

CURRICULUM VITAE

Franklin D. Shuler, M.D., Ph.D.
Diplomate, American Board of Orthopaedic Surgery

OFFICE ADDRESS

Dept of Orthopaedic Surgery
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January 14, 1967

E-MAIL ADDRESS

BIRTH DATE

EDUCATIONAL ACCOMPLISHMENTS

- Dr. Shuler is a Professor with Tenure in Orthopaedic Trauma, Professor of Pediatrics, and Vice Chairman of Orthopaedics at Marshall University;
- Successful NIH funding with numerous publications and awards;
- Numerous local and national leadership positions including Directorship of CHH Senior Fracture Program: JCAHO Disease Specific Certification and Joint Commission's Gold Seal of Approval;
- Endowed Medical Student Scholarship in Orthopaedics named after Dr. Shuler at Marshall University's Joan C. Edwards School of Medicine;
- The Shuler Program Award established in 2016 at the Joan C. Edwards School of Medicine in recognition of the academic department with the highest yearly scholarly activity;
- Recipient of numerous Deans Awards – [Faculty Impact Award \(2016\)](#), [Excellence in Scholarly Publications \(2016\)](#), Excellence in Clinical Research (2014), Espirit de Corps Award (2013);
- Principal Investigator, Co-PI, Site PI in numerous FDA approved clinical trials – TRUST, SPRINT, HEALTH, KADIS, IlluminOss, EMSI, Pfizer CP 533,536, Synthes, METRC, KCI, JAS;
- State of West Virginia Distinguished Mountaineer Award, Governor Earl Ray Tomblin.

CURRENT APPOINTMENTS AND POSITIONS

Marshall University Huntington, WV	<u>Professor with tenure Orthopaedics (AOA)</u>	2/2014- present
	Professor of Pediatrics	11/2015-present
	Top Doc in Orthopaedics (Castle Connolly)	2014-present
	Vice Chairman , Orthopaedic Research	2/2013-present
	Medical Director , Senior Fracture Program	11/2011-present

PUBLICATIONS

FD Shuler paper citations 1588

http://scholar.google.com/citations?hl=en&user=yw_ASPkAAAAJ

ORTHOPAEDIC TRAUMA ATTENDING

Diplomate of the American Board of Orthopaedic Surgery (Through 12/31/2026)
Active Fellow, American Academy of Orthopaedic Surgeons
Active Fellow, Orthopaedic Trauma Association
Castle Connolly Top Doctors in Orthopaedic Surgery (first in Huntington WV)
Invited Grand Rounds and Lectureships: 37
Presentations: podium, instructional course lectures, etc: 163
Expert Witness: numerous successfully completed expert witness cases



Marshall University**Professor Orthopaedics****Professor Pediatrics**

AOA Medical Honorary Society Member

Recertification completed until 2026 – American Board of Orthopaedic Surgery

Castle Connolly Top Doctor in Orthopaedic Surgery

Vice Chairman, Orthopaedic Research

Medical Director, Senior Fracture Program

Associate Editor, WV Medical Journal

Inaugural Editor, Marshall Journal of Medicine

2011-present

Top Orthopedic Surgeons
in Huntington, WV

Dr. Ali Oliashirazi

★★★★★ 7 reviews

#1 of 43



Dr. Franklin Shuler

★★★★★ 3 reviews

#2 of 43



Dr. VEVIKANAND S. Neginhal

★★★★☆ 20 reviews

#3 of 43



Dr. John J. Jasko

★★★★★ 7 reviews

#4 of 43

Journal Reviewer:

1. *Orthopedics*
2. *Journal of Orthopaedic Trauma*
3. *Sports Health*
4. *Journal of Science and Medicine in Sport*
5. *European Journal of Sports Science*
6. *Clinical Orthopedics Clinic of North America*
7. *Journal of the American Aging Association*
8. *West Virginia Medical Journal (Associate Editor)*
9. *Nursing: Research and Reviews*
10. *ASPIRE Program Reviewer*
11. *Marshall Journal of Medicine (Inaugural Editor)*

Committees (CHAIRMAN or DIRECTOR):

12. Director, Marshall Orthopaedics Osteoporosis Clinic (2015-present)
13. **Chairman**, CHH OR Steering Committee (2013-present)
14. Chairman, Trauma GME Internal Review (2012-2013)
15. Director, Senior Fracture Program (2011-present)
16. Chairman, Selection Committee for JCESOM Excellence in Collaboration Award (2014, 2015)
17. Chairman, Senior Fracture Program Committee (Medical Director; 2011-present),
18. Chairman (Trauma) JCESOM Internal Review Committee (2011 – present, Med/Peds and Chair of Trauma review)

Committees (Member):

19. Member of Search Committee for Centralized Research Core Administrator Coordinator Position
20. Biochemistry Chairman Search Committee (2015-present)
21. Physician Champion CHH Lean Practitioner Program (2014-present)
22. Orthopaedics Residency Education Committee (2011 - present),
23. CHH Surgical Advisory Committee (2011-present),
24. Marshall Health Clinical Research Center – Clinical Trial Committee (2015-present)
25. Senior Fracture Program Committee (Medical Director; 2011-present),
26. Clinical Research Directors Committee (2012 – present),
27. JCESOM Internal Review Committee (2011 – present, Med/Peds and Chair of Trauma review)
28. WVSMA Publication Committee (2012-present)
29. Marshall Orthopaedics – Program Evaluation Committee, Resident Recruitment Committee, Curriculum Committee, Patient Safety and QI Committee, Resident Advisory Committee (2011-present)
30. Member, Search Committee for Chairman Biochemistry Department
31. Member, Physician Strategic Advisory Committee for Cabell Huntington Hospital
32. TeQ4 Committee Member – AAMC Teaching for Quality

33. ACTSI Protocol Review Committee (2015-present)
 34. Healthgrades – Quality Advisory Board (2017), Specialty Clinical Expert ICD-10 (2015), Specialty Clinical Expert Hip Fractures (2014)

Grant Reviewer:

1. 2016 WVCTSI – WV Clinical and Translational Science Institute
2. 2014 DOD-CDMRP (Department of Defense Congressionally Directed Medical Research Program) PRORP – Peer Reviewed Orthopedic Research Program Panel Member -- Washington, DC
3. Marshall University – CTSA, ASPIRE program, and many others

PREVIOUS EDUCATIONAL APPOINTMENTS

APPOINTMENTS AND POSITIONS

Marshall University Huntington, WV	<u>Professor with tenure (AOA)</u>	2/2014- present
	Professor of Pediatrics	11/2015-present
	Associate Professor	3/2011- 2/2014
	Orthopaedic Trauma	
	Inagural Editor – Marshall Medical Journal	2015-present
	Top Doc in Orthopaedics (Castle Connolly)	2014-present
	Vice Chairman , Orthopaedic Research	2/2013-present
	Medical Director , Senior Fracture Program	11/2011-present
West Virginia University Morgantown, WV	Associate Editor , WV Medical Journal	1/2012-present
	Director , Orthopaedic Research	10/2011-2/2013
	Assistant Residency Program Director	10/2011-2/2013
	Assistant Professor	9/2007-2/2011
	Orthopaedic Trauma	
Vanderbilt University Nashville, TN	Director , WVU Osteoporosis Center	11/2007-2/2011
	Director , Orthopaedic Research	
	Director , Molecular Orthopaedics Laboratory	
Jilin University, China (Honorary Appointment)	Assistant Professor	2003-5/2007
	Orthopaedic Trauma	
University of Pittsburgh School of Medicine Pittsburgh, PA	Professor (Adjunct) School of Pharmacy	2003- present
	Trauma Fellow & Clinical Instructor Orthopaedic Surgery	2001-2003

YEARLY UPDATE OF ACTIVITY (Marshall University activity 2011-present)

May 2017	Honor	HEALTHGRADES – Quality Advisory Board – One of five physicians selected for this honor
Feb 2017	Honor	The SHULER PROGRAM AWARD – named and given yearly to the Department with the highest scholarly activity within the Joan C Edwards School of Medicine at Marshall University

Nov 2016	Award	Excellence in Scholarly Publications. The Department of Orthopaedic Surgery. Highest percentage of scholarly achievement per faculty. 2016 Annual Dean's Faculty Awards
Nov 2016	Dean's Award	FACULTY IMPACT AWARD 2016. For outstanding contributions to the JCESOM in the areas of teaching, mentoring and scholarship. Annual Dean's Awards
Nov 2016	First Place	Three First Place poster presentations for 2016 Annual Quality Improvement and Patient Safety conference. Office of GME, JCESOM.
Nov 2016	GOVERNOR	WV Governor's Earl Ray Tomblin DISTINGUISHED MOUNTAINEER AWARD
Oct 2016		Chemotherapy and out of office for extended period
Sept 2016	CME	JBJS "Optimum Management of Open Fractures" September 29, 2016
Sept 2016	Award	FIRST PLACE AWARD – 12th Annual WV Geriatric Society Scientific Assembly for "Trauma Team Activation for Geriatric Trauma at a Level II Trauma Center: Are the Elderly Under-triaged"
Sept 2016	Webinar	Geriatric Fracture Hip Patient Outcomes: Innovations in Products and Solutions -- VuMedi Webinar, DePuy Synthes
Sept 2016	Volunteer	Hospice of Huntington, Inc Bella Luce VII Evening of Beautiful Light
Sept 2016	Champion	2016 Children's Hospital Classic Golf Tournament – FIRST PLACE and 4 time champion
Sept 2016	CME	Drug Diversion Training – 3CME – SOLE – "The Treatment of Pain and Addiction Utilizing Education and Proper Prescribing: The New Paradigm Continued"
Aug 2016	Faculty	Eleventh Annual Orthopaedic Conference – Surgical Site Infections – Providing Quality Care to Orthopaedic Patients. Rated 5 out of 5 stars
July 2016	Fellow	Acceptance of Dr. Milad Modarresi as Orthopaedic Research Fellow for 2016-2017. Everest Foundation.
June 2016	Champion	First Place 2016 Ronald McDonald Golf Tournament – Hoops Family Hospital four man scramble Guyan CC
June 2016	TV	Orthopedic care in the ER https://youtu.be/12BHfJE9eQs
May 2016	Fellow	Acceptance of Dr. Brian Czarkowski as Summer Orthopaedic Research Fellow
May 2016	Faculty	Miller's Orthopaedic Review Course Part I and Part II – Basic Science Part I (15th year as faculty) and Trauma faculty for Part II -- http://millerreview.com/wp-content/uploads/2015/07/MRC-II-Schedule-2.pdf
May 2016	Faculty	Pittsburgh Pelvic and Acetabular Course. Allegheny General Hospital Center for Surgical Arts
May 2016	Grand Rounds	Marshall Orthopaedics "Gamechangers in SSI"
May 2016	Grand Rounds	Holzer Medical Center "Vitamin D and Me"
April 2016	Award	Second and Third place awards for podium presentation at WVOS annual meeting – hip fracture dementia project with Healthgrades and Geriatric trauma triage.
April 2016	Community	FRAX Osteoporosis screening and presentation at the 2016 Healthy Lifestyle Healthfair
April 2016	Honor (AOA)	Elected into AOA – Alpha Omega Alpha Honor Medical Society , a professional medical organization, recognizes and advocates for excellence in scholarship and the highest ideals in the profession of medicine.
Mar 2016	Reviewer	Grant reviewer for WVCTSI – Idea CTR support – NIH/NIGMS Award Number U54GM104942
Mar 2016	CME	198 AMA PRA Category 1 + SAE credits for Core Curriculum 365-Day Study Plan; FORE/Orthobullets
Mar 2016	Podium	AMA Medical Student Advocacy and Region Conference Meeting. Washington, DC. "Breaking the silence of needlestick injuries"

Mar 2016	Presentations	28th Annual MU Research Day – 9 presentations in Orthopaedics
Mar 2016	Award	Nomination for AOA
Feb 2016	CME	HSS for [MD] Does Admission to Medicine or Orthopaedics Impact a Geriatric Hip Patient's Hospital Length of Stay?
Feb 2016	CME	PriMed – Pain Management in the Elderly
Feb 2016	CME	PriMed – Practical Assessment of Fall Risk in the Elderly: A Case Study
Feb 2016	Webinar	The Opioid Epidemic in Trauma Surgery 2.0 CME VuMedi
Jan 2016	TV	Senior Fracture Program – Healthy for Life --
Jan 2016	Webinar	JBJS Hip Fractures: The Best Approach to Managing Patient Outcomes and Costs.
Dec 2015	Award	Castle Connolly Top Doctor in the field of Orthopaedic Surgery
Dec 2015	Award	Expert Network Distinguished Doctor Designation – top 3% of physicians in the nation.
Dec 2015	Award	2015/2015 Consumer Choice Award Winner (Modern Healthcare)
Dec 2015	TV Appearance	WCHS – Charleston, WV. Senior Fracture Care and JCAHO certification of the SFP
Dec 2015	AMGEN	Site Review for AMGEN AMG 147_20140337 Study – successful completion and site selection
Dec 2015	Funding	Successful Funding of 50K KADIS Clinical Trial – Assessing the Effectiveness of Vitamin K2 and/or Vitamin D3 Supplementaion on Neuromuscular Function, Muscular Strength, and Bone Denisty in Older Patients with Hip Fractures.
Nov 2015	CERTIFICATION	Senior Fracture Program JCAHO Disease Specific Certification and Joint Commission's Gold Seal of Approval -- http://cabellhuntington.org/news/wns/senior-fracture-program-has-earned-the-joint-commission-s-gold-seal-of-approval
Dec 2015	Promotion	Joint Appointment as Professor in the Department of Pediatrics
Nov 2015	MIT	Travel to MIT for design changes to SABR/ACESO – Ultrasonic debridement tool
Nov 2015	Award	2015 Patient Safety/Quality Improvement Poster Day – Second Place – Triage of Geriatric Trauma.
Oct 2015	Grant Submission	LOI Grant Submission for MU/WVU 50K grants
Oct 2015	Runner Up	Home Run Derby – 2015 Annual Wiffleball Tournament – Second place – 30 home runs in 2 minutes
Oct 2015	Faculty	Orthopaedic Trauma Association Resident Fracture Course Faculty – Geriatrics Module with Osteoporosis and Periprosthetic fractures
Sept 2015	SeniorFest	FRAX for SeniorFest participants
Sept 2015	Champion	2015 Children's Hospital Classic Golf Tournament
Sept 2015	NIH Grant	Travel to Omaha for sugery for NIH R15 grant with Dr. Xie
Sept 2015	Meeting	ETEX/Zimmer – discussion of investigator initiated research project on bone graft substitutes including vitamin D
Sept 2015	Meeting	IlluminOss – experimentation for light therapy applications
Sept 2105	Winner	Selected for MIT 2.75 Medical Design Class Project -- SABR
Jul 2015	Honor	Who's Who in Academia
Jul 2015	Grant	Submission of SABR to MIT CIMIT 2015 Medical Design Class
Jun 2015	HealthGrades	Healthgrades Specialty Clinical Expert – ICD10 Transition – Hip Fractures
Jun 2015	Editor	Inagural Editor – Marshall Medical Journal
Jun 2015	AAHRPP	Site Visit – Accreditation for Human Subject Research
Jun 2015	Presentation	AAMC – 2015 Integrating Quality Meeting: Improving Value through Clinical Transofrmation, Education and Science. Chicago, June 11-12
May 2015	Honor Faculty	15th Year Honor – Faculty Miller's Orthopaedic Review Course, Denver, CO – Basic Science, Anatomy
Apr 2015	Certification	AAMC certification in TeQ4

Apr 2015	Meeting	2015 Geriatrics Symposium "Active Elder Living – Promoting Fitness and Preventing Falls". Marshall University.
Apr 2015	Webinar	Current Concepts in Talus Surgery – VuMedi CME Webinar
Apr 2015	TV Appearance	Mom's Everyday – WSAZ – Senior Lifestyle Fair – http://www.momseveryday.com/wsaz/health/Cabell_Huntington_Hospital_237068121.html?device=phone&c=y
Apr 2015	FDA	First site in USA to implant IlluminOss humeral nail – IlluminOss FDA clinical trial
Mar 2015	Award	2015 MU Research Day – First Place -- Atypical Growth of an Osteochondroma in a 31 year old female
Mar 2015	Honor	Founding Advisor Men's Health Organization
Feb 2015	Meeting	Nelson Watts, MD – "Osteoporosis: Current Controversies and Future Treatments"
Jan 2015	TV Appearance	Mom's Everyday – WSAZ – Wintertime Senior Fall Risk -- http://www.momseveryday.com/wsaz/health/Cabell_Huntington_Hospital_237068121.html?device=phone&c=y
Dec 2014	Award	Castle Connolly Top Doctor in the field of Orthopaedic Surgery
Dec 2014	Honor	Scientist Reviewer – Congressionally Directed Medical Research Programs (CDMRP) – Peer Review Orthopaedic Related Research (PRORP)
Nov 2014	Award	2014 Innagural Patient Safety/Quality Improvement Poster Day – Second Place -- Constraining Function as a Means of Reducing OR Traffic.
Nov 2014	Honor	Selected to CDMRP PRORP CT Panel Member – Congressionally Directed Medical Research Program
Nov 2014	Grand Rounds	Pediatrics Grand Rounds – Peds Ortho Board Review
Oct 2014	Honor	WSMA highlighted "Too Smart to Fail" as a resource for state medical students as a must have resource for their students
Oct 2014	Faculty	Lilly Orthopaedic Advisory Board Meeting -- Osteoporosis
Oct 2014	Faculty	Orthopaedic Trauma Association Resident Fracture Course Faculty – Geriatrics Module with Osteoporosis and Periprosthetic fractures
Sept 2014	Keynote	Seniorfest Keynote address "It's Hip to be 50"
Sept 2014	Honor	Author for the #1 review textbook in Orthopaedics – Miller's Orthopaedic Review Edition 7. Chapter 1 Basic Science. I have been an author since edition 5 (13 years).
Sept 2014	Lecture	Orthopaedic Nurses Conference – Vitamin D and post surgical recovery – BEST LECTURER on evaluations
Sept 2014	Honor	ASPIRE – Advancing Scholarly Productivity In Research & Education – mentor and reviewer for program
Aug 2014	Training	Attended AAMC Teaching for Quality (TeQ4) 2-day workshop.
Jul 2014	First Place	First Place Sleepy Hollow Member Guest Golf Tournament – Fifth Flight
Jul 2014	Webinar	Femoral Shaft Fractures: Technical Tips from the Experts – VuMedi CME Webinar
Jul 2014	TV Appearance	Mom's Everyday – WSAZ – Firework safety and ATV injuries -- http://www.momseveryday.com/wsaz/health/Cabell_Huntington_Hospital_237068121.html
June 2014	Honor	Speciality Clinical Expert in Hip Fracture – Healthgrades
June 2014	Community	Woodlands retirement community presentation – Fracture prevention, diet and exercise
June 2014	Webinar	Evaluation and Treatment of High Energy Proximal Femur Fractures – VuMedi CME Webinar
June 2014	Meeting	Attended AAOS Fragility Fracture meeting in NYC.
June 2014	Meeting	Attended Fragility Fracture Initiative: Fracture Act Now in NYC

Jan 2014	TV Appearance	Mom's Everyday – WSAZ – Summertime Orthopaedic Injuries -- http://www.momseveryday.com/wsaz/health/Cabell_Huntington_Hospital_237068121.html
May 2014	Award	2014 Faculty Awards JCESOM – Excellence in Clinical Research
May 2014	Honor	2014 JCESOM Investiture – Honorary hooder for Dr. Thomas Schlierf and Dr. Sean Fitzpatrick
Apr 2014	Award	FIRST PLACE 2014 WVOS – Podium presentation -- "Physical education in West Virginia schools: are we doing enough to generate peak bone mass and promote skeletal health?", by Franklin Shuler MD PhD, Dana Lycans MD, Thomas Gill MD, and Ali Oliashirazi MD.
Apr 2014	Honor	Elected to first round LEAN PRACTITIONER champion
Apr 2014	Honor	Elected member to Physician Strategic Advisory Committee CHH
Feb 2014	Promotion	Full Professor with Tenure Orthopaedic Surgery/Traumatology
Jan 2014	TV Appearance	Mom's Everyday – WSAZ – Hip fractures -- http://www.momseveryday.com/wsaz/local/headlines/?article=240576331&mobile=yes&device=phone ; http://www.youtube.com/watch?v=vi-IPGBB4vg&list=UUmFL4RWw7qJ24f2kb8tSFQ&feature=c4-overview
Jan 2014	NIH Award	PI for R15 NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases ; Co-PI Dr. Jingwei Xie, PhD. " <i>Combination of Nanofiber Scaffolds with Gradations in Fiber Organization and Mineral Content and Adipose-derived Stem Cells for Rotator Cuff Injury Repair</i> ". \$293K Dr. Xie left Marshall and I assumed PI.
Dec 2013	Award	Castle Connolly Top Doctor in the field of Orthopaedic Surgery
Nov 2013	Reviewer	Postgraduate Medicine Journal Reviewer
Nov 2013	Podium	ORS 2014 Meeting -- Unilateral Heat Accelerates Bone Elongation and Lengthens Extremities of Growing Mice
Oct 2013	Grant Award	Awarded \$25K Grant " Effect of Anecdotal Evidence on Teen Perception of Texting and Driving "
Oct 2013	Podium	Orthopaedic Nursing Conference – Osteoporosis Update 2013
Oct 2013	Reviewer	Reviewer for the Journal of Orthopaedic Trauma
Oct 2013	Award	Research highlighted http://www.dugdug.com/dr-franklin-shuler-discusses-vitamin-D
Oct 2013	IRB, FDA	FDA, randomized, multicenter HEALTH clinical trial approval -- Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus Hemiarthroplasty, PI Franklin D. Shuler MD, PhD
Sept 2013	Community	MU Health Fair – Orthopaedics MD Representative
Sept 2013	Chairman	ACGME site visit for General Surgery Program Accreditation
Sept 2013	Champion	2013 Children's Hospital Classic Golf Tournament
Sept 2013	Award	Elected CHAIRMAN of OR Steering Committee
Sept 2013	Award	Nominated to AOA by Drs. Bobby Chhabra and Ed McPherson
Sept 2013	Certification	IATA Certification – support collaborative research project with Dr. Crofford Vanderbilt University – handling of transportation of dangerous goods – two year certification
July 2013	Scholarship	Shuler Expendable Scholarship – JCESOM 4 th Year Medical Student interested in Orthopaedics Scholarship provided by Cynthia and Tom Murray – 5 year scholarship in my name.
July 2013	Award	Appointment to CHH OR Steering Committee
July 2013	Award	Review panel member of <i>Orthopedics</i>
July 2013	NIH Grant Award	R15 NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases Co-PI Dr. Jingwei Xie, PhD. " <i>Combination of Nanofiber Scaffolds with Gradations in Fiber Organization and Mineral Content and Adipose-derived Stem Cells for Rotator Cuff Injury Repair</i> ". \$293K
June 2013	Grant Submission	2013 DOD PRMRP , Electrospun Nanofibers as Wound Dressing for Local Sustained Delivery of 25-hydroxyvitamin D3

June 2013	Poster	2013 AOA CORD , March 14-15 Denver, CO, Teaching the Millennial Student: How well have the Baby Boomer /Generation X teachers adapted in an Academic Orthopaedic Department?
June 2013	CME	“Advance Osteoporosis and Fragility Fractures: Improving Identification and Treatment of At-Risk Patients.” Albert Einstein College of Medicine
June 2013	Webinar	Dr. Adrian Gombart “Vitamin D and the Immune System” Grassroots Health
May 2013	Faculty	Miller’s Orthopaedic Review Course, Denver, CO – Basic Science, Anatomy and ABOS test taking skills
May 2013	Award	Medical Directorship , Senior Fracture Program CHH http://www.youtube.com/watch?v=ywLx0CpTnPs
May 2013	Grant Writing	2013 ORS/OREF/AAOS New Investigator Workshop. Baltimore, MD
May 2013	Award	2013 Faculty Awards JCESOM – Espirit de Corps Award for encouraging collaboration and camaraderie across the SOM Community
May 2013	Webinar	AAOS/OTA Tibial Shaft Fractures: The state of the starting point, nailing extreme proximal and distal fractures and basics of open fracture management. May 14, 2013
May 2013	Book Chapter	Recent advances on three-dimensional electrospun nanofiber scaffolds for tissue regeneration and repair in <i>Tissue Regeneration: Where Nanostructure Meets Biology</i> in Frontiers in Nanobiomedical Research, World Scientific Publishing Co.
May 2013	Award	OTA – Robert Winquist Award for the Residents Comprehensive Fracture Course Casting Lab (Chair, Michael J Prayson, Franklin D. Shuler Lab Instructor)
April 2013	Award	Rated top 10 Best Rated Orthopedic Surgeons in WV. RateMDs.com 1. Dr. Ali Oliashirazi - HUNTINGTON 10. Dr. Franklin Shuler - Huntington
April 2013	Award	2013 WVOS – Second Place resident podium presentation – Syndesmosis research project – Dr. Jones
April 2013	Webinar	AAOS/OTA Managing Challenging Hip Fractures Apr 24, 2013
April 2013	Grant submission	Incidence of vitamin D deficiency and its association with diet, physical activity and body composition in adolescent population in West Virginia” \$25K
April 2013	Grand Rounds	“What the heck do I need to know about Osteoporosis” GRN Grand Rounds CHH
April 2013	Community	2013 Healthy Lifestyle Fair – Huntington Mall FRAX screening http://www.herald-dispatch.com/news/briefs/x1925881392/Event-offers-screenings-and-information-for-those-50-and-older
April 2013	Publication	(Sample) Size Matters! An Examination of Sample Size from the SPRINT Trial. J Orthop Trauma.
Mar 2013	Podium and Poster	2013 AAOS Annual Meeting , March 19-23 Chicago, IL 256: Where can orthopaedic hardware safely be placed for syndesmosis fixation: an anatomical study P481: Laser Targeting with C-arm Fluoroscopy: Effect on Image Acquisition and Radiation Exposure
Mar 2013	Community	Community Event – Case for Vitamin D – Dr. John Cannell -- Keynote Speaker, Executive Director Vitamin D Council
Mar 2013	Award	First Place – Podium – 25th Annual JCESOM Research Day -- Teaching the Millennial Student: How well have the Baby Boomer /Generation X teachers adapted in an Academic Orthopaedic Department?
Mar 2013	Podium/Poster	MU Research Day “BONE HEALTH” – Orthopaedics with 24 presentations (20 poster and 4 podiums) – My research teams produced a Podium and 9 Poster presentations that listed 4 attendings, 5

		PhD's, 8 residents and 15 medical students. Bone Health focus due to robust Ortho Research Initiative -- http://www.huntingtonnews.net/57301
Mar 2013	Award	Awarded one of two OTA funded positions in the ORS/OREF/AAOS New Investigator Workshop.
Mar 2013	Webinar	Vitamin D & Calcium:Fractures, Kidney Stones – what do we do? Dr.Robert P Heaney.
Feb 2013	Web page	Senior Fracture Program webpage launch http://cabellhuntington.org/services/senior-services/the-senior-fracture-program/ including get to know Dr. Shuler http://cabellhuntington.org/services/senior-services/the-senior-fracture-program/get-to-know-dr-shuler/
Feb 2013	Promotion	Vice Chairman Orthopaedics -- Research
Feb 2013	Webinar	Teaching Scientific Research Skills in an Elective Curriculum: Obstacles, Opportunities and Outcomes. Dr.Ingrid Bahner.
Feb 2013	Grant LOI	LOI for UK-Marshall CTSA pilot grant program \$25K -- Temperature enhanced bone elongation in growth plates with Dr. Maria Serrat.
Feb 2013	Application	Submitted application for 2013 ORS/OREF/AAOS New Investigator Workshop.
Jan 2013	Honor	Vitamin D Recommendations for Athletes http://www.eorthopod.com/content/vitamin-d-recommendations-for-athletes
Jan 2013	Honor	Voted into active member in the Orthopaedic Trauma Association (OTA) by the Membership Committee and Board of Directors (no active members within our catchment area in WV)
Jan 2013	Honor	Featured in television spot for CHH ER services -- https://www.youtube.com/watch?v=kV5sPahQgX0
Jan 2013	Webinar	GrassrootsHealth. Michael F. Holick "What does the sun do for me?"
Jan 2013	CME	IAMSE Web Series: What Health-Professionals Should Know About Research and Why They Should Know It. Dr. Bill Galey.
Jan 2013	Publication	Traumatic laryngeal fracture in a collegiate basketball player. Sports Health.
Jan 2013	Publication	Antibiotic-like actions of vitamin D. WV Medical Journal.
Jan 2013	Book Chapter	<i>Tissue Regeneration: Where Nanostructure Meets Biology</i> in Frontiers in Noanobiomedical Research
Dec 2012	Podium	ICFMEME (International Conference on Frontiers of Mechanical Engineering, Materials and Energy) Dec 20-21, Beijing, China. "Biomimetic Nanofiber Scaffolds for Tendon-to-bone Insertion Repair".
Dec 2012	AMA	Orthopaedic Surgery representative to AMA Medical Student Section at MUSOM Medical Specialty Speed Dating
Nov 2012	CME	<i>Best Practice Prescribing of Controlled Substances</i> . CME requirements for WV law
Nov 2012	Honor	Featured in <i>The Active Times</i> "The Supplement You Should be Taking" http://www.theactivetimes.com/supplement-you-should-be-taking
Nov 2012	FDA Clinical Trial	EMSI Bone Growth IDE IRB# 380915-1
Nov 2012	Award	Invitation of my medical student research group to 1999 Medicine or Physiology Nobel Laureate Dr. Gunter Blobel lunch and lectureship.
Nov 2012	Keynote Speaker	"Career Conversations in Orthopaedics" to Marshall University Medical School
Nov 2012	Grant Reviewer	MU Translational Pilot Grant Program
Nov 2012	Award	Awarded position in the US Bone and Joint Decade Young Investigators Initiative Program.
Nov 2012	Publication	Controlled biomineralization of electrospun poly(ϵ -caprolactone) fibers for enhancing their mechanical properties. Acta Biomaterialia
Nov 2012	Publication	Sports Health benefits of Vitamin D. Sports Health.

Oct 2012	Honor	http://www.drdauidgeier.com/vitamin-d-eight-surprising-facts/ <i>A Nation in Motion</i> http://anationinmotion.org/story/lindsey-hardentrauma/
Oct 2012	CME	Dr. Franklin Medio: "Teaching Residents to Teach"; "The Program Coordinator's Role as Educator in GME"; "Teaching and Evaluating Professionalism in the Age of Duty Hours"; "Leading in a Sea of Change"; "Remediation is NOT Punishment"
Oct 2012	Podium(2)	AIChE (American Institute for Chemical Engineers) Annual Meeting, Pittsburgh, PA. "Nanofiber Scaffolds Mimicking Structural Organization of Tendon-to-Bone Insertion Site" and "Mussel Inspired Protein Mediated Mineralization of Electrospun PCL Fibers" with Dr. Xie of MIIR
Oct 2012	CME	Understanding Coronary CT Calcium Scores. Dr. Sarah Rinehart (vitamin D supplementation does not increase CACS)
Oct 2012	Grant Award	Awarded \$15K Rural Pilot Grant "Improving Rural Bone Health and Minimizing Fracture Risk in West Virginia: The World Health Organization FRAX Assessment Tool"
Oct 2012	CME	Alertness Management and Fatigue Mitigation. Dr. Imran Khawaja.
Oct 2012	Grants	Submitted three \$25K MU Health Translation Pilot Grant Applications: (1) Electrospun nanofibers as wound dressing for local sustained delivery of 25-hydroxyvitamin D3 with Dr. Xie (MIIR); (2) Temperature enhanced bone elongation in growth plates with Dr. Serrat (Anatomy); (3) miRNA and osteoarthritis with Dr. Garabekyan and Blough (Center for Diagnostic Nanosystems)
Oct 2012	Faculty	28 th National OTA meeting (Minneapolis, MN) Resident's Basic Fracture Course – Table Instructor
Oct 2012	Advisor	2012 Orthopaedic Trauma Advisory Board – Lilly USA, LLC
Sept 2012	Keynote Speaker	Seniorfest CHH. " <i>Take Charge of Your Bone Health</i> " with community service of free FRAX screening with over 200 seniors screened and referred if thresholds met. http://www.herald-dispatch.com/news/briefs/x134362286/SeniorFest-provides-shots-screenings-and-more
Sept 2012	Grant	Submitted \$15K Rural Pilot Grant "Improving Rural Bone Health and Minimizing Fracture Risk in West Virginia: The World Health Organization FRAX Assessment Tool"
Sept 2012	Webinar	Achieving Health Equity Through Inclusion and Innovation. Dr. Marc A. Nivet, Chief Diversity Officer, AAMC
Sept 2012	Webinar	CTSA Tool Shop -- HUB
Sept 2012	Webinar	Adapt, Evolve or Become Extinct: Making Educational Change Work For You. Dr. Robert G. Carroll.
Sept 2012	Champion	2012 Children's Hospital Classic Golf Tournament
Sept 2012	Webinar	Reaching & Teaching Millennials Learners. Dr. David H Roberts.
Sept 2012	Award	Elected to Clinical Research Committee Marshall University
Sept 2012	Publication CME	Better Bones: Understanding the burden of osteoporosis and utilization of the World Health Organization FRAX assessment tool. CME Article. Orthopedics.
Aug 2012	Honor	Featured in Vitamin D Council website http://blog.vitamindcouncil.org/2012/08/07/effects-of-vitamin-d-potential-impact-on-west-virginia-disease-morbidity/
Aug 2012	Grand Rounds	Pediatrics MU – "Vitamin D in Pediatrics"
Aug 2012	Honor	MUSOM Clinical Mentor – MSII Kelly Scott and Alex Slocum
Jul 2012	Publication	Fabrication of nanofiber scaffolds with gradations in fiber organization and their potential applications. Macromolecular Biosciences
Jul 2012	Application	Young Investigator Initiative Career Development and Grant Mentoring Program

Jul 2012	Podium	29 th Annual Meeting of Southern Orthopaedic Association, Greenbrier White Sulphur Springs, WV “Laser Targeting with C-arm fluoroscopy: Effect on image acquisition and radiation exposure.” http://soaassn.org/associations/2431/files/SOA%202012%20Scientific%20Abstracts.pdf
Jul 2012	Grant Award	Awarded \$5K OMeGA residency grant http://www.omegamedicalgrants.org/download/2012-2013%20Residency%20recipients%207.30.12.pdf
Jul 2012	Publication	Laser targeting with C-arm fluoroscopy: effect on image acquisition and radiation exposure. Journal of Orthopaedic Trauma
Jul 2012	Publication	Highlighted in Spring 2012 Professional Enhancement Newsletter
Jun 2012	Grant	Submitted \$500,000 DOD PRORP pre-proposal with Dr. Xie for “Electrospun nanofibers as wound dressing for local delivery of vitamin D”
Jun 2012	Grant	Submitted \$20,000 OTA resident grant “Where can orthopaedic hardware safely be placed for syndesmosis fixation: an anatomical study”
Jun 2012	Publication	External Fixation Versus ORIF for Distal Intra-articular Tibia Fractures. Orthopedics.
Jun 2012	Publication	All-Terrain Vehicle-Related Orthopaedic Trauma in North Central West Virginia: An 8-year review of a Level I trauma Center. J Orthop Trauma
Jun 2012	Grand Rounds	Principles of Locked Plating – MU Orthopaedics
May 2012	Faculty	2012 Miller’s Orthopaedic Review Course http://millerreview.org/?page_id=103
May 2012	Grant	Submitted \$5K OMeGA residency grant
May 2012	Co-Chairman	2nd Annual Marshall University Arthroplasty Course. Controversies and Technological Advances in Primary and Complex Hip and Knee Replacement. May 18-20 Greenbrier Moderator and Presenter on periprosthetic fractures. https://icjr.net/meeting/overview.19.html
May 2012	Champion	2012 Member Guest Champion Guyan Golf & Country Club http://guyangolfandcountryclub.com/mo_tournamentresults/ http://guyangolfandcountryclub.com/golf/emailer2020/img/guyangolfandcountryclub/2012_MG_Results.pdf
May 2012	Keynote Speaker	Cabell County Medical Society “ <i>Fun in the sun – an Update on Vitamin D</i> ” Guyan Country Club
May 2012	Publication CME	Extraskeletal Effects of Vitamin D and chronic disease impact in WV. CME issue on the Art, Science and Ethics of Prevention WV Medical Journal.
April 2012	Grant	Accepted LOI for CTSA UK-Marshall grant “Quantitative analysis of the antimicrobial effects of LL-37 (cathelicidin): Potential uses in surgery” \$25K
April 2012	Grant Award	Community Service Vitamin D Grant – Vitamin D Council – Sunshine for Health Vitamin D drops \$9K award
April 2012	Podium	West Virginia Orthopaedic Society Meeting, Stonewall Jackson Resort “Sports Health Benefits of Vitamin D” with Dr. Matt Wingate
April 2012	Grant	Hedrick Program Grant for Teaching Innovation \$5K
April 2012	CME	AAOS participant in Culturally Competent Care – 6 AMA PRA Category 1 CME
April 2012	Fellowship/Honor	Physical Anthropology Fellowship – Smithsonian Institution, Washington DC. Robert J. Terry Collection Dr. David Hunt
March 2012	Podium/Poster	MU Research Day – Podium and 5 Poster presentations that included 3 attendings, 2 residents and 10 medical students
March 2012	Grand Rounds	Antibiotic like actions of Vitamin D – Marshall University Orthopaedics
March 2012	Grant LOI	LOI for UK-Marshall CTSA pilot grant program \$25K

March 2012	Grant LOI	LOI for Picker 2012/2013 GME Challenge Grant Request Proposal \$25K
March 2012	Keynote Speaker	Women's Philanthropy Society "Vitamin D and Women's Health" Guyana Country Club, March 3 rd 2012 http://www.herald-dispatch.com/news/briefs/x1606904395/Gallery-Womens-Philanthropy-Society-Awards-Luncheon
March 2012	CME	An Innovative Approach to Reducing Stress and Burnout and Fostering Self-care and Professionalism
Feb 2012	Grant NIH R15	Grant Proposal submitted with Co-PI Dr. Jingwei Xie, PhD. <i>"Combination of Nanofiber Scaffolds with Gradients in Fiber Organization and Mineral Content and Adipose-derived Stem Cells for Rotator Cuff Injury Repair"</i> . \$380K
Feb 2012	IRB	IRB approval for [309710-1] Detection and Quantification of NOD-1, NOD-2 and the Human Beta Defensins hBD-2, hBD-3, and hBD-4 in Normal, Septic, and Aseptically Inflamed Joints (With Correlation to Vitamin D Status)
Feb 2012	Publication	All-Terrain Vehicle-Related Orthopaedic Trauma in North Central West Virginia: An 8-year review of a Level I trauma Center. J Orthop Trauma
Jan 2012	Award	Associate Editor West Virginia Medical Journal , Publications Review Committee http://www.biomedsearch.com/article/WVSMA-publications-committee-going-strong/283262271.html
Jan 2012	Keynote Speaker	"How Healthy are Your Bones", Community Service – free osteoporosis, balance and blood pressure screenings, free at home fall risk assessments. http://www.huntington-mall.com/calendar/index.ch2?temp_year=2012&temp_month=1&event=4776
Dec 2011	Grant Award	CTSA Funded "Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Rotator Cuff Injury Repair" – Marshall-UK CTSA \$25K. http://www.marshall.edu/wpmu/murc/scientists-receive-grants-for-orthopedic-and-lung-cancer-research/
Dec 2011	Meeting	Attended Upper Extremity Surgeon Bioskills Course – Accumed, Dec 2-3
Nov 2011	Keynote Speaker	"Career Conversations" Orthopaedics to Marshall University Medical School
Nov 2011	Meeting	CTSA Community Project Meeting
Nov 2011	Award	Appointed Medical Director for Geriatric Fracture Program
Nov 2011	Award	Accepted Graduate Medical Education Internal Review Committee position -- Med/Peds Program review
Nov 2011	Clinical Trial	INSITE (Intramedullary Nail vs Sliding Hip Screw Inter-Trochanteric Evaluation) -- multinational, multicenter, randomized controlled trial – 25 sites with 10 Europe, 10 US and 5 over the world. PI for MU Orthopaedics
Oct 2011	Poster Award	Third Place Scientific Poster Research Competition at American Osteopathic Academy of Orthopaedics National Meeting, Chicago, IL – "Antibiotic Intramedullary Nails: Minimizing Potential Complications"
Oct 2011	Award	Elected to Marketing and Planning Committee – MU Orthopaedics
Oct 2011	Online	Senior Moments featured interview "Hip Fractures in Elderly Population"
Oct 2011	Award	Assistant Residency Program Directorship – Marshall Orthopaedic Residency Program
Oct 2011	Faculty	27 th National OTA meeting (San Antonio, TX) Resident's Basic Fracture Course – Table Instructor

Sept 2011	Meeting	Attended Science Summit for wound healing, and flap options; Henderson, NV
Sept 2011	Meeting	PGYI/II meeting for AO techniques – small fragment locking
Sept 2011	Awards	2011 Health Grades Awards for Marshall Univeristy Orthopaedic Surgery and Orthopaedic Trauma: <ul style="list-style-type: none"> ✓ Orthopaedic Surgery Excellence Award™ ✓ Top 5% in the Nation for Overall Orthopedic Services ✓ Ranked #1 in State for Overall Orthopedic Services ✓ Five-Star Rated for Overall Orthopedic Services ✓ Five-Star Rated for Hip Fracture Repair
Sept 2011	Publication	Defining bone health and fracture risk in West Virginia: the World Health Organization FRAX Assessment Tool. WV Medical Journal
Sept 2011	Publication	Outcomes assessment in the SPRINT multicenter tibial fracture trial: Adjudication committee size has trivial effect on trial results. J Clinical Epidemiology.
Aug 2011	Faculty	Osteobiologics Update Meeting, Memphis, TN
Aug 2011	Publication	Economic evaluation of reamed versus unreamed intramedullary nailing in patients with closed and open tibial fractures: results from the Study to Prospectively Evaluate Reamed Intramedullary Nails in patients with Tibial Fractures (SPRINT).” Value in Health
Aug 2011	Member	Vitamin D Council
Aug 2011	Publication	Incorporating the WHO FRAX Assessment Tool into current nursing practice. American Journal of Nursing
July 2011	Presentation	MU Athletics “Vitamin D and Athletic Performance Phase I” PI with Co-PI Dr. Chuck Giangarra, Tom Belmaggio and Dr. John Jasko
July 2011	Grant	CTSA Grant Proposal CoPI with Dr. Jingwei Xie “Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Tendon-to-bone Insertion Repair”
July 2011	Member	CRC (Centralized Research Center) member – Orthopaedics representation
June 2011	Award/Member	Founding member of CHH OR efficiency management group (COO, Glen Washington)
June 2011	Grant	Submitted \$10,000 OTA grant “Screw placement to avoid syndesmotc cartilage injury”
June 2011	Grand Rounds	Orthopaedic CME Grand Rounds “What the heck do I have to know about Osteoporosis: West Virginia and PQRI”
June 2011	IRB	IRB approval for TRUST: TRial to evaluate UltraSound in the Treatment of tibial fractures.
May 2011	Poster	Poster presentation 31 st NAON Congress Baltimore, MD. Incorporation of FRAX into current nursing practice.
May 2011	Award	Elected to MU Resident Education Committee
May 2011	Presentation	Orthopaedic CME Lecture “Arthritides radiographic review”
May 2011	Faculty	Miller’s Colorado Orthopaedic Review Course
May 2011	FDA Clinical Trial	TRUST: TRial to evaluate UltraSound in the Treatment of tibial fractures. Prospective Randomized Multicenter Trial. PI for MU Orthopaedics
April 2011	Lecture	Orthopaedic CME Lecture “Radiation exposure in Orthopaedics”
April 2011	Development	Established inpatient Bone Health Consult service with MU Endocrine
April 2011	Award	http://ashandlewplus2.com/2010/11/13/i-finished-chickamauga-battlefield-marathon-2010/

Oct 2010 **Funded NSF 10-529** Major Research Instrumentation -- MRI: Acquisition of a Pulsed Laser Deposition System – WVU Nanotechnology Group. Co-PI on project.

2010 Elected to WVU Systems Based Practice Improvement Group

Faculty 2010 OTA Resident Course Lab Instructor

OTA 26th National Meeting – TRUST and METRC (DOD research grant – Major extremity trauma research consortium) PI for WVU Orthopaedics

2010 WVU Health Expo – Osteoporosis screening – talk with the Osteoporosis expert

Reviewer Journal of Medical Case Reports

2010 WVU Individual Quality Award Recipient - Top 10% Press Ganey Scores

2010 WVU Team Quality Award Recipient – Capacity Management Group

2010 Ruby Cup Champion

2010 **OREF Clinical Research Award** for SPRINT (Study to Prospectively Evaluate Reamed Intramedullary Nails in Tibial Fractures) Trial. Member of the SPRINT Investigators.

Feb 2010 Grand Rounds Marshall University, Huntington, WV “Vitamin D: Mythbusters Applied to Orthopaedics”; Trauma Conference “Management of Complex Lower Extremity Trauma”

Feb 2010 Interviewed by Becky Oskin for *New Scientist Magazine* – “Climbing the Faculty Career Ladder”

Project Driver 2010 WVUH Timely Discharge Program – Capacity Management Group

Faculty 2010 Miller’s Colorado Recertification Review Course – voted **best lecturer**

2009 K. Douglas Bowers Reunion Day Speaker WVU “Own the Bone: What the Heck Should I Know About Osteoporosis”

Project Driver 2009 WVUH Timely Discharge Program – Capacity Management Group

Faculty Advisor Orthopaedic Interest Group WVU School of Medicine

Active **Fellow** – Oct 2009 – **American Academy of Orthopaedic Surgeons**

Faculty 2009 OTA Resident Course Lab Instructor

Faculty 2009 OTA Skills Labs - ORIF Proximal Tibia

Aug 2009 Key Laboratory Lectureship, Jilin University, Chanchun, China “Osteobiologics in Orthopaedic Trauma”

Aug 2009 Grand Rounds DonHua University, Shanghai, China “Orthopaedic Trauma Application of Nanotechnology”

June 2009 Grand Rounds Broward Health System Ft. Lauderdale, FL “Management of complex lower extremity trauma”

Awarded 2009 WVU Bridge Grant “The Effect of Melatonin on Chondrogenesis and Inflammation: A Potential Novel Treatment for Cartilage Injury and Degeneration”. Co-PI with Dr. Ming Pei.

May 2009 Preceptor Family Nurse Practitioner Student, Wheeling Jesuit University Graduate Nursing Program

Faculty 2009 Miller’s Colorado Orthopaedic Review Course

First Place Award 2009 GME Week Podium Competition – Dr. Matthew Dietz “ATV Related Orthopaedic Trauma in North Central WV: An 8 year review”.

2009 Cambridge Who’s Who Registry among Executives and Professionals in the field of Research, Medicine and Healthcare

National Doctors Day 2009 – WVU Awardee for Excellence in Service

2009 Family Nurse Practitioner Student Preceptor – Wheeling Jesuit University, Wheeling, WV

Keynote Speaker – 2009 WV Surgical Technologists Annual Meeting

Awarded March 2009 \$50,000 Osteosynthesis and Trauma Care Foundation Grant “Effect of IL-12 on bone healing in preventing open fracture infection – a pilot study”. Co-PI with Dr. Bing Li.

Reviewer Journal of Orthopaedic Research

AAOS 2009 Annual Meeting, Las Vegas, NV. Podium and Instructional Course Lecture

Faculty 2009 Miller’s Colorado Recertification Review Course – voted **best lecturer**

Awarded 2008 Jon Michael Moore Trauma Center Research Award for cartilage impact project with Dr. Claire Beimesch

Who’s Who in the World 2008-2009

Elected to WVU Hospitals Capacity Management Group (October 2008)

OTA 2008 24th Annual Meeting, Denver, CO. Poster and 2 podium papers/contributor.

Faculty 2008 OTA Resident Course Lab Instructor

Faculty 2008 Medtronic, Speakers Bureau - INFUSE® -- Consultant Medtronic – Surgeon Education Programs in Raleigh, NC; Gainesville, FL; Kalamazoo, MI and corporate basic sales training.

<https://www.infusebonegraft.com/patient-kenny.html>

Faculty 2008 AO Orthopaedic Trauma Advanced Course Team Approach to Fracture Management, West Palm Beach, FL

Invited Lecturer for 2008 BMP Conference, Lake Tahoe, CA – Dr. Harri Reddi and Dr. Thomas Einhorn: “Orthopaedic Trauma Applications of BMP: Is the Juice Worth the Squeeze and How is the Data Perceived?”

Awarded 2008 Zimmer Competitive Research Grant “The Effect of Orthopaedic Implant Copper Coatings on Infection: In Vitro and In Vivo Analysis.”

Faculty 2008 Miller’s Colorado Review Course

Awarded 2008 Stryker Competitive Research Grant “Compartment Syndrome: Are We Able to Detect Elevated Compartment Pressures with Physical Examination?”

First place award for WVU’s Resident Research Day 2008 – Under Pressure: Compartment Syndrome Detection. Study published in J Bone Joint Surgery Am. Feb 2010.

Faculty 2008 Miller’s Colorado Recertification Review Course

National Excellence in Healthcare Award 2007 – PRC, Inc. Individual provider **5-Star award winner**.

National Doctors Day 2008 – WVU Awardee for Excellence in Service

Elected to Department of Orthopaedics Promotion and Tenure Committee (December 2007)

OTA 2007 23rd Annual Meeting, Boston, MA Podium/contributor.

Faculty 2007 OTA Resident Course Lab Instructor

Faculty 2007 Orthopaedic Trauma: A Team Approach to Fracture Management

Faculty 2007 Miller’s Colorado Orthopaedic Board Review Course

Faculty 2007 Miller’s Colorado Recertification Review Course

Faculty 2007 Medtronic National Sales Meeting – Biologics Speaker

Faculty 2007 Medtronic, Speakers Bureau - INFUSE® -- Consultant Medtronic – Surgeon Education Programs in Shreveport, LA; Raleigh, NC.

Vanderbilt University – Assistant Professor	2003-5/16/07
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Faculty 2006 OTA Resident Course Lab Instructor

Faculty 2006 Controversies and Outcomes in Locked Plating of Fractures

Faculty 2006 OTA Residents Comprehensive Fracture Course

OTA 2006 22nd Annual Meeting, Phoenix, Arizona (Podium, Poster)

AO North America Visiting Professor June 2006

Faculty 2006 Miller’s Colorado Orthopaedic Board Review Course

Faculty 2006 Miller’s Colorado Recertification Review Course

Faculty 2006 Medtronic, Speakers Bureau - INFUSE®

OTA 2005 21st Annual Meeting, Ottawa, Ontario, Canada (Podium x 2)

Faculty 2005 Medtronic, Speakers Bureau - INFUSE®

Faculty 2005 Miller’s Colorado Orthopaedic Board Review Course

ORS 2005 51st Annual Meeting, Washington, D.C.

OTA 2004 20th Annual Meeting, Hollywood, FL (Podium)

Faculty 2004 AO ASIF Nursing Continuing Education Course, Indianapolis, IN

Faculty 2004 Advanced Trauma Training Program, San Francisco, CA

Faculty 2004 Advanced Trauma Training Program, Nashville, TN

AO ASIF 2004 Principles of Fracture Management Course Marco Island, FL

Faculty 2004 Miller’s Colorado Orthopaedic Board Review Course – voted best lecturer

ORTHOPAEDIC TRAUMATOLOGY FELLOWSHIP

University of Pittsburgh

2002-3

Awarded first **Foundation for Orthopaedic Trauma Traveling Fellowship**. This fellowship allows the recipient to rotate with well-established trauma surgeons. I was fortunate to rotate with several traumatologists including Drs. Sanders and DiPasquale (Tampa General Hospital – January 2003 and August 2003), Dr. Matta (Good Samaritan Hospital – Feb 2003 and May 2003) and Dr. Kregor (Vanderbilt – September 2003)

Faculty 2003 Miller's Colorado Orthopaedic Board Review Course
 Faculty 2003 Advanced Concepts of Fracture Management (lectures and Foot and Ankle Moderator)
 Masters in Orthopaedic Coding Sept 2003 AAOS Nashville
 Faculty 2002 Smith and Nephew, Inc 17th Annual Orthopaedic Residents Conference
 Faculty 2002 AO ASIF Orthopaedic Trauma: Team Approach to Fracture Management
 Invited lecturer at Tampa General Hospital Orthopaedic Grand Rounds – January 2003
 Invited lecturer at Indiana University Orthopaedic Grand Rounds – January 2003
 Invited lecturer at Duke Medical Center Orthopaedic Grand Rounds – December 2002

POSTGRADUATE

University of Pittsburgh School of Medicine Pittsburgh, PA	Resident Orthopaedic Surgery	1996- 2001
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First Place Award for “Gene Therapy for Cartilage Repair” presented at the 1998 Smith and Nephew, Inc. 16th Annual Orthopaedic Residents Conference. The prize also included a research grant for my department.

First Place Award for 1999 Orthopaedic Radiology Case of the Week Program - Department of Orthopaedic Surgery University of Pittsburgh.
 Winner of **Second Place Award** for scientific merit: Gene Therapy – New Frontiers for Cartilage Repair. Pennsylvania Orthopaedic Society 2000 Spring Scientific Meeting.
 Faculty for the 2002 Miller's Colorado Orthopaedic Board Review Course. Course evaluation excellent. Invited to return in 2003.

First Place Award for 2002 Orthopaedic Radiology Case of the Week Program - Department of Orthopaedic Surgery University of Pittsburgh.
 Faculty for the 17th Annual Smith and Nephew call for abstracts resident research competition
 Redeveloped the educational curriculum for training of Orthopaedic residents at the University of Pittsburgh. Educational Coordinator 2001-2003.
 Orthopaedic Surgery core curriculum lecturer to UPMC Emergency Department Residency Program
 Designer of Orthopaedic Trauma Surgery logo for University of Pittsburgh
 Founding member of Orthopaedic Resident Advisory Board to Smith and Nephew, Inc.
 Principal Investigator for the grant supported research project “Molecular signaling directing chondrocyte re-differentiation (improvement of autologous chondrocyte transplantation)”. This project has received two competitive grant renewals. Principal Investigator for the grant supported research project “Skin temperatures generated during cast removal.”

Research Fellow of the Ferguson Laboratory for Orthopaedic Research
 Historian for the development of the new Dr. Freddie Fu Orthopaedic Department logo
 Elected to the Orthopaedic Education Committee
 Established Orthopaedic Radiology Case of the Week Program
 Team Doctor Albert Gallatin High School Football

GRADUATE

West Virginia University School of Medicine Morgantown, WV	M.D. Degree Ph.D. Degree (Biochemistry and Molecular Biology)	1996
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First student accepted to and graduated from West Virginia University's M.D./Ph.D. Medical Scientist Program. Awarded M.D./Ph.D. scholarship (seven-year full academic scholarship)
 Five-year Doctor Doctor state representative (representing West Virginia in this organization focusing on the dual degree approach to medicine)
 Second place 1994 Van Liere Research Competition
 WVU Nominee for the Young Scientists Training Program
 Biochemistry Department graduate student representative

Directed the establishment of the George H. Wirtz Memorial Biochemistry Library
 Founder's Day Dinner Speaker
 Medical School appointed biochemistry tutor for health professional students
 Participant in 1993 National Youth Science Camp
 Member Hospital-School of Medicine Liaison Committee, AMA, WVSMA

UNDERGRADUATE

Bethany College Bethany, WV	B.S. Degree with Honors Summa cum laude Biochemistry/Chemistry Valedictorian	1989
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Oreon E. Scott Award – Highest academic record in the Class of 1989. GPA *4.06/4.0. *Distinction on Comprehensive Examinations

Senior Chemistry Award (highest cumulative average including the record made on the Senior Comprehensive Examination)

Senior Fellow – Chemistry Department

President Gamma Sigma Kappa (scholastic honorary society)

President Bethany Kalon (leadership honorary society)

President Student Affiliate Chapter of the ACS

President Heritage House (Bethany's academically oriented dormitory)

Students Distinguished in Scholarship Award

CRC Press Freshman Chemistry Award

First Place ACS Regional Research Competition

National Dean's List

Who's Who

Outstanding Young Men in America

Beta Beta Beta (biological honorary society)

MEDICAL LICENSURES

State of West Virginia	22837	2007-present
State of Pennsylvania	MT-039684-T	1997
	MD-072936-L	2001-4
State of Arizona	31891	2005
State of Tennessee	38138	2004-07

MEDICAL SOCIETIES

Orthopaedic Trauma Association	Associate Member	2005-2012
	Active Member	2012-present
West Virginia Orthopaedic Society	Member	2007-present
Cabell County Medical Society	Member	2011-present
Vitamin D Council	Member	2011-present
Southeast Fracture Society	Member	2011-present
Monongalia County Medical Society	Member	2007-2011
Pennsylvania Orthopaedic Society	Resident/Fellow Member	1996-2002

RESEARCH EXPERIENCE

Marshall University – Principal Investigator and/or Co-Investigator on multiple randomized prospective clinical trials.

- HEALTH: Hip Fracture Evaluation with Alternatives of Total Hip Arthroplasty Versus Hemi-Arthroplasty. Prospective Randomized Multicenter Trial. PI at MU with IRB approval. Site PI.
- TRUST: Trial to evaluate UltraSound in the Treatment of tibial fractures. Prospective Randomized Multicenter Trial. PI at MU with IRB approval 6/8/11. Site PI.
- The Electrostim Medical Services, Inc. (EMSI) Bone Growth Stimulator (BGS) clinical study for the treatment of long bone fractures acquired secondary to trauma where serial radiographs taken at least 90 days apart have shown no visible progressive signs of healing. Principal Investigator: Franklin Shuler, MD, PhD with Co-PI Jim Day MD, PhD.
- INSITE: Intramedullary nail versus sliding hip screw inter-trochanteric evaluation. Prospective Randomized Multicenter Trial. PI at MU with IRB approval pending.
- Detection and Quantification of NOD-1, NOD-2 and the Human Beta Defensins hBD-2, hBD-3, and hBD-4 in Normal, Septic, and Aseptically Inflamed Joints (With Correlation to Vitamin D Status) Principal Investigator: Franklin Shuler, MD, PhD with Co-PI Gerald Oakley, MD.
- CTSA Co-PI (with Dr. Jingwei Xie) “Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Rotator Cuff Injury Repair.” \$25K funding to support NIH grant application.

West Virginia University – Principal Investigator and/or Co-Investigator on multiple randomized prospective clinical trials.

- METRC: Major Extremity Trauma Research Consortium – WVU Orthopaedics as Satellite Center for this Department of Defense Research Group. PI at WVU.
- TRUST: Trial to evaluate UltraSound in the Treatment of tibial fractures. Prospective Randomized Multicenter Trial. PI at WVU.
- Pfizer: A Randomized, Placebo-Controlled Study to Evaluate the Efficacy, Safety and Tolerability of CP-533.536 in Subjects with Closed Fracture of the Tibial Shaft. Prospective Randomized Multicenter Trial.
- Synthes: A Multicenter, Prospective, Randomized, Controlled Clinical Study Comparing the Synthes Tibial Nail-EX with Antibiotic Coating to the Synthes Tibial Nail-EX in Patients Requiring Treatment of Tibial Shaft Fractures.
- Quantification of Urine Collagen Type II C-Telopeptide in Patients with Fractures.
- Quantification of Urine Collagen Type II C-Telopeptide in a rabbit retro-patellar blunt impact cartilage damage model system.

Vanderbilt University – Principal Investigator and/or Co-Investigator on multiple randomized prospective clinical trials.

- SPRINT: Reamed vs. Unreamed Tibia Nails – Prospective Randomized Multicenter Trial of Reamed vs. Unreamed Tibia Nails.
- KCI Wound Vac: Prospective Randomized Trial for distal tibia pilon, tibial plateau and calcaneus fractures wound management.
- Cast vs. Intramedullary Fixation of Stable Tibia Fractures: Prospective Randomized Multi-Center Trial.
- Tibia Plafond (Pilon) Fractures: ORIF vs. Ex-Fix: Prospective Randomized Multi-Center Trial.
- Displaced Clavicle Fractures: ORIF vs. Conservative treatment: Prospective Randomized Multi-Center Trial.
- JAS Bracing: Intra-articular Fractures of Distal Humerus: Prospective Randomized Trial.
- Clinical Efficacy and Cost Implications of Acute BMP-2 Application in Grade IIIB Tibia Fractures: Prospective Randomized Multi-Center Trial.
- Quantification of Urine Collagen Type II C-Telopeptide in Patients with Fractures.

Residency -- Research Fellow in the Ferguson Laboratory for Orthopaedic Research – researcher on the NIH grant “Cartilage Regeneration Using Cell and Gene Therapy in OA.” Projects focused on development and characterization of gene therapy techniques to be used for improvement of cartilage healing. Also Principal Investigator for the grant supported research project “Molecular signaling

directing chondrocyte re-differentiation (improvement of autologous chondrocyte transplantation)".
Advisor: Dr. Christopher Evans.

PhD Research -- Dissertation research "Analysis of Regulatory Regions Within the first Intron of the Estrogen-Inducible Chicken Very Low Density Apolipoprotein II Gene." Advisor: Dr. Marilyn Evans.

Undergraduate -- 1989 Summer Researcher on the American Heart Association Grant entitled, "Molecular Mechanisms of Angiotensins in NG108-15 Cells." Advisor: Dr. Ann Tallant – Cleveland Clinic Foundation

Undergraduate -- 1988 Summer Researcher on the NIH Grant entitled "Enzymatic Repair of Carcinogenic Damage to Human DNA" Advisor: Dr. Patricia E. Gallagher – West Virginia University

Undergraduate -- NASA's 1987 Space Life Sciences Training Program. I participated in all phases of space flight experimentation and NASA life science research. Four experiments that I worked on were flown aboard the Space Shuttle. Also, one of my experimental designs was accepted for space flight – Kennedy Space Center.

INTELLECTUAL PROPERTY / PATENTS / TRADEMARKS:

1. Sophia D2011-001 Molecular Detection of Arthritis (Franklin D Shuler 50%; Gerard Oakley III 50%); September 26,2011
2. Sophia D2011-009 Dressing delivering vitamin D or its metabolites to soft tissues (Franklin D Shuler 100%); November 29, 2011
PATENT PENDING
3. Sophia D2011-010 Suture delivering vitamin D or its metabolites to soft tissues (Franklin D Shuler 100%); November 29, 2011
4. Sophia D2012-004 Bone graft substitute delivering vitamin D or its metabolites to bone and soft tissues (Franklin D Shuler 100%); May 1, 2012
5. **Wound coverings comprising vitamin D and related methods** – Filed Jan 15, 2015 – PATENT PENDING – PCT/US 16/013574
6. **Systems and methods for anti-microbial effect for bones** – Filed November 4, 2015. US Patent application No 15/343.738 publication [May 11, 2017 US-2017-0128741-A1](#)



US 20170128742A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2017/0128742 A1**
Rabiner et al. (43) **Pub. Date: May 11, 2017**

(54) **SYSTEMS AND METHODS FOR ANTI-MICROBIAL EFFECT FOR BONES**

(71) Applicant: **IlluminOss Medical, Inc.**, East Providence, RI (US)

(72) Inventors: **Robert A. Rabiner**, Barrington, RI (US); **Daniel E. Rabiner**, Chelsea, MA (US); **Gene P. DiPoto**, Upton, MA (US); **Augustus C. Shanahan**, Newton, MA (US); **Franklin D. Shuler**, Huntington, WV (US)

(21) Appl. No.: **15/343,738**

(22) Filed: **Nov. 4, 2016**

Related U.S. Application Data

(60) Provisional application No. 62/252,275, filed on Nov. 6, 2015, provisional application No. 62/272,420, filed on Dec. 29, 2015.

Publication Classification

(51) **Int. Cl.**
A61N 5/06 (2006.01)
A61M 25/10 (2006.01)

(52) **U.S. Cl.**
CPC *A61N 5/0624* (2013.01); *A61M 25/10* (2013.01); *A61N 5/0601* (2013.01); *A61N 5/062* (2013.01); *A61M 2210/02* (2013.01); *A61N 2005/063* (2013.01)

(57) **ABSTRACT**

Systems and methods for restructure and stabilization of bones that provide an anti-microbial effect are disclosed herein. A device includes a delivery catheter having an inner void for passing at least one light sensitive liquid, and an inner lumen; an expandable member releasably engaging the distal end of the delivery catheter; at least one channel positioned in the expandable member; and a light conducting fiber sized to pass through the inner lumen of the delivery catheter and into the expandable member, wherein, when the light conducting fiber is in the at least one channel, the light conducting fiber is able to disperse light energy to provide an anti-microbial effect. When the light conducting fiber is in the expandable member, the light conducting fiber is able to disperse the light energy to initiate hardening of the light sensitive liquid within the expandable member to form a photodynamic implant.

**FUNDING TIMELINE: No period during training and attending without NIH funding –
Cumulative over \$1.6 Million in funding**

1985-89	<u>Undergraduate (total funding \$20K)</u>
1987	NASA – SLSTP
1988	NIH – Summer researcher
1988	Gans Fund
1989	AHA – Summer researcher
1989	Gans Fund
1989-96	<u>MD/PhD Program (total funding \$130K)</u>
	NIH
1996-2003	<u>Orthopaedic Residency and Fellowship (total funding \$48K)</u>
1997	NIH – Research Fellowship
1997	Ferguson Foundation
1998	Ferguson Foundation
2000	Pittsburgh Foundation
2003-7	<u>Orthopaedic Traumatologist – Vanderbilt University (total funding \$292K)</u>
2003-7	NIH – SPRINT FDA Clinical Trial
	KCI, OTA,AO
2007-11	<u>Orthopaedic Traumatologist – WVU (total funding \$647K)</u>
	NIH, NSF, AO, OTC, Pfizer, Zimmer, Stryker, WVU Bridge Grant
	Oversaw 22 active clinical trials
2011-present	<u>Orthopaedic Traumatologist – Marshall University (total funding \$515K)</u>
2011	NIH/CTSA
2011	TRUST Clinical Trial (PI)
2012	OMeGA,
2012	Rural Pilot Grant FRAX (\$15K)
2012	TRUST Clinical Trial (PI)
2013	NIH R15 (\$293K)
2013	HEALTH Clinical Trial (PI)
2013	EMSI Clinical Trial (National PI)
2013	EMSI Healthy Volunteer Study for FDA
2012	TRUST Clinical Trial (PI)
2014	Rural Grant Text and Driving (\$25K)
2014	NIH R15
2014	HEALTH Clinical Trial (PI)
2012	TRUST Clinical Trial (PI)
2014	EMSI Clinical Trial (National PI)
2015	NIH R15
2015	HEALTH Clinical Trial (PI)
2015	EMSI Clinical Trial (National PI)
2015	IlluminOss Clinical Trial (Co-PI) First FDA site in North America
2016	KADIS MU/WVU Vitamin K2 in Hip Fracture Patients (\$50K)
2016	HEALTH Clinical Trial (PI)
2016	EMSI Clinical Trial (National PI)
2016	IlluminOss Clinical Trial (Co-PI) First FDA site in North America
2017	HEALTH Clinical Trial (PI)

ORTHOPAEDIC RESEARCH FELLOWS

I started an Orthopaedic Research Fellowship in 2012 for graduated medical students who were not successful during the match process. It has been extremely productive with all graduation to practicing as physicians in General Surgery, Radiology or Orthopaedics.

<i>Year</i>	<i>Physician</i>	<i>Productivity</i>
<i>2012-2013</i>	Timothy Wilson-Byrne, MD	General Surgery 7 papers 2 podiums 5 posters 1 rural research grant \$25K
<i>2013-2014</i>	Zain Qazi, MD	Radiology 7 papers 2 podiums 9 posters – FIRST PLACE 1 book chapter 1 rural research grant
<i>2014-2015</i>	Grant Buchanan, MD ORTHOPAEDICS – University Chicago Illinois	Orthopaedic Surgery 28 projects 11 papers 4 podiums FIRST PLACE, SECOND PLACE, THIRD PLACE 4 posters – FIRST PLACE 4 book chapters 1 \$50K Vitamin K2 grant KADIS with 2 other grant proposals
<i>2016-17</i>	Brian Czarkowski, MD	Preliminary General Surgery – Marshall University – University Las Vegas 2 papers 1 podium FIRST PLACE 1 poster – FIRST PLACE
<i>2016-17</i>	Milad Modarresi, MD (Everest Fellowship)	Preliminary General Surgery – Marshall University 3 papers 1 podium - WV Geriatric FIRST PLACE 5 posters – 3 PS/QI FIRST PLACE AWARDS 1 grant (INBRE)
<i>2016-17</i>	Aguliar Campos, MD (Everest Fellowship)	3 projects
<i>2017-2018</i>	Ammar Qureshi (Everest Fellowship)	3 projects

CURRENT GRANT FUNDING/PROPOSALS:

- 2017 KADIS Clinical Trial – Assessing the Effectiveness of Vitamin K2 and/or Vitamin D3 Supplementaion on Neuromuscular Function, Muscular Strength, and Bone Denisty in Older Patients with Hip Fractures. **\$50K awarded**
- 2016 HEALTH Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus

- Hemiarthroplasty. Continuous patient enrollment incentive. **\$35K awarded**
- 2015 HEALTH Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus Hemiarthroplasty. Continuous patient enrollment incentive
 - 2013 TRUST renewal
 - 2014 HEALTH Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus Hemiarthroplasty. Continuous patient enrollment incentive
 - 2014 ACTSI Pilot Funding -- The Incidence of Vitamin D Deficiency and Its Association Body Composition in an Adolescent Population enrolled in the 10 week “YMCA KIDS IN MOTION” program in West Virginia. Principal Investigator: Franklin Shuler, MD, PhD. \$25K.
 - 2014 Rural Research Grant -- Opportunistic Osteoporosis Detection in Rural West Virginia using Abdominal CT. Principal Investigator: Franklin Shuler MD, PhD. and Zain Qazi MD \$25K.
 - 2013 HEALTH Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus Hemiarthroplasty. Continuous patient enrollment incentive
 - 2013 TRUST renewal
 - 2013 Rural Pilot Grant “Effect of Anecdotal Evidence on Teen Perception of Texting and Driving”. Principal Investigator: Franklin Shuler, MD, PhD. **\$25K awarded.**
 - 2013 DOD PRMRP **Electrospun Nanofibers as Wound Dressing for Local Sustained Delivery of 25-Hydroxyvitamin D₃**
 - 2013 The Electrostim Medical Services, Inc. (EMSI) Bone Growth Stimulator (BGS) healthy volunteer study for FDA. Principal Investigator: Franklin Shuler, MD, PhD. **\$8K awarded.**
 - 2013 NIH R15 Co-PI (with Dr. Jingwei Xie) “Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Rotator Cuff Injury Repair” **\$293K awarded from NIH’s National Institute of Arthritis and Musculoskeletal and Skin Diseases**
 - 2012 TRUST renewal
 - 2012 MU Health Translation Pilot Grant Applications: (1) Electrospun nanofibers as wound dressing for local sustained delivery of 25-hydroxyvitamin D₃ with Dr. Xie (MIIR); (2) Temperature enhanced bone elongation in growth plates with Dr. Serrat (Anatomy); (3) miRNA and osteoarthritis with Dr. Garabekyan and Blough (Center for Diagnostic Nanosystems). \$25K each for \$75K.
 - 2012 Rural Pilot Grant “Improving Rural Bone Health and Minimizing Fracture Risk in West Virginia: The World Health Organization FRAX Assessment Tool”. **\$15K awarded.**
 - 2012 CCTS Pilot Program PI with (co-PI Dr. Wingate and Dr. Crofford [UK]) Quantitative analysis of the antimicrobial effects of LL-37(cathelicidin): potential uses in surgery. \$25K
 - 2012 OMeGA Grant. Residency educational grant for Marshall University Orthopaedics. **\$5K awarded.**
 - 2012 NIH R15 Co-PI (with Dr. Jingwei Xie) “Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Rotator Cuff Injury Repair” \$380K over 3 years
 - 2012 Picker GME Challenge Grant Request (with Dr. Israelsen and Shuff) -- Radiographic review with patients improves information, communication and education following musculoskeletal injury. \$25K matching grant request.
 - 2012 Community Service Vitamin D Grant – Vitamin D Council – Sunshine for Health Vitamin D drops **\$9K awarded.**
 - 2011 TRUST: Trial to evaluate UltraSound in the Treatment of tibial fractures. FDA approved clinical trial. **\$50K awarded.**
 - 2011 AONA and OTA (with Dr. Oakley and Salava) “Application of multiplex technology (Luminex clinical diagnostic assay) to rapidly detect septic arthritis” \$5K and \$10K
 - 2011 OTA Resident Grant Application (with Dr. Woods and Jones) “Anatomy of Syndesmotom Cartilage: Where can a syndesmosis screw be placed to avoid damage to the syndesmosis cartilage?” \$10K
 - 2011 CTSA Co-PI (with Dr. Jingwei Xie) “Biomimetic Nanofiber Scaffolds Seeded with Adipose-derived Stem Cells for Rotator Cuff Injury Repair.” \$50K; **\$25K awarded.**

- 2010 Co-PI (with Dr. Bing Li and Dr. Lederman) \$468K NSF 10-529 (proposal 1039987) “MRI: Acquisition of a Pulsed Laser Deposition System for Applications in Physics, Chemistry, Biology, Health Sciences, and Engineering.” 10/21/2010-10/21/2011 **\$468K awarded.**
- 2010 Co-PI (with Dr. Ming Pei) submission \$114K AO Foundation Research Grant Proposal “Cartilage Protection in Osteoarthritis by Melatonin.” 1/1/2011-12/31/2012.
- 2010 Co-PI (with Dr. Ming Pei) submission \$25K OTA Research Grant Proposal “Does Melatonin Work for Osteoporotic Fracture Healing?”
- 2010 Co-PI (with Dr. Ming Pei) submission \$300K Arthritis Foundation “The Effect of Melatonin on Chondrogenesis and Inflammation: A Potential Novel Treatment for Cartilage Injury and Degeneration”.
- 2009 Co-PI (with Dr. Ming Pei) submission \$300K Arthritis Foundation “The Effect of Melatonin on Chondrogenesis and Inflammation: A Potential Novel Treatment for Cartilage Injury and Degeneration”. Duration 1/1/2009-12/31/2011. Score 2.0. Re-application pending.
- 2009 Co-PI (with Dr. Ming Pei) WVU Bridge Grant “The Effect of Melatonin on Chondrogenesis and Inflammation: A Potential Novel Treatment for Cartilage Injury and Degeneration”. Duration 1/1/2009-12/31/2011. **\$24K awarded.**
- 2009 Co-PI (with Dr. Bing Li) submission \$50K OTC Research Grant “Nanotechnology based IL-12 microcapsules for infection prevention in open fractures - A pilot study.” Duration 01/01/2009-12/31/2009. Funding notification 3/2/09. **\$50K awarded.**
- 2008 Zimmer Competitive Research Grant “The Effect of Orthopaedic Implant Copper Coatings on Infection: In Vitro and In Vivo Analysis.” **\$74K awarded.**
- 2008 Stryker Competitive Research Grant “Compartment Syndrome: Are We Able to Detect Elevated Compartment Pressures with Physical Examination?” **\$11K awarded.**

INDEPENDENTLY FUNDED SELF-DIRECTED PROJECTS:

Residency -- Initiated, obtained grant funding, and Principal Investigator on the project entitled “Skin temperatures generated during cast removal.” This project received grant funding through the Pittsburgh Foundation.

Residency -- Initiated, obtained grant funding, and Principal Investigator on the project entitled “Molecular signaling directing chondrocyte re-differentiation (improvement of autologous chondrocyte transplantation)”. This project received grant funding through the Pittsburgh Foundation. Competitive renewal was awarded for two years. **First Place** award national Smith and Nephew research competition

Undergraduate -- Initiated a project entitled “Further Purification and Crystallization of Stem Bromelain for X-Ray Diffraction Analysis.” The Gans Fund for scientific research funded this project and results were published in my senior thesis.

Undergraduate -- Initiated a Water Analysis project for Bethany College entitled “Development of a Program of Water Analysis for the Bethany College Swimming Pool.” The Gans Fund for scientific research funded this project, and presentation of my results at the 1988 regional ACS Meeting resulted in a **First Place** Award.

CURRENT IRB APPROVED STUDIES:

Active

1. **IRB# 812023-1 Body mass index as a predictor of tibial tray size in unicompartmental knee arthroplasty. Active. Approval 1/16/15.**
2. **IRB# 702627-2 Trauma: A young person’s disease? Active. Approval 1/15/15.**
3. **IRB# 704603-10 A prospective, multi-center study of the Illuminoss photodynamic bone stabilization system for the treatment of impending and actual pathological fractures in the humerus from metastatic bone disease. Active. Approval 2/11/15**
4. **IRB# 627321-2 Comparison of IMPACT concussion testing and C3 Logix assessments for the management, treatment, and return to play of athletes sustaining concussions. Active. Approval 10/06/14.**
5. **IRB# 776037-1 Assessing reliability and validity of the push-off test in patients with elbow and wrist conditions. Active. Approval 09/23/15.**

6. **IRB# 776634-1 Characterising the self-efficacy, coping behavior, and disease specific anxiety in patients consulting for possible total knee replacement surgery for osteoarthritis of the knee. Active. 09/24/15.**
7. **IRB# 782291-1 Quantity of debris removed during total knee arthroplasty. Active. Approval 08/03/2015.**
8. **IRB# 826364-1 The consistency of electrocardiogram measurements between measurement devices and clinicians. Active. 11/18/2015.**
9. **IRB# 867825-1 Hoverboard injuries in children and adolescents: results of a multi-center study. Active. Approval 02/12/16.**
10. **IRB# 491142-1 Marshall University – Hip Fracture Evaluation with Alternative of Total Hip Arthroplasty versus Hemiarthroplasty (HEALTH). Principal Investigator: Franklin Shuler, MD, PhD. Active. Approval 10/9/2013.**
11. **IRB# 774983-1 Marshall University – Characterizing the Responsiveness, Minimal Clinically Important Difference, and Patient Acceptable Symptom State for the Boston Carpal Tunnel Questionnaire in Individuals Following Carpal Tunnel Release Surgery. Co-Investigator: Franklin Shuler, MD, PhD. Active.**

Completed

1. **IRB# 657316-2 Orthopaedic Match: Where do I stand? Closed. Approval 9/25/14.**
2. **IRB# 555111-6 Effect of Anecdotal Evidence on Teen Perception of Texting and Driving. Closed. Approval 2/10/14.**
3. **IRB# 396973-1 Marshall University -- Improving Rural Bone Health and Minimizing Fracture Risk in West Virginia: The World Health Organization FRAX[®] Assessment Tool – A TELEPHONE SURVEY using Allscripts EMR. Principal Investigator: Franklin Shuler, MD, PhD with Co-PI Kelly Scott MSII. Closed. Approval 12/10/12.**
4. **IRB# 380915-1 Marshall University -- The Electrostim Medical Services, Inc. (EMSI) Bone Growth Stimulator (BGS) clinical study for the treatment of long bone fractures acquired secondary to trauma where serial radiographs taken at least 90 days apart have shown no visible progressive signs of healing. Principal Investigator: Franklin Shuler, MD, PhD with Co-PI Jim Day MD, PhD. Active. Approval 11/11/2012.**
5. **IRB# 309710-1 Marshall University -- Detection and Quantification of NOD-1, NOD-2 and the Human Beta Defensins hBD-2, hBD-3, and hBD-4 in Normal, Septic, and Aseptically Inflamed Joints (With Correlation to Vitamin D Status) Principal Investigator: Franklin Shuler, MD, PhD with Co-PI Gerald Oakley, MD. Active. Approval 2/16/2012.**
6. **IRB# 242351-1 Marshall University -- TRUST: Trial to evaluate UltraSound in the Treatment of tibial fractures. Active. Approval 6/8/2011. Renewal approved 6/25/2012.**
7. **IRB# H-20899 West Virginia University -- TRUST: Trial to evaluate UltraSound in the Treatment of tibial fractures. Active with PI changed to Dr. Hubbard.**
8. **IRB# H-20972 West Virginia University -- Pfizer: A Randomized, Placebo-Controlled Study to Evaluate the Efficacy, Safety and Tolerability of CP-533.536 in Subjects with Closed Fracture of the Tibial Shaft. Completed enrollment of patients.**
9. **IRB# 999-16958 West Virginia University – A Multicenter, Prospective, Randomized, Controlled Clinical Study Comparing the Synthes Tibial Nail-EX with Antibiotic Coating to the Synthes Tibial Nail-EX in Patients Requiring Treatment of Tibial Shaft Fractures. Active.**
10. **IRB# H-20834 West Virginia University -- Quantification of Urine Collagen Type II C-Telopeptide in Patients with Fractures. Closed.**
11. **IRB# 040280 Vanderbilt University -- Quantification of Urine Collagen Type II C-Telopeptide in Patients with Fracture July 27, 2004 – July 6, 2005 Renewal granted for 2006. Closed.**

PUBLICATIONS SUBMITTED / IN PROGRESS

Buchanan G, Cheung F, Julien T, Shuler, F.D 2016. Computer-assisted navigation in the resection of a sacral chordoma: an application for anterior and posterior osteotomies. Stereotactic and Functional Neurosurgery.

Shuler, F.D., Oliashirazi A, Cheung F, Riley T, Iliev I, and Shah D. Improving Millennial medical education in West Virginia. *WV Med J*.

Shuler, F.D., Ozgur S., Powers M. 2012. CT scan cancer risk stratification. *JBJS Am*

Shuler, F.D., Zarynov A., Zimmeck S., Cross B. Antibiotic Intramedullary Nails: minimizing complications. *Orthopaedics*

Ji, H., Lui, J., Wang, M., Yang, J., **Shuler, F.D.**, Fang, X., Li, F. Myricetin anti-inflammatory effects: MMP inhibition, antioxidation prevention and pro-inflammatory mediator suppression. Submitted for publication *Phytomedicine*.

PUBLICATIONS – FD Shuler paper citations 1582 –

http://scholar.google.com/citations?hl=en&user=yw_ASPkAAAAJ

Brepress readership – Marshall Digital Scholar – total paper downloads 4792



1. Weng L, Boda SK, Teusink MJ, **Shuler FD**, Xie J. 2017, Binary Doping of Strontium and Copper Enhancing Osteogenesis and Angiogenesis of Bioactive Glass Nanofibers while Suppressing Osteoclast Activity; *ACS Applied Mat* 2017
2. Weng L, Boda SK, Teusink MJ, **Shuler FD**, Xie J. 2017, In vitro evaluation of strontium and copper doped bioactive glass electrospun fibers for bone regeneration. *Acta Biomaterialia* 2017
3. Chen S, **Shuler FD**, Xie J. 2017 Nanofiber-based Sutures Induce Endogenous Antimicrobial Peptide. *Nanomedicine* 2017.
4. **Shuler FD**. A Simple and Novel Technique Aiding Tibial Intramedullary Nail Extraction. *Orthopaedics*. 2017
5. Buchanan GS, Kahn DS, Burke HW, Czarkowski B, Boe RA, Modarresi M, **Shuler FD**. 2017. Trauma Team Activation for Geriatric Trauma at a Level II Trauma Center: Are the Elderly Under-triaged? *Marshall Journal of Med*. 2017
6. Klas J, Modarresi M, Aguilar R, BenHamed N, **Shuler FD**. 2017. Improving the Pharmacologic Management of Patients after Osteoporotic Hip Fractures. *Marshall Journal of Medicine*. 2017
7. Sporck FT and **Shuler FD**. 2017. Letter of Correction: FRAX® tool for fracture prevention. *WV Med J*. May/June 2017 Vol 113, No 3, p 35.

8. **Shuler FD**, Buchanan GS, Sanford Z, Modarresi M, Reagan JT, Scott K, Fisher C, Oliashirazi A. 2017. Othopaedic Surgeon Density in West Virginia. *Marshall Journal of Med.* 2017. Vol 3, Issue 1, Article 14.
9. Chen S, Ge L, Mueller A, Carlson MA, Teusink MJ, **Shuler FD**, Xie J. 2017, Twisting Electrospun Nanofiber Fine Strips into Functional Sutures for Sustained Co-delivery of Gentamicin and Silver. *Nanomedicine.* 2017 Feb 6. pii: S1549-9634(17)30018-7. PMID: 28185940
10. Ozgur SE, Oliashirazi A, Buchanan GS, **Shuler FD**. 2016. Lamina Spreader Technique Improves Debridement of Loose Bone and Cement in Total Knee Arthroplasty. *Marshall Journal of Medicine* 2016. Vol 2, Issue 4
11. Kahn DS, Fofie F, Buchanan GS, Qazi Z, Wilson-Byrne T, LeGrow T, **Shuler FD**. 2016 Teen perception of texting and driving in rural West Virginia. *Marshall Journal of Med.* 2016. Vol 2, Issue 2, Article 10.
12. Ashworth HM, Warner C, Mehta SP, **Shuler FD** and Oliashirazi A. 2016. Factors Predicting Knee Range of Motion Following Total Knee Replacement” *Arthroplasty Today.*
13. Ashworth HM, Warner CN, Mehta SP, **Shuler FD**, Oliashirazi A. 2016. Preoperative Low Back Pain Affects Recovery in Knee Flexion Range of Motion Following Total Knee Replacement.. *Crit Rev Phys Rehabil Med.* 2016;281-2):47-55.
14. **Shuler, F.D.**, Woods D., Tankersley Z., McDaniel C., Hamm J., Jones J., Denvir J., Czarkowski B. 2016. An Anatomical Study on the Safe Placement of Orthopedic Hardware for Syndesmosis Fixation. *Orthopedics*, 2016. Mar 1:40(2) [PMID 28027384](#)
15. Ozgur S, Oliashirazi A., Buchanan G., **Shuler FD**. 2016. Lamina spreader technique improves debridement of loose bone and cement in total knee arthroplasty. *Marshall J Med.* 2016. Vol(2):4, art8.
16. Sharma ER, **Shuler FD**, Loudin S. 2016. Legal Aspects of Neonatal Abstinence Syndrome. *WV Med J.* Sept/Oct 2016. Vol 112, p19.
17. Mohammed Y, Qazi ZN, **Shuler FD** and Garabekyan T. 2016. Hip pain the the pre-arthritis patient: a guide for the primary care physician. *WV Med J.* Sept/Oct 2016.
18. Smith BJ, Buchanan GS, **Shuler FD**. 2016. A comparison of imaging modalities for the diagnosis of osteomyelitis. *Marshall J Med.* 2016. Vol(2):3, [art 10](#).
19. Buchanan GS, Melvin T, Merritt B, Bishop C, **Shuler FD**. 2016. Vitamin K2 (menaquinone) Supplementation and its Benefits in Cardiovascular Disease, Osteoporosis, and Cancer. *Marshall J Med.* 2016. Vol(2):3, [art8](#).
20. Lin CA, Bhandari M, Guyatt G, Walter SD, Schemitsch EH, Swiontkowski M, Sanders D, Tornetta P 3rd; SPRINT Investigators (**Shuler FD** collaborator). 2016. Does participation in a randomized clinical trial change outcomes? An evaluation of patients not enrolled in the SPRINT Trial. *J Orthop Trauma.* 2016 Mar;30(3):155-61. PMID [27326429](#)
21. **Shuler FD**, Scott K, Wilson-Byrne T, Morgan L, Olajide OB. 2016. Improving rural bone health and minimizing fracture risk in West Virginia: Validation of the World Health Organization

- FRAX Assessment tool as a phone survey for osteoporosis detection. *WV Med J*. 2016 May-Jun; 112(3):84-8. PMID [27301160](#)
22. Oliasharizi A, Wilson-Byrne T, **Shuler FD**, Parvizi J. 2016. Patient-controlled fentanyl iontophoretic transdermal system (fentanyl ITS) improved postoperative mobility compared to intravenous patient-controlled analgesia (IV PCA) morphine: a pooled analysis of randomized, controlled trials. *Pain Practice*. 2016; May 21 PMID [27206564](#)
 23. Obremesky W, Agel J, Archer K, To P, Tornetta P 3rd; SPRINT Investigators (**Shuler FD**). 2016. Character, Incidence, and Predictors of Knee Pain and Activity After Infrapatellar Intramedullary Nailing of an Isolated Tibia Fracture. *J Orthop Trauma*. 2016 Mar; 30(3): 135-41. PMID [26496180](#).
 24. Lycans, D; Salloum, E; Wingate, MK; Melvin, T; Buchanan, GS; and **Shuler FD** 2016 "Vitamin D Deficiency: "At Risk" Patient Populations and Potential Drug Interactions," *Marshall Journal of Medicine*: Vol. 2: Iss. 1, Article 11.
 25. Oliashirazi A, Caughran A, Qazi AN, Buchanan G, Sharma A, **Shuler FD**. 2016. How To Manage Knee Arthritis: Best Practices for Treatment Prior to Orthopaedic Referral. *WV Med J*. Jan/Feb 2016: p24-29.
 26. Weng L, Teusink MJ, **Shuler FD**, Xie J. 2016. Highly controlled coating of strontium-doped hydroxyapatite on electrospun poly(ϵ -caprolactone) fibers. *J Biomed Mater Res B Appl Biomater*. 2016 Jan7 PMID [26743543](#).
 27. Melvin TJ, Tankersley ZJ, Qazi ZN, Jasko JJ, Odone R, **Shuler FD**. 2015. Primary Care Management of Plantar Fasciitis. *WV Med J* 2015 Nov-Dec;111(6):28-32. PMID:[26665894](#)
 28. Kahn DS, **Shuler FD**, Qazi ZN, Belmaggio TD, Mehta SP. 2015. The Emerging Role of Vitamin D in Sports Physical Therapy: A Review. *Critical Reviews in Physical and Rehabilitation Medicine* 2015, 27(1):1-10.
 29. Minkemeyer VM, Meriweather M, **Shuler, F.D.**, Mehta S, and Qazi Z. 2015. Primary care fall risk assessment for elderly West Virginians. *WV Med J* 2015 Nov-Dec;11(6)18-23. PMID:[26665892](#)
 30. Cook SE, Palmer LC, **Shuler, F.D.** 2015 Smartphone Mobile Application to Enhance Diagnosis of Skin Cancer: A Guide for the Rural Practitioner. *WV Med J* Sept/Oct 2015. PMID <https://www.ncbi.nlm.nih.gov/pubmed/26521532>
 31. Ambrosia J, Qazi Z, **Shuler, F.D.**, and Giangarra C. 2015. Pseudoaneurysm of the popliteal artery following ACL reconstruction. *Orthopedics* Jun1:38(6):e543-6. PMID 26091231.
 32. [Total medical costs of treating femoral neck fracture patients with hemi- or total hip arthroplasty: a cost analysis of a multicenter prospective study](#). Burgers PT, Hoogendoorn M, Van Woensel EA, Poolman RW, Bhandari M, Patka P, Van Lieshout EM; HEALTH Trial Investigators (**Shuler FD HEALTH trial investigator**). *Osteoporos Int*. 2016 Jun;27(6):1999-2008. doi: 10.1007/s00198-016-3484-z. Epub 2016 Jan 28. PMID:26821137
 33. Burgers PT, Roolman RW, Van Bakel TM, Tuinebreijer WE, Zielinski SM, Bhandari M, Patka P, Van Lieshout EM, HEALTH and FAITH Trial Investigators. (**Shuler FD HEALTH trial investigator**) 2015. Reliability, validity, and responsiveness of the Western Ontario and McMaster Universities Osteoarthritis Index for elderly patients with a femoral neck fracture. *JBJS Am*. May 6, 97(9):751-7. PMID 25948522.

34. Khandalavala K, Jiang J., **Shuler FD.**, Xie J. 2015. Electrospun Nanofiber Scaffolds with Gradations in Fiber Organization. *J Vis Exp.* Apr 19(98). PMID 25938562.
35. Serrat MA, Schlierf TJ, Efaw ML, **Shuler FD**, Godby J, Stanko LM, Tamski HL. 2015. Unilateral Heat Accelerates Bone Elongation and Lengthens Extremities of Growing Mice. *J Ortho Res.* May; 33(5):692-8., PMID 25639189.
36. Jiang J, Chen G, **Shuler FD**, Wang C-H and Xie J. 2015. Local sustained delivery of 25-hydroxyvitamin D3 for prevention of surgical site infections. *Pharm Res.* 2015 Mar 14. PMID: 25773720. <http://www.ncbi.nlm.nih.gov/pubmed/25773720>
37. Bhandari M, Devereaux PJ, Einhorn TA, Thabane L, Schemitsch EH, Koval KJ, Frihagen F, Poolman RW, Tetsworth K, Guerra-Farfán E, Madden K, Sprague S, Guyatt G; **HEALTH Investigators (Shuler FD)**: Hip fracture evaluation with alternatives of total hip arthroplasty versus hemiarthroplasty (HEALTH): protocol for a multicenter randomized trial. *BMJ Open.* 2015 Feb 13;5(2) doi: 10.1136/bmjopen-2014-006263. PMID:25681312
38. Litchfield A.B., Hayes R.M., **Shuler, F.D.**, Flesher S.L. 2015. Type I Diabetes in Children and Vitamin D. *WV Med J* Jan/Feb 2015; 111(1):32-7. PMID 25665276.
39. Andyryka M, Wilson-Byrne T, Fitzpatrick S, Veitia M, Orwig R, and **Shuler, F.D.** 2014. Too Smart to Fail: Guide for the Struggling Medical Student. *W V Med J.* 2014 Nov-Dec;110(6):12-4, 16-9. PMID: 25651659
40. [Critical-sized defect in the tibia: is it critical? Results from the SPRINT trial](#), Sanders DW, Bhandari M, Guyatt G, Heels-Ansdell D, Schemitsch EH, Swiontkowski M, Tornetta P 3rd, Walter S; **SPRINT Investigators (Shuler FD)**. *Orthop Trauma.* 2014 Nov;28(11):632-5. doi: 10.1097/BOT.000000000000194.PMID:25233157
41. **Shuler, F.D.**, Schlierf T., Wingate M. 2014. Prevention of Falls with Vitamin D. *W V Med J.* 2014 May-Jun;110(3):10-2.PMID:24984399.
42. Kim JD, **Shuler, F.D.**, Oliashirazi A. 2014. How I Manage Periprosthetic TKA Fractures. *ICJR.net*, Jan 27, 2014. http://icjr.net/article_66_tka_fracture.htm
43. Xie J., Ma, B., and **Shuler F.D.** 2014. Biomimetic Nanofiber Scaffolds for Tendon-to-bone Insertion Repair. *Advanced Materials Res* 875-877, pp.331-334
44. Hilgefort JP, Fitzpatrick S, Lycans D, Wilson-Byrne T, Fisher C, and **Shuler, F.D.** 2014. Smartphone Medical Application Useful for the Rural Practitioner. *W V Med J.* 2014 Jan-Feb;110(1):40-4. PMID: 24640273.
45. Ma B., Xie J., Jiang J., **Shuler F.D.**, Bartlett D.E. 2013. Rational design of nanofiber scaffolds for orthopedic tissue repair and regeneration. *Nanomedicine* 8(9);1-23. PMID: 23987110
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BOOK CHAPTERS

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PODIUM/ORAL PRESENTATIONS

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1. Klaus J, Modaressi M, Aguilar-Campos R, Sayan A, BenHamed N, **Shuler FD**. 2017. Analyzing the pharmacologic management of patients after osteoporotic hip fractures. MUSOM 29th Annual Research Day. Podium.
2. Buchanan, GS, Hatch M, Wyatt W, Raducan V, **Shuler FD**. Dementia as an independent risk factor for in-hospital complications and mortality following hip fracture: an analysis of 660,000 Medicare patients. West Virginia Orthopaedic Society Annual Meeting. Roanoke, West Virginia. April 2016. – **SECOND PLACE AWARD Resident Research Competition**
3. Boe R, Buchanan GS, Kahn DS, Fofie F, **Shuler FD**. Geriatric trauma: are the elderly undertriaged? West Virginia Orthopaedic Society Annual Meeting. Roanoke, West Virginia. April 2016. – **THIRD PLACE AWARD Resident Research Competition**

4. Johnson B, Buchanan GS, Stover C, **Shuler FD**, Jasko J. Pyomyositis mistaken for septic arthritis in children: the role of MRI in diagnosis and management. West Virginia Orthopaedic Society Annual Meeting. Roanoke, West Virginia. April 2016.
5. Kahn D, Fofie F, Buchanan G, Qazi Z, Wilson-Byrne T, LeGrow T, **Shuler FD**. 2016. Teen Perception of Texting and Driving in Rural West Virginia. MUSOM 28th Annual Research Day. Oral Presentation.
6. Tornetta P 3rd, Busse JW, Bhandari M, Einhorn T, Schemitsch E, Heckman J, Leong K-S, Heels-Ansell T, Kallyth S, Guyatt G; SPRINT Investigators (contributor **Shuler, FD**). 2015. Low-Intensity Pulsed Ultrasound in Acute Tibial Shaft Fractures Treated with IM Nails: The Results of the TRUST Trial. 2015 OTA Annual Meeting. Paper #35.
7. **Shuler FD**, Qazi Z, LeGrow T. 2014. Effect of Anecdotal Evidence on Teen Perception of Texting and Driving. 2014 Rural Health Research Day. Podium
8. **Shuler FD**, Wilson-Byrne T, Scott K. Morgan L. and Olajade O. 2014. Improving Rural Bone Health and Minimizing Fracture Risk in West Virginia: The World Health Organization FRAX Assessment Tool. 2014 Rural Health Research Day. Podium
9. Emmer T and **Shuler FD**. 2014. Quorum Sensing and Impact on Orthopaedics. 2014 WVOS Podium
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11. Wilson-Byrne and **Shuler FD**. 2014. Use of FRAX as Phone Survey Compared with the Gold Standard of Bone Density Testing Using DXA. 2014 WVOS Podium
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14. Serrat MA, Schlierf TJ, Efav ML, **Shuler FD**, Godby J, Stanko LM, Tamski HL. Unilateral Heat Accelerates Bone Elongation and Lengthens Extremities of Growing Mice. **2014 ORS Podium, Paper 199**, Annual Meeting, New Orleans, LA.
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16. Salava, J, Oliashirazi, O, **Shuler, F.D** 2013. Procedure update for TKA: knee distraction improves debridement. WVOS Podium, Stonewall Jackson Resort, WV
17. Ozgur, S, Oliashirazi, O, **Shuler, F.D** 2013. OR culture and room traffic; visual cues are necessary. WVOS Podium, Stonewall Jackson Resort, WV
18. **Shuler, F.D.**, Woods D., Tankersley Z., Jones J., McDaniel C., Hamm J. 2013. The syndesmosis contact zone: A study of over 3000 anatomical specimens from the Smithsonian Terry Collection. WVOS Podium, Stonewall Jackson Resort, WV
19. **Shuler, F.D.**, Woods D., Tankersley Z., Jones J., McDaniel C., Hamm J. 2013. Anatomy of Syndesmotic Cartilage: Where can a syndesmosis screw be placed to avoid damage to the syndesmosis cartilage? 2013 AAOS Annual Meeting, March 19-23 Chicago, IL. Podium 256.

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25. Xie, J, Ma, B., **Shuler F.D.** 2012. Nanofiber Scaffolds Mimicking Structural Organization of Tendon-to-Bone Insertion Site. 2012 AIChE Annual Meeting, Pittsburgh, PA
26. **Shuler, F.D.**, Daigre, J., Pham, D., Kish, VL. 2012. Laser Targeting with C-arm fluoroscopy: Effect on image acquisition and radiation exposure. 29th Annual Meeting of Southern Orthopaedic Association, Greenbrier White Sulphur Springs, WV
27. **Shuler, F.D.**, Wingate M., Moore G.H., Giangarra C. 2012. Sports Health benefits of vitamin D. WVOS Podium, Stonewall Jackson Resort, WV
28. **Shuler, F.D.** and C.M. Bates 2012. Skin temperatures and Plaster Splint Induced Thermal Injury. MUSOM Annual Research Day. Podium Clinical Science.
29. **Shuler, F.D.** and Beimesch C. 2009. Antimicrobial Theory and Use. AAOS Annual Meeting. Instructional Course Lecture #352.
30. **Shuler, F.D.** and Dietz M. 2009. Under Pressure: Physician's Ability to Manually Detect Elevations in Intra-Compartmental Pressures. AAOS Annual Meeting. Paper #177.
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34. Obrebsky, W.T., Kregor, P.J., **Shuler, F.D.**, Tressler, M.T., Vap, A.R., Comrie, F.K. 2006. Bone morphogenic proteins compared to iliac crest bone graft in long bone nonunions. OTA 22nd Annual Meeting. Paper #15.
35. Busam, M, Block, J, **Shuler, F.D.**, 2006. Retrograde femoral nailing: What is the safe zone for proximal interlocking? Podium presentation, Vanderbilt Orthopaedic Society Meeting, May 2006, Hilton Head, SC.

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43. Bosch, P., Musgrave D.S., **Shuler, F.D.**, Evans, C.H., and Huard, J. 1999. Osteoprogenitor cells in skeletal muscle. ORS 45th Annual Meeting, Anaheim, CA. Abst 90.
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46. **Shuler, F.D.** 1998. Adenovirus mediated transfer of TGF β -1 into chondrocytes upregulates production of proteoglycans and collagen. 6th Annual Resident's Research Day.
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51. **Shuler, F.D.** 1988. Development of a Program of Water Analysis for the Bethany College Swimming Pool 1988 Regional ACS Meeting - **First Place Award.**

PUBLISHED ABSTRACTS/POSTER PRESENTATIONS:

1. Pooya Hosseinzadeh MD; Roger E Saldana MD; Susan A Scherl MD; Lindsay Manning Andras MD; Mathew Douglas Schur BA; **Franklin David Shuler MD**; Steven L Frick MD; Megan Mignemi MD; Eric Daniel Fornari MD; Michelle S Caird MD; Anthony Ian Riccio MD; Kristan Pierz MD; Christos Plakas MD; Lawrence M Stankovits MD; Alice Chu MD; Martin Joseph Herman MD. Hoverboard Injuries in Children and Adolescents. 2017 POSNA Annual Meeting
2. Dinsmore TH, Wamer BJ, Mehta SP, **Shuler FD.** 2017. Effectiveness of Home-based Physical Therapy Following Total Knee Replacement Surgery: A Systematic Review and Meta-Analysis of Intervention Studies. MUSOM 29th Annual Research Day. Poster.
3. Modarresi M, Aguilar R, **Shuler FD.** 2017. Increase in Cancer Risk due to Radiation by CT-scans Ordered in Orthopaedic Surgery Department? MUSOM 29th Annual Research Day. Poster.
4. Modarresi M, Aguilar R, **Shuler FD,** Cheung F. 2017. Patient Satisfaction for Orthopaedic Department in Cabell Huntington Hospital. MUSOM 29th Annual Research Day. Poster.
5. Klaus J., Modarresi M., Aguilar R., Sayan A., BenHamed N., **Shuler F.D.** 2016. Analyzing the Pharmacologic Management of Patients After Osteoporotic Hip Fractures. 2016 3rd Annual Patient Safety/Quality Improvement Conference office of GME Marshall University – **FIRST PLACE (Patient Safety Award, Outstanding Student)**
6. Hunter Z., Modarresi M., Aguilar R., Gill T., Lycans D., Reagan J., Cheung F., **Shuler F.D.** (11/29/2016). Patient Satisfaction for Orthopaedic Department in Cabell Huntington Hospital. 2016 3rd Annual Patient Safety/Quality Improvement Conference office of GME Marshall University – **FIRST PLACE (Patient Safety Award, Outstanding Student)**
7. Buchanan GS, Kahn D, Modarresi M, Boe R, Burke H, Czarkowski B, **Shuler FD.** (11/29/2016). Trauma Team Activation for Geriatric Trauma at a Level II Trauma Center: Are the Elderly Under-triaged? 2016 3rd Annual Patient Safety/Quality Improvement Conference office of GME Marshall University WV – **FIRST PLACE (Quality Improvement award, Outstanding Student)**
8. Buchanan GS, Kahn D, Modarresi M, Boe R, Burke H, Czarkowski B, **Shuler FD.** 2016. Trauma Team Activation for Geriatric Trauma at a Level II Trauma Center: Are the Elderly Under-triaged. West Virginia Geriatrics Society 12th Annual Scientific Assembly. Sept 28, 2016 University of Charleston, WV. – **FIRST PLACE AWARD**
9. Raines J, **Shuler FD,** Wehner PS, Becker JB and Gabel-Comeau D. 2016. Joining Forces to Create a Quality & Patient Safety Culture: A GME and Teaching Hospital's Experience in Joint Sponsorship of a Quality and Safety Summit. AAMC 2016 Integrating Quality Meeting: Improving Value through Clinical Transformation, Education and Science. Chicago, June 13-14.
10. Jacob W, Rigney A, Webb K, Mehta SP, Oliashirazi A, **Shuler FD.** 2016. Characterizing Recovery Trajectories in Knee Range of Motion in Patients Following Total Knee Replacement. WV Physical Therapy Association Annual Meeting, April 29-May 1.
11. Sanford Z, Reagan J, Buchanan G, Scott K, Fisher C, **Shuler FD.** 2016. Orthopaedic surgeon density in West Virginia. 2016. MUSOM 28th Research Day. Poster.
12. Buchanan GS, Kahn DS, Fofie F, Boe R, **Shuler FD.** 2016. Geriatric trauma: are the elderly undertriaged? MUSOM 28th Annual Research Day. Poster

13. Ozgur S, Oliashirazi A., Buchanan G., **Shuler FD**. 2016. Intra-operative total knee arthroplasty distraction significantly reduces visible particular debris. MUSOM 28th Annual Research Day. Poster
14. Buchanan GS, Hatch M, Wyatt W, Caughran A, Raducan V, Cirimele J, **Shuler FD**. 2016. Analysis of 660,000 hip fracture patients: Dementia is not an independent risk factor for in-hospital complications or mortality. MUSOM 28th Annual Research Day. Poster.
15. Buchanan GS, Kahn DS, Fofie F, Boe R, **Shuler FD**. 2015. Geriatric Trauma At CHH: Are the Elderly Undertriaged? 2015 Marshall Quality Improvement and Safety Poster Presentation Day. Office of GME/CHH. November 2015 – **Second Place**
16. Ozgur S, **Shuler FD**, Cheung F. 2015. Presentation of the First Uses of the IlluminOss Lighfix Implant in the United States. Musculoskeletal Tumor Society, Poster 346, Abstract 11452 October 6-10, Orlando FL.
17. Oliasharizi A, Danesi H, Wilson-Byrne T, **Shuler FD**, Ding L Jones, JB, Parvizi J. Patient-controlled fentanyl iontophoretic transdermal system (fentanyl ITS) improved post-operative mobility compared to intravenous patient-controlled analgesia (IV PCA) morphine: a pooled analysis of randomized controlled trials (Poster 136). PM&R. 2015;7(Issue 9):S136.
18. **Shuler FD** and Edwards R. 2015. CHH Senior Fracture Program: A Multidisciplinary PS/QI Program 2015 Marshall Quality and Safety Poster Presentation Day. Office of GME/CHH.
19. Kahn D, **Shuler FD**, Qazi Z, Mehta S. 2015 Emerging Role of Vitamin D in Sports Physical Therapy: A Review. Poster Presentation WVCTSI Annual Meeting/ATRN Health Summit Nov. 14th, 2015. Marriott Town Center, Charleston, WV
20. **Shuler FD**, Raines JA, Becker J, Shah D, Thompson E, Wehner PS. 2015. Using the Teaching for Quality (TeQ4) as a Vehicle to Design a CME PS/QI Core Curriculum. AAMC 2015 Integrating Quality Meeting: Improving Value through Clinical Transformation, Education and Science. Chicago, June 11-12.
21. Oliasharizi A., Wilson-Byrne T., **Shuler, F.D.**, Parvizi J, Jones JB. 2015. Patient-controlled Fentanyl Iontophoretic Transdermal System (Fentanyl ITS) Improved Post-operative Mobility Compared to Intravenous Patient-controlled Analgesia (IV PCA) Morphine: A Pooled Analysis of Randomized, Controlled Trials. American Academy of Pain Medicine's 31st Annual Meeting, March 19-22, 2015 in National Harbor, MD. Poster 130.
22. Kahn D, **Shuler FD**, Qazi ZN. 2015. Athletic Performance and Fitness: Emerging Role of Vitamin D. MUSOM 27th Annual Research Day. Poster.
23. Emmer T, **Shuler FD**, Oliasharizi A. 2015. Case Report: Infected Total Knee with Normal Labs at Presentation. MUSOM 27th Annual Research Day. Poster.
24. Meriweather M, Minkemeyer V, **Shuler FD**, Qazi ZN, Mehta S. 2015. Primary Care Fall Risk Assessment of Elderly West Virginians. MUSOM 27th Annual Research Day. Poster.
25. Qazi ZN, Hamm J, Odone R, **Shuler FD**, Cheung F. 2015. Atypical Growth of an Osteochondroma in a 31 year old female. MUSOM 27th Annual Research Day. Poster – **First Place**

26. **Shuler FD**, Patton-Tackett E, Thompson E, Khthir R, Munn N, Mozaffari F, Tirona M, Raines JA. 2014. Designing a Patient Safety/Quality Improvement Curriculum for Graduate Medical Education. 2014 Marshall Quality and Safety Poster Presentation Day. Office of GME/CHH.
27. Salava J, Riley T, Cheung FH, Winters K, **Shuler FD**, and Oliashirazi O. 2014. Constraining Function as a Means of Reducing OR Traffic. 2014 Marshall Quality and Safety Poster Presentation Day. Office of GME/CHH – **Second Place**
28. Qazi, ZN, Caughran A, **Shuler FD**, Sharma A, Oliashirazi A. 2014. How To Manage Knee Arthritis: Best Practices for Treatment Prior to Orthopaedic Referral. 2014 Rural Health Research Day Poster Presentation JCESOM.
29. Melvin TJ, Qazi ZN, **Shuler FD**, Tankersley ZJ, Jasko JJ, Odone R. 2014. Primary Care Management of Plantar Fasciitis. 2014 Rural Health Research Day Poster Presentation JCESOM
30. Meriweather M, Minkemeyer V, **Shuler FD**, Qazi ZN, Mehta S. 2014. Primary Care Fall Risk Assessment of Elderly West Virginians. 2014 Rural Health Research Day Poster Presentation JCESOM.
31. Kahn D, **Shuler FD**, Qazi ZN. 2014. Athletic Training and the Emerging Role of Vitamin D. 2014 Rural Health Research Day Poster Presentation JCESOM.
32. Clarke M, Hamilton C, Bishop C, Qazi ZN, **Shuler FD**, Novotny S. 2014. How I Manage: Wrist Injury. 2014 Rural Health Research Day Poster Presentation JCESOM.
33. Cook SE and **Shuler FD**. 2014. Smartphone mobile application to enhance diagnosis of skin cancer: A guide for rural practitioners. Marshall University College of Health Professions Student Research and Practice Day. April 2014.
34. Cook SE, **Shuler FD**. 2014. Smartphone mobile applications to enhance diagnosis of skin cancer: a guide for the rural practitioner. Abstract accepted for poster presentation at: 11th Annual AAFP Family Medicine Global Health Workshop; San Diego, CA. July 2014.
35. Litchfield, A, Hayes, R, **Shuler, F.D.**, Crockett T, Flesher S. 2014 Type I Diabetes in Children and Vitamin D. MUSOM 26th Annual Research Day. Poster.
36. Halaibeh M, Mohammed Y, Slocum AH, **Shuler, F.D.** 2014 Impact of School-Sponsored Research Day at West Virginia's Allopathic Medical Schools, MUSOM 26th Annual Research Day. Poster.
37. **Shuler, F.D.**, Edwards R, Pelfrey J., and Sexton T. 2014. Vitamin D Community Sampling: Results of 2012 CHH Seniorfest. 34th Annual NAON 2014 Congress, Las Vegas, NV. Poster.
38. Koester AR, Novotny SR, Ranavaya MI, **Shuler, F.D.** and Dickherber JL. 2013. A Literature Review of Risk Factors and Carpal Tunnel Syndrome: Potential Occupational Risk in the Mining Industry in West Virginia. 2013. Summer Research Project Poster Presentation JCESOM.
39. Burner K, Lewis RJ, Wilson-Byrne T, Lycans D, Oliashirazi A, Pewen W, and **Shuler, F.D.** 2013. State of the Nation: Physical Education. 2013. Summer Research Project Poster Presentation JCESOM.
40. **Shuler, F.D.**, Ozgur, S., Hodroge, S., Stauffer MacDowell, C., Lewis, J., and Tee, E. 2013. Bisphenol A (BPA): an integral component of vitamin D deficiency? 2013. Summer Research Project Poster Presentation JCESOM.

41. **Shuler, F.D.**, Oliashirazi A, Cheung F, Riley T, Iliev I, and Shah D. 2013. Teaching the Millennial Student: How well have the Baby Boomer /Generation X teachers adapted in an Academic Orthopaedic Department? 2013 AOA CORD Conference, June 14-15, Denver, CO, Poster 108.
42. Salava J, Riley T, Cheung FH, Winters K, **Shuler, F.D.**, Oliashirazi A. 2013. Constraining Function as a Means of Reducing OR Traffic 2013 AOA CORD Conference, June 14-15, Denver, CO, Poster 192.
43. **Shuler, F.D.**, Daigre, J., Pham, D., Kish, VL. 2013. Laser Targeting with C-arm fluoroscopy: Effect on image acquisition and radiation exposure. 2013 AAOS Annual Meeting, March 19-23 Chicago, IL. Poster P481.
44. Ma B, **Shuler, F.D.**, Xie, J. 2013. Biomimetic Nanofiber Scaffolds for Tendon-to-bone Insertion Repair, MUSOM 25th Annual Research Day. Poster.
45. **Shuler, F.D.**, Ozgur, S., Hodroge, S., Stauffer MacDowell, C., Lewis, J., and Tee, E. 2013. Bisphenol A (BPA): an integral component of vitamin D deficiency?, MUSOM 25th Annual Research Day. Poster.
46. **Shuler, F.D.**, Gill, T., and Lycans, D. 2013. Physical Education and Bone Mass Development. MUSOM 25th Annual Research Day. Poster.
47. **Shuler, F.D.**, Lycans D., Salloum E., Wingate M., Gonzalez E., 2013. Vitamin D Deficiency Correction: "at risk" populations and potential drug interactions. MUSOM 25th Annual Research Day. Poster.
48. Kim, J.D., **Shuler, F.D.**, Mo B., Gibbs S.R., Belmaggio T., Giangarra C.E. 2013. Traumatic Laryngeal Fracture in a Collegiate Basketball Player. MUSOM 25th Annual Research Day. Poster.
49. **Shuler, F.D.**, Emmer T., and Schlierf T. 2013. Quorum Sensing and Quenching. MUSOM 25th Annual Research Day. Poster.
50. **Shuler, F.D.**, Ozgur, S., Hodroge, S., Stauffer MacDowell, C., Lewis, J., and Tee, E. 2013. Bisphenol A (BPA): an integral component of vitamin D deficiency?, MUSOM 25th Annual Research Day. Poster.
51. **Shuler, F.D.** and Hourani D. 2013. Vitamin D and Pediatric Diseases in WV. MUSOM 25th Annual Research Day. Poster.
52. **Shuler, F.D.**, Serrat M., Dickherber J., Fortney T., and Caughran A. 2013. Anatomical evaluation of the retrograde fibular intra-medullary start point. MUSOM 25th Annual Research Day. Poster.
53. **Shuler, F.D.**, Edwards R, Pelfrey J., and Sexton T. 2013. Vitamin D Community Sampling: Results of 2012 CHH Seniorfest. MUSOM 25th Annual Research Day. Poster.
54. **Shuler, F.D.**, Powers M. 2012. CT scan cancer risk stratification. MUSOM Annual Research Day. Poster Clinical Science.
55. **Shuler, F.D.**, Schlierf T. 2012. Vitamin D, Calcium and fall prevention. MUSOM Annual Research Day. Poster Clinical Science.
56. **Shuler, F.D.**, Hendrix J., Hodroge S., Short A., 2012. Antibiotic-like actions of vitamin D. MUSOM Annual Research Day. Poster Clinical Science.

57. **Shuler, F.D.**, Lycans D., Salloum E. 2012. Extraskelatal Effects of Vitamin D and chronic disease impact in WV. MUSOM Annual Research Day. Poster Clinical Science.
58. **Shuler, F.D.**, Woods D., Jones J., McDaniel C., Jasko J., Tankersley Z. 2012. Anatomy of Syndesmotic Cartilage: Where can a syndesmosis screw be placed to avoid damage to the syndesmosis cartilage? MUSOM Annual Research Day. Poster Clinical Science.
59. Aaryanov A, **Shuler, F.D.**, Cross B. 2011. Antibiotic Intramedullary Nails: Minimizing Potential Complications. AOA Annual Meeting, Chicago, IL, Oct 20-23, 2011. – **Third Place Award** – Scientific Poster Research Competition.
60. Hamilton, R, **Shuler, F.D.** 2011 Incorporation of WHO FRAX into current nursing practice. 31st annual NAON Congress, Poster, Baltimore, MD, May 14-18, 2011.
61. Li B, Li HK, **Shuler FD**, Emery SE, Kolanko C, Thomas JG, Brundage K, Barnett JB. *Poster presentation*. Elimination of intracellular *Staphylococcus aureus* with biodegradable antibiotic nanoparticles. Advanced Technology Applications for Combat Casualty Care (ATACCC) 2009 Conference, Aug. 10-12, 2009, St. Pete Beach, FL.
62. Dietz, M.J., Lavender, C.D., Emery, S.E., **Shuler, F.D.**, Clovis, N.B., and Zuberi J.A. 2008. ATV-Related orthopaedic trauma in north central West Virginia: an 8-year review. Poster #62. OTA 24th Annual Meeting.
63. Obremskey, W.T, Driver, R., Jeray, K., Vap, A., **Shuler, F.D.**, Kregor, P.J. 2006. ORIF versus external fixation of distal tibia pilon fractures. Poster #46, OTA 22nd Annual Meeting.
64. Obremskey, W.T, Kregor, P.J., **Shuler, F.D.**, Tressler, M.A., Vap, A.R., and Comrie, F.K. 2006. Bone morphogenic proteins compared to iliac crest bone graft in long bone nonunions. OTA 22nd Annual Meeting. (podium)
65. **Shuler, F.D.** 2005. Skin temperatures following plaster splint application. OTA 21st Annual Meeting. Abst. 140 Basic Science Focus Forum. (podium)
66. **Shuler, F.D.** 2005. Cast saw burns, temperatures generated during cast removal. OTA 21st Annual Meeting. Abst. 141 Basic Science Focus Forum. (podium)
67. Obremskey, W.T, Austin, T., Crosby, C., Driver, R., **Shuler, F.D.**, and Kregor, P.J. 2005. Are orthopaedic implants detectable by airport metal detectors. OTA 21th Annual Meeting. Poster.
68. **Shuler, F.D.**, Busam, M, Block, J. 2004. Retrograde femoral nailing: CT angiography demonstrates no relative safe zone for proximal anteroposterior crosslocking. OTA 20th Annual Meeting. Abst. 78 Basic Science Focus Forum. (podium)
69. **Shuler, F.D.** , Zlotolow, D., and Ziran, B.H.. 2000. Antegrade Femoral Nailing Using a New Percutaneous Technique. 67th Annual AAOS Meeting, Orlando, FL. Poster #437.
70. **Shuler, F.D.**, Shah, M.A , Ziran, B.H., Chamberlin, E., and Gruen, G.S.. 1999. Characteristics of missed lower urological injuries in pelvic fractures. 66th Annual AAOS Meeting, Anaheim, CA. Poster #236.
71. **Shuler, F.D.**, Evans, C.H. 1999. Gene Therapy for Cartilage Repair: Adenovirus mediated production of transforming growth factor beta-1 (TGFβ-1) in chondrocytes upregulates production of proteoglycans and collagen. 66th Annual AAOS Meeting, Anaheim, CA. Poster #320.

72. **Shuler, F.D.**, Miao, Y.J., Kuremsky, MA, Sechriest, V.F., Evans, C.H., Matthew, H.T., Fu, F.H., and Suh, J.K. 1999. Basal and TGF- β 1 stimulation of the metabolic responses in rabbit articular chondrocytes cultured on a GAG-augmented polysaccharide hydrogel membrane. 2nd International Cartilage Repair Society Symposium. Boston, MA.
73. Goto, H., Evans, C.H., **Shuler, F.D.**, Robbins, P.D., Niyibizi, C., and Fu, F.H. 1999. Upregulation of matrix synthesis by meniscal fibrochondrocytes following retroviral transduction of a transforming growth factor-beta 1 cDNA. ORS 45th Annual Meeting, Anaheim, CA. Poster #409.
74. Sechriest, V.F., **Shuler, F.D.**, Miao, Y.J., Niyibizi, C., Evans, C.H., Westerhausen-Larsen, A., Matthew, H.T., Fu, F.H., and Suh, J.K. 1999. GAG-augmented polysaccharide membrane stabilizes differentiated phenotype of primary chondrocytes in monolayer. ORS 45th Annual Meeting, Anaheim, CA. Poster #723.
75. Goto, H., **Shuler, F.D.**, Robbins, P.D., Niyibizi, C., Fu, F.H., and Evans, C.H. 1998. Gene transfer to meniscal lesion: TGF- β 1 gene retrovirally transduced into meniscal fibrochondrocytes upregulated matrix synthesis. International Society of Arthroscopy, Knee Surgery, and Orthopaedic Sports Medicine
76. **Shuler, F.D.** and Evans, M.I. (Spon: J.S. Strobl) 1993. DNase I footprinting of the first intron of the estrogen-inducible chicken very low density apolipoprotein II gene. The 75th Annual Meeting of the Endocrine Society. Abst 631.
77. **Shuler, F.D.** and Evans, M.I. 1992. The use of ligation mediated PCR in determining *in vivo* protein-DNA interactions within the first intron of the chicken very low density apolipoprotein II gene. WVU Research Day. Abst 75.
78. **Shuler, F.D.** and Gallagher, P.E. 1989. The effects of base sequence on chemically-induced DNA damage. The 197th ACS National Meeting. Abst CHED 0046.

Dr. Franklin D. Shuler Endowed Orthopaedic Scholarship -- Established by a grateful patient in 2013 to help pay down medical school debt of a student interested in Orthopaedics

- The recipient of this one-time award shall be a 4th year medical student who has demonstrated an interest in Orthopaedics. The recipient shall be selected by the Department of Orthopaedics and the Scholarship Committee of the Marshall University Joan C. Edwards School of Medicine in cooperation with the Office of Student Financial Assistance.

<i>Year</i>	<i>MSIV Awardee</i>	<i>Residency</i>
2013-14	Thomas Schlierf	Orthopaedics – University of Louisville
2014-15	Alex Slocum Jacob Hamm	Plastic Surgery – Medical College of Wisconsin Radiology – Allegheny General to University of Maryland
2015-16	Thomas Fortney Jason Dickherber	Ortho – Dartmouth-Hitchcock Medical Center Lebanon, NH Ortho – Univ of Chicago
2016-17	Corey Hamilton Cody Stover	Orthopaedic Surgery – Ralmetto Health Richland Columbia SC Orthopaedic Surgery – Mount Carmel Columbus OH