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EDUCATION

2011	**Post-Doc.**	Massachusetts Institute of Technology - Media Lab, Biomechatronics Group, and Department of Veterans Affairs, Providence VA Center for Restorative & Regenerative Medicine
2007	**Ph.D.**	University of Colorado Boulder - Integrative Physiology Department
1998	**B.A.**	University of Colorado Boulder - Kinesiology Department

ACTIVE RESEARCH SUPPORT

2022-25 U.S. Department of Veterans Affairs – Rehabilitation, Research, & Development Service Small Projects in Rehabilitation Research Award I21 RX003861, Role: PI "Use of Wearable Sensors to Assess Prosthetic Alignment in Veterans with Unilateral Transtibial Amputations"

2022-26 U.S. Department of Veterans Affairs – Rehabilitation, Research, & Development Service Merit Review Award 1I01RX003643-01A2, Role: PI "Improving Socket Fit in Female and Male Veterans with Transtibial and Transfemoral Amputation"

COMPLETED RESEARCH SUPPORT

2019-24. U.S. Department of Veterans Affairs – Rehabilitation, Research, & Development Service Merit Review Award I01 RX002943-01A2; Role: PI "Can sensory feedback training improve the biomechanical and metabolic effects of using passive or powered lower limb prostheses during walking for Veterans with transtibial amputations?"

2019-24. U.S. Department of Veterans Affairs – Rehabilitation, Research, & Development Service Merit Review Award I01 RX002941-01A2; Role: PI "How do lower limb prosthetic stiffness and power affect the biomechanics, metabolic costs, and satisfaction of Veterans with transtibial amputations during walking?"

2019-22. U.S. Department of Veterans Affairs – Rehabilitation, Research, & Development Service Small Projects in Rehabilitation Research Award I21 RX003010-01A1**;** Role: PI. "Optimizing Prosthetic and Bicycle Fit for Veterans with Transtibial Amputations"

2017-22. PAC 12 Conference Student Athlete Health; Role: co-I. "Integration of Biomechanics-based Informatics for Prevention of Stress Fractures"

2018-2022. Defense Medical Research and Development Program Defense Health Agency – Clinical Research Intramural Initiative, Military Women's Health Research Award; Role: co-I. "Optimizing Orthotic and Prosthetic Components for Military Women with Limb Salvage or Amputation"

2012-2019. **U.S. Department of Veterans Affairs** – Rehabilitation, Research, & Development Service Career Development Award 2; Role: PI. "Characterizing Ankle Function during Sloped Locomotion for Prosthesis Development"

2016-2019. **U.S. Department of Veterans Affairs** – Rehabilitation, Research, & Development Service Small Projects in Rehabilitation Research Award I21 RX002182; Role: PI. "Development of a Novel Device to Measure Socket Pistoning"

2013-2017. BADER Consortium DoD CDMRP W81XWH-11-2-0222
Bridging Advanced Developments for Exceptional Rehabilitation Department of Defense Congressionally Directed Medical Research Program; Role: PI. "What is the optimal stiffness and height of a running-specific leg prosthesis?"

2017. DOD DHP Small Business Technology Transfer (STTR) Program 16.C
U.S. Department of Defense, Defense Health Program; Role: Co-I. "Passive Pneumatic Prosthetic Ankle with Biomimetic Response"

2011, 2014. VA Capital Funds Allocation
U.S. Department of Veterans Affairs; Role: PI. Funds allocated for the following equipment: Bertec dual-belt inclinable instrumented treadmill, Treadmetrix high-speed inclinable instrumented treadmill, Vicon 10-camera motion analysis system, Noraxon 16 channel electromyography system, ParvoMedics TrueOne 2400 metabolic analysis system, 2 iWalk BiOM powered ankle-foot prostheses, Instron Materials Testing Machine 5982 extra height, and 2 AMTI force platforms.

2009-2011. VARR&D Career Development Award-1 A3962-R
U.S. Department of Veterans Affairs Rehabilitation Research & Development Service
Role: PI. "Effects of Wearing a Powered Ankle-Foot Prosthesis on Amputee Walking"

2006-2009. Alter-G, Inc.
Product Testing; Role: PI. "Effects of Velocity and Weight Support on Ground Reaction Forces and Metabolic Power during Walking" and "Effects of Velocity and Weight Support on Ground Reaction Forces and Metabolic Power during Running"

2005-2007. Tensegrity Prosthetics
NIH SBIR grant awarded to Tensegrity Prosthetics, Inc.
Product Testing; Role: Sub-contract, Co-I. "Biomechanical and Physiological Effects of Walking in Amputees Wearing a Novel Passive Prosthetic Foot"

RESEARCH EXPERIENCE

2024 – Present **Associate Professor**
University of Colorado Boulder – Biomedical Engineering Program

2020 – Present **Associate Professor**
University of Colorado Boulder - Integrative Physiology Department, Applied Biomechanics Lab

2012 – Present **Research Healthcare Scientist**
Department of Veterans Affairs - Denver VA Medical Center

2013 – 2020 **Assistant Professor**
University of Colorado Boulder - Integrative Physiology Department, Applied Biomechanics Lab

2012 – 2013 **Assistant Research Professor**
University of Colorado Boulder - Integrative Physiology Department, Locomotion Lab

2011 – 2012 **Research Specialist, Prosthetics and Orthotics**
Whirlwind Wheelchair International

2009 – 2011 **Research Scientist**
Department of Veterans Affairs - Providence VA Medical Center, Center for Restorative and Regenerative Medicine

2007 – 2011 **Post-Doctoral Fellow**
MIT Media Lab Biomechatronics Group

2002 – 2007 **Graduate Research Assistant**
University of Colorado Boulder - Integrative Physiology Department, Locomotion Lab

1999 – 2000 **Biomechanics Sports Laboratory Research Assistant**
BASiS Sports Laboratory, Boulder, CO

PROFESSIONAL CONSULATANT

2022- **Research Consultant:** United States Olympic Committee (USOC) Paralympic Sled Hockey. Colorado Springs, CO

2018-21 **Expert Witness** in two cases, Leeper vs. International Association of Athletics Federations (IAAF) proceedings for the Court of Arbitration for Sport. *pro bono*

2015- **Research Consultant:** National Collegiate Athletic Association (NCAA) Track and Field Rules Committee. Indianapolis, IN

2013-22 **Research Consultant:** Pediatric Prostheses, Children's Hospital Denver, CO

2012- **Research Consultant:** United States Olympic Committee (USOC) Paralympic Track and Field - Running events for athletes with leg amputations. Chula Vista, CA

HONORS

University of Colorado Boulder Provost's Faculty Achievement Award	2024
2 Keynote Lectures - American College of Sports Medicine Northwest Chapter Conference	2024
Invited to present at TEDxMileHigh	2023
Keynote Lecture - Gait & Clinical Movement Analysis Society conference	2020
Keynote Lecture - American Society of Biomechanics annual meeting	2020
Keynote Lecture - Colorado College	2020
BADER Consortium Research Summit Award	2020
Keynote Lecture - Mid-South Biomechanics Regional American Society of Biomechanics Meeting	2019
Legendary Women of Brainerd Public Schools Honoree	2019
South by Southwest Invited Speaker	2019
Keynote Lecture - University of Colorado Boulder Chancellor's Global Ambassador Meeting	2017
NCAA Track & Field Rules Committee Invited Speaker	2017
Keynote Lecture - Human Movement Variability Conference	2017
Invited to conduct research on Markus Rehm and his use of a prosthesis for the long jump	2016
Level 1 United States Track & Field Certification	2015
NCAA Track & Field Rules Committee Invited Speaker	2015
VA RR&D Career Development Award-2	2012
Invited to present at TEDxBoulder	2012
Keynote Lecture - Orthopedic & Design Technology Conference & Exhibition	2010
VA RR&D Career Development Award-1	2009
Graduate Teaching Certification, University of Colorado Boulder	2007
International Society of Biomechanics Young Investigator Award Semi-Finalist & Travel Award	2005

PUBLICATIONS

1. BJ Needles & **AM Grabowski**. Does Running Speed affect the Performance Improvements Experienced by Elite Distance Runners Wearing Advanced Footwear Technology Spikes? *Journal of Applied Physiology* Nov. 19, 2024 https://doi.org/10.1152/japplphysiol.00610.2024
2. SP Allen, GB Diaz, & **AM Grabowski**. The Effect of Unequal Crank Arm Lengths and Cycling-Specific Prostheses for Recreational Riders with a Transtibial Amputation *Medicine & Science in Sports & Exercise* 56(10):1976-1987, October 2024. DOI: 10.1249/MSS.0000000000003480
3. JR Tacca, ZA Colvin, & **AM Grabowski**. Greater than recommended stiffness and power setting of a stance-phase powered leg prosthesis can improve step-to-step transition work and effective foot length ratio during walking in people with transtibial amputation. *Frontiers in Bioengineering* doi: 10.3389/fbioe.2024.1336520
4. KR Ashcraft & **AM Grabowski**. Effects of prosthetic stiffness and added mass on metabolic power and asymmetry in female runners with a leg amputation *Journal of Applied Physiology* Volume 137; Issue 1; July 2024; Pages 85-98; https://journals.physiology.org/doi/abs/10.1152/japplphysiol.00522.2023
5. BJ Needles & **AM Grabowski**. Letter to the Editor: When Does Technology Become Too Advanced for Track and Field? *Journal of Applied Physiology*
6. CE Hirschmann, JR Montgomery, & **AM Grabowski**. The contribution of lower-limb joint quasi-stiffness to theoretical leg stiffness during level, uphill and downhill running at different speeds. *Royal Society Open Science* https://royalsocietypublishing.org/doi/10.1098/rsos.231133
7. SP Allen & **AM Grabowski**. The spring stiffness profile within a passive, full-leg exoskeleton affects lower-limb joint mechanics while hopping. *Royal Society Open Science* https://royalsocietypublishing.org/doi/pdf/10.1098/rsos.231449
8. JR Tacca, ZA Colvin, & **AM Grabowski**. Low-profile prosthetic foot stiffness category and size, and shoes affect axial and torsional stiffness and hysteresis. *Frontiers in Rehabilitation Sciences* https://doi.org/10.3389/fresc.2024.1290092

9. GB Diaz, RS Alcantara, & **AM Grabowski.** Maximum velocity and leg-specific ground reaction force production change with radius during flat curve sprinting. *Journal of Experimental Biology* jeb.246649. https://doi.org/10.1242/jeb.246649
10. JH Zhang-Lea, JR Tacca, ON Beck, P Taboga, & **AM Grabowski**. Equivalent running leg lengths require prosthetic legs to be longer than biological legs during standing. Scientific reports 13 (1), 7679.
11. Z Colvin, JR Montgomery (née Jeffers) & **AM Grabowsk**i. Effects of powered versus passive-elastic ankle foot prostheses on leg muscle activity during level, uphill, and downhill walking. *Royal Society Open Science* https://doi.org/10.1098/rsos.220651
12. SP Allen, ON Beck, & **AM Grabowski**. Evaluating the "cost of generating force" hypothesis across frequency in human running and hopping. *Journal of Experimental Biology* 2022 Sep 15;225(18):jeb244755. doi: 10.1242/jeb.244755. Epub 2022 Sep 28.
13. JR Tacca, ON Beck, P Taboga, & **AM Grabowski**. Running-specific prosthesis model, stiffness and height affect biomechanics and asymmetry of athletes with unilateral leg amputations across speeds. *Royal Society Open Science* Accepted 4 May 2022 **9**: 211691 https://doi.org/10.1098/rsos.211691
14. KR Ashcraft & **AM Grabowski.** Characterizing the Mechanical Stiffness of Passive-Dynamic Ankle-Foot Orthosis Struts. *Front Rehab Sci*, Published 15 April 2022 https://doi.org/10.3389/fresc.2022.820285
15. RS Alcantara, WB Edwards, G Millet, & **AM Grabowski.** Predicting continuous ground reaction forces from accelerometers during uphill and downhill running: A recurrent neural network solution. *PeerJ* Published Jan. 4, 2022 https://peerj.com/articles/12752
16. ON Beck, P Taboga, & **AM Grabowski**. Sprinting with prosthetic versus biological legs: insight from experimental data. *Royal Society Open Science* Published 2022-1-5 https://dx.doi.org/10.1098/rsos.211799
17. RS Alcantara. EM Day, ME Hahn, & **AM Grabowski**. Sacral acceleration can predict whole-body kinetics and stride kinematics across running speeds. *PeerJ* Published 2021-04-12 DOI 10.7717/peerj.11199
18. EM Day, RS Alcantara, MA McGeehan, **AM Grabowski**, & M Hahn. Low-pass filter cutoff frequency affects sacral-mounted inertial measurement unit estimations of peak vertical ground reaction force and contact time during treadmill running. *Journal of Biomechanics* **119**, 110323 (2021) https://doi.org/10.1016/j.biomech.2021.110323
19. X Hu, NT Pickle, **AM Grabowski**, AK Silverman, SS Blemker. Muscle Eccentric Contractions Increase in Downhill and High-Grade Uphill Walking. *Frontiers in Bioengineering and Biotechnology, section Biomechanics* 14 October 2020 https://doi.org/10.3389/fbioe.2020.573666
20. E Etenzi, R Borzuola, & **AM Grabowski**. Passive-elastic knee-ankle exoskeleton reduces the metabolic cost of walking. *Journal of Neuroengineering and Rehabilitation* **17,** 104, 2020. https://doi.org/10.1186/s12984-020-00719-w
21. RS Alcantara, ON Beck, & **AM Grabowski**. Added lower limb mass does not affect biomechanical asymmetry but increases metabolic power in runners with a unilateral transtibial amputation. *European Journal of Applied Physiology* 2020. https://doi.org/10.1007/s00421-020-04367-9
22. CZ Zai & **AM Grabowski**. The metabolic power required to support body weight and accelerate body mass changes during walking on uphill and downhill slopes. *Journal of Biomechanics* 103, 2020 https://doi.org/10.1016/j.jbiomech.2020.109667
23. P Taboga, EK Drees, ON Beck, & **AM Grabowski**. Prosthetic model, but not stiffness or height, affects maximum running velocity in athletes with unilateral transtibial amputations. *Nature Scientific Reports* 2020 10:1763 https://doi.org/10.1038/s41598-019-56479-8 1; www.nature.com/articles/s41598-019-56479-8
24. LA Davis, SP Allen, LD Hamilton, **AM Grabowski**, & RM Enoka. Differences in postural sway among healthy adults are associated with the ability to perform steady contractions with leg muscles. Experimental Brain Research 2020 https://doi.org/10.1007/s00221-019-05719-4
25. SP Allen & **AM Grabowski**. Hopping with degressive spring stiffness in a full-leg exoskeleton lowers metabolic cost compared with progressive spring stiffness and hopping without assistance. *Journal of Applied Physiology* 2019 127: 520–530 https://doi.org/10.1152/japplphysiol.01003.2018
26. J Funken, S Willwacher, K Heinrich, R Müller, H Hobara, **AM Grabowski**, & W Potthast. Long jumpers with and without a transtibial amputation have different 3D centre of mass and joint take-off step kinematics. *Journal of the Royal Society Open Science* Published: 17 April 2019 6: 190107. http://dx.doi.org/10.1098/rsos.190107
27. H Hobara, S Hashizume, J Funken, S Willwacher, R Müller, **AM Grabowski**, & W Potthast. Vertical stiffness during

one-legged hopping with and without using a running-specific prosthesis. *Journal of Biomechanics* 2019 86: 34-39. https://doi.org/10.1016/j.jbiomech.2019.01.034

28. J Funken, S Willwacher, K Heinrich, R Müller, H Hobara, **AM Grabowski** & W Potthast. Three dimensional take-off step kinetics of long jumpers with and without a transtibial amputation. *Medicine and Science in Sports and Exercise* 2019 Apr 51 (4): 716-725. https://doi.org/10.1249/MSS.0000000000001853
29. ON Beck & **AM Grabowski**. Athletes with Versus Without Leg Amputations: Different Biomechanics, Similar Running Economy. *Exercise and Sport Sciences Reviews* Published online 2019 Jan 47 (1): 15-21. doi: 10.1249/jes.0000000000000174
30. N Kashiri, A Abate, SJ Abram, A Albu-Schaffer, PJ Clary, M Daley, S Faraji, R Furnemont, M Garabini, H Geyer, **AM Grabowski**, J Hurst, J Malzahn, G Mathijssen, D Remy, W Roozing, M Shahbazi, SN Simha, J-B Song, N Smit-Anseeuw, S Stramigioli, B Vanderborght, Y Yesilevskiy, and N Tsagarakis. An Overview on Principles for Energy Efficient Robot Locomotion. *Frontiers in Robotics and AI* 2018 5 (129). DOI=10.3389/frobt.2018.00129 https://www.frontiersin.org/article/10.3389/frobt.2018.00129
31. DF Feeney, RA Capobianco, JR Jeffers, **AM Grabowski,** and RM Enoka. Individuals with sacroiliac joint dysfunction display asymmetrical gait and a depressed synergy between muscles providing sacroiliac joint force closure when walking *Journal of Electromyography and Kinesiology* 2018 Dec; 43:95-103. doi: 10.1016/j.jelekin.2018.09.009. Epub 2018 Sep 22
32. JR Montgomery (Jeffers) & **AM Grabowski**. Use of a Powered Ankle-Foot Prosthesis Reduces the Metabolic Cost of Uphill Walking and Improves Leg Work Symmetry in People with Transtibial Amputations. *Journal of the Royal Society Interface* 2018 Aug;15(145). pii: 20180442. doi: 10.1098/rsif.2018.0442
33. ON Beck, **AM Grabowski** & JD Ortega. Neither total muscle activation nor co-activation explains the youthful walking economy of older runners. *Gait and Posture* 65 (2018) 163-168 https://doi.org/10.1016/j.gaitpost.2018.07.169
34. JR Montgomery (Jeffers) & **AM Grabowski**. The contributions of ankle, knee and hip joint work to individual leg work change during uphill and downhill walking over a range of speeds. *Royal Society Open Science* Published 29 August 2018.DOI: 10.1098/rsos.180550
35. S Kipp, **AM Grabowski**, & R Kram. What determines the metabolic cost of human running across a wide range of velocities? *Journal of Experimental Biology* 2018 : jeb.184218 doi: 10.1242/jeb.184218 Published 31 July 2018
36. ON Beck, EN Azua & **AM Grabowski**. Step time asymmetry increases metabolic energy expenditure during running *European Journal of Applied Physiology* https://doi.org/10.1007/s00421-018-3939-3
37. RA Capobianco, DF. Feeney, JR Jeffers, J Morreale, RM Enoka, & **AM Grabowski**. Patients with sacroiliac joint dysfunction exhibit altered movement strategies when performing a sit-to-stand task. *The Spine Journal* DOI: https://doi.org/10.1016/j.spinee.2018.03.008
38. ON Beck & **AM Grabowski**. The biomechanics of the fastest sprinter with a unilateral transtibial amputation. *Journal of Applied Physiology* 124: 641–645, 2018. doi:10.1152/japplphysiol.00737.2017
39. M Batliner, S Kipp, **AM Grabowski**, R Kram, & W Byrnes. Does metabolic rate increase linearly with running speed in all distance runners? *Sports Medicine International Open* 2017; 2018; 2: E1–E8. https://doi.org/10.1055/s-0043-122068
40. JR Jeffers & **AM Grabowski**. Effects of passive and powered ankle-foot prostheses on leg joint work during sloped walking. *Frontiers in Bioengineering and Biotechnology Front. Robot. AI*, 22 December 2017 https://doi.org/10.3389/frobt.2017.00072.
41. S Willwacher, J Funken, K Heinrich, R Müller, H Hobara, **AM Grabowski,** G-P Brüggemann, & W Potthast. Elite long jumpers with below the knee prostheses approach the board slower, but take-off more effectively than non-amputee athletes. Scientific Reports; 2017; 7: 16058; DOI:10.1038/s41598-017-16383-5
42. NT Pickle, **AM Grabowski**, JR Jeffers, & AK Silverman. The Functional Roles of Muscles, Passive Prostheses and Powered prostheses during Sloped Walking in People with a Transtibial Amputation. *ASME Journal of Biomechanical Engineering* 2017; BIO-17-1217 doi: 10.1115/1.4037938
43. ON Beck, P Taboga, & **AM Grabowski**. How do prosthetic stiffness, height, and running speed affect the biomechanics of athletes with bilateral transtibial amputations? 14: 20170230. Published 28 June 2017. *Journal of the Royal Society Interface* DOI: 10.1098/rsif.2017.0230
44. ON Beck, P Taboga, & **AM Grabowski**. Prosthetic model, but not stiffness or height, affects the metabolic cost of running for athletes with unilateral transtibial amputations. 123 (1): 38-48. Published March 30, 2017. *Journal of*

Applied Physiology DOI: 10.1152/japplphysiol.00896.2016
45. ON Beck, P Taboga, & **AM Grabowski**. Reduced prosthetic stiffness lowers the metabolic cost of running for athletes with bilateral transtibial amputations. *Journal of Applied Physiology*. 122 (4): 976-984. DOI: 10.1152/japplphysiol.00587.2016
46. P Taboga, & **AM Grabowski**. Axial and Torsional Stiffness of Pediatric Prosthetic Feet. *Clinical Biomechanics* 42: 47-54, 2017. http://dx.doi.org/10.1016/j.clinbiomech.2017.01.005
47. ON Beck, P Taboga, & **AM Grabowski**. Characterizing the mechanical properties of running-specific lower-limb prostheses. *PLoS ONE* 11(12): e0168298. doi:10.1371/journal.pone.0168298, 2016.
48. NT Pickle, **AM Grabowski**, AG Auyang, & AK Silverman. The functional roles of muscles during sloped walking. *Journal of Biomechanics* 49: 3244-3251, 2016. http://www.sciencedirect.com/science/article/pii/S002192901630834X
49. P Taboga, R Kram, & **AM Grabowski.** Maximum-speed curve-running biomechanics of sprinters with and without unilateral leg amputations. *Journal of Experimental Biology* 219 851-858, 2016. doi:10.1242/jeb.133488
50. ON Beck, S Kipp, JM Roby, **AM Grabowski**, R Kram, & JD Ortega. Older runners retain youthful running economy despite biomechanical differences. *Medicine & Science in Sports & Exercise* 48(4) 697–704, 2016.
51. JR Jeffers, AG Auyang & **AM Grabowski**. The correlation between metabolic and mechanical power during walking at different velocities and slopes. *Journal of Biomechanics* 48(11) 2919-2924, 2015. http://dx.doi.org/10.1016/j.jbiomech.2015.04.023
52. CJ Arellano, WJ McDermott, R Kram, & **AM Grabowski**. Effect of running speed and leg prostheses on mediolateral foot placement and its variability. *PlosOne* 10(1): e0115637, 2015. DOI:10.1371/journal.pone.0115637
53. AJ Ikeda, **AM Grabowski,** A Lindsley, E Sadeghi-Demneh and KD Reisinger. A scoping literature review of the provision of orthoses and prostheses in resource-limited environments 2000–2010 Part two: Research and outcomes. *Prosthetics and Orthotics International* 38 (5): 343-362, 2014. http://poi.sagepub.com/content/38/5/343.full.pdf+html
54. S D'Andrea, N Wilhelm, AK Silvermann, & **AM Grabowski**. Does Use of a Powered Ankle-foot Prosthesis Restore Whole-body Angular Momentum During Walking at Different Speeds? *Clinical Orthopaedics and Related Research* 472: 3044–305, 2014. http://www.ncbi.nlm.nih.gov/pubmed/24781926
55. P Taboga, **AM Grabowski**, PE diPrampero, & R Kram. Optimal starting block configuration in sprint running; a comparison of biological and prosthetic legs. *Journal of Applied Biomechanics* 30 (3): 381-389, 2014. http://dx.doi.org/10.1123/jab.2013-0113
56. AJ Ikeda, **AM Grabowski,** A Lindsley, E Sadeghi-Demneh and KD Reisinger. A scoping literature review of the provision of orthoses and prostheses in resource-limited environments 2000–2010 Part one: Considerations for success. *Prosthetics and Orthotics International* 38 (4): 269-286, 2014. http://poi.sagepub.com/content/38/4/269.full.pdf+html
57. N Look, CJ Arellano, **AM Grabowski**, WJ McDermott, R Kram, and E Bradley. Dynamic stability of running: The effects of speed and leg amputations on the maximal Lyapunov exponent. *Chaos: An Interdisciplinary Journal of Nonlinear Science* 23 (4) 3131, 2013. http://dx.doi.org/10.1063/1.4837095
58. **AM Grabowski** & S D'Andrea. Effects of a powered ankle-foot prosthesis on kinetic loading of the unaffected leg during level-ground walking. *Journal of NeuroEngineering and Rehabilitation* 10: 49, 2013. http://www.jneuroengrehab.com/content/10/1/49
59. CP McGowan, **AM Grabowski,** WJ McDermott, HM Herr, and R Kram. Leg stiffness of sprinters using running specific prostheses. *Journal of the Royal Society Interface* 9 (73): 1975-1982, 2012. http://rsif.royalsocietypublishing.org/content/9/73/1975
60. HM Herr & **AM Grabowski.** Bionic ankle–foot prosthesis normalizes walking gait for persons with leg amputation. *Proceedings of the Royal Society B* 279: 457-464, 2012. http://royalsocietypublishing.org/content/royprsb/early/2011/07/07/rspb.2011.1194.full.pdf
61. **AM Grabowski.** Metabolic and biomechanical effects of velocity and weight support using a lower body positive pressure device during walking. *Archives of Physical Medicine and Rehabilitation* 91: 951-957, 2010.
62. **AM Grabowski,** J Rifkin, & R Kram. K3 Promoter prosthetic foot reduces the metabolic cost of walking for unilateral transtibial amputees. *Journal of Prosthetics & Orthotics* 22(2): 106-112, 2010.
63. **AM Grabowski,** CP McGowan, WJ McDermott, MT Beale, R Kram, & H Herr. Running-specific prostheses limit ground-force during sprinting. *Biology Letters* 6: 201-204, 2010. http://rsbl.royalsocietypublishing.org/content/6/2/201

64. **AM Grabowski** & H Herr. Leg exoskeleton reduces the metabolic cost of human hopping. *Journal of Applied Physiology* 107: 670-678, 2009. http://jap.physiology.org/content/107/3/670
65. PG Weyand, MW Bundle, CP McGowan, **A Grabowski,** MB Brown, R Kram, & H Herr. The fastest runner on artificial legs: different limbs, similar function? *Journal of Applied Physiology* 107: 903-911, 2009. http://jap.physiology.org/content/107/3/903
66. R Kram, **AM Grabowski,** CP McGowan, MB Brown, & H Herr. Counterpoint: Artificial limbs do not make artificial running speeds possible. *Journal of Applied Physiology* 108: 1012-1014, 2010. http://jap.physiology.org/content/108/4/1012
67. R Kram, **AM Grabowski,** CP McGowan, MB Brown, WJ McDermott, MT Beale, and HM Herr. Last Word on Point: Counterpoint: Artificial limbs do/do not make artificial running speeds possible. *Journal of Applied Physiology* 108: 1020, 2010. http://jap.physiology.org/content/108/4/1020
68. R Kram, **AM Grabowski,** CP McGowan, MB Brown, WJ McDermott, MT Beale, and HM Herr. Rebuttal: Artificial limbs do/do not make artificial running speeds possible. *Journal of Applied Physiology* 108 (4): 1014-15, 2010. http://jap.physiology.org/content/108/4/1014.2
69. **AM Grabowski** & R Kram. Effects of velocity and weight support on ground reaction forces and metabolic power during running. *Journal of Applied Biomechanics* 24: 288-297, 2008. http://journals.humankinetics.com/jab-back-issues/JABVolume24Issue3August/EffectsofVelocityandWeightSupportonGroundReactionForcesandMetabolicPowerDuringRunning
70. **AM Grabowski** & R Kram. Running with horizontal pulling forces; the benefits of towing. *European Journal of Applied Physiology* 104(3): 473-479, 2008.
71. LPJ Teunissen, **A Grabowski,** & R Kram. Effects of independently altering body weight and body mass on the metabolic cost of running. *Journal of Experimental Biology* 210: 4418-4427, 2007. http://jeb.biologists.org/content/210/24/4418.full.pdf+html?sid=2df6dad1-aa55-4edf-99bf-e5d0c2a76659
72. **A Grabowski**, CT Farley, & R Kram. Independent metabolic costs of supporting body weight and accelerating body mass during walking. *Journal of Applied Physiology* 98: 579–583, 2005.

INVITED PRESENTATIONS

- ***University of Colorado Foundation Board of Trustees Distinguished Speaker, Boulder, CO, 2024.***
- ***University of Colorado Boulder Biomedical Engineering Program Seminar, Boulder, CO, 2024.*** "The effects of using leg prostheses on walking, cycling, and running performance"
- ***American College of Sports Medicine Annual Meeting***, ***Boston, MA, 2024***. Invited Symposium "The Physiology, Biomechanics, and Performance Implications of using Running-Specific Leg Prostheses"
- **KEYNOTE.** ***2024 ACSM Northwest Annual Meeting Moscow, ID.*** "Physiology and biomechanics of adaptive athletes using running-specific leg prostheses"
- **KEYNOTE.** ***2024 ACSM Northwest Annual Meeting Moscow, ID.*** "Trails and Tribulations"
- ***TEDxMileHigh Denver, CO 2023.*** "Should the Olympics allow athletes using prostheses to compete?" https://www.youtube.com/watch?v=o7Rzfb8Aw_4
- ***Steadman Philippon Research Institute Injury Prevention Symposium, Vail, CO 2023.*** "Injury & Illness Prevention Among Para-Athletes"
- ***University of Utah Biomedical Engineering Seminar, Salt Lake City, UT 2023.*** "The effects of using running-specific leg prostheses on running and sprinting performance".
- ***Virginia Tech Rehabilitation Engineering Class 2023.*** "How does use of a leg prosthesis effect walking & running performance?"
- ***University of Maryland Department of Kinesiology Lab Meeting 2022.*** "Should athletes using running-specific leg prostheses be allowed to compete in the Olympic Games?"
- ***Rocky Mountain American College of Sports Medicine Fall Lecture Series 2022***. "The Science and Regulation of using Running-Specific Leg Prostheses"
- ***University of Colorado Boulder Department of Integrative Physiology Colloquium 2022.*** "The Science and Regulation of using Running-Specific Leg Prostheses"
- **KEYNOTE.** ***Gait & Clinical Movement Analysis Society conference 2022.*** Invited Keynote speaker, "Should athletes using running-specific leg prostheses be allowed to compete in the Olympic Games?"

- ***The Limb Preservation Foundation Symposium, Golden, CO 2022.*** Invited Speaker and Panelist, "The Future of Prosthetics"
- ***Department of Veterans Affairs Center for Limb Loss and MoBility Research & Development Seminar Series, Seattle, WA 2022***. Invited speaker, "Should athletes with leg amputations be allowed to compete in the Olympic Games?"
- ***University of Washington Biomechanics Seminar, Seattle, WA 2022*.** Invited Speaker, "Can use of passive-elastic exoskeletons or prostheses enhance walking or hopping/running performance?"
- ***University of Virginia Distinguished Seminar Speaker for the Department of Mechanical and Aerospace Engineering 2021.*** Invited speaker, "Should athletes with leg amputations be allowed to compete in the Olympic games?"
- ***Association of Orthopedics and Sports Medicine Student Physical Therapists 2021.*** Invited speaker, "Should Paralympic sprinters using running-specific leg prostheses be allowed to compete in the Olympic games?"
- ***University of Colorado Boulder Miramontes Arts and Sciences Program (MASP) Pre-Health Society Meeting 2021.*** Invited Speaker. "Can use of passive-elastic exoskeletons or prostheses enhance walking, hopping, or running performance?"
- ***Washington State University Kinesiology Seminar 2021.*** Invited speaker, "Should Paralympic sprinters using running-specific leg prostheses be allowed to compete in the Olympic games?"
- ***Colorado State University Health and Exercise Science Department Seminar 2021.*** Invited speaker, "Should Paralympic sprinters using running-specific leg prostheses be allowed to compete in the Olympic games?"
- ***University of Oregon Department of Human Physiology Seminar 2020.*** Invited speaker, "Can use of passive-elastic exoskeletons or prostheses enhance walking (or hopping/running) performance?"
- **KEYNOTE.** ***American Society of Biomechanics 2020.*** Invited to present a keynote, "Can use of passive-elastic exoskeletons or prostheses enhance walking (or hopping/running) performance?"
- **KEYNOTE.** ***Colorado College 2020.*** Invited speaker, "Should Paralympic athletes using running-specific leg prostheses be allowed to compete in Olympic track & field?"
- ***International Society of Biomechanics 2019.*** Invited symposium organizer and speaker, "Exoskeletons and Prostheses" Calgary, Alberta, Canada
- ***University of Colorado Boulder Integrative Physiology Colloquium 2019.*** Promotion Talk, "Physiology and Biomechanics of Walking, Hopping, Running, and Jumping in People with and without a Physical Disability" Boulder, CO.
- ***Boulder Luncheon Optimist Club 2019.*** Invited speaker, "The effects of using running-specific leg prostheses" Boulder, CO.
- ***South by Southwest 2019.*** Invited panelist (1 of 3), "Adaptive Athletics: The Influence of Technology" Austin, TX.
- **KEYNOTE.** ***Mid-South Biomechanics Conference – Regional American Society of Biomechanics Meeting 2019.*** Invited speaker, "Biomechanical and metabolic effects of using leg prostheses for running, sprinting and jumping" Memphis, TN.
- ***University of Delaware Department of Kinesiology and Applied Physiology Seminar Series 2018.*** Invited speaker, "Effects of using RSPs for athletes with transtibial amputations & implications for inclusion in Olympic track & field competition" Newark, DE.
- **KEYNOTE.** ***University of Colorado Boulder Chancellor's Global Ambassador Meeting 2018.*** Invited speaker, highlighting CU's research, "Implications of scientific research on fairness and inclusion for Paralympic and Olympic track and field competition in 2020" Tokyo, Japan.
- ***Boulder Flatiron Rotary Club 2018.*** Invited to speak at a regular meeting on the implications of scientific research on fairness and inclusion for Paralympic and Olympic track and field competition in 2020. Boulder, CO.
- ***American Society of Biomechanics 2018.*** Invited speaker (1 of 2) for the Hay Award symposium. "The biomechanical & performance effects of prostheses on running, sprinting & jumping" https://www.youtube.com/watch?v=chhGCyGTPfI Rochester, MN.
- ***European College of Sport Science Congress 2018.*** Invited speaker (1 of 3) for a symposium, "Do prosthetic legs enhance or hinder running performance?" Dublin, Ireland.

- ***American College of Sports Medicine Annual Meeting 2018.*** Invited speaker (1 of 5) for a symposium, "Optimizing Function and Performance after Lower Limb Amputation" Minneapolis, MN.
- ***Fairview High School Science National Honor Society 2018.*** Invited speaker, "The effects of using running-specific leg prostheses on the performance of athletes with transtibial amputations" Boulder, CO.
- ***International Conference on Intelligent Robots and Systems 2017.*** Invited speaker (1 of 8) for a symposium, "On the Energy Economy of Robotic and Biological Systems" The biomechanical and metabolic effects of using of powered and compliant leg prostheses on performance during human locomotion**.** Vancouver, British Columbia, Canada.
- ***American Orthotic & Prosthetic Association 2017.*** Invited speaker (1 of 8) for a symposium, "Power in Prosthetics" Las Vegas, NV.
- ***NCAA Track and Field Rules Committee 2017.*** Invited speaker, "The effects of using running-specific leg prostheses on the performance of athletes with transtibial amputations" Indianapolis, IN.
- **KEYNOTE.** ***Human Movement Variability Conference 2017.*** Invited speaker, "Effects of Leg Prostheses on Running, Sprinting, and Jumping" Omaha, NE.
- ***American Academy of Orthotists and Prosthetists Annual Meeting 2017.*** Invited speaker, "How do leg prostheses effect the running, sprinting & long jump performance of Paralympic athletes?" Chicago, IL.
- ***USOC Paralympic Ambulatory Sprints and Jumps Coaches Summit 2017.*** Invited speaker, "Do leg prostheses provide an advantage or disadvantage to Paralympic athletes?" Colorado Springs, CO.
- ***Department of Veterans Affairs Eastern Colorado Healthcare System Jewell Clinic Amputee Team Meeting 2017.*** Invited speaker, "The effects of leg prostheses during walking, running, and sprinting" Denver, CO.
- ***University of Colorado Boulder Integrative Physiology Department Colloquium 2016.*** "Effects of leg prostheses on walking, running, sprinting, & jumping" Boulder, CO.
- **KEYNOTE.** ***CU Boulder Research Administrators Breakfast 2016.*** Invited speaker, "Do leg prostheses augment walking, running, sprinting or jumping?" Boulder, CO.
- ***International Press Conference - Markus Rehm about to jump to Rio 2016***. "Biomechanical comparison of the long jump of athletes with and without a below the knee amputation" Cologne, Germany. 1 of 3 researchers and the only US researcher invited to contribute.
- ***Northern Arizona University Biology Department Seminar 2016.*** Invited speaker, "Can leg prostheses augment walking & running performance?" https://twitter.com/cbi_nau/status/702989123976495106 Flagstaff, AZ.
- ***International Research Forum on Biomechanics of Running-Specific Prostheses 2016.*** "Effects of running-specific leg prostheses on performance" Tokyo, Japan. 1 of 3 researchers invited from the US.
- ***Naval Medical Center San Diego 2015.*** Invited speaker, "Can leg prostheses restore function during running and/or sprinting?" San Diego, CA
- ***University of Colorado Boulder Integrative Physiology Department Colloquium 2015.*** "The effects of using leg prostheses during walking & running – Can we augment performance?" Boulder, CO.
- ***American Society of Biomechanics Symposium 2015.*** Invited symposium organizer and speaker, "Wearable active and passive leg prostheses; Can we augment performance in people with an amputation?" Columbus, OH.
- ***American Society of Biomechanics Symposium 2015.*** Invited symposium organizer and speaker, "Tips for first time biomechanics teachers"
- ***Dynamic Walking 2015.*** Invited speaker, "Use of prostheses for running and sprinting" Columbus, OH.
- ***NCAA Track and Field Rules Committee 2015.*** Invited speaker, "The effects of using running-specific leg prostheses" Indianapolis, IN.
- ***Department of Veterans Affairs Eastern Colorado Healthcare System Jewell Clinic Amputee Team Meeting 2015.*** Invited speaker, "The effects of leg prostheses during walking, running, and sprinting" Denver, CO.
- ***Department of Veterans Affairs Eastern Colorado Healthcare System Research Days 2015.*** Invited speaker, "Optimizing lower leg prosthetic stiffness and height for running; can we augment performance?" Denver, CO.
- ***University of Colorado Boulder Neuroscience Club 2015.*** Invited speaker, "Can leg prostheses augment walking & running performance?" Boulder, CO.
- ***VA Eastern Colorado Healthcare System Directors All Staff Meeting 2014.*** Denver, CO. Invited speaker, "The effects of using leg prostheses during walking and running"

- ***World Congress* of Biomechanics 2014 – American Society of Biomechanics Symposium: metabolic energy use in movement: basic principles to human health.** Invited speaker, "The metabolic effects of using leg prostheses during walking and running" Boston, MA.
- ***University of CO Boulder College of Arts and Sciences Advisory Council 2014.*** Invited speaker, "Novel Assistive Devices for Human Locomotion" Boulder, CO.
- ***Department of Veterans Affairs Eastern Colorado Healthcare System Research Days 2013.*** Invited speaker, "The biomechanical effects of running-specific prostheses" Denver, CO.
- ***Department of Veterans Affairs Amputation System of Care Online Education Seminar 2013.*** Invited speaker, "Ankles: the case for power" Denver, CO.
- ***American Academy of Orthotists and Prosthetists 2013.*** Invited speaker, "Bionic ankle-foot prosthesis for human locomotion" Orlando, FL.
- **TEDx *Boulder 2012.*** Invited speaker, "Put yourself in someone else's legs" Boulder, CO. http://www.youtube.com/watch?v=XiLLZKp0ReA
- ***Denver VA Research in Progress Meeting 2012.*** Invited speaker, "Novel leg prostheses for human locomotion" Denver, CO.
- ***University of Colorado Boulder Integrative Physiology Department Colloquium 2012.*** "Leg prostheses and exoskeletons: Novel assistive devices for human locomotion" Boulder, CO.
- ***University of CO Denver School of Medicine, Physical Medicine & Rehabilitation Department 2011.*** Invited speaker, "State-of-the-art leg prostheses" Denver, CO.
- **KEYNOTE.** ***Orthopedic & Design Technology Conference & Exhibition 2010.*** Invited speaker, "Biomechanics & the orthopedics industry" Fort Wayne, IN.
- ***Center of Biomedical Research Excellence & Orthopaedic Research Seminar 2010.*** Invited speaker, "Powered prosthesis normalizes walking for leg amputees" Providence, RI.
- ***Center for Restorative & Regenerative Medicine Seminar, Providence VA Medical Center 2010.*** Invited speaker, "Powered prosthesis normalizes walking for leg amputees" Providence, RI.
- ***Dynamic Walking 2010.*** Invited speaker, "Can external springs augment human locomotion?" Boston, MA.
- ***American College of Sports Medicine Annual Meeting 2010.*** Invited speaker, "The biomechanics & physiology of running with spring-like legs" Baltimore, MD.
- ***Massachusetts Society for Medical Research 2010.*** Invited speaker, "Biomechanics & prostheses… Is the bionic human in our future?" Boston, MA.
- ***Brown University Anthropology Department 2009.*** Invited speaker, "Biomechanics & energetics of Oscar Pistorius: A case study" Providence, RI.
- ***Center for Restorative & Regenerative Medicine Seminar, Providence VA Medical Center 2009.*** Invited speaker, "Biomechanical & energetic effects of walking and running prostheses" Providence, RI.
- ***University of Massachusetts Amherst Kinesiology Department 2008.*** Invited speaker, "Effects of a springy leg exoskeleton on human hopping performance" Amherst, MA.
- ***North American Congress* on Biomechanics 2008.** Invited speaker (1 of 7), "Running energetics & biomechanics of Oscar Pistorius: A case study (symposium)" Ann Arbor, MI, USA.

TEACHING EXPERIENCE

2011-Present	**Biomechanics** *University of Colorado Boulder - Integrative Physiology Department*
2018	**Locomotion Energetics Graduate Seminar** *University of Colorado Boulder - Integrative Physiology Department*
2004-2007	**Graduate Teaching Assistant** *University of Colorado Boulder - Howard Hughes Medical Institute* Biological Sciences Initiative Science Squad
2005-2007	**Lead Graduate Teacher** *University of Colorado Boulder - Graduate School & Integrative Physiology Department* Graduate Teacher Program
2005-2007	**Academic Tutor** *University of Colorado Boulder* Athletics Department and Student Academic Service Center
2007	**Graduate Teacher Certification** *University of Colorado Boulder - Graduate School*

2003-2004 **Graduate Teaching Assistant** *University of Colorado Boulder - Integrative Physiology Department*
Courses: Intro to Kinesiology - Spring 2003; Biomechanics - Spring 2003, Fall 2003 (Lead TA), Spring 2004 (Lead TA)

PROFESSIONAL SERVICE

Review Editor: *Frontiers in Bioengineering and Biotechnology - Biomechanics*
Associate Editor: *Journal of Applied Physiology*
Ad Hoc Reviewer: *Acta Astronautica*, *Adaptive Physical Activity Quarterly, Archives of Physical Medicine and Rehabilitation, ASME Journal of Medical Devices, Clinical Orthopaedics and Related Research, European Journal of Applied Physiology, European Journal of Sport Science, Frontiers, Gait & Posture, Human Movement Science, Integrative and Comparative Biology, International Journal of Sports Physiology and Performance, Journal of Applied Biomechanics, Journal of Applied Physiology, Journal of Biomechanics, Journal of Experimental Biology, Journal of Mechanical Engineering Science, Journal of NeuroEngineering and Rehabilitation, Journal of Neurophysiology, Journal of Prosthetics and Orthotics, Journal of Sports Sciences, Journal of Theoretical Biology, Medicine & Science in Sports & Exercise, Nature Scientific Reports, PLoS ONE, Prosthetics and Orthotics International, SpringerPlus.*

POPULAR MEDIA ACCOUNTS OF RESEARCH FINDINGS

2024 **Big 12 Commercial** "CU Boulder - Be More" 60-Second Commercial; 30-Second Commercial
VoyageDenver "Rising Stars: Meet Alena Grabowski" https://voyagedenver.com/interview/rising-stars-meet alena-grabowski-of-university-of-colorado-boulder/
Boulder Daily Camera "Team USA sled hockey team partners with CU Boulder" https://www.dailycamera.com/2024/06/03/team-usa-sled-hockey-team-partners-with-cu-boulder/
CU Boulder Today "The science of sled hockey: Team USA partners with CU Boulder physiologists" https://www.colorado.edu/today/2024/05/02/science-sled-hockey-team-usa-partners-cu-boulder-physiologists

2023 **Trail Runner** "The Science of Trail Running Biomechanics" https://www.trailrunnermag.com/training/the-science-of-trail-running-biomechanics/
Runner's World "New Study Shows Blade Runners Do Not Have a Competitive Advantage" https://www.runnersworld.com/news/a44521586/blade-runners-do-not-have-competitive-advantage/

2022 **Vox Creative** "The anatomy of running – How running showcases the power of the human body" https://www.vox.com/ad/23075173/runner-body-type-muscle-groups
CBS Denver "CU Study: 'Blade Runner' Prosthesis Gives Amputee Sprinters No Clear Advantage Over Non-Amputee Runners" https://denver.cbslocal.com/2022/01/07/cu-boulder-study-blade-runner-prosthesis-amputee-sprinters-blake-leeper-oscar-pistorius-runners-advantage/
Sunday Times "Study finds amputee athletes have no advantage over able-bodied sprinters" https://www.timeslive.co.za/sunday-times/sport/2022-01-09-study-finds-amputee-athletes-have-no-advantage-over-able-bodied-sprinters/
CU Boulder Today "World's fastest blade runner gets no competitive advantage from prostheses, study shows" https://www.colorado.edu/today/2022/01/05/worlds-fastest-blade-runner-gets-no-competitive-advantage-prostheses-study-shows

2021 **BBC news Mundo** "¿Por qué dicen que este atleta es "muy alto" para correr en los Olímpicos?" https://www.bbc.com/mundo/deportes-58412390
BBC news "Why was this athlete 'too tall' to race?" https://www.bbc.com/news/av/disability-58398949
The Wall Street Journal "A Level Playing Field for Transgender Athletes - To balance fairness and inclusion in elite sports, Olympic officials can look to the precedents they set when they assessed the advantages of prosthetic limbs" https://www.wsj.com/articles/a-level-playing-field-for-transgender-athletes-11628183000
O&P Almanac "Competitive Spirit – Colorado researcher's findings influence the world of organized sports" https://issuu.com/americanoandp/docs/opa0421_issuu

2020 **Runner's World** "Blake Leeper Challenges the CAS Ruling—the Next Move in His Fight for the Olympics" https://www.runnersworld.com/runners-stories/a34822948/blake-leeper-challenges-cas-ruling-mash-rule-racially-discriminatory/

Koop Cast Ultra Training Banter "Prosthetics and Performance with Alena Grabowski, PhD" https://link.chtbl.com/KoopCast
Triathlete "The Science and Controversy of Running Blade Prosthetics" https://www.triathlete.com/culture/the-science-and-controversy-of-running-blade-prosthetics/
The National Law Review "CAS Dismisses Double Amputee's Appeal in Fight to Compete at the Olympics" https://www.natlawreview.com/article/cas-dismisses-double-amputee-s-appeal-fight-to-compete-olympics
Runner's World "Amputee Blake Leeper Appealing the Decision That Ruled Him Ineligible for the Olympics" https://www.runnersworld.com/news/a31225150/blake-leeper-amputee-files-appeal-world-athletics/
Washington Post "Double amputee Blake Leeper files appeal to be eligible for Tokyo Olympics" https://www.washingtonpost.com/sports/2020/02/27/double-amputee-blake-leeper-filing-appeal-be-eligible-tokyo-olympics/
Science Daily "For 'blade runners' taller doesn't necessarily mean faster; Rule limiting height for Paralympic sprinters is baseless" https://www.sciencedaily.com/releases/2020/02/200220182745.htm
Süddeutsche Zeitung GmbH "Ein Sprinter ohne Unterschenkel kämpft um Olympia" https://www.sueddeutsche.de/sport/blake-leeper-olympia-prothese-sprinter-1.4752614
Arkansas Democrat Gazette, Little Rock, AR "UA runner appears on 'Ellen', receives gift for Paralympics bid" https://www.arkansasonline.com/news/2020/jan/28/ua-runner-appears-ellen-receives-gift-aimed-helpin/
WQAD 8 Moline, IL "YOUR HEALTH: Are Bladerunners being held back?" https://wqad.com/2020/01/08/your-health-are-bladerunners-being-held-back/

2019 **ABC 30 KFSN-TV Fresno, CA** "New generation of prosthetics helping runners break records" https://abc30.com/health/new-generation-of-prosthetics-helping-runners-break-records/5781188/
NBC WMZ 5 Memphis, TN "Best Life: Future of prosthetic limbs, blade running" https://www.wmcactionnews5.com/2019/11/29/best-life-future-prosthetic-limbs-blade-running/
WFMZ-TV 69 News Allentown, PA. "Health beat: Blade Runners: Future of prosthetics" https://www.wfmz.com/health/health-beat/health-beat-blade-runners-future-of-prosthetics/article_2a5bf86a-17a0-11ea-9e80-efc5ce939855.html
NBC WNDU South Bend, IN. "Blade Runners. The future of prosthetics" https://www.wndu.com/content/news/Blade-runners-The-future-of-prosthetics-565439842.html
NBC Dallas Fort Worth "How Science is Helping Amputees Sprint Onto the World Stage" https://www.nbcdfw.com/news/health/How-Science-is-Helping-Amputees-Sprint-Onto-the-World-Stage-564577741.html
Biomechanics On Our Minds Podcast "Competition for All People" https://soundcloud.com/biomechanics-on-our-minds/episode-21?fbclid=IwAR1nbGRr4V6pk06yT5ehGrqdcf1yL8xLoH5fpL1O3vLKHgoFhr0yvyN62Eg
Brainwaves podcast "Cheating in Sports" https://www.colorado.edu/today/brainwaves
Women's Running "She's Blazing a Trail For Other Amputees" https://www.womensrunning.com/2019/06/get-inspired/shes-blazing-a-trail-for-other-amputees_102592

2018 **Outside Magazine** "This Prosthetics Research Could be Game-Changing" June 21, 2019. https://www.outsideonline.com/2345696/how-scientist-fighting-adaptive-athletes
Denver Channel 7 "Can amputee sprinter compete against able-bodied runners? CU Boulder helping amputee sprinter achieve dreams" https://www.thedenverchannel.com/news/local-news/can-colorado-amputee-sprinter-compete-against-able-bodied-runners-
Pac-12 Conference TV Commercial, 'The Dynamics of Change' https://www.ispot.tv/ad/dDdD/pac-12-conference-the-dynamics-of-change
Runners World "Blake Leeper Wants to Run in the Olympics—but First Must Prove His Prosthetics Aren't an Advantage" https://www.runnersworld.com/news/a23133365/blake-leeper-running-blades-data/
Channel 9 News "CU Boulder research could help double amputee Olympic hopeful get into 2020 Tokyo Games" Sept.13, 2018**.** https://www.9news.com/article/news/cu-boulder-research-could-help-double-amputee-olympic-hopeful-get-into-2020-tokyo-games/73-594097570
Colorado Public Radio "Blake Leeper Wants To Be The World's Fastest Carbon Fiber Blade Runner" Sept. 10, 2018. https://www.cpr.org/news/story/blake-leeper-wants-to-be-the-world-s-fastest-carbon-fiber-blade-runner
University of Colorado Boulder "Leep of faith: CU scientists testing world's fastest blade runner" Aug. 24, 2018

https://www.colorado.edu/today/2018/08/24/leep-faith-cu-scientists-testing-worlds-fastest-blade-runner
University of Colorado Boulder Coloradan Alumni Magazine "Blade Runners" June 1, 2018.
https://www.colorado.edu/coloradan/2018/06/01/blade-runners

2017 **Lower Extremity Review** "Knee OA in amputees: Biomechanical and technological considerations"
http://lermagazine.com/cover_story/knee-oa-in-amputees-biomechanical-and-technological-considerations
The Scientist "A Prosthetic Advantage? Scientists are analyzing how factors such as the length and stiffness of artificial limbs affect performance in athletes with amputations." Sept. 2017. http://www.the-scientist.com/?articles.view/articleNo/50145/title/A-Prosthetic-Advantage-/
The Human Machine: Episode 6: Building a Faster, Stronger Human "Who are the prosthetics and exoskeletons of the future for? Oct. 2017. https://howwegettonext.com/building-a-faster-stronger-human-d660220eb6ae

2016 **Vocativ** "Tech Doping: How Paralympic Sprinters Game The System" Sept. 2016.
http://www.vocativ.com/354886/tech-doping-how-paralympic-sprinters-game-the-system/
Washington Post "In an era of doping and blade running, what is a 'natural' athlete, anyway?" Aug 2016.
https://www.washingtonpost.com/national/health-science/in-an-era-of-doping-and-blade-running-what-is-a-natural-athlete-anyway/2016/08/01/a675e3e2-42b6-11e6-88d0-6adee48be8bc_story.html
Scientific American "Blade Runners: Do High-Tech Prostheses Give Runners an Unfair Advantage?" Aug 2016.
http://www.scientificamerican.com/article/blade-runners-do-high-tech-prostheses-give-runners-an-unfair-advantage/
University of Colorado Boulder Admissions "Be Impactful. Marrying the Artificial and the Organic." April 2016.
http://www.colorado.edu/admissions/alena-grabowski
Science Daily "Paralympic track sprinters are slowed by curves" March 2016.
https://www.sciencedaily.com/releases/2016/03/160316215133.htm

2015 **University of Colorado Boulder Research and Creative Work** "Off and running" Oct. 2015.
http://www.colorado.edu/vcr/sites/default/files/attached-files/2015%20Research%20Magazine.pdf
University of Colorado Boulder Admissions "Be Boulder with US" Oct. 2015.
http://www.colorado.edu/sites/default/files/attached-files/travel.1516.toprint.lores_.rev1_.pdf
University of Colorado Boulder Science Discovery "Motion, Movement and Biomechanics" Oct. 2015.
http://sciencediscovery.colorado.edu/wp-content/uploads/2011/12/2015-16-Catalog.pdf
NCAA "Athlete with prosthetic running device allowed to compete next season; Committee based decision on data gathered by an expert on the subject" June 2015. http://www.ncaa.org/about/resources/media-center/news/athlete-prosthetic-running-device-allowed-compete-next-season
Channel 7 News "CU-Boulder lab pushes athletes and their prosthetics to be stronger and go faster" June 2015.
http://www.thedenverchannel.com/news/front-range/boulder/cu-boulder-lab-pushes-athletes-and-their-prosthetics-to-be-stronger-and-go-faster
The Boulder Daily Camera "CU-Boulder professor Alena Grabowski helps runners go faster" April 2015.
http://www.dailycamera.com/cu-news/ci_27940125/cu-boulder-professor-alena-grabowski-helps-runners-go

2014 **CCTV America** "Helping amputees: New technologies in prosthetics" Sept. 2014.
http://english.cntv.cn/2014/09/10/VIDE1410327122383600.shtml
The Boulder Daily Camera "CU-Boulder prosthetics research featured in national VA campaign" May 2014.
http://www.dailycamera.com/cu-news/ci_25798636/cu-boulder-prosthetics-research-feature-national-va-campaign

2013 **Physics Today** "Capturing the chaos of running" Dec. 2013.
http://scitation.aip.org/content/aip/magazine/physicstoday/news/10.1063/PT.5.7029
KUNC "Technology For Life: Hydraulic Foot Prosthetic Makes Walking Easier" May 2013.
http://kunc.org/post/technology-life-hydraulic-foot-prosthetic-makes-walking-easier

2012 **NPR: Weekend Edition Sunday** "Runner with artificial legs sprints past barrier" Aug. 2012.
http://www.npr.org/2012/08/05/158156537/runner-with-artificial-legs-sprints-past-barrier
The Telegraph "Paralympians could soon go higher, stronger – and faster" Aug. 2012.
http://www.telegraph.co.uk/comment/9502589/Paralympians-could-soon-go-higher-stronger-and-faster.html
NPR: All Things Considered "Studying Oscar Pistorius: does the 'blade runner' have an advantage?" July 2012.http://www.npr.org/blogs/thetorch/2012/07/30/157612003/studying-oscar-pistorius-does-the-blade-

runner-have-an-advantage-video
The Brian Lehrer Show "Prosthetics at the Olympics" July 2012. http://www.wnyc.org/shows/bl/2012/jul/17/prosthetics-olympics/
Denver Post "CU-Boulder researchers help Oscar Pistorius become first amputee to compete in Olympics" July 2012. http://www.denverpost.com/breakingnews/ci_21056327/cu-boulder-researchers-help-oscar-pistorius-become-first
KUNC "CU Scientists Help Prove 'Blade Runner' Should Compete" July 2012. http://www.kunc.org/post/cu-scientists-help-prove-blade-runner-should-compete
University of Colorado "CU research helped propel amputee-sprinter Oscar Pistorius to Olympics" July 2012.http://www.colorado.edu/news/releases/2012/07/10/cu-research-helped-propel-amputee-sprinter-oscar-pistorius-olympics

2011 **MSNBC** "Actuated ankles make fake feet fitter" July 2011. http://cosmiclog.msnbc.msn.com/_news/2011/07/12/7069738-actuated-ankles-make-fake-feet-fitter

2010 **O&P Business News** "Pistorius Limited by Prostheses, Study Says" Spring 2010 and "Study Sparks Debate Over Disabled or Too-Abled" Jan. 2010. http://www.oandpbiznews.com/201002spring/6.asp http://www.oandpbiznews.com/201001/7.asp

2009 **New York Times** "Are High-Tech Prostheses Fair?" Nov. 2009. http://ethicist.blogs.nytimes.com/2009/11/10/are-high-tech-prostheses-fair/
Discover Magazine "Prosthetic Legs Aren't Better Than the Real Thing… Yet" Nov. 2009. http://blogs.discovermagazine.com/80beats/2009/11/09/prosthetic-legs-arent-better-than-the-real-thing-yet/
The Boston Globe "MIT Media Lab unveils study on amputee runners" Nov. 2009. http://www.boston.com/business/ticker/2009/11/mit_media_lab_u.html

2008 **Science Daily** "Study Revives Olympic Prospects for Amputee Sprinter" May 2008. http://www.sciencedaily.com/releases/2008/05/080516103833.htm
Rocky Mountain News "Pressurized Treadmill Eases Impact on Joints" Aug. 2008. http://www.rockymountainnews.com/news/2008/aug/01/pressurized-treadmill-eases-impact-joints/