

# CURRICULUM VITAE

## Arian L. Pregenzer

Senior Scientist  
Global Security Programs  
Sandia National Laboratories  
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## MAJOR INTERESTS

Nuclear nonproliferation, security and arms control  
International science and technology cooperation to achieve common security goals  
Integrated strategies for nuclear weapons, nuclear energy, and nuclear nonproliferation

## PROFESSIONAL EXPERIENCE

- 2009 – Present **Visiting Fellow, Center for International Security and Cooperation, Stanford University**  
Research topics include: International technical cooperation to support arms control and nonproliferation; and Resilience and nonproliferation.
- 2000 – Present **Senior Scientist, Global Security Programs, Sandia National Laboratories (SNL)**  
Initiates new programs in nuclear arms control, nonproliferation, and Asian and Middle East security.  
Leads the development of lab-wide strategies for international engagement for multiple laboratory missions, including Science and Technology, Energy and Natural Resources, Nuclear Weapons, and Nonproliferation.
- 1993-2000 **Program Manager, Cooperative Monitoring Center, SNL**  
Established the Cooperative Monitoring Center (CMC) in 1994 to enable international cooperation on technical approaches to arms control, nonproliferation, the environment and other security issues.  
Program manager for DOE NN-42 International Policy and Analysis Division in the Office of Arms Control and Nonproliferation. Program elements included regional security, multilateral arms control, US/Russia warhead and fissile material transparency, and nuclear material management.
- 1992 - 1993 **Distinguished Member of the Technical Staff, Verification and Monitoring Analysis Department, SNL**
- 1990 - 1992 **Technical Advisor, Office of Arms Control, Department of Energy**  
Represented DOE in bilateral and multilateral chemical weapons (CW) negotiations in Geneva and on high-level negotiating teams. Provided technical advice to delegations on CW verification technology. Chaired interagency and inter-laboratory working groups on CWC verification.

- 1983 - 1990 **Member of the Technical Staff, Pulsed Power Sciences Center, SNL**  
Nuclear Weapons Effects Research and Inertial Confinement Fusion Research.  
Developed theory and received patent for electrohydrodynamically (EHD) driven lithium ion source that met requirements for achieving fusion.

## MEMBERSHIPS

- 2004-Present Council on Foreign Relations  
1995 - Present International Institute for Strategic Studies

## SANDIA SERVICE

- 2001- 2007 Member, Senior Scientist Council  
1994 - 1998 Coordinator, Advisory Committee for Nonproliferation and Arms Control  
1992 - 1993 Science Advisor, Albuquerque Public Schools  
1987 - 1990 Member, Technical Staff Advisory Committee for Vice President of Research  
1986 - 1989 Member, Women's Program Committee, advising Sandia Management

## OTHER SERVICE

- 1999-Present Adjunct Professor, Department of Biology, University of New Mexico  
1999 - 2002 Member, Board of Directors, New Mexico Wilderness Alliance  
1999 - 2001 Member, Science Council for Congresswoman Heather Wilson

## EDUCATION

- 1983 PhD, Theoretical Condensed Matter Physics, University of California, San Diego  
1981 MS, Physics, University of California, San Diego  
1978 BS, Physics and Mathematics, Summa Cum Laude, University of New Mexico  
1976 BA, Philosophy, Magna Cum Laude, University of New Mexico

## POST GRADUATE STUDIES

- 1997 - 1998 Studies in biology at the University of New Mexico: Desert Field Biology; Microbial Ecology; Ecosystem Studies; Research Field Biology; Ecological Complexity.  
1995 - 1996 Seminar XXI: Foreign Politics, International Relations and the National Interest. An educational program for senior military officers, government officials, and business executives in the national security and economic policy community. Administered by the MIT Center for International Studies.

## PERSONAL

Born: January 9, 1953  
U.S. Citizen

**SELECTED PUBLICATIONS AND PRESENTATIONS**

- Arian Pregenzer and Mona Dreicer, "Verification of Nuclear Arms Reductions: The Role of the U.S. National Security Laboratories," Invited presentation at the Monterey Nonproliferation Strategy Group, Monterey Institute for International Studies, Monterey, CA, 23 - 24 August, 2009.
- Arian Pregenzer, "International Technical Cooperation: Lessons Learned / Best Practices," Invited presentation at the 8th Annual Strategic Concepts Roundtable, "Evaluating Strategic Engagement Programs," sponsored by the Defense Threat Reduction Agency Advanced Systems and Concepts Office, Cheyenne Mountain Resort, Colorado Springs, CO, 11 - 13 August 2009.
- Arian Pregenzer, "Ensuring the Impact of Technical Cooperation," Invited presentation at "New Frontiers of Science Diplomacy," sponsored by the Royal Society and the American Association for the Advancement of Science, London, United Kingdom, June 1-2, 2009.
- Arian Pregenzer, "Advancing the Goals of NPT Article VI: Near-Term Opportunities through International Technical Cooperation," *The Nonproliferation Review*, November 2008, pp 529 - 538.
- Arian Pregenzer, "Nuclear Testing and Fissile Material Production," Invited presentation at the 7th Annual Strategic Concepts Roundtable, "Arms Control in the 21st Century: Framing the Issues," sponsored by the Defense Threat Reduction Agency Advanced Systems and Concepts Office, United States Air Force Academy, Colorado Springs, Colorado, USA, August 12 - 14, 2008.
- Adriane Littlefield and Arian Pregenzer, "Iraq Oil Ministry Needs Assessment Workshop," SANDIA REPORT (SAND2006-7745), November 2006.
- Abdalla A. Alnajjar, Ammar M. Munir, Arian L. Pregenzer, Adriane Littlefield, "International Initiative to Engage Iraq's Science and Technology Community: Report on the Priorities of the Iraqi Science and Technology Community," SANDIA REPORT (SAND2004-2233); May 2004.
- Arian Pregenzer, "Securing Nuclear Capabilities in India and Pakistan: Reducing the Terrorist and Proliferation Risks," *Nonproliferation Review*, Spring 2003, pp 124-131.
- Arian Pregenzer, "Verification: Cooperative versus Non-Cooperative States: What are the Implications?" Invited presentation at the Wilton Park Conference "Verification and Cooperation," West Sussex, United Kingdom, February 2002.
- Arian Pregenzer, "The Changing International Security Environment: What Implications for Nonproliferation?" Invited presentation at Wilton Park Conference "Nuclear Nonproliferation: Putting It In Context," West Sussex, United Kingdom, December 2001.
- Arian Pregenzer, "Treaty Verification: Integrating the Capabilities of the Information Revolution," Invited presentation at the Defense Threat Reduction Arms Control Conference, June 2000.
- Arian Pregenzer, Robert Parmenter, Howard Passell, John Vande Castle, and Thomas Budge, "Sustainability, Arid Grasslands and Grazing: New Applications for Technology", in *Biodiversity of Drylands*, J. Gosz and M. Shachack, ed., December 1999, to be published.

- Laurence Costin, Peter Davies, and Arian Pregenzer, "Concepts and Strategies for Transparency Monitoring of Nuclear Materials at the Back End of the Fuel/Weapons Cycle," SAND Report; October 1999.
- Arian Pregenzer, "Cooperation: The Key to Security in the 21<sup>st</sup> Century," invited presentation at the Sigma Xi Forum, Vancouver, British Columbia, Canada, November 1998.
- Arian Pregenzer, "Cooperative Security: The Role of Technology," presented at the Wilton Park Conference on Cooperative Security, West Sussex, United Kingdom, August 1998.
- Arian Pregenzer, "The Cooperative Monitoring Center: Achieving Cooperative Security through Technical Collaborations," presented at the Nuclear Nonproliferation Issues Conference; Maxwell Air Force Base, Alabama; April 26 - 27, 1996.
- Arian Pregenzer, "Monitoring at International Border Crossings" and "Technical Options for Regional Security Centers," presented at the Institute for Global Conflict and Cooperation Workshop on Arms Control and Security in the Middle East III; Petra, Jordan; December 11 - 15, 1995.
- Arian Pregenzer, Michael Vannoni, and Kent Biringer, "Cooperative Monitoring of Regional Security Agreements," presented at Korean/Canadian Conference on Arms Control; Seoul, Republic of Korea; June 7 - 10, 1995.
- Arian Pregenzer, "Crisis Prevention Centers as Confidence Building Measures: Suggestions for the Middle East," presented at conference entitled Promoting Regional Cooperation in the Middle East, organized by the Institute for Global Conflict and Cooperation; University of California; November 4 - 7 1994.
- Arian Pregenzer, "Crisis Prevention Centers as Confidence Building Measures: Suggestions for Northeast Asia," published in the *Proceedings of the Northeast Asia Cooperation Dialogue II; Tokyo Japan: May 16 - 17, 1994*; Policy Paper #9; The Institute for Global Conflict and Cooperation; University of California; August 1994.
- Arian Pregenzer and John Taylor, "The Role of Technology in Regional Security"; in *Practical Peacemaking in the Middle East*, edited by Steven L. Spiegel and David J. Pervin, Garland Publishing, Inc.; 1995; pp. 187 - 204.
- Arian Pregenzer, "The Role of Technology in Countering the Proliferation of Weapons of Mass Destruction," presented at DOE-Sponsored interagency workshop of the same title, February 10, 1993.
- Arian Pregenzer and Richard Hutchinson, *Summary of United States of America Treaty Verification Research and Development Program*, focus on Chemical Weapons Convention Verification, 1992, published by the U.S. Army Edgewood Research, Development and Engineering Center.
- List of over 40 technical publications available on request.