

Iván Almár is professor of astronomy at the Konkoly Observatory of the Hungarian Academy of Sciences. He has worked in space research (specifically, upper-atmospheric research and satellite geodesy) for more than 50 years. Prof. Almár has been a Member of the IAA since 1984, and was chairman of its Space and Society Commission from 2003 to 2005. He began presenting and publishing papers on planetary protection in 1989.

Charles Cockell is professor of geomicrobiology at the Open University, UK. He obtained his PhD from the University of Oxford and held an NRC Associateship at the NASA Ames Research Centre. His interests are in microbe-mineral interactions and life in extreme environments. He is author of several books, including 'Space on Earth' (Macmillan), which explores the links between environmentalism and space exploration. His publications on ethics have focused on the place of microorganisms in environmental ethics and the protection of the space environment. He is Chair of the Earth and Space Foundation.

Catharine A. Conley has served as the NASA Planetary Protection Officer since 2006. Prior to this, Conley's research at NASA Ames Research Center focused on the biochemistry and evolution of muscle tissue. Conley has been involved in several spaceflight experiments using the nematode worm, *Caenorhabditis elegans*, the first of which was flown on the last mission of the Space Shuttle Columbia. Flight hardware was recovered after the tragic accident, and when opened it was found that some spaceflown experimental animals were still alive, a finding of considerable relevance to Planetary Protection.

Gernot Groemer has a background in astronomy and astrobiology. He is working in the field of Mars analogue research, focusing on planetary surface exploration. He directed various field expeditions in planetary analogue environments as well as a parabolic flight and manages a multi-year development project for a spacesuit simulator programme of the Austrian Space Forum. His scientific focus is in the development of tracing methods for studying contamination vectors in human exploration environments.

Marc Haese (rapporteur) studied aerospace engineering at the University of Stuttgart, Germany. He is working as a Senior Strategy Analyst in the ESA Directorate of Human Spaceflight focusing on long-term architectures for space exploration.

Mahulena Hofmann studied law at the Charles University in Prague. Her doctoral thesis was devoted to the legal aspects of remote sensing from outer space. Since 2001, she has lectured on International Law at the Charles University, and since 2006 has been professor of European Law and Transition Studies at the University of Giessen. She is a member of the IISL (1986), ILA (1996), ECSL (2004) and IAA (2006/2009). Since 2009, she has been a Partner in the international team on implementing the European Space Policy (Seventh EU Framework Programme). In her publications, she concentrates mostly on the legal framework of space activities of countries in transition.

Gerda Horneck is former Deputy Director of the Institute of Aerospace Medicine of the DLR and former Head of its Radiation Biology Section. She has been involved in several radiobiological and astrobiological space experiments since the Apollo missions and has been advisor to ESA, NASA, ESF and the EC on space-related issues. For her research she was awarded with honors by ESA, NASA, DLR, by the International Society of Astrobiology, ISSOL, and the International Academy of Astronautics (IAA). She is currently President of the European Astrobiology Network Association (EANA).

Francis Lyall held the Chair of Public Law at the University of Aberdeen from 1974 to 2005 and remains on the part-time staff of the School of Law. He has published ten non-fiction books and written extensively on Space Law. *Law and Space Telecommunications* appeared in 1989 and *Space Law: A Treatise* (with P.B. Larsen) in 2009. He is currently working on a book on the ITU and the UPU. He also writes on church and state, on theology, on environmental law and on legal history. Apart from academic works he has edited science fiction collections by Clifford D. Simak and James Blish, and published five crime novels (so far).

Gulnara Omarova began her professional career as a Research Fellow in Astrophysical Institute in Kazakhstan, studying problems in celestial mechanics. In 1993 she received a PhD in mathematics and physics. She has published in the international journal "Celestial Mechanics and Dynamical Astronomy" (Kluwer Academic Publ.) and contributed an article to the book "Non-Stationary Dynamical Problems in Astronomy" (Nova Sciences Publ. 2002). Since 1993 she has been working in the space sector, and has published on space law and space policy issues. She contributes to the development of international cooperation in space and from 2003-2006 served as Co-Chair of the Space Generation Advisory Council in support of the UN Program on Space Applications.

Juldis Omarova is a graduate of Kazakh State Law University (KSLU) in Almaty. She started her professional career as a Head of Center of Comparative Law of the KSLU. Within the scope of her scientific interests she was involved in cooperation with the European Academy of Public Law. In 2000 she was awarded the van Calker scholarship in the Swiss Institute of Comparative Law. In 2004 she was awarded a scholarship of the German Academy Exchange Service (DAAD) for scientific research in the Max Planck Institute for Comparative Public and International Law in Heidelberg. She is the author of a number of publications in the field of space law and space policy. Currently, she is working at the National Center of Space Researches and Technologies in Almaty.

Francois Raulin is full Professor of chemistry and exobiology at Université Paris 12. He has been director of LISA, Chair of COSPAR Commission F (Life Sciences), Vice Chair of COSPAR Planetary Protection Panel, 1st Vice-President of ISSOL and Chair of the Exo/astrobiology working group of CNES. At LISA, he develops research activities on organic chemistry in extraterrestrial environments (Titan, giant planets, comets and Mars) using complementary approaches: laboratory experiments (experimental simulations, IR & UV spectral data, analytical techniques); theoretical modelling (using microphysics, kinetics & thermodynamics); observational data: remote sensing and in situ space exploration (specially GC techniques). He is the author of more than 300 scientific papers, and 9 books related to the field of the origins of Life and Exobiology.

Petra Rettberg, a chemist by training with a strong background in microbiology and molecular biology, is the head of the 'Astrobiology' research group in the Radiation Biology Department of the Institute of Aerospace Medicine at DLR. Her research is focused on investigations of the viability and adaptability of microorganisms to extreme environmental conditions. The Planetary Protection activities include the bioburden and biodiversity analysis of spacecraft and spacecraft-associated environments. She has been Principal Investigator and Co-Investigator of several astrobiological space experiments.

Annelie Schoenmaker has worked as a Legal Administrator for the European Space Agency (ESA) and was a Teaching Associate at the International Space University (ISU). She obtained her Masters in Law (Space & Telecommunications) from the Université Paris Sud and attended the ISU's Summer Session in 2006. In September 2009, she embarked on a world tour for "space applications outreach".

Patricia Margaret Sterns received her Bachelor of Arts in Philosophy in 1974, and her Juris *Doctor* in 1977 from the University of Arizona, concentrating on preservation of the right to sunlight for the purpose of passive and active solar energy. She was elected as a lifetime member of the IISL (1978), and served as a Director of the Institute until being voted by her colleagues to hold the lifetime position of Honorary Director, as well as the IAA. She is an Associate of COSPAR, and her law firm was the first to become a member organization of the IAF. Dr. Sterns has published more than forty space law papers, both alone and in partnership with Dr. Les Tennen, which range in topic from Planetary Protection to SETI, Property Rights, commercial uses of space, and living and working in space. For the World Space Congress in 2002, in cooperation with a colleague from NASA and COSPAR, Dr. Sterns Co-Organized and Co-Chaired a Symposium on the diverse and controversial topic of Planetary Protection of the Earth, Moon, and other celestial bodies.

Kazuto Suzuki is Associate Professor of International Political Economy at the Public Policy School of Hokkaido University, Japan. He received his Ph.D. from the Sussex European Institute, University of Sussex, England. He has been working as an advisor to the Liberal Democratic Party and the Society of Japanese Aerospace Industry, and is a policy researcher for JAXA. He has published number of articles and books, including "Administrative Reforms and Policy Logics of Japanese Space Policy" (*Space Policy* Vol.22 no.1, 2005), "Transforming Japan's Space Policy-making", (*Space Policy* Vol.23, no.2 2007) and *Policy Logics and Institutions of European Space Collaboration* (Ashgate, 2003),

Leslie I. Tennen is an attorney in private practice in Phoenix, Arizona, and has focused on space law matters for more than 30 years. He is a partner in Sterns and Tennen, the first law firm to be elected to membership in the IAF. Mr. Tennen received his Juris Doctor degree from the University of Arizona, and studied international and comparative law at the Hebrew University at Mt. Scopus, Jerusalem. He is a member of the IISL, IAA and the State Bar of Arizona, and was appointed by the Governor of Arizona to serve on the Arizona Space Commission from 1994 to 2000. He is a frequent lecturer at aerospace conferences and colloquia. He has been a consultant and advisor on space matters to public and private organizations on the state, national and international levels, and has authored and co-authored several dozen articles published in leading legal and scientific journals. In 1998, Mr. Tennen was the co-recipient, with Patricia Margaret Sterns, of the IISL Award of Appreciation, and he received the IISL Distinguished Service Award in 2006.

Mark Williamson is an independent Space Technology Consultant with 30 years' experience in the space industry, space insurance and space education sectors. Having graduated in Physics and Astrophysics, he worked as a satellite communications engineer and is registered as a Chartered Physicist and a Chartered Engineer. He lectures widely on space subjects, has served as an IEE Faraday Lecturer and was an Honorary Visiting Fellow of Salford University Physics Department from 1999-2005. He has edited three international space journals, published some 500 space-related articles and papers, and is the author of six books including *The Cambridge Dictionary of Space Technology* (CUP) and *Space: The Fragile Frontier* (AIAA), the first comprehensive text on protecting the space environment. He also coordinated the 1999 IAA/IISL Scientific-Legal Round Table on 'Protection of the Space Environment'.

Vasilis Zervos is an Associate Professor for Economics and Space Policy lecturer at the International Space University (ISU). Dr. Zervos taught topics in the area of Economics and Business at the University of York from 1996 to 1999 and Nottingham University Business School from 1999 to 2007. His research interests include industrial economics focused on the space, aerospace and defence industries, as well as, the economics of innovation and foreign direct investment.