The Global Practice of Forensic Science
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About the editor

Douglas H. Ubelaker, PhD, is a curator and senior scientist at the Smithsonian Institution’s National Museum of Natural History in Washington, DC, where he has been employed for nearly four decades. Since 1978, he has served as a consultant in forensic anthropology. In this capacity he has served as an expert witness, reporting on more than 900 cases, and has testified in numerous legal proceedings.

He is a Professorial Lecturer with the Departments of Anatomy and Anthropology at The George Washington University, Washington, DC, and is an Adjunct Professor with the Department of Anthropology, Michigan State University, East Lansing, Michigan.


Dr. Ubelaker received a Bachelor of Arts Degree and a Doctor of Philosophy from the University of Kansas. He has been a Member of the American Academy of Forensic Sciences since 1974 and achieved the status of Fellow in 1987 in the Physical Anthropology Section. He served as the 2011–2012 President of the AAFS. He is a Fellow of the Washington Academy of Sciences and is a Diplomate of the American Board of Forensic Anthropology. He is a member of the American Association of Physical Anthropology and the Paleopathology Association.

Dr. Ubelaker has received numerous honors including the Memorial Medal of Dr. Aleš Hrdlička, Humpolec, Czech Republic; the Anthropology Award of the Washington Academy of Sciences; the T. Dale Stewart Award by the Physical Anthropology Section of the American Academy of Forensic Sciences; the FBI Director’s Award for Exceptional Public Service; the Federal Highway Administration Pennsylvania Division Historic Preservation Excellence Award; a special recognition award from the FBI; and was elected Miembro Honorario of the Sociedad de Odontoestomatólogos Forenses Ibero Americanos.
List of contributors

Hugo Rodríguez Almada MD is the Director of the Legal Medicine Department (School of Medicine in the University of the Republic, in Montevideo city, Uruguay). He has worked since 1993 in Legal Medicine as a forensic doctor, professor and researcher. He is currently employed by the public University of Uruguay and is head of the Department of Legal Medicine, where Uruguayan experts in forensic medicine are educated and trained. Dr Rodríguez Almada has also been a visiting professor of other Latin American universities and has been Adjunct Director of the virtual Master in Forensic Medicine of the University of Valencia, Spain, since 2002. He has published several scientific papers and books on various topics of forensic sciences, especially in the field he calls "Legal Medicine of women and children". Much of his research is focused on sudden unexpected infant death. He has also served broadly as an editor or scientific adviser of several local and international journals and has been a member of their editorial boards or a peer reviewer. He is currently the editor in chief of the *Uruguayan Medical Journal* (RMU), the most widely spread biomedical journal in his country. Although he is not presently employed in the judicial system he is continually participating actively in several complex forensic investigations when requested by prosecutors or judges. Many of these cases are related to violations of human rights in the recent past committed during the civic–military dictatorship (1973–1985), some serial murders and several cases of medical malpractice. He is an honorary adviser of the National Institution of Human Rights and Uruguayan Ombudsman. He has been a representative of Uruguay in the Iberoamerican Network of Legal Medicine and Forensic Science Institutions since its beginnings in 2007. He has held several positions in national and international medical institutions. In 2000 he founded the Iberoamerican Society of Medical Law (SIDEME). In 2003, he was elected President of the Latin American and Caribbean Medical Confederation (CONFEMEL). More recently, he was elected by his colleagues as a member of the first Ethics Tribunal of the Medical Association of Uruguay (CMU), created by law in 2009.

Mario Alva-Rodríguez obtained his MD from the Military Medical School of Mexico and was a Postgraduate in Human Morphology at the Anatomical Institute in Münster, Westphalia, Germany. He has been Chief of the Department of Anatomy at the Military Medical School, Chief of the Department of Anatomy at the School of Medicine of the Anahuac University, General Subdirector of the Medical Services of Mexico City, Director of the El Rosario General Hospital in Mexico City, Subdirector of the Medical Military School, Chief of the Criminalistics Laboratory of the Attorney General Office in Mexico City, Subdirector of the Postgraduate Military Medical School, Founder and Chief of the Mastership in Forensic Medicine at the Postgraduate Military Medical School, Director of the School of Medicine at the Anahuac University, Chief of Forensic Medicine at the Attorney General Office of the Mexican Republic, General Director of the Medical Examiner Office of Mexico City, Founder and Chief of the Specialty in Forensic Medicine at the Medical Examiner Office of Mexico City, General Director of the Forensic Sciences Department at the Attorney General Office of the Mexican Republic, Director of Behavior Promotion at the National Institute of Drugs Enforcement, Coordinator of Criminalistics and Forensic Medicine at the National Institute of Penal Sciences, Director of the Educational Department at the National Institute of Penal Sciences, Coordinator of the Academic Committee of Legal Medicine at the Postgraduate Division of the Medicine Faculty of the National Autonomous University of Mexico and a Fellow of the Mexican Society of Criminology, Mexican Academy of Penal Sciences, Mexican Academy of Surgery, Mexican Academy of Bioethics, Mexican Council of Legal and Forensic Medicine, and the American Academy of Forensic Sciences. He participated in many Courses, Congresses and Symposia as organizer, teacher, lecturer or adviser for undergraduate
and postgraduate personnel of medicine, law, criminalistics and police. He had a number of articles and books published: *Basic Forensic Medicine*, *Atlas of Forensic Medicine* and *Compendium of Forensic Medicine*.

**Philip Beh** MD graduated from the Faculty of Medicine at the University of Hong Kong in 1981. He has worked in the area of forensic medicine ever since. He is currently a Clinical Associate Professor at the Department of Pathology, the University of Hong Kong. He works with many professional bodies including the ICRC and UNODC. He is an Honorary Advisor to Rain-Lily, Hong Kong’s first multidisciplinary rape crisis center. He is also a member of the Editorial Board on several international forensic medical journals. He was Vice-President of the International Association of Forensic Sciences (2002–2005) and President of World Police Medical Officers (2005–2008).

**Fawzi Benomran** MB ChB, DCH, MSc, MD is the director of Forensic Medicine and Senior Forensic Consultant at the Department of Forensic Medicine in Dubai Police General Headquarters in Dubai, UAE, where he has been employed for the past 16 years. His experience in Forensic Medicine and Forensic Pathology goes back to 1980 when he started his training in the Department of Forensic Medicine in Glasgow University. After he had finished his training in Glasgow, he returned to his home country, Libya, where he worked in Benghazi from 1983 to 1997. In August 1997 he joined the Dubai Police and started to develop the department in a progressive manner. He also has extensive teaching experience though teaching medical students as well as lawyers and policemen from 1983 till now. During his time in Libya, and in addition to his job with the Justice Department, he held the post of Head of the Department of Forensic Medicine and Toxicology and an Associate Professor of Forensic Medicine. In Dubai, he teaches at the Dubai Medical College where he is currently a full Professor of Forensic Medicine and also teaches at the Dubai Police Academy. He is an adjunct Professor with the Faculty of Medicine and the Faculty of Dentistry in Sharja and Ajman Universities, and a Visiting Professor and external examiner in several medical schools in Libya. Dr Benomran has written four books in the Arabic language, one about forensic medicine, two about medical ethics and responsibility and the fourth was a general knowledge book, a translation of its title from Arabic being *Book of the Dead*. He has had 22 scientific articles published in peer reviewed journals in forensic medicine and science. He has also written extensively for Arabic journals on general knowledge and literature, which, put together, exceed 300 articles. In addition, his work has been published extensively on many Arabic websites. Dr Benomran received his Bachelor’s degree in Medicine (MB ChB) from the University of Benghazi, his DCH degree from the University College of Dublin (Ireland), his MSc (Forensic Medicine) from the University of Glasgow and his doctorate degree (MD) in Forensic Medicine from the University of Colombo. He is also a member of several local and international professional societies and organizations.

**Herman Bernitz** is a private dental practitioner and Senior Stomatologist in the Department of Oral Pathology and Oral Biology in the School of Dentistry, University of Pretoria, South Africa. Professor Bernitz completed his BChD in 1978, his MSc (Odont) *cum laude* in Oral Pathology in 1996, a Dip Odont *cum laude* in Forensic Odontology in 1998 and a PhD in Forensic Dentistry in 2004. He lectures in both Oral Pathology and Forensic Dentistry and is the manager of Forensic Dental Research. He was the International President of IOFOS (International Organisation for Forensic Odonto-Stomatology) from 2005 to 2011. He is presently the Vice-President of IOFOS. He is a member of the scientific committee of the International Academy of Legal Medicine. He was the Chairman of the “bite mark” working group in Lillihamer, Norway, where international standards were set for bite mark analysis. Since 1998 he has acted as forensic consultant during which time he has been involved in all aspects of Forensic Dentistry, which have included the Air Kenya disaster in Douala, Cameroon, Sundance mining air disaster in Brazzaville, Congo, and the ammunition explosion in Maputo, Mozambique. He has acted as an expert witness in both the Pretoria and Johannesburg Supreme Courts as well as circuit courts around South Africa in bite mark, identification and age estimation cases. He has lectured extensively on four continents on forensic odontology related subjects. He is a member of the Editorial Board of the *Journal of Forensic Odonto-Stomatology* and online *Forensic Journal*.

**Luis Bosio** MD of the Forensic Medical Corps, Buenos Aires, Argentina, is a forensic doctor, who spent 20 years
as a forensic doctor at the Cuerpo Medico Forense (CMF) de la Corte Suprema de Justicia de la Nación, Argentina. He was head of the CMF (2008–2010) and is now retired and is an independent consultant. He teaches at the Faculty of Medicine of the University of Buenos Aires.

**Angel Carracedo** is a Professor at the University of Santiago de Compostela, Spain, Director of the Institute of Forensic Science (USC), Director of the Galician Foundation of Genomic Medicine (SERGAS, Galician Service of Health), Director of the Spanish National Genotyping Center and a Member of the Centre for Biomedical Network Research on Rare Diseases (CIBERER). In a first step of his career his activity was mainly devoted to population and forensic genetics. His group leads scientific production in the SCI area of legal and forensic science worldwide (http://sciencewatch.com/ana/fea/11julaugFea). He was a Director of the Institute of Legal Medicine (USC) from 1995 and from 2002 has also been working in the clinical genetics area, where he has set up the Galician Foundation of Genomic Medicine. Most of his recent research is now mainly concentrated in forensic genetics and genetics of complex traits (particularly sudden cardiac death, cancer, psychiatric diseases and pharmacogenomics). He has had 12 books and over 480 papers published in SCI journals, including papers in Nature, Nature Genetics, Science, PNAS, American Journal of Human Genetics, Gene, European Journal of Human Genetics and especially in Forensic Science journals. He is a highly cited researcher in Molecular Biology and Clinical Medicine and a Board member and external adviser of different national and international institutions, foundations and societies on Forensic Science (IALM, ISFG, MAFS), Genetics and Pharmacogenomics. He is a Director of 70 PhDs, all with the highest qualifications and 18 with University or National Awards. He is also a representative of Spain in the European Medicine Agency (Pharmacogenetics Working Group) and different regulatory boards (i.e. IRDiRC, ICRC, CNUFADN), the Editor of Forensic Science International Genetics and a member of the editorial board of a number of the international and national journals on genetics, cancer and forensic science. Prizes and distinctions include the Jaime I Award, Adelaide Medal, Galien Medal, Medal Castelao, Medal of Galicia, Medal to the Police Merit, Galician Prize of Research, Fernandez Latorre Award, Prisms Award and various prizes from foundations and scientific societies. He is a Doctor Honoris Causa for different universities in Europe and the Americas.

**Cristina Cattaneo**, a forensic pathologist and anthropologist, received a BSc in Biomedical Sciences at McGill University, Canada, an MA in Osteology, Funerary Archaeology and Palaeopathology and a PhD in Pure Sciences at the University of Sheffield, UK, and then moved to Italy where she graduated in Medicine and went on to specialize in Legal Medicine. She is currently Associate Professor of Legal Medicine at the Faculty of Medicine of the Università degli Studi di Milano (Italy), founder and director of LABANOF, Laboratorio di Antropologia e Odontologia Forense at the Institute of Legal Medicine of the Dipartimento di Scienze Biomediche per la Salute and teaches Anthropology at the Faculty of Sciences and Arts at the same University. She is author and co-author of books and scientific articles concerning anthropology and forensic pathology in general, identification, trauma and clinical forensic medicine, as well as a legal expert in forensic pathology, anthropology and clinical forensic medicine for various courts in Italy and occasionally in Europe. She is co-founder and vice-president of FASE (Forensic Anthropology Society of Europe), a subsection of IALM (International Academy of Legal Medicine) and a member of the Swiss DVI (Disaster Victim Identification) team. She is associate editor for the journal Forensic Science International. Since 2007 she has been actively involved with the Italian Ministry of Internal Affairs in the creation of a national database for unidentified human remains and has recently been involved in the development of a forensic humanitarian service for asylum seekers in the city of Milano.

**P.K. Chattopadhyay**, formerly Professor and Founder Head of the Department of Forensic Science, Punjabi University, Patiala, did his MSc and PhD in Anthropology at the University of Delhi. He started his teaching career as Lecturer in Forensic Science, Delhi University in 1968 before moving to Patiala to set up the first fully fledged Department of Forensic Science in the world. Professor Chattopadhyay has delivered Key Note and Plenary Addresses and Chaired Sessions at various International Congresses in India and abroad, including the International Meeting of Forensic Sciences (he Chaired the Session on Forensic Anthropology at Zurich, Switzerland, in 1975, the only Indian to have been so
honoured; he also Chaired the Session on Forensic Education at the International Meeting of Forensic Sciences at Hong Kong in 2005), the World Congress on Medical Law at Gent, Belgium, in 1991, the International Symposium on Advances in Legal Medicine, Osaka, Japan, in 1995, and the International Congress of Anthropological and Ethnological Sciences in 1978 at Delhi. He has had more than 100 original research papers on various aspects of forensic sciences published, including ones on the determination of sex, blood groups and enzyme types from hair, bones, teeth, muscles, stains of blood, semen, saliva, urine, genetics of the dermal ridges and hair keratin, drugs from hair, insecticides in mothers’ milk, salivary agglutinins, determination of hand and finger from a single fingerprint, effect of alcohol on handwriting, determination of sex from handwriting, pattern of suicides, autosomal and Y-STR types from blood stains (DNA profiling), membrane associated transfer protein (MATP), gene and the founder’s effect, etc. Several students have worked with him for their PhD Degree (18) and MD in Forensic Medicine (2). Two students are working with him for their PhD now. A Visiting Fellow of the Indian Council for Medical Research in 1973, Dr Chattopadhyay has received extensive training on various aspects of Forensic Sciences at the Central Forensic Institute, Calcutta, and in Forensic Medicine at the Calcutta Medical College. He has been a Visiting Professor with the Department of Anthropology, Manipur University, Imphal, Manipur, in 1987, Institut für Rechtsmedizin, Christian Abrechts University, Kiel, Germany, in 1994, the Departments of Forensic Medicine, Nagasaki and Akita University Medical Schools in 1993, 1995, 2002 and 2008 and the University of Kebangsaan, Malaysia, in 2009, and a Visiting Scientist to the United Kingdom, the United States, Germany, France, Belgium, Australia, Singapore, the Czech Republic, Switzerland, Yugoslavia, Nepal, Thailand, Bangladesh, Hong Kong, Indonesia, Egypt, Sri Lanka and several other countries of the developed world in 1972, 1973, 1975, 1982, 1984, 1986, 1988, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1998, 1999, 2001, 2002, 2004, 2005, 2007, 2008, 2009, 2010, 2011, 2012 and 2013 and lectured extensively on various aspects of Forensic Science, Forensic Medicine, Genetics and Anthropology. A member of several national and international societies (he has been a Vice-President of the Indo-Pacific Association of Law, Medicine and Science) and the Editorial Board of a number of journals, including the Legal Medicine, an Elsevier publication. A Fellow of the Indian Academy of Forensic Sciences, Indian Academy of Forensic Medicine and the Indian Association of Medico-Legal Experts, Dr Chattopadhyay has won several Prizes and honours such as the Dr S.S. Sarkar Oration Award in Anthropology in 2000, Best Researcher Award of the Indian Academy of Forensic Medicine in 1997, Best Teacher and Forensic Scientist of the December of the Medico-legal Society of India in 1998, Forensic Scientist of the Millennium Award of the Medico-Legal Society of India in 2002 and a Special Award from the Indo-Pacific Association of Law, Medicine and Science at Manila, Philippines, in 2004 for his contributions to knowledge and development of Forensic Science in the region. Professor Chattopadhyay has been the Congress Chairman of the 10th Indo-Pacific Congress on Legal Medicine and Forensic Science, 2010, and President of the Indo-Pacific association of Law, Medicine and Science for the years 2010–2013. Professor Chattopadhyay has just been invited by the Kwame Nkrumah University of Science and Technology, Ghana, to join the Department of Biochemistry and Biotechnology as a Visiting Professor of Forensic Science for the year 2014–2015 and joined the Amity in April 2004 as Director (2004–2013) and Advisor (February 2013–January 2014) of the Amity Institute of Forensic Science, NOIDA–201303, UP, India.

Paul Chui is a qualified practicing Senior Consultant forensic pathologist, accredited as a specialist in pathology by the Specialist Accreditation Board of the Ministry of Health, Singapore. He is also a gazetted forensic pathologist under the Coroner’s Act 2010.

After graduating with an MBBS in 1983 from the National University of Singapore, he subsequently trained in forensic pathology from 1986 and spent 2 years in the United Kingdom from 1989 to 1991, where he attained both the Diploma in Medical Jurisprudence (DMJ) and Membership of the Royal College of Pathologists (Forensic) in 1991 and Masters in Business Administration (NUS) in the mid-1990s. In 1996, under an HMDP Fellowship, Dr Chui spent 3 months at the Coroner’s/Medical Examiner’s offices in Pittsburgh, Chicago and Los Angeles.

Over the years, Dr Chui has been involved in numerous Coroner cases and homicides, including a number of notable court cases, such as Public Prosecutor vs Chee Cheong Hin Constance (Sindee Neo case) and Public Prosecutor
vs. Tok Leng How (Huang Na Case). He has also provided consultancy and technical assistance to overseas clients regionally. He testified on the forensic autopsy evidence before the Saket Court (Delhi, India) in the high profile gang-rape murder trial in February 2013, and was closely involved in the Coroner’s Inquiry into the high profile case of Shane Todd Truman in May 2013.

Dr Chui took on the Directorship of the Centre of Forensic Medicine (CFM, later renamed the Forensic Medicine Division in 2008) when the Health Sciences Authority (HSA) was formed in 2001. Computerized tomography (CT) scanning capability was added in 2010 to support the work of FMD, and a forensic anthropology laboratory was established in 2011. In April 2013, Dr Chui was appointed Chief, Forensic Medicine. The Division successfully attained accreditation from the National Association of Medical Examiners (NAME) in 2005 and has been successfully reaccredited by NAME in 2011 for another five years.

In 2003, during the SARS outbreak, Dr Chui was personally involved in autopsy examination of deaths suspected as being due to SARS. He was involved in developing the world’s first mobile containerized biosafety level 4 autopsy facility, which was commissioned in 2005 and is still operational. The experience from SARS had also led to a major revamp of biosafety procedures and workplace practices in the mortuary.

Dr Chui is a Fellow of the American Academy of Forensic Sciences and a full member of the National Association of Medical Examiners (NAME). He has been a long-time serving member of the International Ad-hoc Committee under NAME, and a certified NAME Accreditation Inspector from 2011 to 2016.

Since 2001, Dr Chui had also served in various concurrent corporate capacities such as Director (Corporate Management), Director (Office for Innovation and Enterprise), Chief Information Officer (CIO), etc., within the HSA. He had also been directly involved in leading the implementation of key IT operational Systems (LISA and FIONA) supporting the work in the Applied Sciences Group. Both LISA and FIONA won regional awards in IT excellence. Dr Chui served as the Group Director of the Applied Sciences Group (ASG) of HSA from July 2006 to January 2011. In 2011, Dr Chui received the Becton–Dickinson Award in Pathology, awarded by the Singapore Society of Pathology. He is one of the founding members in the forerunner group that spearheaded the formation of the Asian Forensic Sciences Network (AFSN), a regional professional association of forensic institutes in Asia, and was its President from October 2008 to May 2011. Presently, Dr Chui is also serving as the current Chairman of the DSO–SAF Institution Review Board, as well as a member of the Singapore Armed Forces Medical Advisory Board.

Heesun Chung PhD is a Dean and Professor of the Graduate School of Analytical Science and Technology, Chungnam National University, South Korea. She obtained her PhD in Pharmacy from Sookmyung Women’s University, South Korea, in 1987 and subsequently was awarded a Foreign Commonwealth Office Scholarship to do further postdoctoral study at King’s College, London. She was the Director General of the National Forensic Service (formally the National Institute of Scientific Investigation), South Korea from 2008 to 2012. She had also held many top forensic related posts in South Korea such as Head of Department of Forensic Science, Director of Narcotics Analysis Division, Director of Drug and Toxicology at the National Institute of Scientific Investigation and many more. She lectures at Sookmyung Women’s University, Korean National Police University, Korean Police Investigation Academy, Central Officials Training Institute and Dongguk University. She is the current president of the International Association of Forensic Sciences (IAFS) and is also the President-elect for the International Association of Forensic Toxicologists (TIAFT). These are just two of her many involvements with forensic professional bodies. She is also on the Editorial Board of *Forensic Toxicologists* and *Forensic Science International*. Dr Chung is a licensed Pharmacist and Toxicologist and has presented findings at numerous international meetings and symposia. Her research has resulted in the publication of over 100 scientific articles. For the last five years, 40 articles have been published in international and national journals. She is the holder of several patents and the writer of books. Her research interests are the analysis of abused drugs in biological fluids and other alternative specimens including hair and impurity profiling of illicit methamphetamine. Dr Chung has been awarded many medals and awards, including a medal for distinguished service by the Korean Government, a medal for excellence in Forensic Science from the Mongolian Government and an award as a reviewer in Pharmacy and Medicine by the Medical News Agency. She received the most outstanding Woman Scientist award from the Ministry of
Science and Technology and the Bichumi Award from the Samsung Life Insurance Company. She has also received awards from the Ministry of Home Affairs, the Ministry of Health, Seoul Pharmaceutical Association, Korean Pharmaceutical Association and Seoul Daily Newspaper.

Luis Concheiro was Emeritus Professor at the University of Santiago de Compostela, Spain, Ex-Director of the Institute of Forensic Science (USC), Professor of Legal Medicine of the University of Santiago de Compostela from 1975. He was Director of the Institute of Legal Medicine from 1990 to 1998 and has had different academic positions including Vice-Rector of the University of Santiago de Compostela (1994–1998) and had Pregraduate formation under the direction of Professor Arsenio Nunes (Institute of Legal Medicine Lisbon, Portugal) in 1967–1968. He has had 6 books and over 150 papers in journals published, all of them related to forensic science. With reference to the subject of this book, his Medicina Legal en la Historia (Academia de Medicina, 2006), De las Relaciones de la Medicina y el Derecho (Universidad de Santiago de Compostela, 2010) and Los Pecados Capitales de la Medicina Legal Española, Revista Ciencia Forense (2011) should be highlighted, and he was one of the authors of Libro Blanco de La Medicina Legal (Ministerio de Justicia, 1985).

He is regularly invited as a keynote speaker at meetings, workshops and symposia in virtually all continents and prizes and distinctions include Gold Medal USC, Medal of Gold and Brilliants Real Medical Order, Medal to the Guardia Civil Merit, Medal San Raimundo de Peña for Doctor Honoris Causa by the University of Coimbra (Portugal) and Universidad Nacional San Luis Gonzaga de ICA (Perú).

Stephen Cordner is Professor of Forensic Medicine at Monash University (Foundation Chair), Head of the International Program at the Victorian Institute of Forensic Medicine (VIFM), Forensic Advisor on the International Committee of the Red Cross and Patron of the African Society of Forensic Medicine. He has a particular interest in mass casualty management, disaster victim identification and international forensic medical capacity development. Professor Cordner has worked for the International Committee of the Red Cross and has undertaken forensic medical investigative work in Kosovo, East Timor, Fiji and Bali as well as his case work in Australia. He is particularly committed to teaching and has undertaken or organized training in Indonesia, Sri Lanka, the Middle East, Botswana and Uganda. Most recently Professor Cordner was deployed by the WHO to the Philippines for a month in late 2013 to provide advice on mass casualty management following the devastation wreaked by Typhoon Haiyan and by the ICRC to Liberia to provide advice on body management for the Ebola epidemic.

Agnes Dósa MD, JD, PhD is Assistant Professor and Vice-Director of the Institute of Forensic and Insurance Medicine, Semmelweis University, Budapest. She graduated from Semmelweis University in 1989 (MD) and from Eötvös Loránd University in 1993 (JD). She earned her PhD degree in 2004; the title of her thesis was: Medical malpractice – analysis of Hungarian case law from a comparative perspective. She teaches forensic medicine and medical law. Being a proponent of integration of medical law and forensic medicine, she has introduced a new curriculum of medical law for medical students. She has served as secretary and member of the Board of Forensic Medicine Experts of the Health Scientific Council since 2006. She is a member of the Human Reproduction Committee of the Health Scientific Council and has served as a member and secretary of various research ethics committees. Dr Dósa’s work has been published extensively in the field of medical law with an emphasis on medical malpractice and is the author of three books and more than 100 articles.
W. Eisenmenger is employed by the Institute of Forensic Medicine, Ludwig Maximilians University, Munich, Germany. He was head of the Munich Institute of Forensic Medicine from 1989 to 2009.

Luis Fondebrider (Lic) is a forensic anthropologist who graduated from the University of Buenos Aires. He is the current President of the Argentine Forensic Anthropology Team (EAAF), a scientific nonprofit organization that for the last 30 years has been using forensic anthropology as well as other disciplines to investigate cases of political, ethnic and religious violence around the world. As a member of EAAF, Mr Fondebrider has worked in 40 countries in Latin America, Africa, Europe, Asia and the Pacific region, exhuming and analyzing human remains. He worked as an expert witness and consultant for the International Tribunal for the former Yugoslavia, Truth Commissions of several countries, United Nations commissions of inquiry, Inter American Court of Human Rights, Prosecutors offices, medicolegal institutes and organizations composed of relatives of the victims. Mr Fondebrider teaches at the Faculty of Medicine of the University of Buenos Aires and is a Doctor Honoris Causa for the University of Buenos Aires.

Zeno Geradts has worked since 1991 at the Netherlands Forensic Institute as a forensic scientist. He is an expert witness in image analysis and biometrics (e.g. facial comparison) as well as R&D coordinator in digital evidence. In 2002 he received a PhD from the University of Utrecht based on research on computational matching of images from shoeprints, toolmarks, drugs, pills and cartridge cases. At the American Academy of Forensic Sciences he has been Chairman of the Engineering Section and since 2008 he has been Chairman of the section Digital Evidence and Multimedia and from 2010 to 2013 the Director of the section. He is Chairman of the European Network of Forensic Science Institutes Forensic IT working group. He authored and co-authored in many publications and presented a wide variety of papers and workshops, and is active in casework as an expert witness and in projects in digital evidence and multimedia (such as camera identification, repairing video streams, image analysis and heart beat detection from CCTV).

Antonio Grande is a Specialist in Legal Medicine and Forensic pathology, as well as Head of Medicolegal Services and Psychology applied to Criminalistics at the Scientific Police Service, Polizia Scientifica and Anti-Crime Central Direction – Rome. He is Contract Professor for the University of L’Aquila, Faculty of Psychology, in the postgraduate course in Psychology Applied to Criminal Analysis. He teaches Legal Medicine at the Faculty of Medicine and Dentistry at the Università la Sapienza, Rome, and several other postgraduate courses in forensic sciences at the Universities of La Sapienza, Rome, Tor Vergata, Rome, Pavia, Università Cattolica del Sacro Cuore, Rome, LIUMSA, Rome, and for the Superior School of Police. He is author of several articles and book chapters on forensic medicine and sciences.

Mete Korkut Gulmen was born at Adana–Turkiye in 1957. He had been an International–Intercultural Scholar to the United States during High School years and had graduated from Mission Viejo High School, California in 1975. He graduated from Medical School and worked as a general practitioner for two years. He performed his Anatomo–Pathology licensure education at Cukurova University and served for the Turkish Military at the Gulhane Military Medical Academy of the Anatomo–Surgical Pathology department as a consultant pathologist as well as a lecturer. He later started to work at the Forensic Medicine Department of the School of Medicine. He gained his doctorate degree on Forensic Medicine and Forensic Pathology at the Health Sciences Institute of Cukurova University and worked as a Fellow in the summer of 1995 at the Department of Forensic Medicine of Dundee University, Scotland. Dr Gulmen became a full Professor of the field in 2005. He had been working as the chief forensic pathologist at Cukurova University as well as the Morgue Department of the Adana branch of the Legal Medicine Council and also worked as a lecturer and researcher at Cukurova University since 1992. He continues to teach Forensic Medicine and Forensic Pathology to the fifth year Medical School students. He has been on the Editorial Board of The Council of Forensic Medicine Journal of Forensic Medicine, Turkish Clinics (Türkiye Klinikleri) Journal of Forensic Medicine and Bulletin of Legal Medicine as well as the Editorial Board of the Journal of Cukurova Medical School since 1999 and the Post Graduate Medical Journal of the British Medical Association since 2004. He has worked as a committee member of the postgraduate education of the School of Medicine, Cukurova University from 1999 till 2003 and as a board member of the Cukurova University Health Sciences Institute from 1998 to 2004. He is a member of the Turkish Medical Association,
Turkish Forensic Medicine Specialists, Turkish Pathology Federation and Ethic Committee of the Pathology Federation, Turkish Cancer Research Association and Cukurova Pathology Association. He is one of the founders and presidents of the Adana Development Alliance Foundation and Adana Swimming–Diving Sports Club, which has built an educational village in Adana. He is also a member of the Turkish Cultural Foundation and AFS Volunteers Association and is one of the Presidents of the Turkish National Forensic Medicine Specialists Association and also the Chairperson of the Board of the Forensic Medicine Specialists. He was the 2007–2009 President of The Mediterranean Academy of Forensic Sciences (MAFS) and organized the MAFS 2009 Congress at Antalya–Türkiye. He organized the last, 22nd IALM Meeting in 2012 at Istanbul–Türkiye and will be organizing the Fifth Congress of AIDC on “Standardization of Medical Expertise” in Istanbul on 3rd to 5th of September 2014. Professor Dr. Gülmen has had numerous studies published in various journals of the world and organized several symposia and congresses. He has also participated in numerous conferences, panels, lectures, TV and radio programs as well as many workshops. He is also a founding member of several foundations and associations. He is serving as a volunteer for AFS International/Intercultural Scholarship programs on behalf of the Turkish Cultural Foundation as well as the International AFS. He is a member of the Turkish Medical Association and a founding member of the Forensic Medicine Specialists Association and past President of the Forensic Medicine Specialists Board. He is also a member of the European Cardiovascular Pathology Association and also the American Academy of Forensic Sciences. He has carried out many studies in various fields of Forensic Sciences, but mostly in Forensic Pathology and Sudden Deaths and Cardiac Pathologies in particular. He has been working as a full Professor and the Chairperson of the Forensic Medicine and Forensic Pathology Department since 2005 and has held the Forensic Pathology section Chair for the last 16 years. He has been happily married for 28 years and has a daughter and a son aged respectively 26 and 22.

Sheilah Hamilton PhD has been a forensic scientist for more than four decades. In 1965 she received her BSc (Hons) degree in Chemistry from the University of Glasgow, her MSocSc in 1994 and her PhD in 1999, both from the University of Hong Kong. Between 1968 and 1988 she worked as a forensic scientist in the Forensic Science Division of the Hong Kong Government Laboratory, then at the State Forensic Science Laboratory in Adelaide, South Australia, before establishing Forensic Focus in 1989, at that time the first independent forensic science consultancy in Hong Kong. In addition to having taught forensic science and fire investigation at universities in Hong Kong and the United Kingdom, she has written extensively about both subjects.

Steen Holger Hansen is a forensic pathologist at the Department of Forensic Medicine, Faculty of Health Sciences, University of Copenhagen, where he has worked since 1998. Steen Holger Hansen is an MD from the University of Copenhagen. He has been a specialist in Pathology and Histopathology from 1995 and a specialist in Forensic Medicine from 2008. He is also the Deputy Chief forensic pathologist at the Department of Forensic Medicine, which performs forensic autopsies, crime scene investigations and clinical forensic medicine. The section is accredited by international standards and Steen Holger Hansen is Chief of the quality assurance. Aside from teaching at the University of Copenhagen, he teaches doctors in training to become specialists in Forensic Medicine and police investigators. He has participated as a lecturer at international courses in forensic medicine. Steen Holger Hansen is an author and co-author of several journal articles and book chapters, focusing both on forensic pathology and clinical forensic medicine.

Matthew Hickman PhD is an Associate Professor in the Department of Criminal Justice at Seattle University. His general research interests include issues in law enforcement, quantitative methods and the impact of forensic sciences on the administration of justice. He received his PhD degree in 2005 from Temple University and was previously a statistician at the Bureau of Justice Statistics, US Department of Justice. His work has appeared in a wide variety of journals, including Criminology, Criminology and Public Policy, Journal of Quantitative Criminology and the Journal of Forensic Sciences. He is a member of the American Academy of Forensic Sciences, American Society of Criminology and the International Association of Crime Analysts.

Cengiz Haluk İnce was born on 12 August 1966 and is currently living in Istanbul. He is currently a Professor
in the Istanbul University Medical Faculty Forensic Medicine Department. He is also an Adjunct Professor with the Law Faculty at Dogus University, Istanbul. He is married and has two children. Professor İnce graduated from the Uludag University Faculty of Medicine in 1990. He completed his residence training in 1995 at the Istanbul University Medical Faculty, Department of Forensic Medicine. He became an Associate Professor in 2006 and a full Professor in 2013. He also obtained his PhD degree in Public Health in 2005 and then his Master’s degree in Business Administration in 2009. He served as President of the Turkish Forensic Medicine and Science Institution between the years 2009 and 2013. İnce’s research is mainly based on clinical forensic medicine with medical malpractice and forensic applications. He has served on editorial boards of numerous leading scientific publications, including the Journal of Trauma, Turkish Clinics Journal Medical Science, International Nursing Review and Archives of Neuropsychiatry, as well as the American Board of Independent Medical Examiners (ABIME). He also served as a Member or President for several societies such as the National Society for the Prevention of Occupational Accidents (President), American Board of Independent Medical Examiners (ABIME), American Academy of Forensic Sciences, International Association of Personal Injury (AIDC) and EurAsia Forensic Medicine and Science.

Takaki Ishikawa MD,PhD is Professor and Chair of the Division of Legal Medicine, Faculty of Medicine, at Tottori University, where he has been since 2013. He received the degree of Doctor of Medicine from Okayama University in 2003. From 2004 to 2013, he worked at Osaka City University Medical School, eventually as a forensic pathologist. He was a guest researcher at the Institute of Legal Medicine, University Hospital Freiburg, Freiburg, Germany, in 2009. He works as an expert in forensic pathology and toxicology with primary specialties in clinical forensic pathology. His current researches focus on forensic endocrinology and forensic pathological evaluation of various stress responses.

Graham R. Jones PhD, DABFT is Chief Toxicologist for the Alberta Office of the Chief Medical Examiner, in Edmonton, Alberta, Canada. He originally qualified as a Pharmacist in the United Kingdom and later earned his PhD degree in Pharmaceutical Chemistry (Drug Metabolism) from the Chelsea College at the University of London. Dr Jones subsequently moved to Canada to take up a fellowship at the University of Alberta, later joining the University of Alberta Hospital as a Clinical Toxicologist. In 1981 he joined the Alberta Office of the Chief Medical Examiner as Director of the new forensic toxicology laboratory. Dr Jones has been very active in his profession and is a member of several professional organizations in Canada, the United Kingdom and the United States. He is a past-President of the American Academy of Forensic Sciences (AAFS), past-President of the Society of Forensic Toxicologists, past-President of the Forensic Specialties Accreditation Board and Chair of the Laboratory Accreditation Program of the American Board of Forensic Toxicology. He is also a member of the editorial boards of the Journal of Analytical Toxicology and the Journal of Forensic Sciences. Dr Jones is the recipient of the Alexander O. Gettler Award and the Distinguished Fellow Award from the AAFS and has been granted the Doug Lucas Award from the Canadian Society of Forensic Science. Dr Jones has been a leader in the development of professional standards for the forensic toxicology profession for over 25 years. In addition, he has been a toxicology laboratory inspector with the National Laboratory Certification Program for workplace drug testing in the United States, for the Standards Council of Canada and the American Board of Forensic Toxicology. Dr Jones has served as a consultant and expert witness in several toxicology-related murder trials in both Canada and the United States.

Eva Keller is a full Professor at the Semmelweis University Department of Forensic and Insurance Medicine, in Budapest, Hungary, where she has been employed for 33 years. Dr Keller received her medical degree at the Semmelweis University in 1981 and has specialized in anatomic pathology and forensic and insurance medicine. She is a Board Member of the European Council of Legal Medicine, International Academy of Legal Medicine. Dr Keller is a lecturer of international repute and has given several professional lectures and presentations, some as far afield as America, Hungary, Germany, Finland and Sweden. She was an invited lecturer at the Eye to Eye Conference: The Global Conference on Cultural Relations. Dr Keller gained her PhD in cardiac pathology and her scientific interest later turned to drug abuse. Recently she has carried out a joint research with Professor Yasmin Hurd (USA, Mt Sinai
Hospital) on molecular and pathologic changes on drug related death and has published extensively on the field of drug abuse. Dr Keller is a well-known forensic expert whose specialty is insurance fraud related cases. She is President of the Medical and Scientific Board/Forensic Expert Section (ETT/ISZT), the Hungarian Medical Association, Forensic Medicine Devisioation and the Hungarian Forensic Medical Association.

**Michael Kenyhercz** MS is currently a graduate student at the University of Alaska, Fairbanks. He completed his master’s degree in 2010 at Mercyhurst University, focusing on biological and forensic anthropology. He then worked on two NIJ grants through Mercyhurst University focusing on fatal fire recoveries and mass disaster recoveries. In 2012 he completed a fellowship through JPAC-CIL’s Forensic Science Academy. He has published mainly on the estimation of sex and ancestry, focusing on modern US populations and modern South African populations.

**Burgert Kloppers** MSc is the Technical Manager of the Ballistics Section of the Forensic Science Laboratory, South African Police Services and holds the rank of Colonel. He was appointed to the Forensic Science Laboratory in 1986. He is a firearms and toolmark specialist with a special interest in terminal ballistics.

**Toshikazu Kondo** MD, PhD graduated and received the degree of Doctor of Medicine from Kanazawa University, Medical School. He has been Chairman and Professor of the Department of Forensic Medicine, Wakayama Medical University, Japan, since 2003. He is a specialist in forensic autopsy. In addition, his specialist research activity has been in molecular forensic pathology.

**Ericka Nöelle L’Abbé** PhD was appointed in 2012 as Associate Professor, Department of Anatomy, University of Pretoria, South Africa. She received her PhD degree in 2005 from the University of Pretoria. She is a certified diplomat with the American Board of Forensic Anthropology (D-ABFA) and has published extensively in the field of forensic anthropology with a special interest in skeletal biology, bioarchaeology, estimation of ancestry and trauma analysis.

**Gérard Nicholas Labuschagne** PhD is a licensed Clinical Psychologist with the Health Professions Council of South Africa. He was appointed in 2013 as Extraordinary Professor, Department of Police Practice, University of South Africa and as an Honorary Associate Professor at the Division of Forensic Medicine and Pathology at the University of the Witwatersrand. He is currently Section Head of the Investigative Psychology Unit of the South African Police Service (SAPS) with the rank of Brigadier. He has published extensively on all aspects of forensic psychology with special interest in multi-murders, serial rapists, criminal profiling and child sexual offenders.

**Üllar Lanno** has been Director of the Estonian Forensic Science Institute since 2006 and was the Chairman of the Baltic Network of Forensic Science Institutions in 2009. He is a Member of the ENFSI Scene of the Crime Working Group and currently acts as the Chairman of the European Network of Forensic Science Institutes.

**Soong Deok Lee** MD, PhD is a Professor at the Seoul National University College of Medicine in South Korea. He graduated from the SNU College of Medicine in 1987 and received a PhD degree in 1994. The theme of his doctoral degree was about DNA fingerprinting, which was a newly introduced area at that time. He has served as a Professor in the Department of Forensic Medicine at the same university since 1995. As a researcher on forensic genetics, he has done a lot of work on DNA fingerprinting. As a member of leading persons in the field of forensic genetics in South Korea, he also contributed greatly for the establishment of the forensic lab and for launching criminal DB in South Korea. He is now a Board Member of the Administrative Committee for Criminal DB in Korea. As a practitioner in forensics he has worked as a medical examiner and has handled many socially well known cases. He is now also actively participating as an expert for the court. As an educator, he has lectured about forensic medicine, forensic genetics and forensics as a whole for medical students, biologists and field members of forensics including police and prosecutors. He established KAPO (Korean Association of Paleopathology and Osteoarcheology) in Korea and had been the first Dean of KAPO. He is now Vice-Dean of the Korean Society of Law and Medicine and a member of the National Academy of Medicine of Korea.

**Marisol Intriaigo-Leiva** from Chile has been a Forensic Anthropologist, Head of the Special Unit of Forensic Identification, under the Legal Medical Service of Chile
since 2011, and has been in charge of coordinating the forensic analysis field and laboratory aimed at the identification and determination of injury in human rights cases and criminals in addition to the implementation of the National System of Forensic Identification Forensic Service. From 2003 to 2010 she served as an expert in this Service, participating in over 600 investigations related primarily to human rights cases.

Sikeun Lim PhD is a senior forensic DNA specialist at the National Forensic Service in South Korea where he has been employed since 1997. He has dealt with tens of thousands of crime cases including the Kang Ho-Soon serial killer case. He is an Adjunct Professor with the Graduate School of Forensic Science at Soon Chun Hyang University and is a specialist of KOSEN (Korea Science and Engineering Network) in KISTI (Korea Institute of Science and Technology Information). He was a visiting scientist at the Wellcome Trust Sanger Institute, Cambridge, United Kingdom, in 2004. Dr Lim has published many articles, columns and books in the field of forensic DNA analysis and human genetics. He received a Bachelor of Science Degree (Biology), Master of Science Degree (Biology) and a Doctor of Philosophy (Microbiology) from the Korea University and has received numerous honors including the Prime Minister’s Award in 2012 and the Ministry of Safety and Public Administration Award in 2010. In 2006 he received the National Police Agency Award for participating in the French Frozen Baby case of Seorae village.

Bertrand Ludes is a French citizen born in 1959 and is married with two children. He has been Professor of Legal Medicine at the Medical School of Paris Descartes since 2013, Director of the Institut Medico-légal of Paris since 2013, Professor of Legal Medicine at the Medical School of Strasbourg from 1996 to 2013, Director of the Institut de Médecine Légale de Strasbourg from 1996 to 2013 and Dean of the Medical School of Strasbourg from 2001 to 2011. He gained the title of Medical Doctor obtained in 1985, a PhD in Molecular Pharmacology in 1990 at the University Louis Pasteur in Strasbourg, Research Habilitation at the same university in 1993, Specialization as a Forensic Pathologist in 1988, Assistant Professor at the Medical School of Strasbourg from 1991 to 1996, Doctor Honoris Causa of the Medical College of Kunming, PR China in 2003 and Member of the Deutsche Akademie der Naturforscher LEOPOLDINA in 2000. He is a Member of Ehrenmitglied der deutsche Gesellschaft für Rechtsmedizin (23/09/2009), Vice President of the French Society of Legal Medicine since 2006, Vice President of the International Academy of Legal Medicine since 2006, Member of the International Society for Forensic Genetics, Member of the German Society for Legal Medicine, Co-founder of the genetic identification laboratory of the Institut de Médecine Légale de Strasbourg, Forensic Expert at the French “Cour de Cassation”, Professor Honorificum Senatus of the University POPA, IASL, Romania (27/04/2003) and an Honorary member of the Hungary Society for Legal Medicine. His main research subjects are human DNA profiling (mitochondrial and chromosomal STRs, SNP technology) and diatom research and analyses in drowning cases. He has written numerous book chapters and articles for international and national publications, given many oral scientific presentations and produced posters.

Niels Lynnerup is a Professor with special duties at the Department of Forensic Medicine, Faculty of Health Sciences, University of Copenhagen, where he has worked since 1990. Niels Lynnerup has an MD from the University of Copenhagen and his PhD thesis was based on an analysis of skeletal remains of the Norse Vikings in Greenland. Since then he has worked with forensic anthropology, becoming Head of the Unit of Forensic Anthropology at the Department of Forensic Medicine. Aside from working with human remains, the Unit also works with identification of the living, based on CCTV material, for example matching perpetrators as seen on CCTV with suspects. This work also includes the application of novel photogrammetric methods. He is also Head of the Laboratory of Biological Anthropology, which curates an extensive skeletal collection from Danish pre-history and history. His research in biological anthropology mostly focuses on the analysis of human skeletal remains and mummies and bog bodies in an archaeological setting. He works extensively with CT scanning and advanced three-dimensional visualization. Current projects also include stable isotope analyses and involvement in DNA extraction from Danish and Greenlandic skeletal material. He has also worked on paleodemographic issues, including mathematical modelling. Aside from teaching at the University of Copenhagen, Niels Lynnerup is regularly asked to participate as a lecturer at international courses in forensic and biological anthropology. He is the author and
co-author of more than 200 journal articles and book chapters, focusing both on forensic anthropology and biological anthropology. Since 2012 he has also been Editor-in-Chief of the *Scandinavian Journal of Forensic Science*.

**Hitoshi Maeda** MD, PhD graduated and received the degree of Doctor of Medicine from Wakayama Medical University. Professor Maeda has been Director of the Department of Legal Medicine, Osaka City University Medical School, Japan, since 1990 and works as a board-certified specialist and supervisor of forensic/legal medicine. His practical and research activities extensively cover the fields related to forensic/legal medicine. He primarily studies collaborative organization of forensic autopsy laboratory systems for pathophysiological analysis of fatal insults in connection with clinical concepts, mainly involving pathology, toxicology, biochemistry, molecular pathology and radiology.

**Patrice Mangin** Prof. Dr Med. graduated from the Faculty of Medicine Broussais-Hôtel-Dieu, University René Descartes Paris VI (1967–1973). He obtained his MD thesis at the Faculty of Medicine, University Louis Pasteur – Strasbourg I (1978) and Board Certification in Legal Medicine in France (1980) and Switzerland (FMH 1996). He wrote his PhD thesis in toxicology with Professor G. Dirrheimer, Faculty of Pharmacy, University Louis Pasteur – Strasbourg I (1985). His professional activities include work as an intern and resident in different French hospitals (Besançon, Strasbourg). He was subsequently appointed “Assistant des Universités – Assistant des Hôpitaux”, Institute of Legal and Social Medicine, Faculty of Medicine, University Louis Pasteur – Strasbourg I (1 March 1981–30 September 1986) and “Maître de Conférences – Praticien Hospitalier”, Institute of Legal and Social Medicine, Faculty of Medicine, University Louis Pasteur – Strasbourg I (1 October 1986–30 September 1990). In 1990, he was appointed “Professeur des Universités – Praticien Hospitalier”, Director of the Institute of Legal and Social Medicine, Faculty of Medicine, University Louis Pasteur – Strasbourg I and since 1 September 1996, he has been the Ordinarius Professor of Legal Medicine and Director of the Institute of Legal Medicine of the Faculty of Biology and Medicine, University of Lausanne. From 1999 to 2006 he was selected to become subsequently Vice-Dean of the Faculty of Medicine, University of Lausanne and then Dean of the Faculty of Biology and Medicine, University of Lausanne (1 September 2003–31 August 2006). Since 2007, he has been the Director of the new University Center of Legal Medicine, Lausanne-Geneva, as Ordinarius Professor of Legal Medicine at the Universities of Lausanne and Geneva. In 2011, he was appointed Head of the Department of Health and Community Medicine of CHUV. Professor Patrice Mangin is a Member of the Presidium of the International Academy of Legal Medicine (since 1991) and Vice-President and Treasurer (1997–2012) and Vice-President again since 2012. He was President of the XVI Congress of the International Academy of Legal Medicine, Strasbourg, France (31 May–2 June 1994) and President of the Swiss Society of Legal Medicine (1999–2002). He is also a Member of the Board of the European Council of Legal Medicine (since 1996). His memberships on professional organizations include numerous institutions such as the International Academy of Legal Medicine, the American Academy of Forensic Sciences and the International Association of Forensic Toxicologists. He is the author or co-author of more than 250 international papers, 200 national papers, 350 oral presentations and 151 posters.

**Pierre Margot** fell early into the cauldron of forensic science by obtaining a combined degree in forensic science and criminology at Lausanne University, Switzerland, a long time ago. A short spell in the United Kingdom attracted him to pursue an MSc degree in forensic science at Strathclyde University, followed by a PhD degree, also at Strathclyde, and also in forensic science. Postdoctoral research led him from Salt Lake City (USA) in forensic toxicology, the Federal Institute of Technology in Lausanne (research in chromatography) and to ANU in Canberra (Australia) to pursue research and development in fingerprints. He was then called to take the professorial position in 1986 in Lausanne. He is the fourth professor to occupy the first academic chair in forensic science, created in 1909. One of his major contributions is to have created a research centre where over 60 PhD theses have been completed in the last 20 years and a full commitment to develop further this discipline as a key actor of forensic intelligence, investigative science and in providing solid and measurable evidence in court. His group has published over 220 peer-reviewed papers in forensic science within the last 10 years.

**Jolandie Myburgh** MSc is currently a laboratory and maceration manager for the Forensic Anthropology Research Centre, Department of Anatomy, Faculty of
Health Sciences at the University of Pretoria, South Africa. Her research interest focuses on trends in decomposition and body limb proportions.

**Rolando Neri-Vela** MD was born in 1953 in Mexico. He is a medical doctor, ophthalmologist and Master in History at the National Autonomous University of Mexico. He has a Diploma in Bioethics and teaches History of Medicine, Bioethics and Medical Anthropology at the Faculty of Medicine, National Autonomous University of Mexico. He belongs to the National Academy of Medicine of Mexico, Mexican Academy of Surgery, Mexican Society of Ophthalmology, Mexican Council of Ophthalmology, International Society for the History of Medicine, International Society of the History of Islamic Medicine, Mexican Society for the History and Philosophy of Medicine, among others. He works at the Department for the History and Philosophy of Medicine, Faculty of Medicine, National Autonomous University in Mexico and is now the Chief of the Department. He is the author of many articles and chapters in books in the field of the history of medicine.

**Wim Neuteboom** was born in 1949 and raised in The Hague (The Netherlands). He studied analytical chemistry at the Delft Technical University. During the final stage of his study, he developed an HPLC application for the identification of opiates in poppies. After a short working period in the oil piping industry, Wim joined the Netherlands Forensic Institute (NFI) in 1978. His first forensic discipline was “drunk driving”, which included topics like alcohol and drug analyses in body fluids, physiological and pharmacokinetic processes, breath analyses, drunk driving legislations, etc. In the late 1980s, he was appointed as the (first) quality assurance manager of the NFI and became a member of the NFI management team. Under his supervision the NFI achieved ISO 17025 accreditation in 1994. After this QA period, Wim was appointed as the Head of the Supporting Division, a position he held till 2002. In the early 1990s Wim Neuteboom was intensively involved in the initiative by the NFI to create a network of forensic laboratories in Europe. He attended the 10th Interpol Symposium on Forensic Science in Lyon, November 1992, where most of the forensic science laboratory directors were present. This occasion was used to lobby amongst the West European colleagues about the idea for a European equivalent of the American Society of Crime Laboratory Directors (ASCLD). This was the start of ENFSI birth process, which was finalized in 1995 (Founding Meeting in Rijswijk). After this milestone, Wim focused on other activities outside ENFSI, but in 1997 he returned as a Member (later the Chairman) of the EAFS Standing Committee. Due to its prosperous development, ENFSI established a permanent secretariat at the beginning of the 21st century. As of 2002, Wim Neuteboom became the (first) ENFSI Secretary, a post he held for over 10 years. One of the first things he did was to prepare the historical and successful Noordwijkhout sessions in 2003, where the membership discussed extensively the Future of ENFSI. In the years after, he formulated many ENFSI bylaws, set up a financial and book keeping system for ENFSI, explored the legal status of ENFSI (leading to the establishment of the Stichting ENFSI Secretariat), etc. As the ENFSI Secretary, he was among other things, involved in many activities:

- **2004**: Organizer of the OOS “Education and Training: Quo Vadis?”
- **2006–2007**: moderator of courses on forensic science at CEPOL Budapest
- **2007**: Organizer of the OOS “Forensic Research and Development”
- **2008**: Author (with Kimmo Himberg) of the UNODC Criminal Justice Assessment Toolkit for Forensic Services and Infrastructure
- **2009–2010**: Editor of the ENFSI Annual Reports
- **2009–2012**: Organizer of the Triennial Conference EAFS2012 (with Jo Puts)
- **2010–2012**: Member of the Future of the ENFSI Project Group (FEPG)
- **2010–2013**: Manager of the EMFA-2 program (with Christina Bertler)
- **2011**: Co-organizer of the Joint Meeting 2011 (with Peter de Bruyn)

Wim Neuteboom has an extensive personal network all over the world with forensic networks and legal agencies (e.g. European Commission, Europol, Eurojust, AICEF, ASCLD, SMANZF, IFSA, CEPOL, Interpol and UNODC). He was successful as one of the ENFSI lobbyists introducing ENFSI in the complex EU structure, which led in the end to the recognition of ENFSI as monopolist, being “the sole voice of the forensic community in Europe”. Finally, Wim has directed a number of quality assurance projects in various European countries,
for example Croatia, Latvia, Macedonia, Slovenia and Turkey. He is (co-)author of about 35 (semi-)scientific articles and book contributions.

Antonel Olckers founded DNAbiotec (Pty) Ltd in 2001 and has served as its CEO since then. She holds a PhD degree in molecular human genetics from the University of Pretoria, South Africa, for which she performed research at the Johns Hopkins Medical Institution in Baltimore, Maryland, USA. Dr Olckers has acted as an independent forensic expert witness in DNA evidence since the late 1990s and has testified in multiple criminal cases in the High Courts of South Africa. Her view is that the expert witness is there to assist the court. She is often asked to evaluate DNA evidence to determine whether it is scientifically valid. Dr Olckers is a strong advocate for regulation of the forensic science profession, the accreditation of forensic science laboratories and the ethical practise of forensic science. She trains legal professionals to appropriately deal with DNA evidence in court, and to this end has presented the Essential DNA Evidence™ short course to legal professionals involved in prosecution as well as defence in the South African legal system. Dr Olckers is a member of the American Academy for Forensic Science (AAFS) and the International Society for Forensic Genetics (ISFG). She is currently appointed as an Extra-ordinary Professor in the Department of Immunology and the Department of Forensic Medicine at the University of Pretoria and has supervised more than 30 post-graduate students during her academic career.

George Paul is a Senior Consultant Forensic Pathologist and a two Branch Director of Forensic Medicine Division (FMD) and Health Sciences Authority (HSA), Singapore. He is also Senior Lecturer in Forensic Pathology at the Yong Loo Lin School of Medicine, Singapore. Dr Paul was born in Bombay, India, and after schooling in different cities of north, west and east India, graduated in Medicine (MBBS) from the Maulana Azad Medical College (MAMC), New Delhi, under the University of Delhi, India, in 1908, and subsequently did his MD (Doctor of Medicine) in Forensic Medicine at the Department of Forensic Medicine, Maulana Azad Medical College in 1984. After completing his senior registrarship in the same department, he was selected as Assistant Professor in Forensic Medicine in 1997 by the Ministry of Health and Family Welfare and served at MAMC, as well as Associate Professor from 1990. Subsequently he was on Foreign Assignment to lecture as a Forensic Pathologist at the University of Malaya, Kuala Lumpur, Malaysia, from 1996 to 2002. He subsequently also attained the Diploma in Jurisprudence (Forensic Pathology) from the Society of Apothecaries, London, and was awarded Fellow of the Academy of Medicine of Singapore, with membership to the College of Pathologists, Singapore. In 2002 he resigned his service with the Ministry of Health and Family Welfare, India, and joined the Centre for Forensic Medicine, Health Sciences Authority, starting as a Consultant and later Senior Consultant. Later HSA restructured the divisions with the Centre for Forensic Medicine, which was re-named the Forensic Medicine Division. Dr Paul’s post-MD experience started with the mass casualty of so-called “genocide” of Sikhs in response to the assassination of the then Prime Minister of India, Mrs Indira Gandhi, in 1984, followed by a few other mass disasters, the most recent being the Christchurch earthquake of 2011 where he assisted as part of the Disaster Victim Identification five member team sent under the Singapore Armed Forces. He is the recipient of a WHO Fellowship in Analytical and Clinical Toxicology – Investigative in 1983 and the Health Manpower Development Program (HMDP) fellowship in Forensic Anthropology at Mercyhurst, Pennsylvania, the United States, in 2007. His special area of interest has been clinical age estimation (in the living), comparing various radiological exposures with dental radiological development, and he has conducted comparative studies of north and south Indians of Delhi versus the three dominant races of Malaysia. He continues research on this topic and has presented papers on this subject at various international meetings. Dr Paul has a large number of publications in international journals as well as presentations in conferences. He was involved in the autopsy for detection of the organism causing sudden death in toddlers in Malaysia, which was EV71, in 1997, and the death of pig farmers in Malaysia from a hitherto unknown new emergent virus, subsequently named the NIPAH virus. He is the recipient of Sijil Merit Sempena Penemuan Virus NIPAH (Certificate of Merit for Research on NIPAH Virus) on 28 July 1999, given by the Education Minister, Government of Malaysia, as well as a certificate of appreciation from the New Zealand High Commissioner on behalf of the Mayor of Christchurch, for assisting them in DVI, as well as medals from them, and also various
other certificates and medals of appreciation through the years. His area of interest and involvement besides academic work is in choral arrangements, playing stringed and keyboard instruments and orchestration, and Aikido.

O. Peschel is employed by the Institute of Forensic Medicine, Ludwig Maximilians University, Munich, Germany.

Joseph Peterson D.Crim. has been a member of the General Section of the American Academy of Forensic Sciences since 1975. He received his Doctor of Criminology degree from the University of California, Berkeley, in 1971 and is Professor of Criminal Justice (ret.) at California State University, Los Angeles. His research and publications have focused on the effects of scientific evidence on criminal justice decision making, the proficiency of crime laboratory results, and the resource and management needs of forensic laboratories. He received the Distinguished Fellow Award from the American Academy of Forensic Sciences in 2008.

Ivar Prits is Deputy Director of the Estonian Forensic Science Institute.

Luigi Ripani is a forensic chemist and is Commander of the RIS, Reparto Investigazioni Scientifiche, the main section of scientific investigations of the Carabinieri, in Rome, Italy. As head of the Department of Chemicals, Explosives and Inflammable Materials, he led scientific investigations in the area of drugs, explosives and merchandise studies, and later went on to lead the Department of Scientific Investigations of all areas of Criminalistics, initially in Messina and currently in Rome. He has recently led main national investigations on cases of common as well as organized crime. He is frequently an invited speaker in main forensic events and is author and co-author of several articles published in both national and international journals.

Alastair Ross is currently the Director of the National Institute of Forensic Science (NIFS), within the Australia and New Zealand Policing Advisory Agency (ANZPAA). He also held this position as the inaugural Director from 1992 to 2003. From 2003 to 2008 Alastair was Director of the Victoria Police Forensic Services Department, a full service forensic facility with over 300 staff. He holds a Graduate Diploma in Business Administration and a Master of Applied Science (Research) from the University of South Australia. Alastair received the Adelaide Medal from the International Association of Forensic Sciences for international contributions to forensic science in 2002 and is a Member of the Order of Australia (AM).

Gert Saayman MBChB, MMed (MedForens) (cum laude) was appointed in 1998 as Professor and Head of Department of Forensic Medicine, University of Pretoria (South Africa) and as Chief Specialist of the Forensic Pathology Service (Pretoria). He is responsible for the organization, supervision and rendering of forensic pathology services in the Pretoria Metropolitan area as well as for the teaching and training programs in forensic medicine and pathology for under- and postgraduate students in medicine, science and law. He was awarded the Fellowship of the College of Forensic Pathologists of the Colleges of Medicine of South Africa in 2001.

Pekka Saukko MD, PhD is Professor of Forensic Medicine and Head of the Department of Forensic Medicine of the University of Turku, Finland, where he has been employed since 1992. Dr Saukko received a Dr University Medical degree from the University of Vienna, Austria, in 1975 and was certified as Specialist in Forensic Medicine in 1981 by the National Board of Health, Finland. In 1983 he received a Doctorate in Medical Science by a thesis in Forensic Pathology by the University of Oulu and was appointed Adjunct Professor of Forensic Medicine of the same University in 1986. From 1978 to 1989 he held the position of Provincial Medical Officer, Medico-legal Expert, Provincial Government of Oulu, Finland. In 1989 he was appointed Professor of Forensic Medicine of the University of Tampere, Finland. He has published widely as the author and co-author in scientific journals, books and encyclopedia chapters and is co-author of the Atlas of Forensic Medicine (CD-ROM) (Elsevier Science, 2003) and Knight’s Forensic Pathology (Arnold, 2004), co-Editor of the Encyclopedia of Forensic Sciences (Academic Press, 2000) and co-Editor-in-Chief of the Encyclopedia of Forensic Sciences (Academic Press, 2013). Since 1993, he has been the Editor-in-Chief of the journal Forensic Science International, by Elsevier, and has served on the editorial boards of numerous scientific publications, including Legal Medicine, Scandinavian Journal of Forensic Science, Archives
of Forensic Medicine and Criminology – Archiwum Medycyny Sadowej i Kryminologii-Krakow, Cuadernos de Medicina Forense, Journal of Forensic and Legal Medicine, Adli Tip Bülteni – The Bulletin of Legal Medicine, Türkiye Klinikleri Journal of Medical Sciences, French Review of Forensic Science – La Revue de Médecine Légale, Law and Justice Review, Egyptian Journal of Forensic Sciences and Archiv für Kriminologie/Archives of Criminology. Dr Saukko is a Member of the German National Academy of Sciences Leopoldina and an Honorary Member of the Hungarian Forensic Science Society, the Royal Belgium Society of Forensic Medicine, the German Society of Legal Medicine and the Japanese Society of Legal Medicine and a Founding and Honorary Fellow of the Faculty of Forensic and Legal Medicine at the Royal College of Physicians (London).

Anny Sauvageau MD, MSc is the Chief Medical Examiner for the province of Alberta, Canada. She started her career as a forensic pathologist in Montreal in 2002. In 2009, she moved to Alberta as Assistant Chief Medical Examiner and was named Deputy Chief Medical Examiner in 2010 and Chief Medical Examiner in 2011. She is an Associate Clinical Professor at the University of Alberta and the University of Calgary, and was previously Clinical Assistant Professor at the University McGill and the University of Montreal. She is the founder and program director of the forensic pathology residency program at the University of Alberta. Dr Sauvageau received her medical degree from the University of Montreal in 1996 and was board certified in anatomical pathology in 2002. She has a founder designation in forensic pathology from the Royal College of Physicians and Surgeons of Canada in recognition of her significant contribution to the development of this new specialty in Canada. From 2007 to 2012, she has been Vice-President of the Forensic Pathology Examination Board of the Royal College of Physicians and Surgeons of Canada. Dr Sauvageau is a well-known world expert on asphyxia. She is the author of more than 75 papers in peer-reviewed forensic journals and a much sought-after international speaker. Anny Sauvageau is also a co-author of Autoerotic Deaths: Practical Forensic and Investigative Perspectives. She is the founder of the Working Group on Human Asphyxia and the co-founder of the International Network for Forensic Research. Her innovative approach towards forensic research has significantly improved the understanding of the pathophysiology of hanging and other types of strangulation.

Dina A. Shokry MBBCh, MSc, MD is a Professor and the Former Chair of the Department of Forensic Medicine and Clinical Toxicology – Faculty of Medicine, Cairo University, Egypt, and President of the New Mediterranean Academy of Forensic Sciences (nMAFS). She is the Secretary General of the Arab Union of Forensics and Toxicology (AUFT), which is a branch of the Arab Medical Union. Professor Shokry joined the Scientific Advisory Board of the Office of the Prosecutor of the International Criminal Court (OTP) in February 2014. She is a Board Member of the International Association of Body Damage (AIDC) representative of North Africa and the Middle East. Professor Shokry is also a Board Member of the National Committee of Organ Donation. She is a Director and Instructor of the training program for Gaza Forensic Doctors and crime scene investigators, Palestine via Arab Medical Union. From 2004 till now she has been the Editor-in-Chief of the Egyptian Journal of Forensic Sciences and Applied Toxicology (cited), a Board Member of Research Ethics and Clinical Research, WHO, Cairo, the Executive Director of the Research Ethics Committee, MUST, and a Board Member of the Middle East Clinical Research Association (MECRA), Lebanon. She is the contact for the DAAD academic activities in Egypt and the UN forensic consultant in Egypt. Professor Shokry has had more than 50 researches published in national and international journals and is the author of the following textbooks: Forensic Medicine: A Guide to Principals, 2006, Clinical Toxicology: A Guide to Principals, 2006, Colored Atlas; Forensics and Toxicology, 2007, Medical Ethics: An Introduction for Medical Students, 2008, Medical Ethics, Law and Medical Responsibility, 2009, and Good Practice, Communication Skills for Medical Practitioners, 2011.

Erkki Sippola has a PhD in analytical chemistry. He has 19 years of experience in forensic science and is currently the Director of the NBI Forensic Laboratory in Finland. Previously he has worked as a Deputy Director, as an R&D Director, as the Head of the Chemistry Department and as a leader of the Drugs Unit of the Forensic Laboratory. He has been Chairman of the Drugs Working Group of the European Network of Forensic Science institutes between 2002 and 2006 and also a Member of the American SWGDRUG Organization between 2002
and 2006. He was President of the European Academy of Forensic Science Conference held in June 2006.

Peter Sótonyi was born in Budapest. He studied medicine at the Semmelweis University where he received his MD in 1963. Since 1963 he was an assistant at the Institute of Forensic Medicine at the Semmelweis University. In 1989 he was appointed Professor and was head of the Department of Forensic Medicine from 1992 till 2003. He has certified qualification in forensic medicine, pathology–histopathology and insurance medicine. He was one of the most successful members of the Ökrös and Somogyi School. His basic pathology training determined his activities and attitude. He was extensively involved in studies on heart pathology and the biological effects of electricity. He made significant contributions to our knowledge on the pathomechanism of fine tissue damage developing from the effect of electricity. From his scientific activities is it worth mentioning his studies on the cytochemical analysis of the localization of heart glycosides as well as on the cell model of isolated cardiac muscle. He showed particular interest towards the introduction of new morphological research techniques as well as histo- and cytochemistry, scanning electromicroscopy with chemical analysis. He had great knowledge about the morphological identification of biological and nonbiological material. He improved the department with new laboratories (DNA, scanning electromicroscopy and cytochemistry). His fruitful scientific work is denoted by 350 publications and 25 books and book chapters. His textbook Forensic Medicine had four editions. Five lecture notes was founded in the English and German languages for foreign students at the Semmelweis University. He was Dean of the Medical Faculty (1997–2000) and Rector (2000–2003) of the University. He conducted the PhD school program law at the Semmelweis University and had an independent PhD program. Later he became Rector Emeritus (2009) and Professor Emeritus (2008). He became a Member of the Hungarian Academy of Sciences and is a Member of the European Academy of Sciences and Arts. He was Director of the National Institute of Forensic Medicine till 2003. He established widespread international connections and successful collaboration with Germany, Finland, Sweden and Poland. He had various academic degrees: PhD (1977), DSc (1990) and Member of the Hungarian Academy of Sciences (2004). He had memberships in many professional Hungarian and foreign societies: Deutsche Gesellschaft für Rechtsmedizin, Polish Academy of Medicine, Royal Microscopical Society, International Academy of Legal Medicine, etc. Several universities appointed him Doctor Honoris Causa, honorary senator and various university awards.

Maryna Steyn MBChB, PhD is director of the Forensic Anthropology Research Centre, Department of Anatomy, University of Pretoria, South Africa. She has published extensively in the fields of forensic anthropology and bioarchaeology, and has specific interests in craniofacial identification and assessment of sex from skeletal remains.

Patricio Bustos-Streeter MD is a Chilean physician and has been the National Director of the Legal Medical Service of Chile since 2007. He studied medicine at the University of Concepción and the State University of Milan, Italy. He has studied Planning and Management Programs STDs and AIDS in Latin America (Dominican Republic), Epidemiology (University of South Florida, USA) and Directive Leadership and Management (Faculty of Management and Economics at the University of Santiago in Chile). He is a Member of the Chilean Society of Health and has a long history in the public sphere, specializing in Public Health. He was Regional Secretary of Health and Government in Antofagasta and also Director of the Health Service of Iquique. He also worked on the design and implementation of the Boards of assistance to victims of sexual abuse and chain of custody, among other aspects of the criminal procedure reform. He also worked in the Prison Hospital as a doctor of Gendarmerie of Chile.

Kyra Stull PhD is currently a collaborative researcher of the Forensic Anthropology Research Centre, Department of Anatomy, Faculty of Health Sciences at the University of Pretoria, South Africa. The majority of her research focuses on human growth and development and modern human variations and its applications in forensic anthropology.

Marika Väli has been Professor of Forensic Medicine of the University of Tartu, Estonia, since 2004, Head of the Institute of Pathological Anatomy and Forensic Medicine of the University of Tartu and Deputy Director
of the Estonian Forensic Science Institute. She is the chief forensic medical expert of Estonia and a Member of the Executive Board of the European Council of Legal Medicine.

**Arian van Asten** studied analytical chemistry at the University of Amsterdam, The Netherlands. He obtained his PhD from the same University in 1995 on thermal field flow fractionation of synthetic polymers. From 1996 until 2000 he worked at Akzo Nobel R&D in Arnhem where he was heading the gas chromatography laboratory. From 2000 until 2006 he was employed by Unilever in Vlaardingen in various roles. In 2006 Arian van Asten transferred to The Netherlands Forensic Institute and became involved in forensic investigations and forensic science. He has been working at the NFI as a member of the management team and as head of the department for physical and chemical technology. Within the NFI he has coordinated the international forensic program and is also a member of a small team that coordinates the NFI contribution in urgent, high profile and/or complex cases. Since the start of 2011 he has become the head of a new department named WISK. This department aims at creating a world class forensic science program within the NFI and The Netherlands and developing forensic statistics and interdisciplinary investigations as novel forensic expertise areas. In June 2012 Arian van Asten was appointed Professor at the University of Amsterdam on a special Chair in Forensic Analytical Chemistry. He was the Chairman of the Scientific Committee of the EAFS 2012 conference, which was held in August 2012 in The Hague. He is author/co-author of 18 peer reviewed scientific articles and co-holder of three patent applications.

**Sijtze Wiersma** graduated in law at the University of Groningen, The Netherlands in 1973. Since then he has worked at the Ministry of Justice, The Hague, The Netherlands. Till 1997 he worked at the Child Care and Protection Board in several management functions. Between 1997 and July 2013 he was employed by the Netherlands Forensic Institute (NFI). He has been Secretary of the Advice Counsel of this institute, policy adviser and finally senior legal adviser.

**Andrés Rodríguez Zorro** MD, MSc is a forensic pathologist at the National Institute of Legal Medicine and Forensic Sciences in Bogotá, Colombia, where he has been employed for 15 years. Currently, he works at the National Group of Forensic Pathology as a consultant in pathology for the Division of Forensic Sciences. He is a professorial lecturer of the Department of Pathology at Universidad Nacional de Colombia and an invited lecturer in forensic medicine at Pontificia Universidad Javeriana, Universidad El Rosario, Universidad El Bosque and Fundación Universitaria de Ciencias de la Salud. Dr Rodríguez Zorro received his medical degree and specialist title in Forensic Medicine from Universidad Nacional de Colombia. He received the title of Specialist in Hospital Management from Pontificia Universidad Javeriana. He also received a Masters degree in Forensic Medical Sciences from Queen Mary University of London. He is a fellow candidate of the Academy of Forensic Medical Sciences in London.
Foreword

Publication of this volume inaugurates the Forensic Science in Focus Book Project, a collaborative effort between the American Academy of Forensic Sciences and Wiley-Blackwell. This project seeks to publish a select number of books that relate closely to the activities and objectives of the American Academy of Forensic Sciences.

The book series reflects the goals of the AAFS to encourage quality scholarship and publication in the forensic sciences. Proposals for potential books in this project are reviewed carefully by a committee established for that purpose by the AAFS and directed by AAFS Past President Doug Ubelaker. Proposals are also reviewed independently by Wiley-Blackwell once they have been approved and forwarded by the AAFS. Authors who contribute to this book project generously donate their royalties to selected activities of the AAFS.

The global focus of this volume appropriately highlights the international nature of the forensic sciences and of the AAFS. We expect that this first volume will be followed by many more that enrich our knowledge and communication in the forensic sciences.

Daniel A. Martell
President, American Academy of Forensic Sciences