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About the Speakers

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Lisa Brown

Kory Budlong-Sylvester

Paul Craig

Zachary Davis

Bruce Larkin

Michael May

Pat Morgan

Joseph McGhee

Per Peterson

Robert Powell

Stan Prussin

Robert Rauchhaus

Susan L. Shirk

Harold Smith

Joonhong Ahn is Associate Professor of Nuclear Engineering at UC Berkeley, where he teaches undergraduate and graduate courses in radioactive waste management. His research interests involve mathematical analyses of radionuclide transport in heterogeneous geologic formations and of radionuclide release from man-made waste disposal systems. He is also interested in integrating these into an overall performance assessment model, and analyzing the nature of uncertainty incorporated in long-term assessments for radioactive waste disposal. He received his Ph.D. in nuclear engineering from UC Berkeley in 1988.

Paul Booker received his B.S. degree in mechanical engineering from Washington State University in 2003 and is currently pursuing the M.S. degree in mechanical engineering from the University of California, Davis. In 2003, he joined the Advanced Systems group at Sandia National Laboratories, Livermore, California, working primarily on earth-penetrating weapon concepts.

Dr. William J. Boyle is Director of the Postclosure and License Acquisition Division in the Department of Energy's Office of License Application and Strategy, Office of Repository Development. The division is responsible for the preparation of the License Application, development of the Total System Performance Assessment, and development of their underlying technical bases.

Before joining DoE, Boyle was a geotechnical engineer for the U.S. Nuclear Regulatory Commission, Division of High-Level Waste Management, where he reviewed YMSCO activities for design of the

Exploratory Studies Facility and the potential repository, including participating in quality assurance audits.

From 1985–1992, Boyle participated in site characterization and design activities for proposed repositories at Yucca Mountain, Nevada; Hanford, Washington; and Deaf Smith County, Texas. He also has worked on characterization for and analysis of underground excavations in California, Canada, Finland, and Japan. Boyle also participated in characterization and analysis of large rock sculptures at Mt. Rushmore, South Dakota, and Stone Mountain, Georgia.

Boyle holds a doctorate and a master's degree in civil engineering from UC Berkeley. He is the author of numerous reports and publications for international symposiums and refereed journals.

Lisa Brown received her B.S. in electrical engineering from Duke University in 1999 and her M.S. in electrical engineering from the University of California, Berkeley in 2002. From 1999 to 2002 she was a National Science Foundation Graduate Research Fellow. Since 2002 she has been employed at Sandia National Laboratories, Livermore, CA, on a wide variety of projects for the Advanced Systems group including work on advanced concepts for nuclear weapons safety.

Kory Budlong-Sylvester is the IGCC Steering Committee representative from Los Alamos National Laboratory (LANL). Budlong-Sylvester is a technical staff member in the Nonproliferation and International Security Division at LANL. He works on a variety of nonproliferation and arms control topics. He is currently LANL's principal investigator for a multi-laboratory project that supports the International Atomic Energy Agency in the area of integrated safeguards. Budlong-Sylvester received his Ph.D. from the Nuclear Engineering Department at MIT in 1997.

Paul P. Craig is Professor Emeritus of Engineering at the University of California, Davis. He is a Member of the Sierra Club's National Global Warming and Energy Committee, and recently served as Chairman. He served under the President's Science Advisor as Deputy Director and Acting Director of Office of Energy R&D Policy during the 1973 oil embargo. He was a Member of the Nuclear Waste Technical Review Board 1997–2004, where he gained valuable experience on nuclear waste issues and the nuclear industry in general.

Zachary S. Davis is an analyst of foreign nuclear programs at the Z Division of Lawrence Livermore National Laboratory, with special knowledge of the nuclear programs of India, Pakistan, and North Korea. He was nonproliferation policy analyst for the Congressional Research Service for ten years, where he worked with key congressional committees to develop nonproliferation, arms control, export control, and sanctions legislation. He also served in the State Department, Office of the Deputy Secretary, implementing the U.S. response to Indian and Pakistani nuclear tests. At the Arms Control and Disarmament Agency, he worked on strengthening safeguards to improve IAEA inspections. He is the author of numerous government reports on foreign nuclear programs and government studies. He received M.A. and Ph.D. degrees in International Relations from the University of Virginia and a B.A. in politics from the University of California, Santa Cruz.

Bruce D. Larkin received his B.A. at the University of Chicago in 1954 and his Ph.D. at Harvard University in 1966. He taught at UC Santa Cruz from its founding in 1965 until 2004 and is Professor of Politics Emeritus. He is a former member of the IGCC Steering Committee. His works include *Nuclear Designs: Great Britain, France, and China in the Global Governance of Nuclear Arms* and *War Stories*, a study of the politics of war and war choice. A book-length draft of the ms. reflecting his current project, *Designing Denuclearization*, can be read at <http://www.gcdd.net/>.

Michael May received his B.A. in physics and mathematics from Whitman College in 1944 and his Ph. D. in physics from UC Berkeley in 1952. He spent most of his career at the Lawrence Livermore National Laboratory (LLNL), serving as director of the laboratory from 1965 to 1971. His research work there centered on nuclear explosion theory; nuclear weapons design; radiation transfer; and astrophysics and general relativity. In addition, Professor May taught graduate science courses in the Department of Applied Science at Livermore, a part of the School of Engineering of the University of California at Davis. In the 1980s, Professor May designed and managed an in-house advanced research program at the laboratory structured to provide opportunities for research into new areas of relevance in the Department of Energy's main areas of responsibility. He retired from LLNL in 1988.

Starting in 1972, Professor May became involved in strategic arms control. May served as a technical representative on the Threshold Test Ban Treaty negotiating team in Moscow in 1974, then as a member of the U.S. delegation to SALT, in Geneva from 1974 to 1976. He has continued to work on arms control through advisory committees to government and through his own academic publications.

May became associated with Stanford University in 1990, since then his work has focused on two areas, nuclear weapons policy issues and the extent and impact of energy growth in East Asia, especially in China. For the past several years, May and collaborators have studied China's electricity sector at the provincial level. May served as co-director of the Center for International Security and Cooperation in Stanford's Institute of International Studies from 1993 through 1999, during which time he initiated or collaborated on a number of new projects bridging the science and security areas.

Professor May has been a member of the Defense Science Board and other government advisory groups, chairing studies on the deployment of strategic nuclear weapons systems, the utility of lasers in space, and other matters. He was a trustee of the Rand Corporation (1972–93) and a member of the National Academy of Sciences Committee on International Security and Arms Control (1985–95). Professor May received the Department of Defense's Distinguished Public Service Award in 1979; its Distinguished Civilian Service Award in 1975; the Atomic Energy Commission's Ernest Orlando Lawrence Memorial Award in 1970; and an honorary Doctor of Science degree from Whitman College. He is a Fellow of the American Physical Society and of the American Association for the Advancement of Science, and a member of the Council on Foreign Relations, the International Institute of Strategic Studies, and the Pacific Council on International Policy.

Joseph R. McGhee is a former foreign service officer with over twenty years of experience in international affairs. As IGCC's Washington representative, McGhee works to increase IGCC's profile within the policy community and serves as IGCC's liaison in Washington, D.C. He designs, implements, and manages IGCC outreach activities, programs, and fundraising initiatives in Washington, D.C., for the U.S. Congress, government agencies, nongovernmental and other organizations, academic institutions, and other foreign policy-related organizations. McGhee also identifies and develops funding sources for UC system-wide fellowships, projects, and programs.

Patrick M. Morgan is the Tierney Chair in Peace and Conflict in the Political Science Department at UC Irvine. A member of the UC Irvine faculty since 1991, Professor Morgan has concentrated his research primarily on national and international security matters: deterrence theory, strategic surprise attack, arms control, and related subjects. He has also had a long-standing interest in theoretical approaches to the study of international politics. Currently he is involved in projects on the theory and practice of deterrence in the post-Cold War era, security strategies for global security management, and security in Northeast Asia. Professor Morgan has been a Fulbright scholar and a fellow of the Wilson Center in Washington, D.C. He was vice president of the International Studies Association from 1988 to 1989 and a fellow of the Rockefeller Center in Bellagio, Italy, in 1997. He has a Ph.D. from Yale University and a B.A. from Harpur College (now SUNY Binghamton).

Per F. Peterson is professor and chair in the Department of Nuclear Engineering at UC Berkeley. His research focuses on problems in energy and environmental systems, including inertial confinement fusion, advanced light water reactors, high level nuclear waste processing, and nuclear materials management. Professor Peterson also manages the UC Berkeley Thermal Hydraulics Research Laboratory. Professor Peterson's publications focus on topics related to heat and mass transfer and fluid dynamics, with applications to nuclear systems.

Robert Powell is Robson Professor of Political Science at UC Berkeley. He is the author of numerous works on international relations, most recently *In the Shadow of Power: States and Strategies in International Politics* (Princeton U. Press, 1999). Powell's current research focuses on the study of continuing conflicts throughout the world. He is an expert on the application of game theory to nuclear deterrence.

Stan Prussin is Professor of Nuclear Engineering at UC Berkeley, where he has taught since 1966. He teaches the department's courses in nuclear physics for applications and shares in the teaching of the Nuclear Instrumentation Laboratory. Prof. Prussin's research interests are in the areas of low-energy nuclear physics and the use of nuclear methods and instrumentation for the solution of applied problems, with current emphasis on nuclear medicine and allied technologies. He received his Ph.D. in chemistry from the University of Michigan and is a past recipient of the Humboldt Senior Scientist Award.

Robert Rauchhaus' research and teaching interests include international relations theory, security studies, American foreign policy, and conflict management. His expertise in security studies stems from his academic training, as well as practical experience that he gained from military service and work in the defense industry. Prior to joining the faculty at UCSB, Rauchhaus was a management consultant with McKinsey and Company, Inc. (2000–02) and a Post-doctoral fellow at the Center of International Studies at Princeton University (2002–03). He is currently writing several papers and developing a book manuscript on the use of coercion and mediation to manage violent conflicts. His research employs game theory, statistics, and case studies.

Susan L. Shirk is an Asia specialist, with an emphasis on Chinese politics, U.S.-China relations, and Pacific international affairs. Shirk is professor of political science at the Graduate School of International Relations and Pacific Studies (IR/PS) at UC San Diego. A former director of IGCC (1991–1997), Shirk accepted an assignment at the U.S. Department of State in 1997, where she served as deputy assistant secretary for China in the Bureau of East Asian and Pacific Affairs. Shirk is the author of *How China Opened Its Door: The Political Success of the PRC's Foreign Trade and Investment Reforms* and *The Political Logic of Economic Reform in China*, and editor of *Power and Prosperity: Economic and Security Linkages in the Asia Pacific*. Shirk returned from her three-year term at the U.S. State Department in 2000 to become an IGCC research director.

Harold P. Smith joined UC Berkeley's Goldman School of Public Policy as a Distinguished Visiting Scholar in 2000. His research focuses on the impact of technology on foreign and defense policy. In 1993, Dr. Smith was appointed to the Clinton administration as Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs with responsibilities for reduction and maintenance of the American and NATO arsenals of nuclear weapons, dismantlement of the chemical weapon stockpile,

oversight of the chemical and biological defense programs, management of counter-proliferation acquisition, and management of treaties related to strategic weapons. He returned to private life in 1998.

Smith originally joined the faculty of UC Berkeley in 1960, after receiving a Ph.D. in nuclear engineering from MIT. Dr. Smith has published extensively on the optimal control of exotic nuclear systems and on the interaction of radiation with surfaces, including ion implantation of silicon. He retired as professor and chairman of the Department of Applied Science in 1976 in order to pursue his interests in managerial consulting and entrepreneurial ventures. The Palmer Smith Corporation, a consulting firm specializing in management of high technology programs, was established and retained by many top defense contractors. He was one of the early principals of SAIC, RDALogicon, and Swerling, Manasse, and Smith. Dr. Smith also serves on the Goldman School of Public Policy Dean's Board of Advisors.