Sportscasters and Sportswriters Association Annual Meeting. Salisbury, NC. April 27, 2003. "Sport-Related Concussion: Clearing Up the Confusion."

Visiting Lecture, 2002 University of Connecticut Sports Medicine Visiting Lecture Series. Storrs, CN. November 5, 2002. "Sport-related concussion: Bridging the gap between research and clinical practice."

DonJoy, Inc. Annual Sports Medicine/ Athletic Training Seminar. Carlsbad, CA. July 19-20, 2002. "Bridging the gap between research and clinical practice: From head to toe."

Visiting Lecture, 2001 Penn State Sports Medicine Colloquium. Pennsylvania State University, State College, PA. October 25-26, 2001. "Sport-related concussion: Bridging the gap between research and clinical practice."

Visiting Lecture in Exercise Science. University of Wisconsin, Madison, WI. April 4, 2001. "Regaining Postural Stability and Postural Control Following Injury," and "Concussion in Sport: Considerations for the Sports Medicine Clinician."

*Stevens Visiting Professorship*. University of Florida, Gainesville, FL. February 25-28, 2001. "Comprehensive approach to the assessment of sport-related concussion."

Visiting Lecture in Kinesiology. University of Michigan, Ann Arbor, MI. February 17, 2000. "Alternative Approaches to the Assessment of Mild Head Injury in Sport."

Bi-Annual meeting of the North Carolina Criminal Justice & Sheriffs Commission, Chapel Hill, NC. August 23, 1999. "Police Officer Physical Ability Test: Recommendations for Y2K."

Visiting Lecture Series in Sports Medicine. University of Georgia, Athens, GA. September 24, 1998. "Mild Head Injury in Sport: Developing Objective Criteria for Return to Play."

Seminar on Exercise and Aging. Carol Woods Retirement Community, Chapel Hill, NC. April 18, 1997. "Balance assessment for the aging but active."

University of North Carolina Injury Prevention Research Center Seminar Series, Chapel Hill, NC. March 19, 1997. "Effect of mild head injury on postural stability and cognitive function."

NeuroCom International's Clinical Integration Seminar, Clackamas, OR, July 12, 1996. "Evaluation of mild head injury in athletes using dynamic computerized posturography."

The Art and Science of Sports Medicine, University of Virginia, Charlottesville, VA, June 26, 1996. "Evaluation of mild head injury in sports"

Chippenham Medical Center Sports Injury Seminar, Chippenham Medical Center, Richmond Virginia, February 28, 1996 - "Assessment of mild head injury and return to play guidelines"

Sports Medicine Telemedicine Conference, University of North Carolina School of Medicine & Northampton County Schools, November 21, 1995 - "Sports medicine in the 90's: An update"

The Art and Science of Sports Medicine, University of Virginia, Charlottesville, VA, June 28, 1995 - "Mild head injury in sports: objective assessment for return to play"

The Art and Science of Sports Medicine, University of Virginia, Charlottesville, VA, June 20, 1994 - "Mild head injury in sports"

Athletic Injuries (Guest Lecturer), University of Virginia, Charlottesville, VA, November 26, 1993 - "Common Knee injuries in athletics" and "Clinical assessment of knee injuries"

Athletic Injury Teleconference, Division of Continuing Education in conjunction with the Sports Medicine Department, University of Virginia, Charlottesville, VA, October 21 & 28, 1992 - "Injury classification" and "Tissue response to injury"

Sewickly YMCA, Sewickly, PA, May 30, 1991 - "Nutritional considerations for the growing athlete"

## **GRANTS AND EXTERNAL FUNDING**

### **Federal Agencies:**

Co-Principal Investigator, *\$420,000* with National Center for Injury Prevention and Control (at the CDC). Monitoring Head Impact Biomechanics as a Behavior Modification Tool to Reduce Mild Traumatic Brain Injury Risk in High School Athletes. Guskiewicz K, Mihalik J, Marshall S. (Awarded September 2014).

Co-Principal Investigator, *\$1,100,000* with U.S. Department of Defense and National Collegiate Athletic Association – "NCAA-DOD GRAND ALLIANCE: Concussion Assessment, Research and Education (CARE) Consortium. McCrea M, McCallister T, Broglio S, Guskiewicz K, Mihalik J. (Awarded July 2014).

Co-Principal Investigator, *\$1,139,000* with United States Special Operations Command (Regional). "Scientific Assessment for the Enhanced SOTF Traumatic Brain Injury Surveillance Program." Mihalik J, Guskiewicz K. (Awarded January 2014).

Co-Investigator; Project Leader, *\$2,000,000* with Department of Defense (Chronic Effects of Neurotrauma Consortium (CENC) – "Association Between Repetitive TBI And Neuropsychological, Neuroimaging, and Blood Biomarkers In Military Service Members And Elite-Level Athletes." Laskowitz, D & Grant, G (PI), Guskiewicz K, Bazarian J, Mihalik, J. (Submitted January 2013 – not funded).



Co-Investigator, \$1,500,000 with Department of Defense (U.S. Army Medical Research and Materiel Command) – “A Novel Tool for Field Assessment of Mild Traumatic Brain Injury.” Espinoza, T & Phelps, S (PI), Wright, D, Guskiewicz, K, and Bazarian, J. (Funded: November 2012).

Principal Investigator, \$2,799,000 with Department of Defense (CDMRP) – “A Prospective Study of Dual Task Rehabilitation Interventions for Treating Individuals with Traumatic Brain Injury.” Guskiewicz K, Mihalik JP, McCulloch K, Register-Mihalik, J, et al. (Submitted September 2010 – not funded).

Principal Investigator, \$3,043,595 with National Institutes of Health - “Association Between MTBI, Dementia and IPV in Retired Professional Football Players.” Guskiewicz K, Marshall S, Moracco B, Kaufer D, Thompson K, Smith JK, et al. (Submitted: June 2009 – not funded).

Principal Investigator, \$1,098,500 with Centers for Disease Control and Prevention- “Association Between MTBI, Dementia and IPV in Retired Professional Football Players.” Guskiewicz K, Marshall S, Moracco B, Kaufer D, Thompson K, Smith JK, et al. (Submitted: September 1, 2008 – not funded).

Co-Investigator, \$150,000 with U.S. Department of Defense - “Validation of the Military Acute Concussion Evaluation (MACE) for In-Theater Evaluation of Combat-Related Traumatic Brain Injury.” McCrea M, Guskiewicz KM, Helmick K, and Jaffee (Awarded: August 2008).

Principal Investigator, \$600,000 with U.S. Department of Defense – “Association between mild traumatic brain injury and chronic clinical depression and neurodegenerative dementing disorders.” Guskiewicz KM, Marshall SW, Kaufer D, Giovanell K, Smith JK, et al. (Submitted: October 2007 – not funded).

Co-investigator, \$1,300,000 with National Institute of Health (NIH) - “Epidemiology of Jump-Landing Movements and ACL Injury.” Marshall SW, Padua DA, Guskiewicz KM, Yu B, Garrett WE, Kirkendall D, Evenson K, Wolf SH, Gregory E (Awarded: December 2004).

Principal Investigator, \$579,354 with Centers for Disease Control and Prevention- “Prospective investigation of sport-related concussion: Relationship between biomechanical, neuroanatomical, and clinical factors.” Guskiewicz KM, Marshall SW, Smith K, Lin W, Ciocca M, Hooker D, Oliaro S, Crowell D (Awarded: September 2004).

Principal Investigator, \$500,000 with Centers for Disease Control and Prevention- “Validation of methods to assess outcomes of MTBI” Guskiewicz KM, Hammeke T, McCrea M, Randolph C, Barr W, Kelly J, Marshall S, Runyan CW, and Hargarten S (Submitted July 2003 – not funded).

Principal Investigator, \$1,533,442 with Department of Defense - Peer Reviewed Medical Research Program (PRMRP); Supplement to US Army Medical Research Materiel Command Broad Agency Announcement 02-1 – “Association between mild traumatic brain injury and chronic clinical depression and neurodegenerative dementing disorders.” Guskiewicz KM, Longo F, McCrea M, Marshall S, Robertson K, Smith K, Lin W, Randolph C, Cantu R, Bleiberg J (Submitted: April 2003 – not funded).

Co-investigator, \$244,000 with National Institute of Health (NIH) - "Epidemiology of Jump-Landing Movements and ACL Injury." Marshall SW, Padua DA, Guskiewicz KM, Yu B, Garrett WE, Kirkendall D, Evenson K, Wolf SH, Gregory E (Submitted: February 2003 – not funded).

Principal Investigator, \$126,000 with Centers for Disease Control and Prevention- "Computerized neuropsychological testing for sport-related mild head injury (MHI) in sport: A prevention initiative." Guskiewicz KM, Mueller FO, Marshall SW, McCrea M, Cantu RC, Bleiberg J. (Awarded: October, 2001).

Co-Investigator, \$173,000 with Centers for Disease Control and Prevention- "Reducing falls through improved balance in older adults: A pilot intervention." Marshall SW, Guskiewicz KM, Hogue CC, et al. (Awarded: June 2000).

Principal Investigator, \$485,000 with Centers for Disease Control and Prevention- "Prospective investigation of mild head injury (MHI) in sport: A prevention initiative." Guskiewicz KM, Marshall SW, Mueller FO, et al. (Awarded: September, 1999).

### **National Foundations:**

Co-Principal Investigator, \$498,214 with the National Football League – "On-Field Monitoring and Recording of Head Impacts Sustained by NFL players." Guskiewicz, K, and Mihalik, J. (Awarded October 2013).

Co-Principal Investigator, \$800,000 with the National Collegiate Athletic Association – "A prospective, longitudinal study of head impact exposure, neurologic health and brain imaging biomarkers in former NCAA athletes: 15 year follow-up of the original NCAA Concussion Study." Guskiewicz, K, and McCrea, M. (*Funding split between UNC and MCW*). (Awarded August 2013).

Principal Investigator, \$99,998,876 with National Football League Players Association - "Advancing the Frontiers of Research in Professional Football: Safeguarding the Health of Active and Former NFL Players." Guskiewicz, Marshall, McCrea (Submitted August 2012 – not funded).

Co-Principal Investigator, \$400,000 with National Collegiate Athletic Association – "The National Sport Concussion Outcomes Study (NSCOS)" Giza C, Kutcher J, Guskiewicz K, McCrea M, Eckner JT, Broglio S. (Awarded: July 2012).

Co-Principal Investigator, \$99,165 with NFL Charities – "Association between football exposure and dementia in retired football players." Guskiewicz KM and Marshall SW (Awarded December 2010)

Principal Investigator, \$98,000 with NFL Players Association – "Association between football exposure and dementia in retired football players." Guskiewicz KM (Awarded April 2010)

Co-Principal Investigator, \$12,600 with NFL Charities – "Concussion Knowledge, Attitudes and Practices of High School Athletes and Coaches." Guskiewicz K, and Mihalik JR (Awarded November 2008).

Principal Investigator, \$282,000 with National Operating Committee on Standards for Athletic Equipment – "Prospective investigation of sport-related concussion: Relationship between

biomechanical, neuroanatomical, and clinical factors: Part II.” Guskiewicz KM, Mihalik JP, Marshall SW, Smith JK (Awarded: February 2009).

Principal Investigator, \$258,000 with Martek Biosciences, Corp. – “Docosahexaenoic Acid (DHA) Supplementation in Retired Professional Football Players.” Guskiewicz KM, Bailes JM, Marshall SW (Awarded: June 2008).

Principal Investigator, \$165,000 with National Operating Committee on Standards for Athletic Equipment – “Prospective Evaluation of Head Impacts in Youth Ice Hockey: Part II.” Guskiewicz KM, Mihalik JP, Marshall SW, Greenwald R (Awarded: January 2008).

Co-Principal Investigator, \$300,000 with National Operating Committee on Standards for Athletic Equipment – “Hypopituitarism in Retired Professional Football Players.” Kelly D, Guskiewicz KM. (Awarded: February 2008).

Co-Principal Investigator, \$225,000 with The Ontario Neurotrauma Foundation – “Prospective Analysis of Head Impacts Sustained in Bantam-Aged Minor Hockey Players.” Guskiewicz KM, and Montelpare W (Awarded: March 2006).

Principal Investigator, \$160,000 (\$40,000 for 4 years) – National Football League Players’ Association – “Investigating the Health of Retired NFL Players” (Awarded: June 2005).

Principal Investigator, \$240,000 with Medtronic – Sofamor-Danek – “Investigation of Back Pain in Retired Professional Football Players” Guskiewicz KM, Bailes J, Taft T, Hooker D (Awarded: September 2004).

Principal Investigator, \$240,000 with Alzheimer’s Association – “Association between cerebral concussion and mild cognitive impairment (MCI) later in life.” Guskiewicz KM, Kaufer D, McCrea M, Marshall SW, Smith K, Lin W. (Submitted: December 2004 – not funded).

Principal Investigator, \$300,000 with American Health Assistance Foundation – “Association between cerebral concussion and mild cognitive impairment (MCI) later in life.” Guskiewicz KM, Robertson K, Longo F, McCrea M, Marshall SW, Smith K, Lin W, Bailes J. (Submitted: September 2004 – not funded).

Principal Investigator, \$240,000 with Alzheimer’s Association – “Association between cerebral concussion and mild cognitive impairment (MCI) later in life.” Guskiewicz KM, Robertson K, Longo F, McCrea M, Marshall SW, Smith K, Lin W, Bailes J. (Submitted: December 2003 – not funded).

Principal Investigator, \$200,000 with National Football League Charities - “Association between mild traumatic brain injury and neurodegenerative dementing disorders.” Guskiewicz KM, Longo F, McCrea M, Marshall S, Robertson K, Smith K, Lin W, Randolph C, Cantu R, (Submitted: May, 2003 – not funded).

Principal Investigator, \$240,000 with Alzheimer’s Association – “Association between cerebral concussion and mild cognitive impairment (MCI) later in life.” Guskiewicz KM, Robertson K, Longo F, McCrea M, Marshall SW, Smith K, Lin W, Bailes J. (Submitted: December 2002 – not funded).

Co-investigator, \$114,465 with American Orthopaedic Society for Sports Medicine (AOSSM)- “Epidemiology of Jump-Landing Movements and ACL Injury.” Marshall SW, Padua DA, Guskiewicz KM, Yu B, Garrett WE, Kirkendall D (Awarded: December 2002).

Co-Investigator, \$10,000 with National Federation of State High School Associations (NFHS)- "A prospective study on injury assessment, return to play and outcome following concussion in high school athletes." McCrea M, Hammeke T, Guskiewicz KM, et al. (Awarded: June 2001).

Co-Principal Investigator, \$10,000 with National Operating Committee on Standards for Athletic Equipment- "A Prospective Study on Injury Assessment, Return to Play and Outcome Following Concussion in Collegiate Football Players." Guskiewicz KM and McCrea M. (Awarded: July 2000 for continuation of NCAA funded project - see below).

Co-Investigator, \$12,000 with National Federation of State High School Associations (NFHS)- "A prospective study on injury assessment, return to play and outcome following concussion in high school athletes." McCrea M, Hammeke T, Guskiewicz KM, et al. (Awarded: June 2000).

Principal Investigator, \$45,990 with National Operating Committee on Standards for Athletic Equipment- "A Prospective study on injury assessment, return to play and outcomes following concussion in athletes." Guskiewicz KM, McCrea M, Marshall SW, et al. (Awarded: July 1999).

Co-Principal Investigator, \$40,000 with National Collegiate Athletic Association- "A Prospective Study on Injury Assessment, Return to Play and Outcome Following Concussion in Collegiate Football Players." Guskiewicz KM and McCrea M. (Awarded: February 1999).

Co-Investigator, \$1,000 with Mid-Atlantic Athletic Trainers' Association- "Cumulative Effects of Multiple Treatments of Phonophoresis with Dexamethasone on Serum Dexamethasone and Cortisol Levels." Strapp E, Guskiewicz KM, Forman S., et al. (Awarded: April 1999).

Principal Investigator, \$84,095 with National Operating Committee on Standards for Athletic Equipment - "Effect of mild head injury on cognition and postural stability." Guskiewicz KM, Mueller FO, Perrin DH, et al. (Awarded: August 1996).

Co-Principal Investigator, \$10,000 with National Athletic Trainers' Association Research and Education Foundation - "Effect of mild head injury on postural stability." Guskiewicz KM and Perrin DH. (Awarded: June 1996)

Co-Principal Investigator, \$15,000 with National Athletic Trainers' Association Research and Education Foundation - "Effect of mild head injury on cognition and postural stability." Guskiewicz KM and Perrin DH. (Awarded January 1995).

Principal Investigator, \$1,250 with District III - National Athletic Trainers' Association. - "Effect of mild head injury on postural stability and cognition." Guskiewicz KM. (Awarded: April 1995).

### **Local and University Centers:**

Research Director, *Center for the Study of Retired Athletes at UNC-CH*. Secured \$250,000 from internal and external sources to develop and operate the center for the initial 3 years. (Developed: September 2000).

Co- Investigator, \$35,000 with Waukesha Service Club (Charitable Grant). "Neurocognitive Functioning and Brain Activation in Acute MTBI: A Neuropsychological and Functional MRI Study. (Awarded: March 2001).

Co-Investigator, \$2,940 with Injury Prevention Research Center, University of North Carolina- "Response of Bone Mineral Density and Serum Hormone Levels Following Exercise Modifications in Amenorrheic Athletes." Peterson S, Guskiewicz KM, Hackney AC, et al. (Awarded: February 1999).

Co-Investigator, \$3,099 with Injury Prevention Research Center, University of North Carolina- "Cumulative Effects of Multiple Treatments of Phonophoresis with Dexamethasone on Serum Dexamethasone and Cortisol Levels." Strapp E, Guskiewicz KM, Forman S., et al. (Awarded: March 1999).

## **GRANT REVIEW PANELS**

Nine Sigma/General Electric/Under Armour Head health Challenge 2014-2015

National Football League Charities, November 2010 to 2013

National Institutes of Health, Clinical Neuroscience and Disease Study Section, 2005-2010

Alzheimer's Association, 2004-2006

National Athletic Trainers' Association Research and Education Foundation, 1997 to present

Mid-Atlantic Athletic Trainers' Association, 1995-2001

## **CONSULTING**

Under Armour Head Health Challenge; 2013-2014.

Centers for Disease Control and Prevention's (CDC) Traumatic Brain Injury Round Table. Atlanta, GA. October 16 -17, 2012.

Helmet Sensors & Eye Protection and PM-Soldier Protective Equipment, Ft. Belvoir, VA; October 3, 2012.

Defense Centers of Excellence for Psychological Health and Traumatic brain Injury Clinical Standards of Care, Chrystal City, Arlington, VA; July 16-17, 2012.

Defense and Veterans Brain Injury Center (DVBIC), Comparing concussion issues in military personnel to concussion in athletes, Walter Reed Hospital, Washington, DC, September 15-16, 2008.

North Carolina Department of Corrections. Development of a Correction Officer Physical Ability Test (COPAT), October 15, 2006 – April 15, 2008.

ANAM Sports Medicine Battery (ASMB) Working Group; Principal Investigator: Joseph Bleiberg, National Rehabilitation Hospital, Washington, DC, February 2004 – January 2005

North Carolina Criminal Justice & Sheriffs Commission. Development of a New Police Officer Physical Ability Test (POPAT) for Basic Law Enforcement Testing - 2000 (BLET 2000), January 1998 - March 2000

University of Michigan Undergraduate Athletic Training curriculum development, February 2000

Ohio State University Undergraduate Athletic Training curriculum development, October 1998

Becton Dickinson Consumer Products, Conducted at the University of Virginia, October 1993 to February 1994. Vaughan C.L. & Guskiewicz, K.M. "Testing of five sports tapes: A clinical study"

Becton Dickinson Consumer Products, Conducted at the University of Virginia, October 1993 to February 1994. Vaughan C.L. & Guskiewicz, K.M. "Testing of four neoprene braces: A clinical study"

## **MEMBERSHIPS/CERTIFICATIONS**

Athletic Trainer Certified - National Athletic Trainers' Association: Member #890444, Certification #2-1827

American College of Sports Medicine

American Academy of Kinesiology and Physical Education

Athletic Training Research and Education Society - Vice President (1993-1995)

First Aid, CPR & Responding to Emergencies Instructor Certified, American Red Cross

Emergency Medical Service First Responder Certified - Commonwealth of Virginia

First Aid and CPR Certified, American Red Cross

## **OTHER POSITIONS/APPOINTMENTS**

**NCAA Concussion Safety Protocol Committee**, *ACC representative*, 2015 to present

**ACSM/ AMSSM Team Physician Concussion Consensus Statement Writing Group**, 2011

**American Academy of Neurology Practice Parameter Writing Group**, 2010 to 2013

**National Football League's Head, Neck, and Spine Safety Committee**, 2010 to present  
Chair, Equipment Safety and Rules Sub-Committee

**National Collegiate Athletic Association's Concussion Committee**, 2010 to present

**National Football League Player's Association Mackey-White Committee**, 2009 to present

**National Athletic Trainers' Association Convention Committee**, 1998 to 2001  
Program Chair, 2000 Annual Meeting, Nashville, TN., June 28 - July 2, 2000.

**National Athletic Trainers' Association Education Council**, Graduate Program Review Committee, 1999 to July 2005

**National Athletic Trainers' Association Education Council**, Clinical Education Committee, 1997 to 1998

**Chair, National Athletic Trainers' Association Pronouncement Committee on Mild Head Injury**, 1997 to 2004

**Secretary:** *Atlantic Coast Conference Sports Medicine Society*, 1996 to 1999

-- Updated July 2015 --



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

CAROL L. FOLT  
Chancellor

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## Mail Ballot

### Board of Trustees

October 28, 2015

Attached for your review and approval is a memo concerning the terms of appointment and compensation for Kevin Guskiewicz as Dean of the College of Arts and Sciences. This mail ballot will be approved as part of the Consent Agenda at the Full Board meeting on Thursday, November 19, 2015.

The undersigned votes as follows with respect to the recommendation proposed in Chancellor Folt's memorandum dated October 28, 2015.

Approve      Disapprove

Appointment and compensation for Kevin Guskiewicz as  
Dean of the College of Arts and Sciences

☐☐

Signature\_\_\_\_\_

Printed Name\_\_\_\_\_

Date\_\_\_\_\_

Please fax to TJ Scott at (919) 962-1647 or email at [tj\\_scott@unc.edu](mailto:tj_scott@unc.edu)

This mail ballot was approved by majority vote on October 28, 2015 by the following Trustees: Dwight Stone, Haywood Cochrane, Chuck Duckett, Lowry Caudill, Julia Grumbles, Bill Keyes, Allie Ray McCullen, Ed McMahan, Hari Nath, and Houston Summers.



# Improving Safety for our Athletes and Service Members

**Kevin Guskiewicz, PhD, ATC**

Kenan Distinguished Professor

*Department of Exercise and Sport Science*

**Johna Register-Mihalik, PhD, ATC**

Assistant Professor

*Department of Exercise and Sport Science*

**Jason Mihalik, PhD, CAT(C), ATC**

Assistant Professor

*Department of Exercise and Sport Science*

**Destinee Grove**

Undergraduate Student

*Departments of EXSS and Psychology & Neuroscience*

**Robert Lynall, MS, ATC**

PhD student

*Curriculum in Human Movement Science*



**Matthew Gfeller**

Sport-Related TBI Research Center

The University of North Carolina at Chapel Hill

# 10 Ideas That Changed the World in 2012

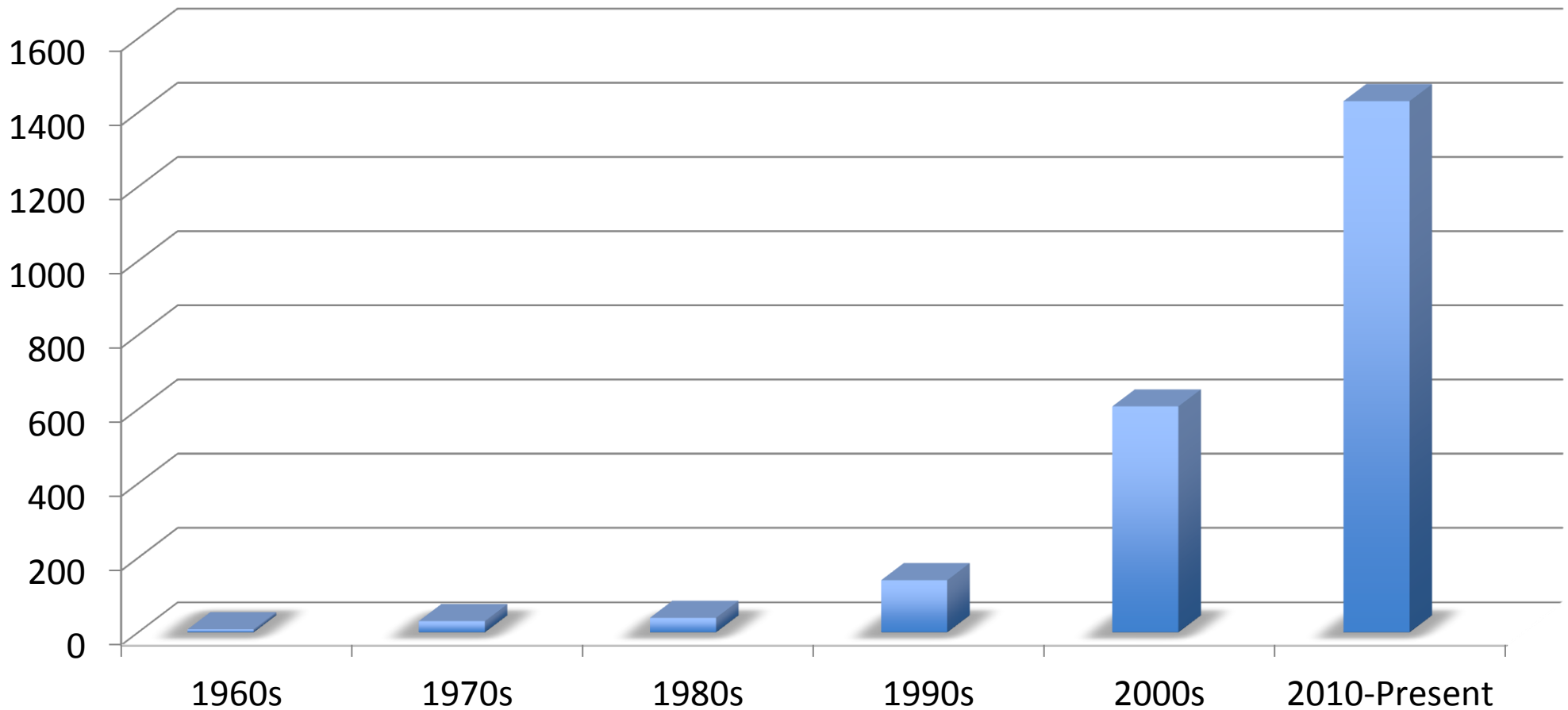
## FOOTBALL PLAYERS BEWARE: CONCUSSIONS CAN BE DEADLY

Strange as it may seem, American sports historians may one day look back on 2012 as the beginning of the end for NFL football, at least in its present-day, helmeted, blocking-and-tackling-intensive incarnation. Thousands of former players are embroiled in a lawsuit against the league, alleging that it hid information about the danger of repeated head trauma. Present and former NFL insurers are also fighting the league over who is owed what. Every new concussion a current player suffers - and especially any suicide, violent crime or debilitating medical condition involving a former player - only brings the issue to broader public attention. And the cultural impact is trickling down to young kids whose parents are thinking twice about letting them join Pop



# Concussion Evidence

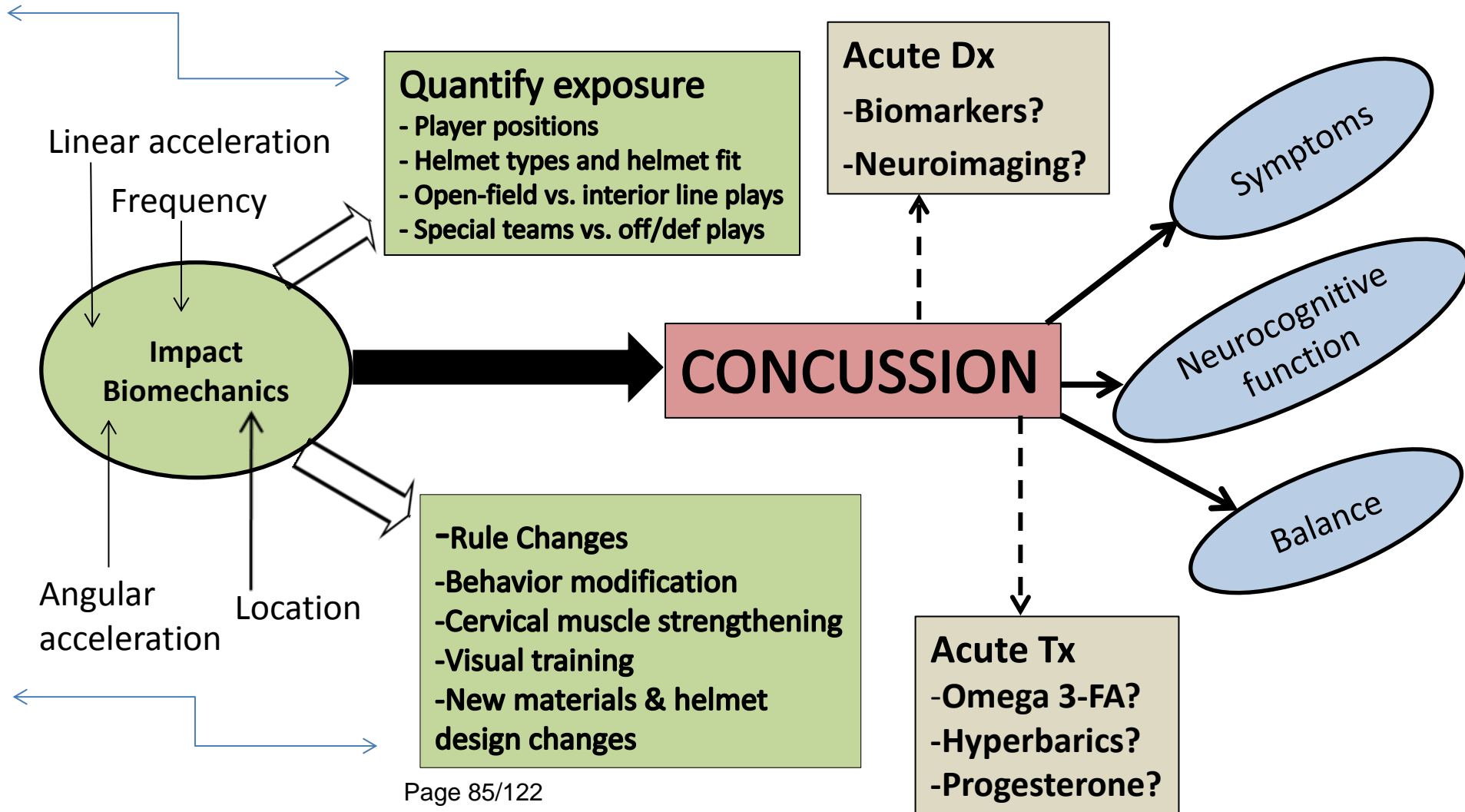
**Number of sport concussion publications in PubMed**





# The Concussion Solution

Prevention, Education, Training, Risk modification





Location	Linear	Bar
	8.3%	
	8.3%	
37%		X
25%	7%	X
41%	6%	Frage 102 (2-1)
35%		
28%		
27%	7%	X
27%		
52%		
	7%	
Frage 1101	34% J.F. 100 Frage 102	
Frage 1185		
Frage 836		
Frage 1228		



# Intersecting Athletics & Special Operations

Athletics

Spec Ops

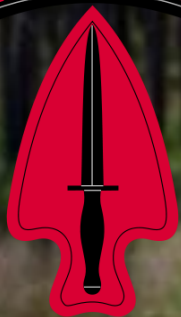


**NCAA•DOD**  
**Grand Alliance**  
**CARE Consortium**

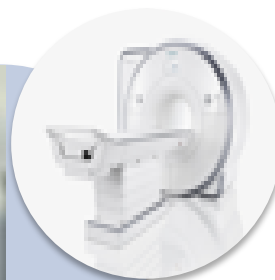




AIRBORNE



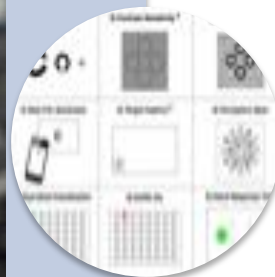




Neuroimaging:  
Structural and  
clinical  
sequences



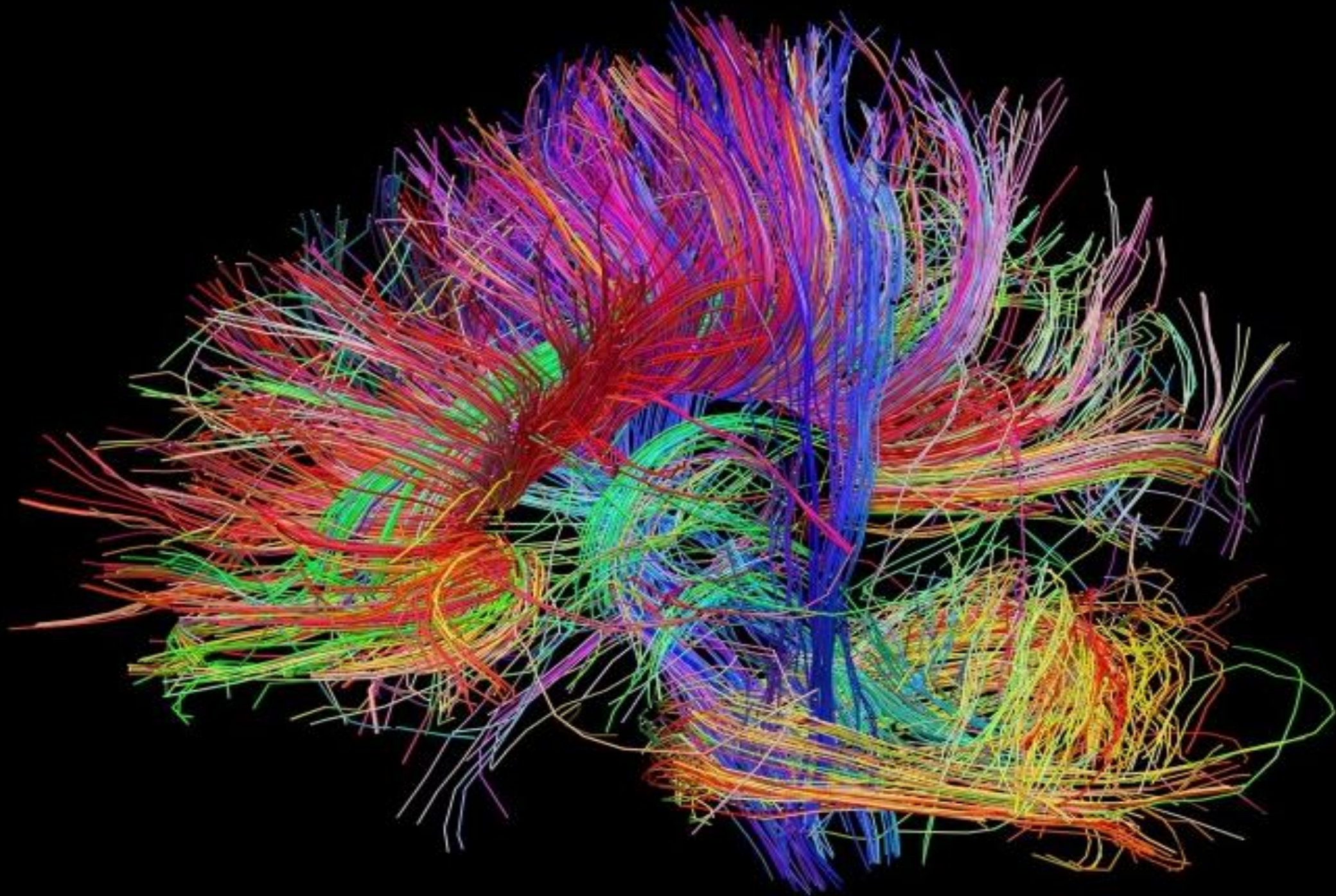
Plasma/serum  
biomarkers



Vision &  
sensory  
performance



Standard TBI  
clinical  
measures





# Head Impact Measurement Systems



**A**

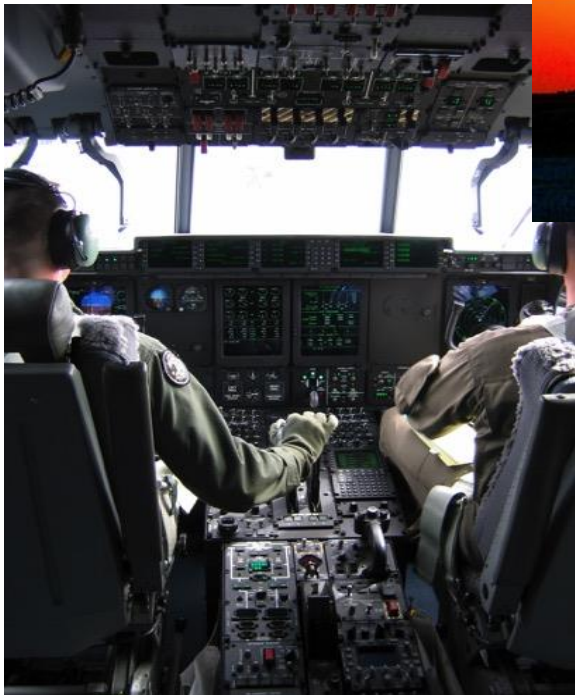


**B**



**C**







Recessed Activation Button

Color-Coded  
Body Placement Mark

Indicator Lights

Sensor Dome



Micro-USB Port

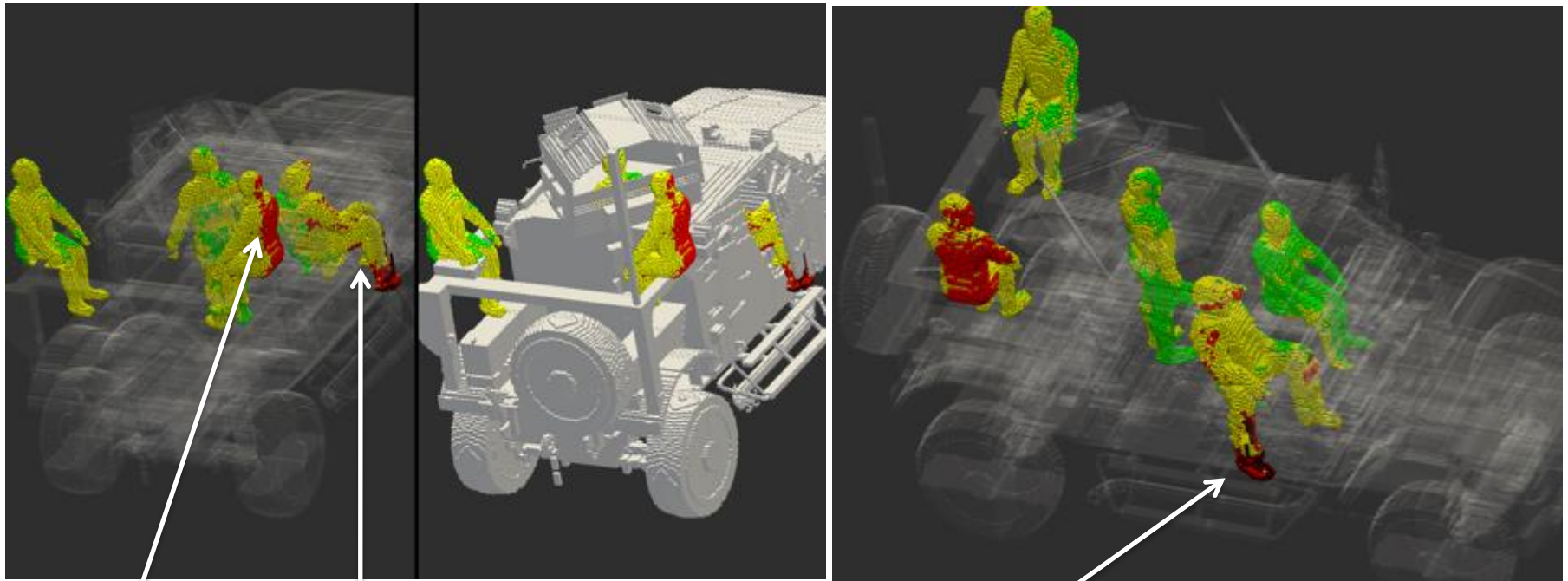
Heavy-Duty  
Attachment Cord

Impact Resistant Casing



# Blast exposures on all occupants

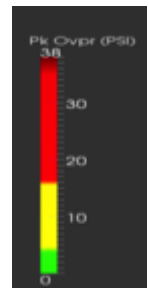
Using Blast Gauge readings from operator in back and information about crew locations recreation can approximate exposures on other occupants.



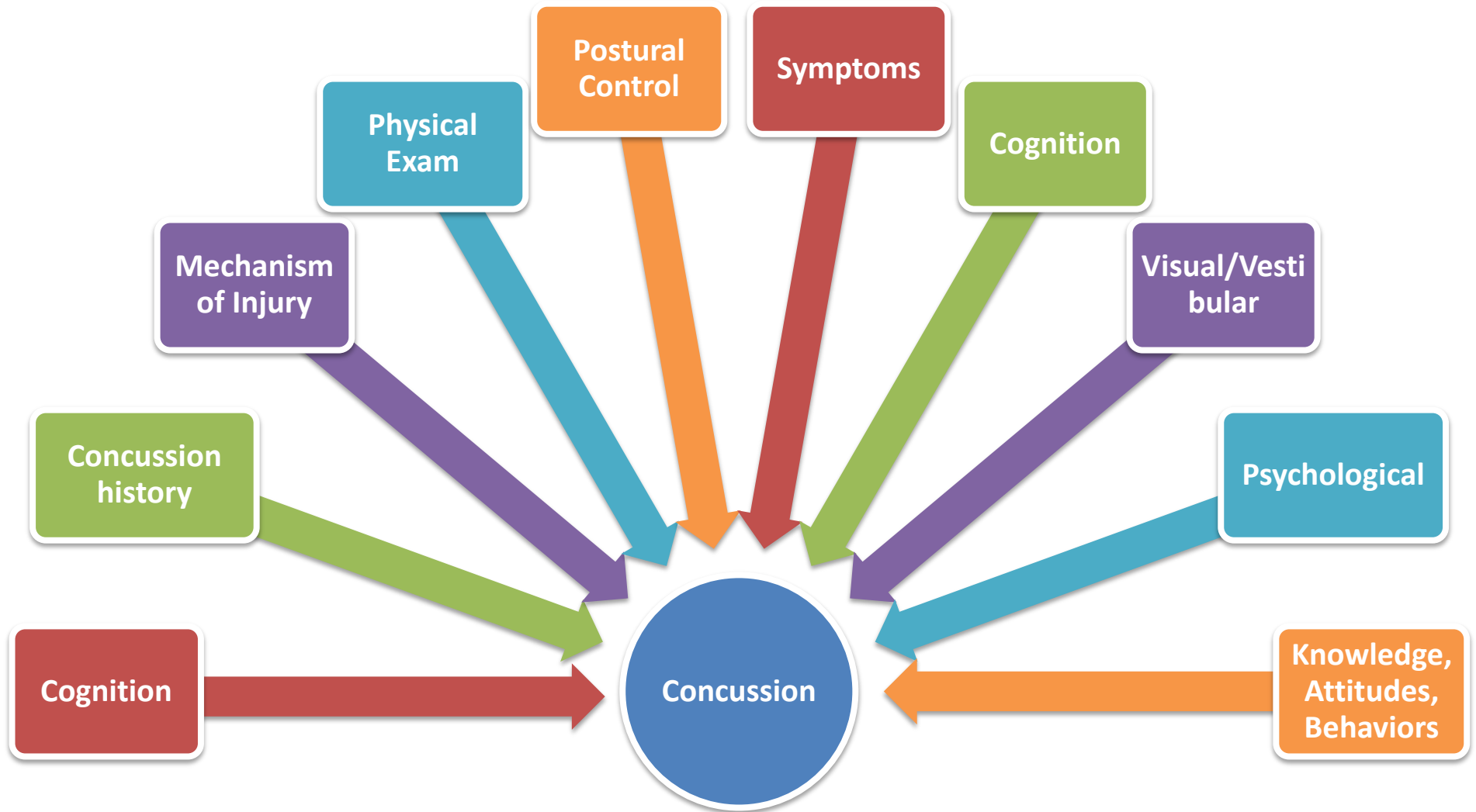
Only Subject 1 and subject in passenger seat exposed to >16 psi

Passenger foot was outside of vehicle and exposed to blast pressures >500psi

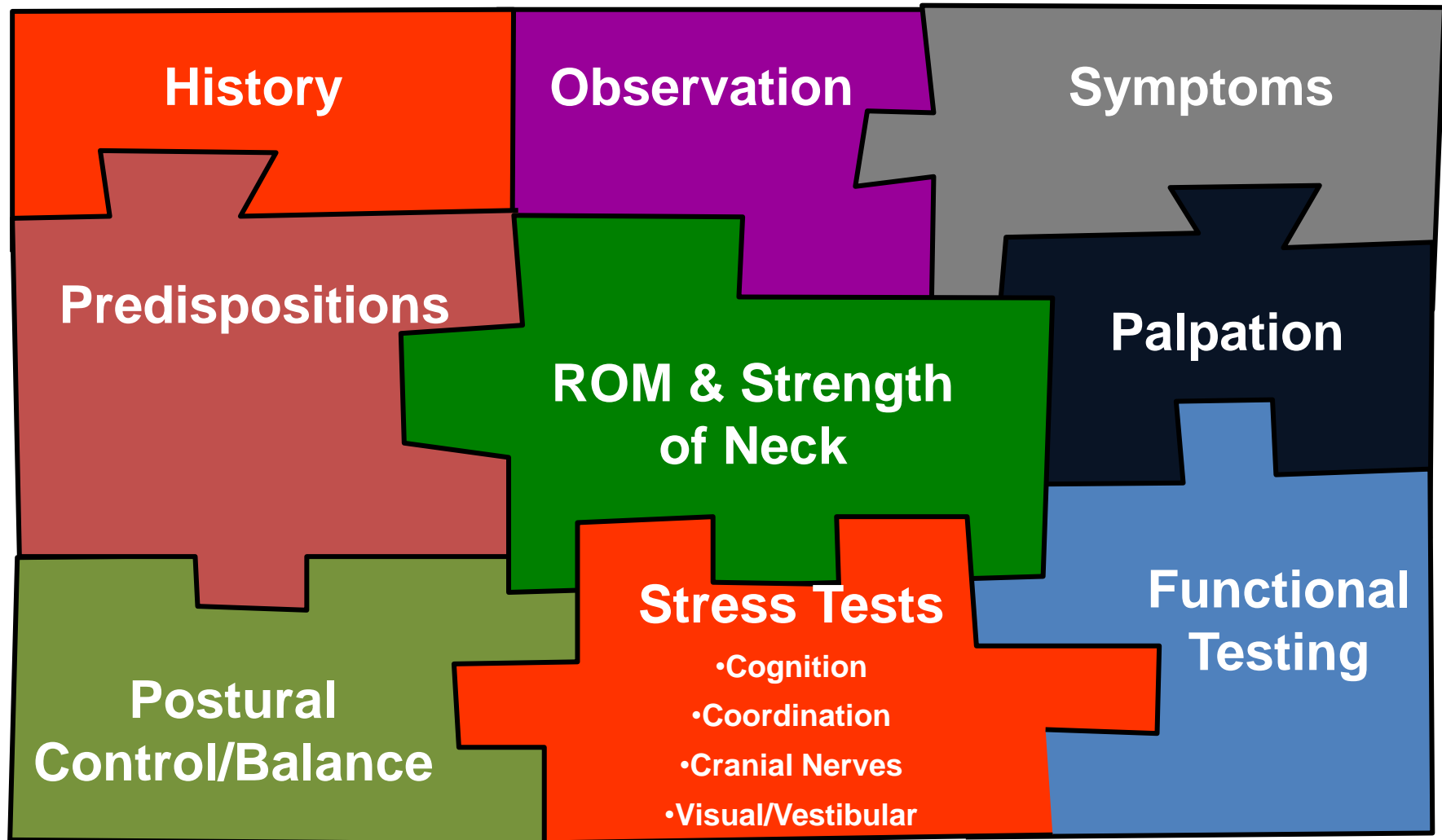
Driver and gunner had low exposures



# Concussion: A Multifaceted Condition

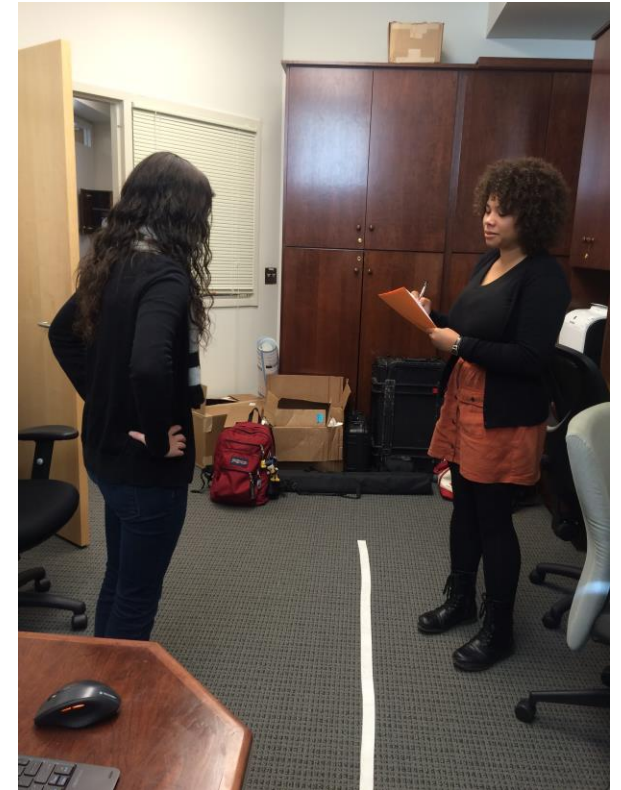
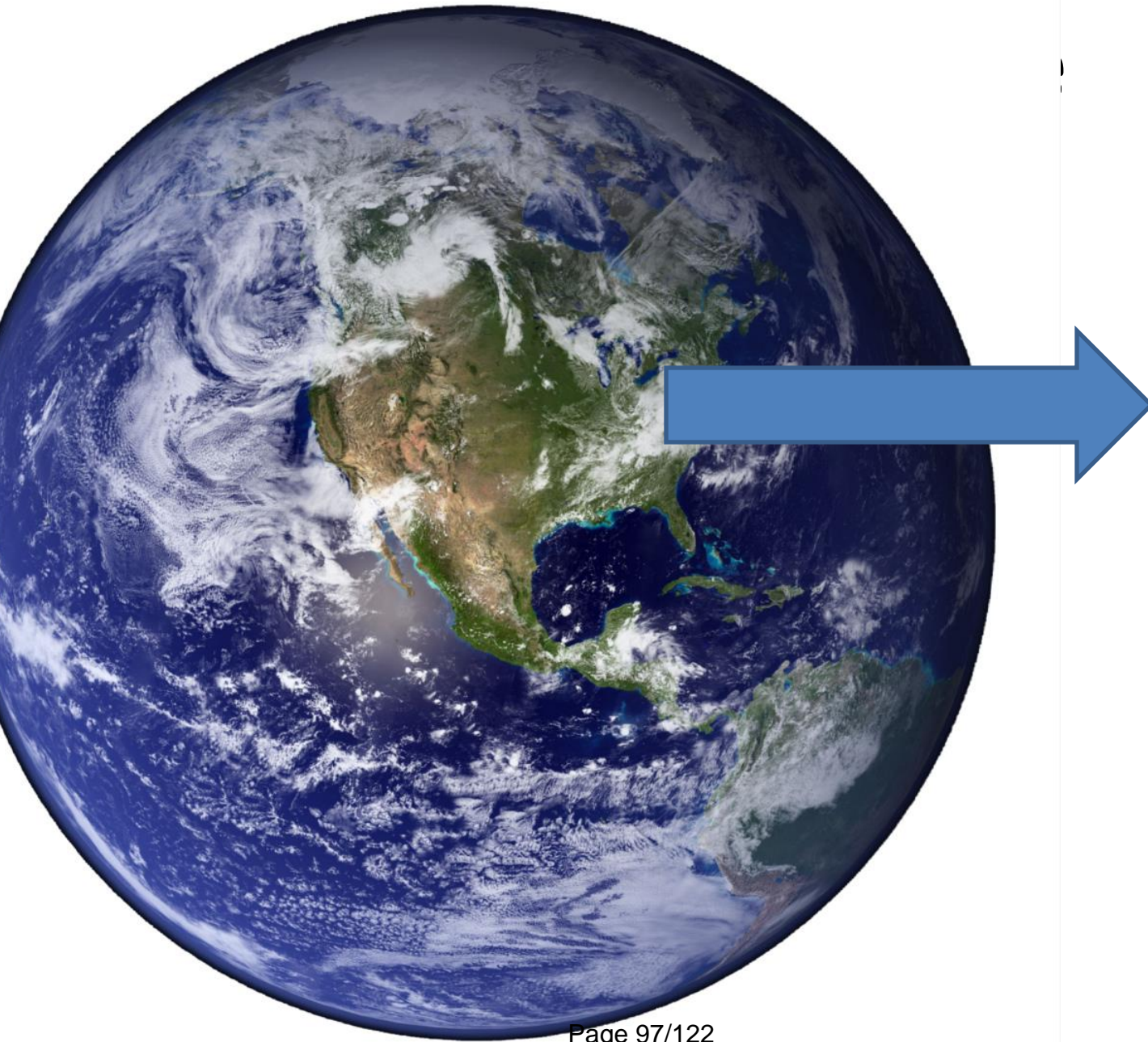


# Multimodal Assessment Paradigm



Slide courtesy of Mr. Scott Bruce









# SPORTS-RELATED CONCUSSIONS IN YOUTH

Improving the Science, Changing the Culture



INSTITUTE OF MEDICINE AND  
NATIONAL RESEARCH COUNCIL  
OF THE NATIONAL ACADEMIES



# Everyone Has a Role



# Knowledge, Attitude, and Concussion-Reporting Behaviors Among High School Athletes: A Preliminary Study

Johna K. Register-Mihalik, PhD, LAT, ATC\*†; Kevin M. Guskiewicz, PhD, ATC, FNATA, FACSM†; Tamara C. Valovich McLeod, PhD, ATC, FNATA‡; Laura A. Linnan, ScD§; Frederick O. Mueller, PhD‡; Stephen W. Marshall, PhD||¶

\*Emergency Services Institute, WakeMed Health and Hospitals, Raleigh, NC; †Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, Department of Exercise and Sport Science, University of North Carolina at Chapel Hill; ‡Athletic Training Program, A.T. Still University, Mesa, AZ; §Department of Health Behavior and Health Education, ||Department of Epidemiology, and ¶Injury Prevention Research Center, University of North Carolina at



**BRAIN  
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**informa**  
healthcare

## ORIGINAL ARTICLE

### Using theory to understand high school aged athletes' intentions to report sport-related concussion: Implications for concussion education initiatives

Johna K. Register-Mihalik<sup>1,2</sup>, Laura A. Linnan<sup>3</sup>, Stephen W. Marshall<sup>4</sup>, Tamara C. Valovich McLeod<sup>5</sup>, Frederick O. Mueller<sup>2</sup>, & Kevin M. Guskiewicz<sup>2</sup>

<sup>1</sup>Clinical Research Unit, Emergency Services Institute, WakeMed Health and Hospitals, Raleigh, NC, USA, <sup>2</sup>Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, Department of Exercise and Sport Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA,

<sup>3</sup>Department of Health Behavior and Health Education, School of Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA,

<sup>4</sup>Department of Epidemiology, School of Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, and <sup>5</sup>Athletic Training Program, A.T. Still University, Mesa, AZ, USA

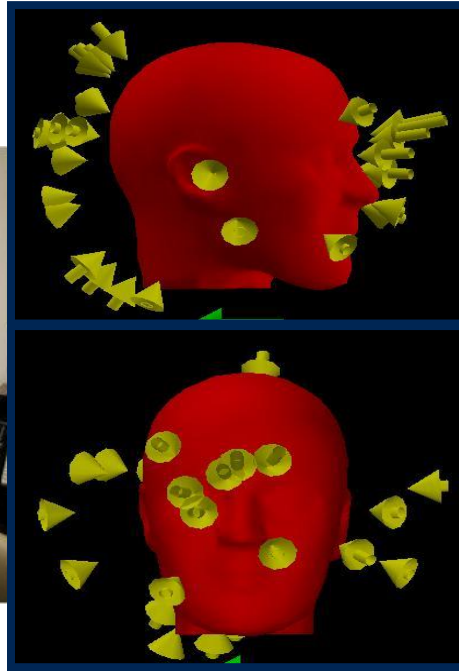
# Training and Skill Development:

*A key to concussion prevention*





# Safer Football, Taught From Inside the Helmet



*Left: UNC athletic trainer Scott Trulock and Dr. Kevin Guskiewicz talking with Offensive Linemen Alan Pelc. Right: Gfeller Center Doctoral Student Kody Campbell providing mentoring for a high school athlete*  
**By ALAN SCHWARZ    Published: November 5, 2010    New York Times**

**CHAPEL HILL, N.C.** — Alan Pelc has been taught how to block since his Houston boyhood, how to push and pulverize and punish oncoming defenders on the football field. This was different. He was learning how not to punish himself.

“Right there,” Dr. Kevin Guskiewicz said, pointing at a presentation screen showing more than a dozen arrows pointed straight into the top of a mannequin head. “These are all your recorded hits to the top of your helmet against L.S.U. Every time you drop your head. These are the ones we’re concerned about.”



**MIND  
MATTERS  
CHALLENGE**

NCAA | U.S. DEPARTMENT OF DEFENSE

**UNOCSAE**



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL



**Top  
Down**

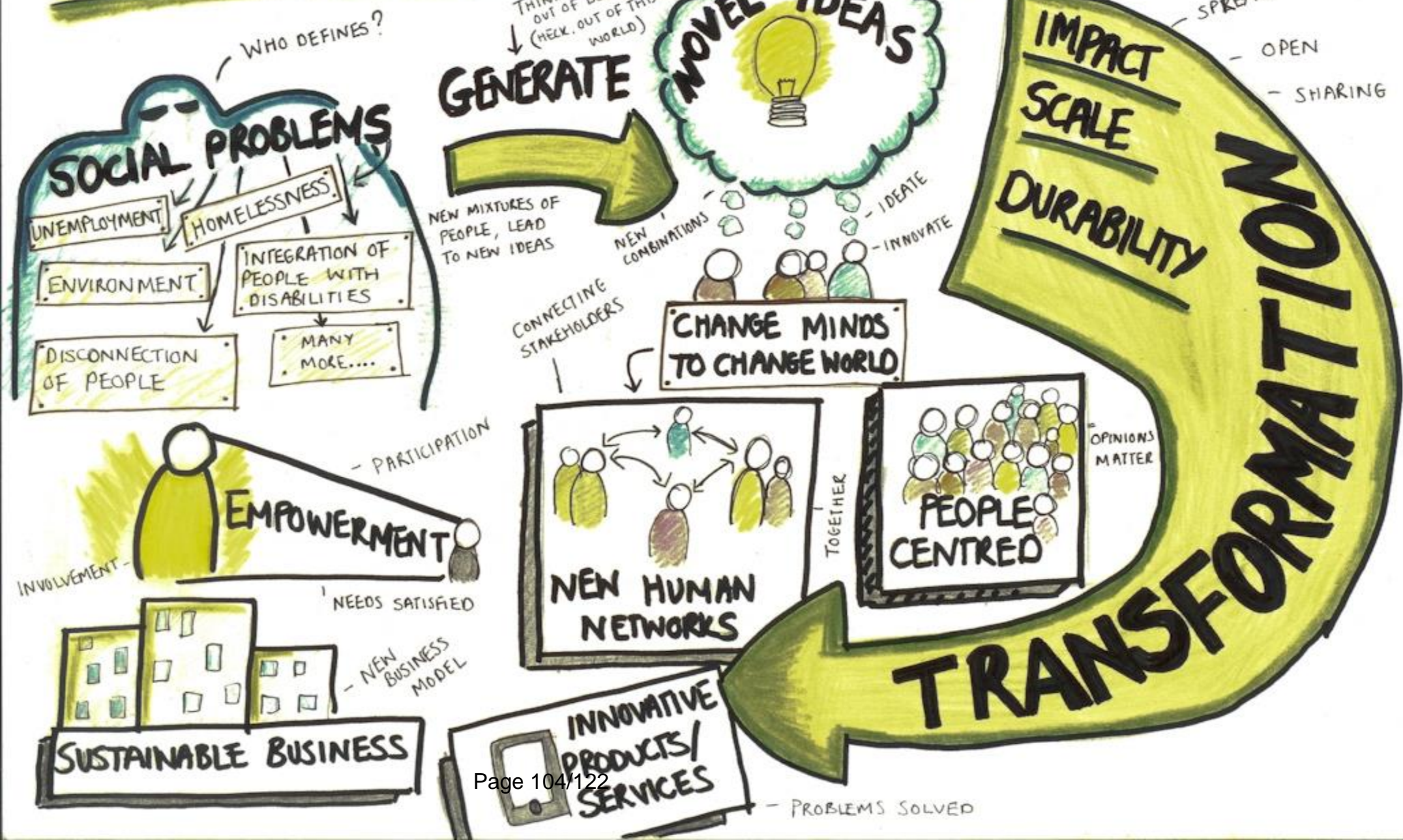
**&**

**Bottom  
Up**



# WHAT IS SOCIAL INNOVATION?

- ACCORDING TO LUSIC (WWW.LUSIC.SE)





# Entrepreneuring lab work into public safety



Concussion Recognition & Response (CRR) — Gioia & Mihalik

Target user: Parents & Coaches



Concussion Assessment & Response (CARE) — Mihalik & Gioia

Target user: Medical Providers

# Improving Safety for our Athletes and Service Members

- 1) identify predispositions to sport injuries & chronic neurologic impairment
- 2) modify behavior and change the culture
- 3) innovative science can be the game changer

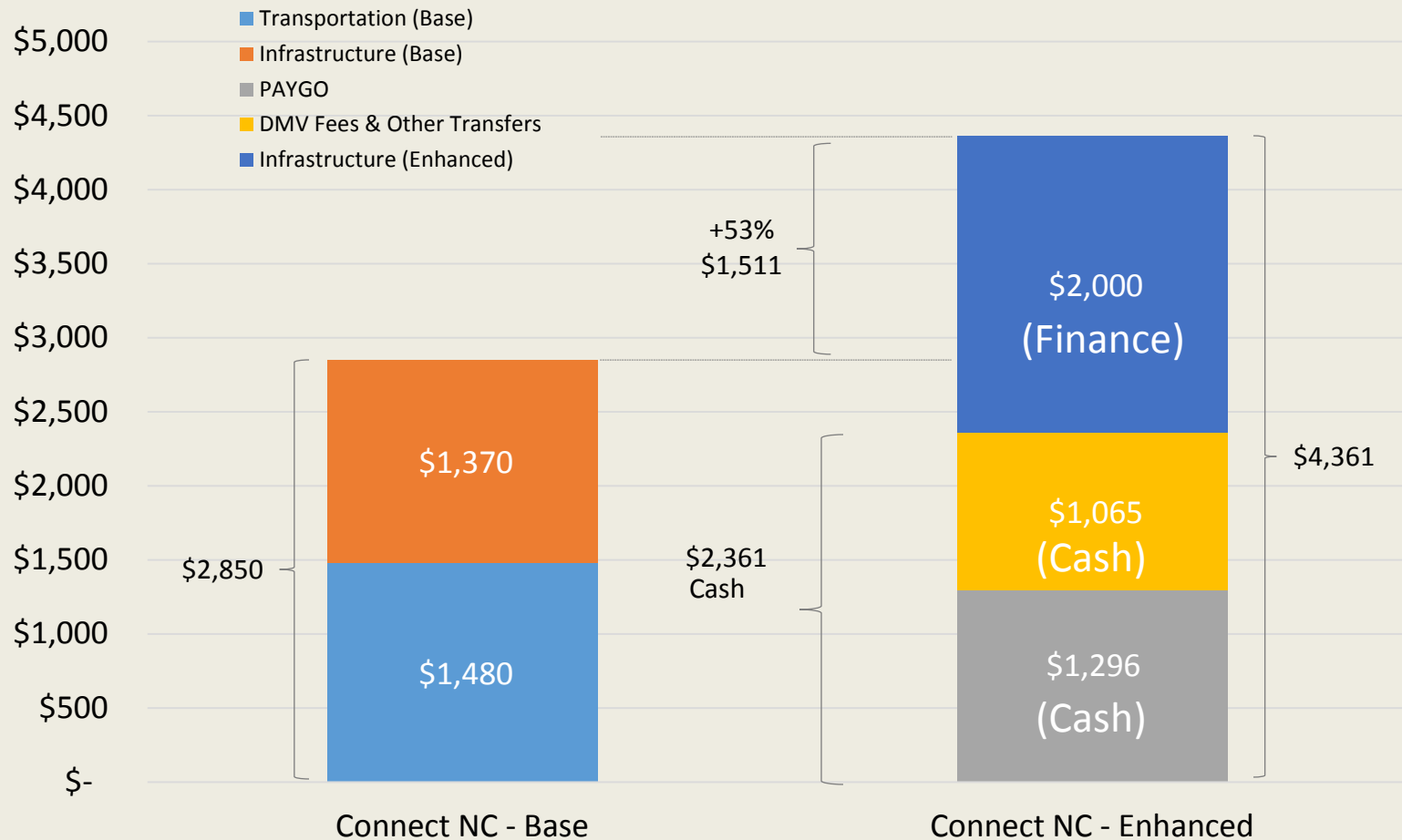


**CONNECT NC**  
Investing in our future.

*A proactive, fiscally conservative plan to  
invest in North Carolina's future.*

**HB 943 – Connect NC  
Bond Act of 2015**

## Comparison of Base and Enhanced Connect NC Bonds (\$ in millions)



Note: Connect NC – Base from H940, Governor’s Budget; PAYGO amount equivalent to 6 years of savings from stopping the HF transfer to GF (6 x \$216 M); DMV Fees & Other Transfers amount equivalent to 6 years of savings from stopping the HF transfer to GF (6 x \$216 M); DMV Fee projections in FY 2017-18 through FY 2020-21 from DOT/OSBM forecast

# **Infrastructure**

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**\$2.00B Bond**

**6 Year Plan**

**20 Year Bond**

# **Transportation**

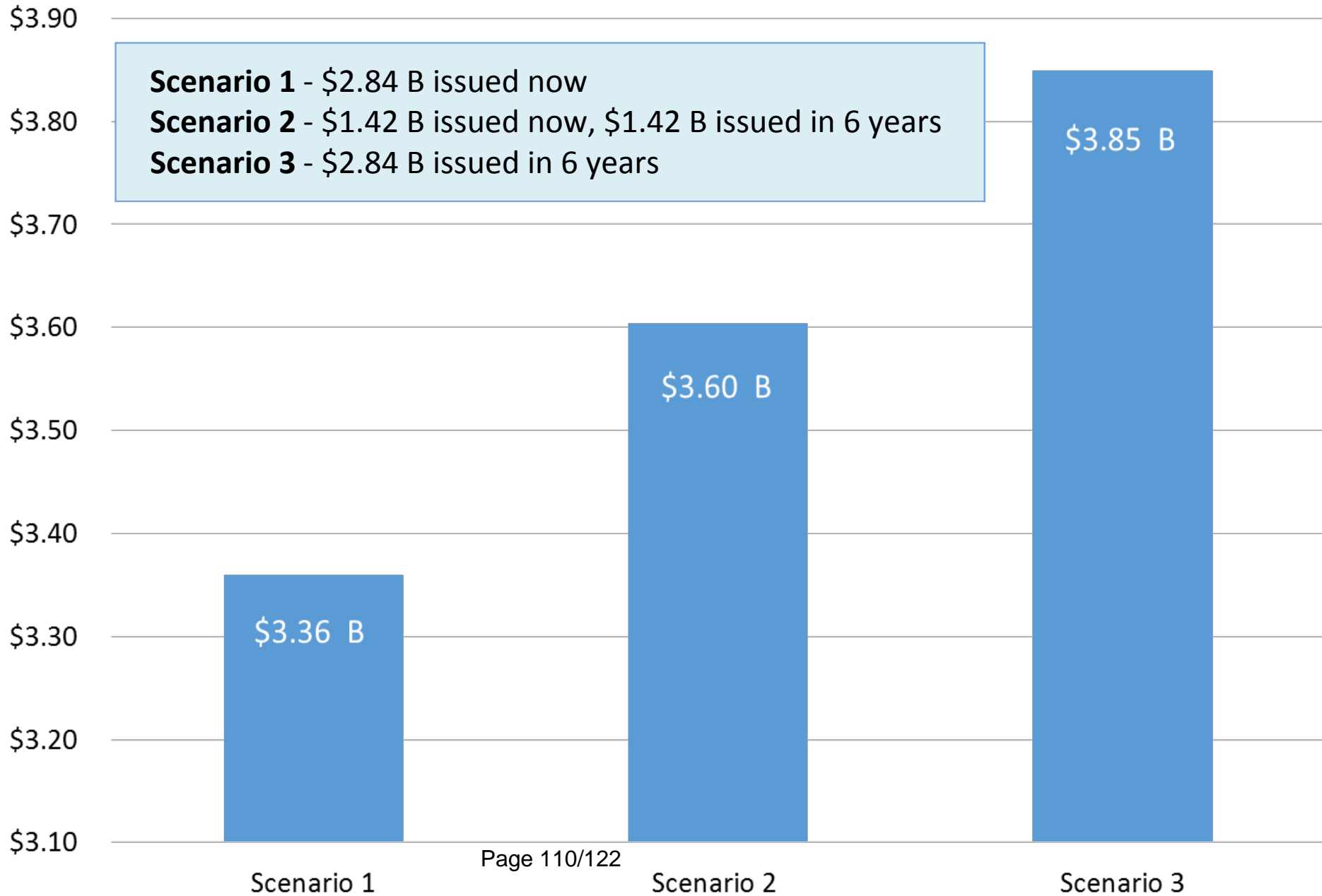
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**\$2.361B Cash**

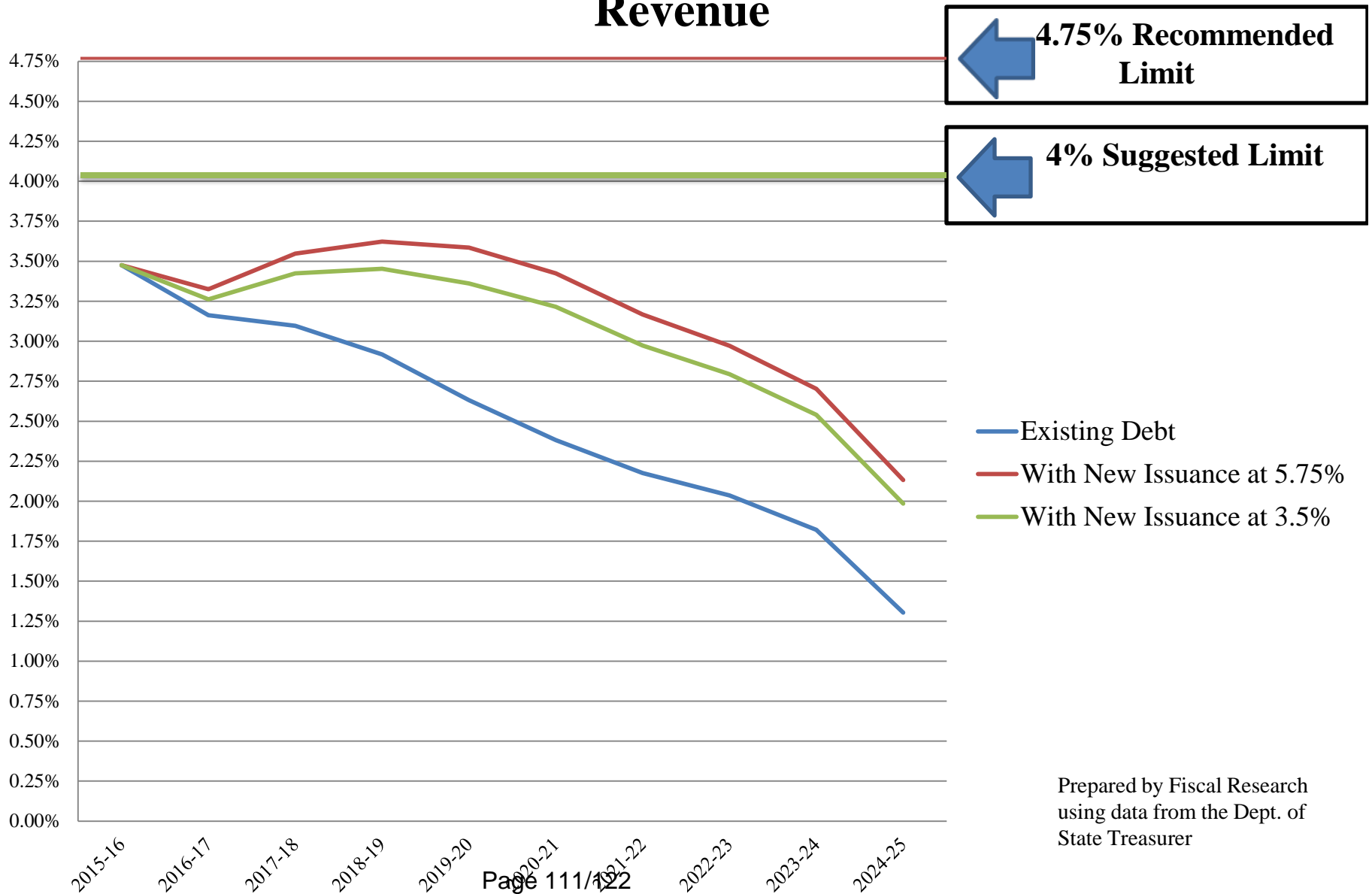
**6 Year Pay-Go Plan**

**\$393.5M On-going  
each year**

# Present Value Cost of Connect NC Scenarios



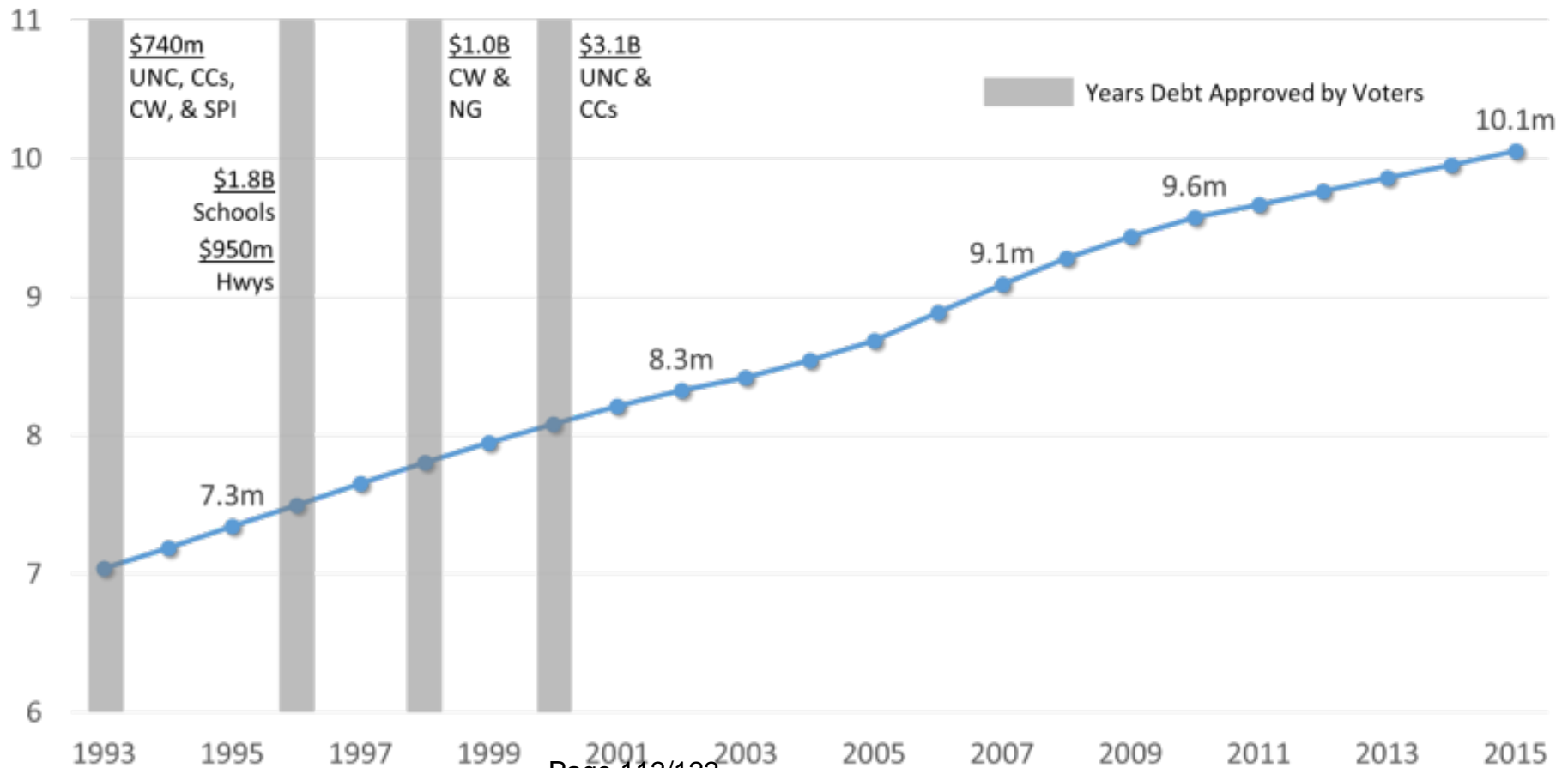
# Debt Service as a Percentage of General Fund Revenue



# 15 Years Since Last Bond Referendum

## North Carolina Total Population & Voter-Approved Debt

Millions of Persons, 1993-2015





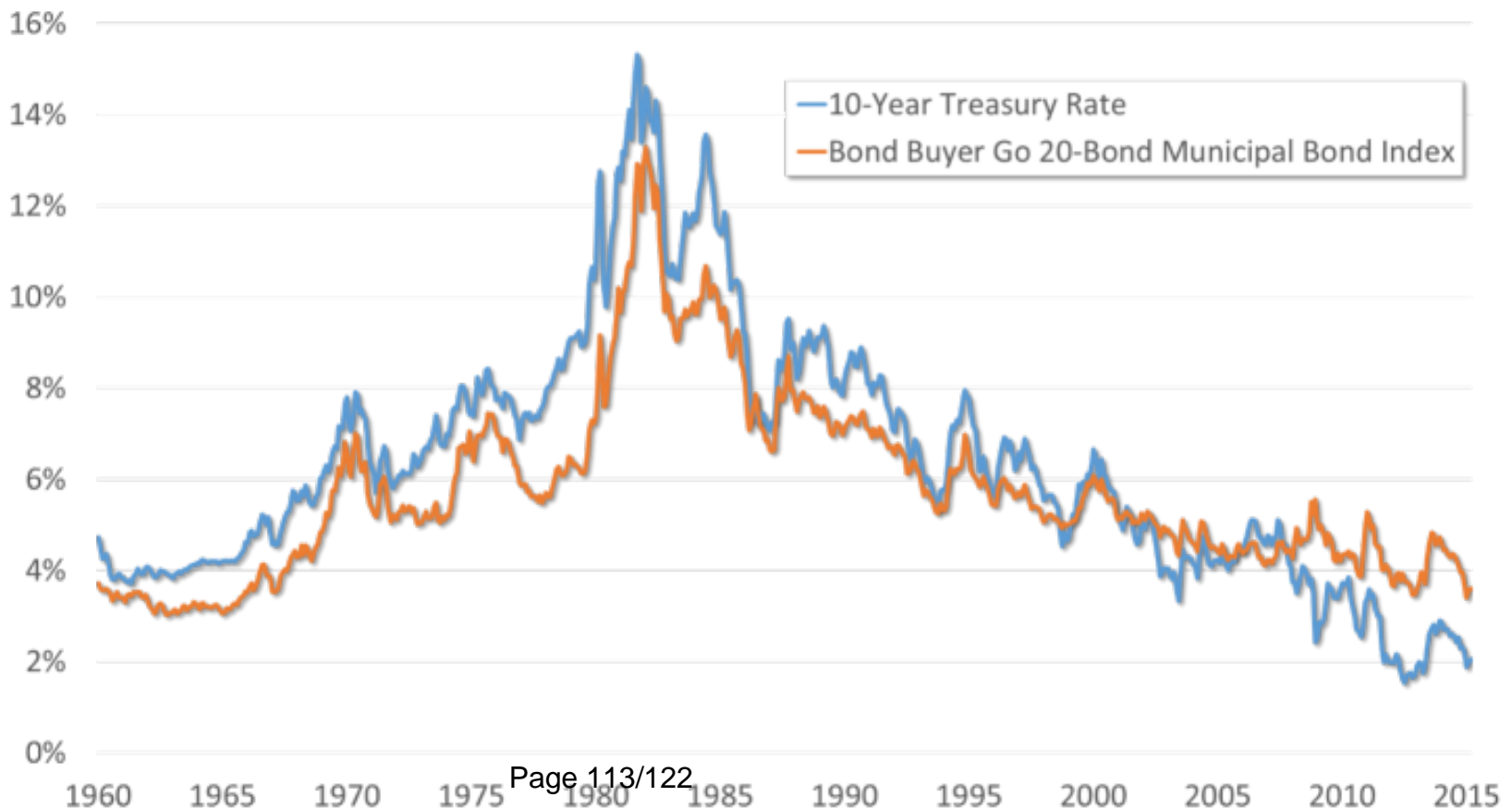
# Time is Money

"We maintain our call for the first fed funds rate hike in September of this year."

*Wells Fargo Securities, May 27, 2015*

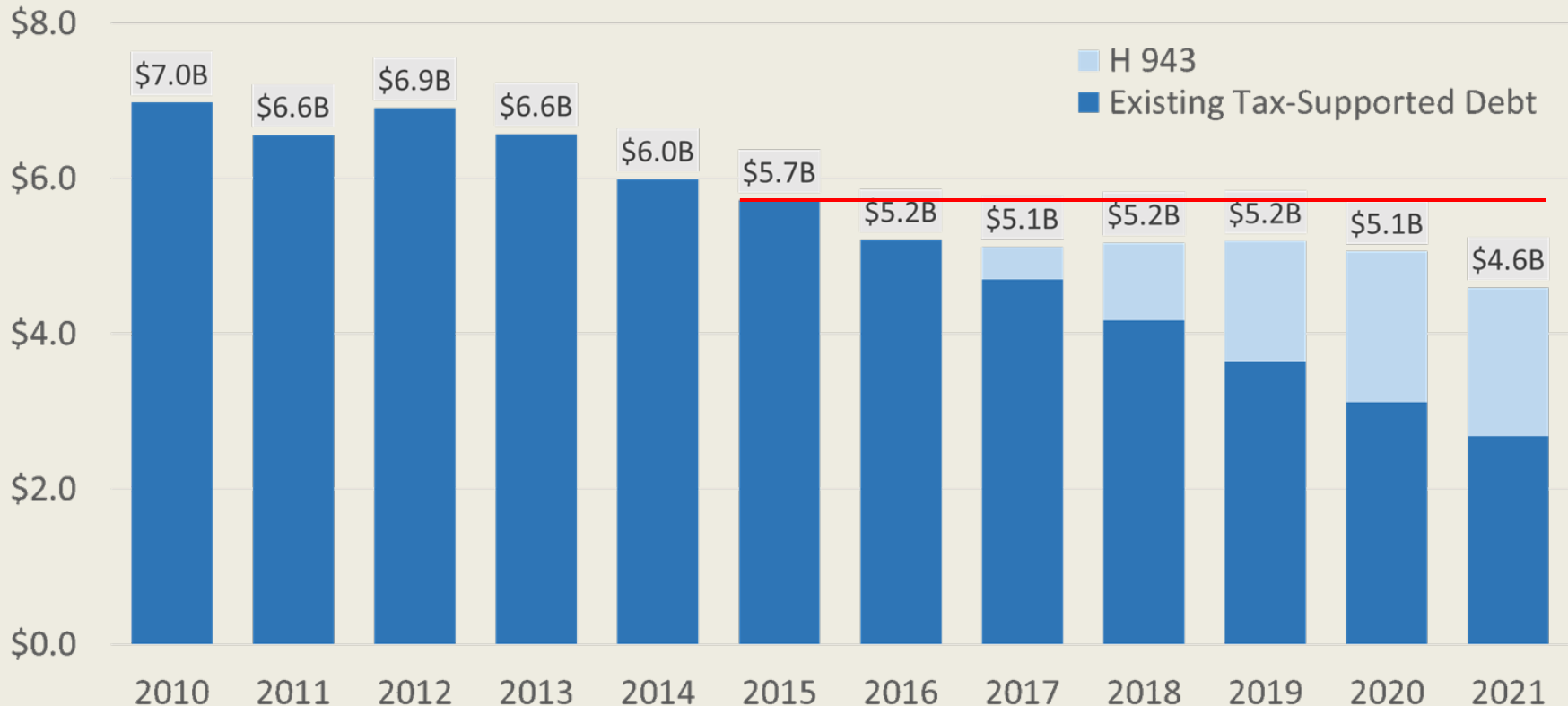
Each 0.25% increase in interest rates costs \$7.5 million in the first year alone

## Interest Rates on Government Bonds at Historic Lows



# Total State Tax-Supported Debt: Recent History & Projections

Billions of Current-Year Dollars, by Fiscal Year, 2010-2021



Note: Based on data from the 2015 DAAC Study by the NC Department of State Treasurer and HB 943 estimates from the NC Fiscal Research Division. Debt amounts include General Obligation debt and Special Indebtedness, but do not include capital leases and debt issued by NC Turnpike Authority. Projections assume four debt issuances over the next four fiscal years.

# Project List

Extends the life of the State's useful assets.

Financing aligns with the asset lifespan.

Focuses on areas that will boost State's economic activity.

Partners with university and industry to prioritize projects.

# Education: UNC System

ASU	New Health Sciences Building	\$	70,000,000
NCSU	Engineering Building	\$	75,000,000
UNCC	New Sciences Building	\$	90,000,000
UNCW	Allied Health and Human Sciences/Nursing Building	\$	66,000,000
ECU	Life Sciences and Biotechnology Building	\$	90,000,000
UNCCH	Medical Education Building Replacement	\$	68,000,000
NCAT	Engineering Building	\$	90,000,000
WCU	Sciences/STEM Building	\$	110,000,000
WSSU	Sciences Building	\$	50,000,000
UNCG	Nursing and Instructional Building	\$	105,000,000
NCSSM	North Carolina School of Technology and Engineering	\$	58,000,000
UNCP	New School of Business	\$	23,000,000
FSU	Lyons Science Building Comprehensive Renovation	\$	10,000,000
NCCU	New Business School	\$	30,000,000
	Repair and Renovations - UNC-Wide	\$	45,000,000
		<b>Sub-Total</b>	<b>\$ 980,000,000</b>

# Education:

## Community Colleges

Community Colleges			Statewide	\$ 350,000,000
	New Schools	New Schools		
	Additions	Additions		
	Renovations	Renovations		
		(Match 1:1, 1:2 Tier 2, 1:3 Tier 3)		
		(No K-12 Funds)		

## Agriculture

Plant Sciences Building Ag / NCSU Partnership	\$ 85,000,000
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Department of Agricultural Lab Facility	\$ 94,000,000
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## Public Safety

Samarcand Training Academy	\$ 8,500,000

## National Guard

McLeansville Regional Readiness Center, Guilford County	\$ 70,000,000
Morganton – Readiness Center, Burke County	
North Wilkesboro – Readiness Center, Wilkes County	

## Parks and Natural Resources

North Carolina Zoo	
Africa Plains Safari	\$ 25,000,000
Australasia Exhibit Complex Replace African Pavilion	
Australasia Exhibit Complex	
Matching Local Parks Grant Fund for Children and Veterans with Disabilities	\$ 3,000,000
State Parks	\$ 75,000,000

## Water and Sewer

Water & Sewer Loan Program	Statewide	\$ 209,500,000
Water & Sewer Grant Program	Statewide	\$ 100,000,000



# Transportation

## (CASH – Not Financed with Bond)

New, Bridges, Maintenance,	Statewide	\$ 2,361,000,000
Resurfacing, Repairs, Ports Funding		
(\$393.5M x 6 years)		



## PORTS

- \$70 million additional spending on Morehead and Wilmington ports



## BRIDGES

- 58% increase in repair and construction
- \$242 million in 2016-17



## RESURFACING

- 22% increase
- \$498 million



## OTHER ROAD MAINTENANCE

- \$68 million



## SPECIFIED STATE CONSTRUCTION

- \$23 million in projects



## OTHER REPAIR AND RENOVATIONS

- \$150 million

Education

Parks  
and  
Culture

National  
Guard

Repairs  
and Reno

Agriculture

Public  
Safety

Transportation

*Connecting North Carolina to the Future*