Allison Anderson, Ph.D.
Assistant Professor, Smead Department of Aerospace Engineering Sciences
Assistant Professor Adjunct, Department of Integrative Physiology
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University of Colorado – Boulder Updated Jan. 2019

Research Interests

Human spaceflight, human exploration, extreme environment physiology, aerospace biomedical engineering, spacesuit design, spaceflight associated neuro-ocular syndrome, behavioral health in isolated confined environments, alternative reality technologies, audiology and cochlear function, wearable sensor systems.

Education

Ph.D., Aerospace Biomedical Engineering, Massachusetts Institute of Technology, June 2014
Thesis: *Understanding Human-Space Suit Interaction to Prevent Injury During Extravehicular Activity*
Advisor: Prof. Dava Newman
M.S., Aerospace Engineering, Massachusetts Institute of Technology, February 2011
M.S., Technology Policy Program, Massachusetts Institute of Technology, February 2011
Thesis: *Addressing Design Challenges in Mechanical Counterpressure Spacesuit Design and Space-Inspired Informal Education Policy*
Advisor: Prof. Dava Newman
B.S., Astronautics Engineering, University of Southern California, December 2007
Minor: Astronomy

Professional Experience

2018 - Present, Assistant Professor Adjunct, Department of Integrative Physiology, University of Colorado – Boulder
2017 - Present, Assistant Professor, Smead Department of Aerospace Engineering Sciences, University of Colorado – Boulder
2015 - 2016, Visiting Assistant Professor, Smead Department of Aerospace Engineering Sciences, University of Colorado - Boulder
2014 - 2016, NSBRI First Award Postdoctoral Research Fellow, Dartmouth College Geisel School of Medicine
2008 - 2014, Research Affiliate, Man Vehicle Laboratory, Massachusetts Institute of Technology
2007 – 2008 Systems Engineer and Research Consultant; Information Sciences Institute, Marina Del Rey, CA

Research and Professional Internships

2013, 2009 (Summer) Technology Development Intern; Dainese Research and Design, Morostica, Italy
2012 (Summer) Research Intern, Advanced Spacesuit Lab; Johnson Space Center, Houston TX
2011 (Summer) Space Studies Program, International Space University, Graduate
2010 (Summer) ExplorationWorks Museum of Science and Culture, Helena MT
2006-2004 Research Assistant; Combustion Physics Laboratory, Department of Mechanical Engineering, USC; Mentor: Dr. Paul Ronney
2006 (Summer) Northrop Grumman – Electronic Systems, Azusa, CA, Intern
2005, 2006 (Summer) Central Intelligence Agency, Washington DC, Intelligence Analyst Intern

Peer Reviewed Journal Publications

1. Masterova, K., **Anderson, A.,** Cowan, D., Fellows, A., Buckey, J., "Portable Autorefractors for Detecting Axial Length Changes in Space." Aerospace Medicine and Human Performance. 2018 Aug 1;89(8):724-730. doi: 10.3357/AMHP.5049.2018.
2. Buckey, J., Phillips, S., **Anderson A.,** Chepko, A., Archambault-Leger, V., Gui, J., Fellows, A. "Microgravity-Induced Ocular Changes are Related to Body Weight" American Journal of Physiology-Regulatory, Integrative, and Comparative Physiology. 2018 May 16. doi: 10.1152/ajpregu.00086.2018.
3. **Anderson, A.**, Butterfield, J., Subramanian, P., Clark, T. "Intraocular Pressure and Cardiovascular Alterations Investigated in Artificial Gravity as a Countermeasure to Spaceflight Associated Neuro-ocular Syndrome". Journal of Applied Physiology (1085). 10 May 2018
4. **Anderson, A.,** Mayer, M., Fellows, A., Cowan, D., Hegel, M., Buckey, J. "Relaxation with Immersive Natural Scenes Presented Using Virtual Reality" Aerospace Medicine and Human Performance 1:88(6): 520-526, June 2017. DOI: 10.3357/AMHP.4747.2017
5. C. Rieke, O. Clavier, L. Allen, **A. Anderson**, C. Brooks, A. Fellows, D. Brungart, J. Buckey. "Fixed-Level Frequency Threshold Testing for Ototoxicity Monitoring" Ear and Hearing, Mar 30, 2017. DOI: 10.1097/AUD.0000000000000433. (Nominated for *Best Paper*)
6. **Anderson, A.,** Babu, G., Swan, J., Phillips, S., Knaus, D., Toutain-Kidd, C., Zegans, M., Fellows, A., Gui, J., Buckey, J. "Ocular Changes Over 60 Minutes in Supine and Prone Postures" Journal of Applied Physiology (1985). May 2017. DOI: 10.1152.japplphysiol.00687.2016
7. **Anderson, A.,** Fellows, A., Binsted, K., Hegel, M., Buckey, J., "Autonomous, Computer-Based Behavioral Health Countermeasure Evaluation At HI-SEAS Mars Analog" Aerospace Medicine and Human Performance 2016; 87(11):912-920.
8. **Anderson, A.,** Swan J., Phillips, S., Knaus, D., Kattamis, N., Toutain-Kidd, C., Zegans, M., Fellows, A., Buckey, J., "Acute effects of changes to the gravitational vector on the eye" Journal of Applied Physiology, 120 (8) (April 15, 2016): 939-946
9. **Anderson, A**., Menguc, Y., Wood, R., Newman, D., "Development of the Polipo Pressure Sensing System for Dynamic Space-Suited Motion" IEEE Sensors Journal 15 (11): 6229-6237. November 2015
10. **Anderson, A**., Newman, D., Welch, R., "Statistical Evaluation of Causal Factors Associated with Astronaut Shoulder Injury in Space Suits" Aerospace Medicine and Human Performance 86 (7): 606-613. June 2015
11. **Anderson, A.,** Newman, D., "Pressure Sensing for In-Suit Measurement of Space Suited Biomechanics" Acta Astronautica 115. May 2015

Peer Reviewed Conference Publications

1. Huerta, R., Kerr, E., **Anderson, A.** "Mechanical Counterpressure and Gas-Pressurized Fusion Spacesuit Concept to Enable Martian Planetary Exploration". International Conference on Environmental Systems, Albuquerque, NM, July 2018.
2. Shen, Y., Boppana, A., Arquilla, A., **Anderson, A.** "Wearable Sensor Suit System for Quantifying Human-Spacesuit Interactions." IEEE Aerospace Conference, Big Sky MT, March 2018.
3. Buckey, J., Phillips, S., **Anderson, A**., Chepko, A., Archambault-Legere, V., Masterova, K., Fellows, A., Cowan, D. "The Importance of Tissue Weight and Tissue Compressive Forces in Human Spaceflight" 68th International Astronautical Congress, International Astronautical Federation. Adelaide, Australia. 25-29 September, 2017.
4. **Anderson, A.,** Newman, D., "Pressure Characterization Between the Upper Body and Space Suit During Mission-Realistic Movements" IEEE Aerospace Conference, Big Sky MT, March 2015.

5. **Anderson A.,** Hilbert A., Bertrand P., Newman D., In-Suit Sensor System for Characterizing Human-Space Suit Interaction, International Conference on Environmental Systems, Tucson, AZ, July 2014.
6. Bertrand P., **Anderson A.,** Hilbert A., Newman D., Feasibility of Spacesuit Kinematics Characterization and Human-Suit Interactions, International Conference on Environmental Systems, Tucson, AZ, July 2014.
7. **Anderson A.,** A. Diaz, M. Kracik, G. Trotti, J. Hoffman, and D. Newman, "Developing a Spacesuit Injury Countermeasure System for Extravehicular Activity: Modeling and Analysis" International Conference on Environmental Systems 2012, San Diego, CA
8. **Anderson, A.,** J. Waldie, D. Newman, "Modeling and Design of a BioSuit Donning System" International Conference on Environmental Systems 2010, Barcelona, Spain
9. **Anderson, A.,** J. Turner, L. Gundersen, G. Trotti, D. Newman"Framework for Space-Inspired Informal Education Exhibits" International Conference on Environmental Systems 2010, Barcelona, Spain.
10. D. Barnhart, J. Kunc, **A. Anderson**, J. Cheng, O. Faghfoor, "Hands-On Space Flight Risk Reduction Training Through Ground Based Dynamic Flight Testing" International Astronautical Congress 2007, Hyderabad, India

Theses

1. **Anderson, A**. "Understanding Human-Space Suit Interaction to Prevent Injury During Extravehicular Activity" Doctoral Degree in Aerospace Biomedical Engineering, Massachusetts Institute of Technology. Advisor Prof. Dava Newman. June 2014
2. **Anderson, A**. "Addressing design challenges in mechanical counterpressure spacesuit design and space-inspired informal education policy" Masters Degree in Aerospace Engineering and Technology Policy, Massachusetts Institute of Technology. Advisor Prof. Dava Newman. February 2011

Presentations and Posters

1. **Anderson A.,** Banerjee N., Boppana A., Baughman A., Lin S., Witte Z., Wall R., Klaus D. "Spacecraft Habitat Design Evaluation Using Alternative Reality Technologies" NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2019 (Presentation)
2. Buckey J., Phillips S., **Anderson A.,** Chepko A., Archambault-Leger V., Fellows A. "Pre-flight Body Weight Predicts Ocular Changes in Space" NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2019 (Poster)
3. Wood S., Shen Y., **Anderson A.** "Magnetometer-Free Characterization of Spacesuit Wearer Joint Kinematics Using Inertial and Strain Sensors" NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2019 (Poster)
4. Banerjee N., Baughman A., Lin S., Witte Z., Klaus D., **Anderson A.** "Development of Alternative Reality Environments for Spacecraft Habitat Design Evaluation" NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2019 (Poster)
5. **Anderson, A.,** Covington K.B., Rieke C., Fellows A., Buckey J. "Analysis of Distortion Product Otoacoustic Emissions with Changes in Posture and Fluid Shift." NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2019 (Poster)
6. Buckey, J., Phillips S., **Anderson A**., Chepko A., Archambault-Leger V., Fellows A. "Pre-flight Body Weight Predicts Ocular Changes in Space" International Astronautical Congress, Bremen, Germany. October 2018. (Presentation)
7. Boppana, A., Arquilla, K., **Anderson, A.** "Measurement of Human-Spacesuit Contact Pressures Through a Wearable Sensing Garment." International Conference on Environmental Systems, Albuquerque, NM, July 2018. (Poster)
8. Shen, Y., Wood, S., **Anderson, A.** "Spacesuit Wearer Joint Kinematics Estimation Enabled by Inertial Measurement Unit Arrays" International Conference on Environmental Systems,

Albuquerque, NM, July 2018. (Poster)

9. **Anderson, A.,** Cowan, D., Mupparaju, S., Fellows, A., Buckey, J. “Computer-Based Mental Health Resources in Isolated Confined Environments.” Aerospace Medicine Association, Dallas, TX. May 2018 (Presentation)
10. **Anderson, A.,** Cowan, D., Fellows, A., Buckey, J. “Behavioral Health Research in Analog Environments: Opportunities and Challenges.” Aerospace Medicine Association, Dallas, TX. May 2018 (Presentation)
11. Shen, Y., **Anderson, A.** “Characterization of Spacesuit Wearer Joint Kinematics Using Inertial Measurement Unit Arrays” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
12. **Anderson, A.**, Klaus, D. “Interactive Space Vehicle Design Tool with Virtual Reality” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
13. Boppana, A. **Anderson, A.** “Pressure Sensor Network to Quantify Spacesuit Contact Pressure” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
14. Arquilla, K., **Anderson, A.** “Development and Analysis of Wired Textile Prototypes for use in Wearable Sensor Systems” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
15. Phillips, S., **Anderson, A.,** Chepko, A., Archambault-Leger, V., Masterova, K., Fellows, A., Cowan, D., Buckey, J. “Unique Numerical Model Incorporating Tissue Weight and Tissue Compressive Forces for Modeling Microgravity Effects” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
16. Mupparaju, S., **Anderson, A.**, Cowan, D., Lam, Q., Gifford, S., Love, R., Florom-Smith, A., Fellows, A., Buckey, J. “Computer-Based Mental Health Resources in ICEs: Comparison Between Canada Forces Station Alert and HI-SEAS IV” NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2018 (Poster)
17. Cowan D., **A. Anderson**, J. Buckey, “Evaluation of Virtual Nature for Relaxation in Isolated, Confined Environments.” Aerospace Medical Association, Denver, CO. May 2017 (Presentation).
18. **Anderson A,** C. Rieke, Fellows A, Buckey J. "Feasibility of DPOAE Mapping as an In-Flight Measure of Intracranial Pressure in Space." NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2017 (Presentation)
19. **Anderson A,** Fellows A, Phillips S, Chepko A, Archambault-Leger V, Kattamis N, Knaus, D, Zegans M, Buckey J. "Role of Cranial Venous Circulation in Microgravity-Associated Visual Changes." NASA Human Research Program Investigators Workshop, Galveston, TX. 01/2017 (Presentation)
20. **Anderson A,** Cowan, D., Fellows AM, Binsted K, Hegel, MT, Buckey JC. “Autonomous Behavioral Health Countermeasures - Virtual Space Station”. NASA Human Research Program. Investigators Workshop, Galveston, TX, Galveston, TX. 01/2017 (Poster)
21. Phillips S, Chepko A, Archambault-Leger V, Kattamis N, Knaus, D, **Anderson, A.** Zegans M, Buckey J. “Numerical modeling of the eye structure and the cerebrovascular/cerebrospinal circulation.” NASA Human Research Program. Investigators Workshop, Galveston, TX, Galveston, TX. 01/2017 (Presentation)
22. **Anderson A,** Fellows AM, Hegel MT, Buckey JC. “Virtual reality with natural scenes to reduce stress in isolated confined environments”. Joint Life Science Meeting (CNES, ESA, ISGP), Toulouse, France, 06/2016 (Presentation)
23. **Anderson A**, Fellows AM, Binsted K, Hegel, MT, Buckey JC. “Evaluation of an autonomous, computer-based, behavioral health countermeasure in an isolated, confined environment”. Aerospace Medical Association. 87th Annual Scientific Meeting, 04/2016. (Presentation)

24. **Anderson A**, Fellows AM, Buckey JC. “DPOAE Mapping as a Measure of Cochlear Sensitivity to Postural Changes”. Association for Research in Otolaryngology, 2/2016. (Poster)
25. **Anderson A,** Fellows A, Phillips S, Chepko A, Archambault-Leger V, Kattamis N, Knaus, D, Zegans M, Buckey J. "Role of Cranial Venous Circulation in Microgravity-Associated Visual Changes." NASA Human Research Program Investigators Workshop, Galveston, TX. 02/2016 (Presentation)
26. **Anderson A,** Fellows AM, Binsted K, Hegel, MT, Buckey JC. “Autonomous Behavioral Health Countermeasures - Virtual Space Station”. NASA Human Research Program. Investigators Workshop, Galveston, TX, 02/2016. (Poster)
27. **Anderson A,** Fellows A, Buckey J. "Feasibility of DPOAE Mapping as an In-Flight Measure of Intracranial Pressure in Space." NASA Human Research Program Investigators Workshop, Galveston, TX. 02/2016 (Poster)
28. Phillips S, Chepko A, Archambault-Leger V, Kattamis N, Knaus, D, **Anderson, A.** Zegans M, Buckey J. “Numerical modeling of the eye structure and the cerebrovascular/cerebrospinal circulation.” NASA Human Research Program. Investigators Workshop, Galveston, TX, Galveston, TX. 02/2016 (Presentation)
29. **Anderson A,** Abigail Fellows, Gautam Babu, Jacob Swan, Scott Phillips, Nicholas, Kattamis, Darin Knaus, Michael Zegans, Jay Buckey. “Ocular And Cerebrovascular Changes In Microgravity”. Aerospace Medical Association Annual Meeting, Orlando, FL., 05/2015. (Presentation)
30. **Anderson, A**. Fellows, J. Buckey. “Feasibility Of DPOAE Mapping As An In-Flight Measure Of Intracranial Pressure In Space”. NASA Human Research Program Investigators Workshop, 01/2015. (Poster)
31. Newman, D.J., **Anderson, A.,** Diaz, A., Kracik, A., Hilbert, A., Bertrand, P., Hoffman, J.,Trotti, G., “Spacesuit Trauma Countermeasures Research: Injury Prevention and Comfort Protection Design“, NASA Human Research Program Investigators Workshop, Galveston, TX, 02/2014. (Presentation)
32. **Anderson A.,** Hilbert A., Bertrand P., Newman D., “Space Suit Trauma Countermeasure System: Pressure Sensing Capability for In-Suit Characterization”, NASA Human Research Program Investigators Workshop, Galveston, TX, 02/2014. (Poster)
33. Hilbert A., Diaz A., **Anderson A**., Newman D. J., “Human-Space Suit Interaction: Musculoskeletal Modeling & Statistical Analysis of Injuries”, NASA Human Research Program Investigators Workshop, Galveston, TX, 02/2014. (Poster)
34. **Anderson, A.,** Menguc, Y., Wood, R., Newman, D.J., "Hyperelastic Pressure Sensor Development For Use in Extravehicular Mobility Unit" IAA Humans in Space Conference, Cologne Germany 07/2013. (Poster)
35. Diaz, A., **Anderson, A**., Hoffman, J., Newman D. J., "Modeling Musculoskeletal Human-Spacesuit Interaction", International Astronautical Association (IAA) Humans in Space Conference, Cologne Germany 07/2013. (Presentation)
36. **Anderson A.,** A. Diaz, M. Kracik, G. Trotti, J. Hoffman, D. J. Newman, “Understanding Human-Space Suit Interaction to Prevent Injury During Extravehicular Activity” NASA Human Research Program Investigator’s Workshop 2013, Houston. (Poster)
37. A. Diaz, **A. Anderson,** M. Kracik, G. Trotti, J. Hoffman, D. J. Newman, “Development of a Musculoskeletal Human-Space Suit Interaction Model” NASA Human Research Program Investigator’s Workshop 2013, Houston. (Poster)
38. **Anderson, A.,** D. Newman, “Developing a Spacesuit Injury Countermeasure System for Extravehicular Activity” International Conference on Environmental Systems 2012, San Diego. (Poster)
39. **Anderson, A.,** D. Newman, “Modeling Astronaut-Spacesuit Interaction To Develop a Spacesuit Trauma Countermeasure System for Extravehicular Activity” NASA Human

Research Program Investigator's Workshop 2012, Houston. (Poster)

40. **Anderson A.,** A. Diaz, M. Kracik, R. Kobrick, G. Trotti, J. Hoffman, and D. Newman, "Methodology Toward Developing a Spacesuit Trauma Countermeasure System for Extravehicular Activity" NASA Human Research Program Investigator's Workshop 2012, Houston. (Poster)
41. **Anderson, A**., M. Kracik, G. Trotti, D. Newman, "Preliminary Astronaut Injury Countermeasure and Protection Suit Design." IAA Humans Space Conference 2011, Houston. (Poster)
42. **Anderson, A.,** S. Wilcox, E. Gundersen, G. Trotti, D. Newman, "Using Space-Inspired Education Tools to Enhance STEM Learning in Rural Communities" American Society of Engingering Education Annual Conference 2011. Vancouver, Canada (Presentation)

Teaching Experience

Sp. 2019, 2018 Instructor ASEN 6519: Extravehicular Activity. University of Colorado Boulder. *Developed as a new course.*

F. 2018 Instructor ASEN 5519: Experimental Design and Statistical Analysis. University of Colorado Boulder. *Developed as a new course.*

F. 2018 Instructor ASEN 2012: Experimental and Numerical Methods in Aerospace Engineering Sciences. University of Colorado Boulder. *Restructured curriculum.*

F. 2017 Instructor ASEN 2012: Experimental and Numerical Methods in Aerospace Engineering Sciences. University of Colorado Boulder

Sp. 2017 Instructor ASEN 5016: Space Life Sciences. University of Colorado Boulder

2012 Grader Statistical Methods in Experimental Design, Department of Aerospace and Astronautics, Massachusetts Institute of Technology

2010 Teaching Assistant; Space Biomedical Engineering and Life Support, Department of Aerospace and Astronautics, Massachusetts Institute of Technology

Student Advising

Primary advisor

- Young-Young Shen, PhD Candidate
- Katya Arquilla, PhD Candidate, Draper Fellow
- Abhishektha Boppana, PhD Candidate, NSF Graduate Research Fellow
- Arthur Barriault, PhD Candidate
- Michael Van Akin, PhD Candidate
- Sage Sherman, PhD Candidate
- Roger Huerta Lluch, MS Candidate, Balsells Fellow
- Neil Banerjee, MS Candidate
- Joseph Butterfield, MS 2018
- Trevor Fritz, MS 2018

Thesis Committee member

- Jordan Holquist, Ph.D., 2018, NASA Space Technology Research Fellow
- Conor Cullinane, Ph.D., 2018 (MIT)

Undergraduate researchers

- Zoë Witte
- Alexander Baughman (SPUR)
- Shu-Yu (Michelle) Lin (DLA)
- Maureen McNamara (BSL)
- Shaylah Wood (UROP)
- Keith Blaine Covington (UROP)
- Sevi Mit Senavinin (UROP)
- Ryan Wall

Andrew Kerr (UROP)

Outreach Teaching Experience

2018-2019, 2017-2018 Faculty Mentor, NASA SUITS Challenge: Augmented Reality Display for Extravehicular Activity
2019, 2018 Guest lecture, “Human Exploration: Part 2” Pathway to Space, CU-Boulder Spacer Minor
2018 Aerospace Graduate Seminar Speaker
2018 Guest lecture, “Aerospace Engineering Sciences @ CU Boulder”, South Denver Chamber of Commerce
2018 Guest lecture, “Virtual Reality for Space and Earth” Tuskegee Airmen Mile High Flight Program
2017-2018 Faculty Mentor, NASA Wearables Challenge: Automatic Boot Thermal Control
2017-2018 Faculty Mentor, NASA Wearables Challenge: EMG for Extravehicular Activity
2017 Podcast speaker, “You Make Me Sick: Humans in Space”, Environmental Defense Fund
2017 Invited lecture, University of Southern California, Department of Aerospace and Mechanical Eng., Seminar Speaker Series
2017 Invited lecture, “Humans in Space!” CU-Boulder Spacer Minor
2012 – 2013: Video maker; MIT K-12 Initiative (MIT)
2011 – 2012: Lecturer; MOSTEC High School AeroAstro course (MIT)
2008 – 2013: Instructor; SEED Academy High School AeroAstro course (MIT)
2008 – 2013: Lecturer; Cambridge Science Festival, MIT Museum
2010 Lecturer; Teacher Professional Development in Molecular Biology. “Radiation and Hazards to DNA in Space Travel”
2010 Instructor; Science Camp, ExplorationWorks Museum of Science and Culture
2010 Program Director; Girls Scouting Space and Sky, Girl Scouts of Massachusetts
2009 Lecturer; Girls Angle Math Club for Girls
2008 High School Teacher; Instituto Cardenal Rodriguez, Juticalpa, Honduras
2005-2006 Tutor; Physics and Aerospace Engineering (USC)
2003-2005 Tutor; Joint Educational Program (USC)

Service

2018-2019 – Executive Committee, Smead Department of Aerospace Engineering Sciences
2018 – 2019 Bioastronautics Focus Lead, Graduate Committee, Dept. of Aerospace Eng. Science, CU-Boulder
2017 Review editor, Frontiers in Physiology: Environmental, Aviation, and Space Physiology
2017 Member, Aerospace Medicine Association
2017 Graduate Women in Aerospace Conference Co-Organizer
2015 – 2016 Board member, Headrest substance use disorder facility
2012 – 2014 Graduate Resident Tutor, Baker House (MIT)
2008; 2011 Representative; Graduate Aeronautics and Astronautics Association (MIT)
2010 Student Organizer; MIT 150 Exploration Symposium (MIT)
2009 Student Organizer; Apollo 40 Celebration (MIT)
2009 Student Organizer; Sally Ride Festival (MIT)
2007 Coordinator; W.V.T Rusch Engineering Honors Colloquium (USC)
2003 – 2007 V-Key Managing Editor, Communications Manager, Representative; Viterbi Student Ambassadors (USC)

Grants and Fellowships

2019-2021 Translational Research Institute for Space Health. *Performance Enhancement Through Multi-Modal Stochastic Resonance.* **PI Allison Anderson**, Co-I Torin Clark, Ajitkumar Mulavara, Jacob Bloomberg
2018-2022 Graduate Assistance in Areas of National Need. PI Penina Axelrad, Co-I **Allison Anderson,** Brian Argrow, Jade Morton, Scott Palo, Alireza Doostan, John Evans, Dave Klaus, Eric Frew, Hanspeter Schaub, Tomoko Matsuo, Daniel Scheeres
2018 IRT Multi-functional Materials. *Prototyping Support for Multi-functional Textiles Research.* **PI Allison Anderson** and Laura Devendorf (CU Boulder)
2018 IRT Multi-functional Materials. *Multifunctional electronic skins for applications in prosthetics and spacesuits*. PI Jianliang Xiao, Wei Zhang, **Allison Anderson,** Jacob Segil (CU Boulder)
2017-2018 NASA Human Research Program. *Interactive Space Vehicle Design Tool with Virtual Reality*. **PI Allison Anderson,** Co-I Dave Klaus
2016-2017 NASA Human Research Program. *Quantifying and Preventing EVA Injury in Exploration Environments*. PI Prof. Jeff Hoffman, MIT
2014-2016 National Space Biomedical Research Institute First Award Fellow. *Feasibility of DPOAE Mapping as an In-Flight Measure of Intracranial Pressure in Space*. **PI Allison Anderson**, Mentor Dr. Jay Buckey (Dartmouth College)
2013 Whitaker International Summer Program Fellowship (MIT)
2011 International Space University Tuition Scholarship (MIT)
2010 NSF Graduate Research Fellowship Program (MIT)
2009 MISTI International Travel Support (MIT)
2008 MIT Presidential Fellowship (MIT)
2005-2007 Achievement Award for College Scientists Scholarship (USC)
2005-2006 Merit Research Award (USC)
2004 Boeing Academic Scholarship (USC)
2003-2004 Engineering Scholarship (USC)
2003-2004 Trojan Scholarship (USC)

Honors and Awards

2019-2020 Selected as Research and Innovation Office Faculty Fellow (CU)
2016 Selected as a National Academy of Science New Leader in Space Science
2014 Selected for Graduate Women in Aerospace Conference
2014 Technical Communications Seminar, 1st Place (MIT)
2013 Graduate Women of Excellence Award (MIT)
2012 1st Place Poster, International Conference on Environmental Systems (MIT)
2008 Man Vehicle Lab 'Sherry' Award (MIT)
2006 Order of Troy (USC)
2006 Blue Key Honor Society (USC)
2006 Tau Beta Pi Engineering Honor Society (USC)
2005 MDA 365 Leadership (USC)
2004-2007 Engineering Honors Program (USC)
2004 Alpha Lambda Delta Honor Society (USC)

Additional Certifications and Experience

1. SCUBA Certification – Basic (2002), Advanced (2010), Rescue (2017*)*
2. Parabolic Flight Experience –2009 Campaign, 1 day; 2015 Campaign, 4 days
3. Flight Experience – Private pilot (2016)
4. Geology field camp – 4 weeks, Mojave Desert (2014)
5. First Responder training – Medical Professional CPR and AED (2014), Emergency First Response (2017)

6. Isolated, Confined Environment – Canadian Forces Station Alert, 2 weeks December 2015, 2 weeks March 2016