

DR. JENNIFER SERRES

Jennifer Serres is currently serving as the acting Deputy Director for the Integrated Capabilities Directorate, Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Ohio. Prior to this assignment, she served as the Division Chief for the Transformational Capabilities Office (TCO), Integrated Capabilities Directorate, Air Force Research Laboratory (AFRL). Established in 2020, TCO is tasked with leading enterprise-level planning and overseeing program execution of AFRL's transformational component portfolio which encompasses cross-disciplinary science and technology (S&T) efforts, including DAF Vanguard programs.

Dr. Serres began her federal service career in 2012 as a biomedical engineer for the Air Force Research Laboratory. She has held a variety of defense-related S&T positions in academia, industry and government.

Prior to joining AFRL's Integrated Capabilities Directorate, Dr. Serres served as the Research Director for robotics, autonomy, and artificial intelligence, U.S. Army Combat Capabilities Development Command Indo-Pacific, Australian Defence Headquarters, Canberra, Australia.



EDUCATION

2005 Bachelor of Science, Biomedical Engineering, Wright State University, OH
2006 Master of Science, Biomedical Engineering, Wright State University, OH
2008 Doctor of Philosophy, Engineering, Wright State University, OH
2019 Air War College, Air University, Maxwell Air Force Base, AL, by correspondence

ASSIGNMENTS OR CAREER CHRONOLOGY

- Sep 2005 Nov 2008, Graduate Research Assistant, Department of Biomedical, Industrial & Human Factors Engineering, Wright State University, Dayton, OH
- Sep 2007 Dec 2007, Contract Research Assistant, Biomechanics Branch of the Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 3. Aug 2008 Dec 2016, Adjunct Professor, College of Engineering and Computer Science, Wright State University, Dayton, OH
- 4. Dec 2008 Feb 2012, Staff Engineer/Senior Staff Engineer, Advanced Survivability Technology, BAE Systems Land & Armaments, Fairfield, OH
- 5. Feb 2012 Jul 2014, Biomedical Engineer, USAF School of Aerospace Medicine, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 6. Jul 2014 Oct 2015, En Route Care Research Lead, USAF School of Aerospace Medicine, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- Nov 2015 Nov 2017, Technical Integration Manager, 711th Human Performance Wing, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 8. Nov 2017 Mar 2018, Medical Senior Planner, 711th Human Performance Wing, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH





- 9. Mar 2018 Sept 2019, Chief, Medical Plans & Programming Division, 711th Human Performance Wing, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 10. Sept-2019 Oct-2021, Research Director, Robotics, Autonomy and Artificial Intelligence, U.S. Army Futures Command, Combat Capabilities Development Command Indo-Pacific, Australian Defence Headquarters, Canberra, Australia
- 11. Oct 2021 Jan 2022, Deputy Team Lead, WARTECH, Transformational Capabilities Office, Integrated Capabilities Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 12. Feb 2022 May 2023, Team Lead, WARTECH, Transformational Capabilities Office, Integrated Capabilities Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 13. May 2023 Aug 2024, Division Chief, Transformational Capabilities Office, Integrated Capabilities Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH
- 14. Aug 2024 Present, Deputy Director (Acting) Integrated Capabilities Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH

MAJOR AWARDS AND DECORATIONS

Superior Civilian Service Medal, U.S. Army

OTHER ACHIEVEMENTS

Excellence in Teaching Award for Adjunct Faculty, 2012-2013 711th HPW Commander's Cup Team Award, 2013 711th HPW James W. Brinkley Leadership Award, 2015 Top Ten Scientific Publications of 2018, 711th HPW- Clinical Impact of Cabin Altitude Restriction Following Aeromedical Evacuation. Military Medicine, 183(3/4): 193-202, 2019 Global Programs Award, U.S. Army DEVCOM, 2020 Senior Leadership Award, AFRL Integrated Capabilities Directorate, 2022

PUBLICATIONS [OPTIONAL FOR ALL]

Characterization of a Phenomenological Model for Commercial Pneumatic Muscle Actuators. Computer Methods in Biomechanics and Biomedical Engineering, 12(4):423-30. Serres, J., D. Reynolds, C. Phillips, M.Gerschutz, and D. Repperger (2009).

Pneumatic Muscle Actuator for Resistive Exercise in Microgravity: Test with a Leg Model. Aviation, Space and Environmental Medicine, 81:144-148. Serres, J., C. Phillips, D. Reynolds, S. Mohler, D. Rogers, D. Repperger and M. Gerschutz (2010).

Characterization of a Pneumatic Muscle Test Station with Two Dynamic Plants in Cascade. Computer Methods in Biomechanics and Biomedical Engineering, 13(1):11-18. Serres, J., D. Reynolds, C. Phillips, D. Rogers, and D. Repperger (2010).

A Retrospective Records Review of Musculoskeletal Injury ICD-9 Codes for Aeromedical Evacuation Medical Providers. Aviation, Space, and Environmental Medicine, 85(3), 291. Serres, J., B. Fouts, S. Dukes, G. Maupin, and M. Wade (2014).

Improving Human Performance of U.S. Air Force AE and CCAT Medical Providers. Aviation, Space, and Environmental Medicine, 86(3), 167. Serres J., S. Dukes, and G. Maupin (2015).

Records Review of Musculoskeletal Injuries in Aeromedical Evacuation Personnel. American Journal of Preventative Medicine, 48(4): 365-371. Serres, J., B. Fouts, S. Dukes, G. Maupin, and M. Wade (2015).

PROFESSIONAL CERTIFICATIONS

DAWIA/APDP Certification in Science and Technology Management, Level III Professional Engineer in Mechanical Engineering, Ohio - License No. PE.79059

PROFESSIONAL MEMBERSHIPS AND ASSOCIATION

National Defense Industrial Association, Government Member (Current as of April 2025)