Animal Biotechnology Virtual Workshops 2020
Speaker Biosketches

Melanie Abley is currently the Deputy Director of the Risk Management and Innovations Staff (RMIS) within the Office of Policy and Program Development at the Food Safety Inspection Service within USDA. Prior to her current position she was a Senior Microbiologist with RIMS. She started out in the Office of Field Operations in FSIS as an Enforcement, Investigation and Analysis Officer in 2013. She first joined USDA in the Agricultural Research Service as a Post-Doctoral Researcher after completing her PhD at The Ohio State University. Her dissertation focused on Salmonella and Campylobacter prevalence and molecular characterization in cattle and swine within the farm to fork continuum.

Rhodora R. Aldemita is the Director of Southeast Asia Center and Director of the Global Knowledge Center on Crop Biotechnology of the International Service for the Acquisition of Agri-biotechnology Applications (ISAAA) based in the International Rice Research Institute (IRRI), Los Baños, Laguna, Philippines. She leads the development and publication of the Annual Global Status of Commercialized Biotech/GM Crops or ISAAA Briefs. She coordinates the activities of ISAAA's Biotechnology Information Centers in 15 countries as well as capacity building activities on biotechnology and biosafety in Southeast Asia (e.g., Vietnam, Philippines and Myanmar) in partnership with US Department of Agriculture and the Philippine Department of Agriculture Biotech Program Office (DA-BPO). She is a member of the Technical Advisory Team of the Applied Biotechnology Committee of the DA-BPO, a board member of the Biotechnology Coalition of the Philippines, the editor-in-chief of the Philippine Journal of Crop Science and a scientific reviewer of 6 scientific journals. Dr. Aldemita has published 31 papers in scientific journals and proceedings, and chapters in two books on biotechnology. Dr. Aldemita holds a Ph.D. in Botany from Purdue University, Lafayette, Indiana, USA and Post-doctoral Fellowship at Albert-Ludwigs University (AUF), Freiburg, Germany on Golden Rice. She has served as Chief Science Research Specialist and the Biotechnology Coordinator at Philippine Rice Research Institute (PhilRice) and was formerly a researcher at IRRI. Her research interests focused on genetic improvement of rice through genetic engineering. She has been a member of the Golden Rice Project team at AUF and at PhilRice.

Christine Alvarado has 20 years of experience in both meat quality and food safety and is considered a subject matter expert in both meat quality and food safety in poultry processing and products. She received her M.S. and Ph.D. degrees in Food Science from Texas A&M University and is currently a Technical Services Manager for Arm and Hammer, Animal and Food Production. Her academic career focused on applied industry research in food safety and poultry meat quality, training graduate and undergraduate students for management positions in the poultry industry, writing several books, book chapters, and technical articles for trade publications, and working with foreign governments in food safety education and training. She has also worked in the poultry

industry as a Quality Assurance Superintendent where she led a team of supervisors and employees during the implementation phase of HACCP. In addition, Alvarado was a poultry subject matter expert with the USDA FSIS Office of Program and Policy Development, Risk Innovations and Management Staff in Washington, DC. Dr. Alvarado is currently President of the Poultry Science Association, a Meatingplace blogger "For the Birds", a technical contributor for poultry trade journals and very active in service and educational activities for the poultry industry. She lives in upstate New York with her husband and has four very active children.

Paulo Paes de Andrade is a retired Full Professor at the Department of Genetics, Federal University of Pernambuco (UFPE), which he joined in 1983. He is physicist, with MsC and DSc degrees in Cell Biology and post doc in Immunology and Molecular Biology. From 2006 to 2012 Prof. Andrade joined the Brazilian National Technical Commission on Biosafety (CTNBio), as a member of the Environmental Risk Assessment Sub-committee, when he assessed dozens of dossiers of environmental release of transgenic plants, microorganisms and animals. He also helped drafting and revising CTNBio regulations and reshaping the Brazilian GMO regulatory framework. Prof. Paulo Andrade participates in the Scientific Committee of the International Life Sciences Institute (ILSI), is a member of the Public Research and Regulation Initiative (IRRP) and of the International Society for Biosafety Research (ISBR) and a biosafety expert at the Biosafety Clearing House – Brazil, as well as private consultant for many Brazilian and international companies. He closely collaborated with the Center for Environmental Risk Assessment and the USDA in capacity building programs on risk assessment. In the last years he collaborated with international/ government authorities and research groups from Latin America, Asia and Africa in capacity building on risk assessment. He is the author of papers in peer reviewed journals, of books and book chapters in GMO risk assessment, new technologies (as gene drives) and other subjects related to molecular biology of parasites and transgenic plants and animals.

Mahaletchumy Arujanan is the Global Coordinator for the International Service for the Acquisition of Agribiotech Applications (ISAAA) and Executive Director of the Malaysian Biotechnology Information Centre (MABIC). She has a Ph.D. in science communication and Master of Biotechnology from the University of Malaya and B.Sc. in Microbiology from Universiti Putra Malaysia. She is a renowned science communicator in the agribiotechnology field and was listed as the world's 100 most influential people in biotechnology by Scientific American Worldview 2015. She is also listed in the honorific list of Women in Biotechnology Law and Regulation as part of the Biotechnology Law Report 2015. Maha won the 2010 Third World Academy of Science Regional Prize for Public Understanding of Science for East, Southeast Asia and Pacific Region. Maha developed the first science communication training module for scientists in Malaysia and established the Asian Short Course on Agribiotechnology, Biosafety Regulations and Communication. She published chapters, papers and articles on science/biotech communication and biotechnology development. She is an advisor on biotechnology for the state government; and Industry Advisory Panel for seven universities. Maha is also

on the advisory board for Cornell Alliance for Science, Farming Future Bangladesh and Mustafa Science and Technology Foundation for women.

Paulina Boari is a molecular biologist from the University of Buenos Aires. Since 2007, Paulina has been working at the Ministry of Agriculture, Livestock and Fishery of Argentina and has developed a deep knowledge of the regulatory framework of GMOs. She is one of the technicians who assist the members of CONABIA. Along these years, Paulina has assessed a vast number of applicants for confined use/environmental release and is currently focused on GM animals.

Lucy Carter is a bioethicist and qualitative social scientist based in CSIRO, Brisbane, Australia. Her work helps to design, facilitate and learn from stakeholder engagement processes which aim to address complex problems across health and biosecurity, agricultural development and food security domains. Her current research interests include exploring the role of science integration in the pursuit of responsible science.

Gaetano Cianciarelli is a Senior Molecular Biologist with the Novel Foods Section of the Food Directorate at Health Canada and has over 10 years of experience in regulation and pre-market safety assessment of genetically modified (GM) foods. He has led and coordinated numerous pre-market safety assessments during his time with Health Canada and has a deep knowledge of the regulatory framework for products of biotechnology in Canada.

Tamsyn Crowley is an Associate Professor and Director of Poultry Hub Australia (PHA), the successor body to the Poultry CRC. Tamsyn, who has an extensive background in poultry research, currently leads PHA based at the University of New England, while also maintaining her poultry research laboratory at Deakin University. She graduated her Ph.D. in 2007 at Deakin University and has since had roles within CSIRO and a number of academic institutions. Associate Professor Crowley has more than 70 peer-reviewed publications and has attracted over $10 million in competitive grants and industry funding. Her research interests include gut health, biomarker discovery, epigenetics and bioinformatics. As director of PHA, she is tasked with improving all sectors of the Australian poultry industry through applied research, education and training. Her current role enables her to liaise with all sectors of the industry from farmers to poultry research scientists. These interactions ensure PHA runs activities and delivers outcomes that are beneficial and have impact within the Australian poultry industry.

Maria Dagli is a professor of General and Animal Pathology at the School of Veterinary Medicine and Animal Science of the University of São Paulo, Brazil. Dr. Dagli received her professional degrees (DVM, Residence in Anatomic Pathology, M.Sc. and Ph.D.) from the University of São Paulo, and did her post-doctorate training at the International Agency for Research on Cancer, IARC, Lyon, France. Her main research interests include animal and toxicological pathology, genetically modified and edited organisms, carcinogenesis, cancer chemoprevention, and new cancer therapies. She has worked

with genetically modified mice as models of diseases and has produced manuscripts and book chapters on this topic. She has been a member (2006 – 2012 and 2014 – 2020) and vice president (2014-2020) of the National Technical Committee on Biosafety (CTNBio, Ministry of Science, Technology and Innovation of Brazil), and has participated in several events on biotechnology and biosafety, and lectured on the Brazilian Biosafety Law and the regulatory aspects of the New Technologies of Gene Editings. She has been a supervisor and coordinator/vice-coordinator of the Graduate Program on Biotechnology of the University of São Paulo (2012 – 2019).

Antonio Fernandez Dumont is currently working at the European Food Safety Authority (EFSA). He joined EFSA in 2008 as a scientific officer in the GMO Unit. He is a member of the food and feed risk assessment Team focused on human and health, and he is the responsible scientist for the allergenicity assessment. He achieved a BSc. in Veterinary Science at the Universidad Complutense de Madrid, Spain. During his PhD and subsequent Post-docs, he worked at the Institute of Food Research, Norwich, UK. His initial research aimed at investigating different approaches to address gastro-intestinal tract diseases, allergic and intolerance reactions using natural microorganisms. Subsequently, he was mainly interested in applying recombinant bacteria secreting cytokines for the treatment of food allergy disease, covering two key areas: molecular biology and food allergy.

Danilo Fernández Ríos has a degree in Biology from the National University of Asunción. He did his postgraduate studies in Biological Sciences (Genetics) at the Federal University of Rio de Janeiro, working with plant molecular genetics. He has a postgraduate diploma in Biotechnology, Industries and Business from the National University of Quilmes. He also has a Diploma in Science, Technology and Society CTS from the National Council of Science and Technology (CONACYT-Paraguay). He was a technical advisor in the curricular design of the Biotechnology Degree at the National University of Asuncion and later coordinator of that degree. He has been coordinator of the Ad Hoc group of Safety Evaluation of the Agricultural Biosafety Commission of the Ministry of Agriculture and Livestock. He has been a referee for specialised journals in the agricultural area and has directed undergraduate and postgraduate theses on subjects related to biotechnology. He has published in international indexed scientific journals. His work is mainly related to biotechnology and agri-food safety. He is a categorized researcher of the National Program of Incentive to Researchers (PRONII-CONACYT). He is currently a research professor at the National University of Asunción and a professor of Molecular Cell Biology, Genetics and Biosafety of Biotechnology at the same university. He also serves as Scientific Advisor in Biotechnology and Biosafety for the National Commission of Agricultural and Forestry Biosafety of the Ministry of Agriculture and Livestock.

Flavio Finardi graduated in Pharmaceutical Sciences, focused in Food Science and Technology, at University of Sao Paulo (USP). He is M.Sc. and Ph.D. in Food Science by USP, and Professor at the Department of Food and Experimental Nutrition (1978-2017). He was supervisor of more than twenty M.Sc. and Ph.D. students; published almost 50 scientific

and diffusion papers as well as book chapters. He was visiting researcher at the Food and Drug Administration, Washington, DC (1983), research fellow at the University of California, Davis (Department of Food Science, 1989) and UC San Diego (Department of Biology, 1994-1995). Also, he was visiting researcher at Polytechnic University of Madrid, Spain, and University of Nottingham, England (2009). His main study subject is the biosafety of foods derived from GMOs. In 2008 he became a member of the National Technical Commission on Biosafety (CTNBio) and was its president from 2012 to 2014. He returned to CTNBio in 2018 and was elected vice-president (April, 2020 to April, 2022).

Sarah Gallo is Director, Market Access for the Biotechnology Innovation Organization's Food and Agriculture section. She is responsible for facilitating innovative, productive and strategic partnerships with thought leaders, influential organizations and companies. In her role, she maintains trust-based relationships and organizes collaborative initiatives to grow public support and market access for biology-driven tools to improve sustainability, nutrition, health and other benefits across society. Gallo's current work is focused on operationalizing an inclusive and impactful approach to transparency for biotechnology in food and agriculture. Prior to joining BIO, Gallo was Director, Federal Affairs for CHS Inc., where she represented the company's interests on issues related to trade, agriculture, and agronomy at the federal level by connecting with members of Congress, congressional staff and federal agencies. Before that, she served as Director of Public Policy for the National Corn Growers Association, where she focused on biotechnology and trade policy, and as Agriculture Counsel with the U.S. House of Representatives Committee on Small Business. Gallo graduated from Boston University with a Bachelor of Arts in marine biology.

Hennie Groenewald is the Executive Manager of Biosafety South Africa, a national service platform that facilitates sustainable biotech innovation by enabling compliant, sustainable and effective research, development, innovation and commercialisation. Hennie has 25 years of experience in biotechnology research and development, teaching, biosafety risk analysis and governance, science communication, business development and innovation management in the public, private and academic sectors. Prior to joining Biosafety South Africa, he worked at Stellenbosch University, the South African Sugarcane Research Institute and North-West University. Hennie is a founding member of two successful South African biotech start-ups and has served on numerous international and national bodies tasked with responsible research and innovation, biosafety and risk governance and capacity building, medicine regulation, science communication and sustainable biotech and agricultural innovation.

Eric Hallerman is Professor of Fish Conservation at Virginia Polytechnic Institute and State University in the United States. As a postdoc, he participated in development of several species of growth hormone-transgenic fishes. Later, he contributed to the drafting of Performance Standards for Safely Conducting Experiments with Genetically Modified Fish and Shellfish, subsequently adopted by the U.S. Department of Agriculture. He was

a co-author of Transgenic Animals: Scientific Concerns, published by the National Academy of Science in 2002. He was principal investigator of a study assessing ecological risks posed by GM Atlantic salmon. He helped organize the animal biotechnology regulatory workshops held in Charlottesville, Virginia (2017), and Dakar, Senegal (2018), as well as these online workshops.

Arne Holst-Jensen is research leader and head of section Food Safety and Animal Health at the Norwegian Veterinary Institute and a member of the Norwegian Biotechnology Advisory Board since 2014. His background is in molecular biology and evolutionary ecology. The Norwegian Veterinary Institute is the national reference laboratory for GM food and feed, and provides analytical services and advice to the Norwegian competent authorities. Holst-Jensen has been a world leading developer of analytical methods for detection of GM food and feed in the context of EU regulatory requirements. He was steering committee member of the European Network of GMO Laboratories (network of national reference laboratories) from 2000 to 2015 and has been involved in several related capacity building actions globally. The Norwegian Biotechnology Advisory Board in 2018 published recommendations for substantial revision of the Norwegian Gene Technology Act, and these will be the focus of his presentation.

Kimon Kanelakis has since 2009 served as a Regulatory Review Scientist in the Office of New Animal Drug Evaluation at the U.S. Food and Drug Administration's Center for Veterinary Medicine, evaluating toxicological information as part of the risk assessment of products used in food-producing animals for human food safety. In 2016, he was selected to the roster as a toxicology technical expert for the Joint WHO/FAO Expert Committee on Food Additives (JECFA) for the evaluation of residues of veterinary drugs in foods. He has been a member of the U.S. delegation on the Codex Committee on Residues of Veterinary Drugs in Foods since 2012. Dr. Kanelakis earned a Ph.D. in Pharmacology from the University of Michigan, USA and is a Diplomate of the American Board of Toxicology (DABT).

Lisa Kelly is a Principal Scientist in the Microbiology and Biotechnology Section of Food Standards Australia New Zealand (FSANZ) and has over 20 years' experience in genetically modified (GM) food safety assessment and regulation. Lisa is currently leading FSANZ's work on new breeding techniques. Lisa is a long-standing member of the Bureau of the OECD Working Group for the Safety of Novel Foods and Feeds and previously led the Australian delegation to the Codex Ad Hoc Intergovernmental Task Force on Foods Derived from Biotechnology (2005-2009), where Australia and Japan co-Chaired the Working Group on Foods Derived from Recombinant-DNA Animals. Lisa also previously participated in two FAO/WHO expert consultations on GM animals (2003 & 2007).

Martin Lema is a Professor of Agricultural Biotechnology at the National University of Quilmes, Argentina. He served as Chair of the National Commission of Agricultural Biotechnology in Argentina from 2012 to May 2020, leading the development and application of the

first ad hoc regulation for genome editing in agriculture of the world. He also served as a policymaker in agricultural biotechnology from 2004; in this capacity, he led the organization of the First Animal Biotechnology Regulatory Workshop (held in Buenos Aires in 2011). Finally, he also performed as technical lead of the Argentine delegation to Cartagena Protocol meetings and biotech-related negotiations under Codex Alimentarius and the WTO.

Andrés Maggi is General Coordinator of Biotechnology at the National Service for Agrifood Health and Quality (SENASA) of Argentina. He received a degree in agronomic engineering, and later he obtained a specialization in food quality and safety and in international trade relationships. He has experience in safety assessment of genetically modified organisms for food and feed products, and in other activities such as the implementation of GMO control systems of imports and exports, GMO certification of shipments, and development of biotech normatives. He has participated in international forums as Codex Alimentarius, and is member of different GMOs advisory committees.

Subeer Majumdar is the Director of the National Institute of Animal Biotechnology (NIAB), Hyderabad, India. He has worked with non-human primates to obtain his Ph.D. from the National Institute of Health and Family Welfare, India. He completed his postdoctoral training at University of Pittsburgh, USA. As an independent scientist, he initially started working on various aspects of male infertility using animal models, and later developed a few novel techniques to generate transgenic animals by manipulating male germ cells, avoiding oocyte manipulation. He has also developed techniques to generate therapeutic proteins in animal milk using gene transfection directly in the udder glands. His areas of specialization are Male infertility, Transgenesis, Reproductive Biology, Endocrinology and Livestock Genomics. He has been part of the committee which drafted guidelines for use of transgenic animals which are under consideration in India.

Aditi Mankad is a senior research scientist and Team Leader with the CSIRO, based in Brisbane Australia. She leads a team of scientists focused on risk and vulnerability in agricultural innovation, biosecurity and biotechnology. Aditi also leads the 'Maximising Impact' Application Domain within the CSIRO Synthetic Biology Future Science Platform, which houses the social and behavioural science capability within the SynBio FSP. Aditi is trained in psychological science and has core expertise in psychological/behavioural issues around motivation, risk perception and behaviour change.

Claro Mingala is the center chief that supervises the day to day operation of the Livestock Biotechnology Center (LBC). The LBC is one of the three major centers of the Agricultural Biotechnology Program of the Department of Agriculture in the Philippines. The center promotes biotechnology as an alternative tool to increase the livestock production of the country towards food security and sustainability. It also spearheads the conduct of biotechnology researches in the areas of livestock genetics and breeding, health, nutrition and product development. It also leads the advocacy drive for students and professionals through training and education, provide advices for policy makers, and

present insights for the establishment of regulatory guidelines for the use of biotechnology in the animal industry. Dr. Mingala received his PhD in Veterinary Science at the Hokkaido University, Japan, specializing in Infectious Diseases. He pursued his post-doctoral fellowship in Cornell University, Ithaca, New York under the Fulbright-Philippines Agriculture Scholarship Program for Advanced Research. Since then, he worked on the research and development of diagnostic tools and vaccines for priority livestock diseases. Dr. Mingala is a career scientist with a rank of Scientist III and concurrently the Officer-In-Charge Assistant Director of the Bureau of Animal Industry in the Philippines.

Terri Moore is the Vice President of Communications for the American Farm Bureau Federation. She leads their communications at the national level, coordinating with affiliated Farm Bureaus in all 50 states to serve nearly 6 million members. Previously, Terri led communications operations at the state and federal levels, including as Deputy Director of Communications at the White House and Director of Communications at USDA. She worked as a communications consultant in the private sector and for the Center for Food Integrity, where she focused on understanding consumer perceptions and building public trust in food and agriculture.

Edward Musiwa Nengomasha is a Zimbabwean animal scientist working at AU-IBAR since 2011 when he joined as an Animal Production Expert. He has 32 years of experience in the animal resources sector and has been involved in research and development, both at technical and administrative levels. Prior to joining AU-IBAR, he pioneered research work on donkeys in Africa, significantly raising the profile of this neglected species. Together with a team of AU-IBAR experts, he coordinated the just-ended Genetics Project for six years as the Project Officer. The Genetics Project significantly and positively impacted on the sustainable utilization and conservation of the invaluable Animal Genetic Resources, with particular emphasis on indigenous breeds. He is currently supporting AU-IBARs' Live2Africa project. His experience at AU-IBAR, has improved his understanding of animal resources systems, processes and policies in Africa. He holds a BSc (Hons.) Animal Husbandry (University of Belgrade); MSc Animal Nutrition (University of Aberdeen); and PhD Draught Animal Power (University of Edinburgh).

Clint Nesbitt is the Senior Director of Science and Regulatory Affairs in the Food and Agriculture Section of the Biotechnology Innovation Organization (BIO). BIO is the world's largest trade association representing more than 950 biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 nations. Before joining BIO in late 2014, he worked for more than ten years as a regulator of agricultural biotechnology in the Biotechnology Regulatory Services of USDA's Animal and Plant Health Inspection Service (APHIS). Prior to this, he worked for Cornell University's Cooperative Extension Program, where he was director of a public outreach and education project on agricultural biotechnology.

Dr. Nesbitt has a Ph.D. in plant breeding and plant molecular biology from Cornell University, where he studied tomato genetics.

Silas Obukusia is Principal Programme Officer and Coordinator at the AUDA-NEPAD agency – ABNE (Africa Biosafety Network of Expertise) in Nairobi, Kenya. Among his duties, he conducts biosafety capacity building of regulators and policymakers in many African countries. Previous to that, he was Principal Programme Officer and Operations Manager of ABNE in Kampala, Uganda; Director of Regulatory Affairs with the Africa Harvest International Biotechnology Foundation; and Agricultural Biotechnology Advisor with the U.S. Agency for International Development in Kenya. He holds a B.Sc. degree in Agriculture and M.Sc. degree in Genetics and Plant Breeding at the University of Nairobi and a Ph.D. in Molecular Genetics at Pennsylvania State University (USA).

Trent Olson grew up on his family's dairy farm in Minnesota. He earned his degree in Animal Science and Applied Economics from the University of Minnesota in 2005. Since that time, he has spent the last 15 years working at ABS Global in DeForest, Wisconsin, within the Product Development and Genetic Services teams. In his current role, he focuses on economics analysis projects while building a genetic education platform and training capabilities for the company's global business. Marrying a passion of economics and dairy genetics, he has had the opportunity to deliver genetic trainings and work with dairy farms in England, Australia, Mexico, Chile and Brazil while traveling for ABS Global. Olson enjoys working with young people in the dairy industry by teaching Dairy Marketing at the University of Wisconsin-Madison – Farm and Industry Short Course and coaching the UW-Madison dairy cattle judging teams in the fall. In his free time, Trent helps with his family's dairy farm and operates a grain farm focusing on soybeans and corn production with his dog named Jackson.

Sylvanus Omeje is a Professor of Animal Science, specializing in Animal Breeding and Genetics and serving at the Delta State University (DELSU), Abraka, Delta State, Nigeria, from 1998 to date. After his doctoral studies at the University of Nigeria, Nsukka in 1985, he joined the National Animal Production Research Institute (NAPRI) at the Ahmadu Bello University, Zaria, Kaduna State, where he co-led the pioneer breeding work that produced the first-ever registered Nigerian breed of egg-type chicken (ShikaBrown). In 1987, he joined the Enugu State University of Science & Technology (ESUT) where he rose to Associate Professor; taught and led research in Animal Genetics, Breeding and Biotechnology until 1998 when he joined DELSU as a tenured Professor. In DELSU, he was Dean, Faculty of Agriculture for six years. In 2000, he was on the Federal Board chair of the National Institute for Freshwater Fisheries Research at New Bussa, Niger State and overseeing the Federal College of Freshwater Fisheries Technology, Baga, Borno State (both of which were respectively mandated for studies and manpower training in freshwater fisheries productivity and genetic improvement). He is the National Coordinator of Animal Breeders and Geneticists Network Nigeria (ABGeN-Ng) a body of experts that crafted and submitted the draft of Nigeria's National Animal Breeding Policy which today is before the National Assembly as an Executive Bill from

government. Prof Omeje has so far supervised students' projects up to doctoral levels, producing 15 Ph.D.s, 10 Professors and over scientific 150 publications.

James Rhodes is the Project Manager: Biosafety at Biosafety South Africa with research and policy analysis experience. James has over 10 years' involvement on various aspects of the environmental risk analysis of GMOs during different stages of research, development and deployment. This includes advising various stakeholders and providing regulatory and biosafety information. James has a special interest in how the regulation of GMOs can be improved to better enable the use of GMOs to address South Africa's sustainable development.

Agapita Jandayan Salces is an Associate Professor in Animal Breeding Division, Institute of Animal Science, College of Agriculture, University of the Philippines Los Baños, Laguna, Philippines. She worked on diversity analysis and genotyping of native animals in the Philippines as foundation for the breed development specifically on native chickens and cattle. USAID STRIDE funded her project on native cattle development for dairy production. She also worked with the dairy sector doing performance and genetic evaluation. She has published several technical papers in peer-reviewed and ISI journals.

Danial Sammartino graduated as a civil engineer from the Argentine Catholic University in 1981, and Master in Business Administration from Harvard Business School in 1986. In the first half of his professional life, he developed the Techint Group, an Italian-Argentine group with businesses in steel, construction and energy. After serving as CEO of Techint Engineering & Construction, he retired to start a fully entrepreneurial life. He founded the Proinvesa Group, dedicated to real estate, agribusiness and wine, genetics and biotechnology. The group is based in Argentina. The Biotechnology group has Kheiron Biotech as its flagship, the world leader in horse cloning, with more than 200 equines cloned in a few years. The company developed towards gene editing, not only in horses, but in bovines and swine as well. The developments include more protein content, resistance to heat stress and diseases, and also editing for xenotransplantation. The other relevant initiative is ProinVet Innovations, with innovative veterinarian products for bovine reproduction and Covid treatment products under development. In genetics, the group owns two companies, Doña Sofia Polo owning 100 clones of the best polo breeds in the world. Cabaña Doña Sofia is a boutique Aberdeen Angus breeder, also focusing on innovative breeding.

Reinhilde Schoonjans is a risk assessment scientist at the European Food Safety Authority. Topics of expertise include Synthetic Biology developments, the cloning of farmed animals, biodiversity-related protection goals for environmental risk assessment, epigenetics and risk assessment of genetically modified organisms. She previously worked on hazard criteria for endocrine disruption. Reinhilde Schoonjans is a Molecular Biologist holding a Ph.D. from the University of Ghent, where she performed research on bispecific antibodies for cancer immunotherapy. In October 2005 she qualified as European Patent Attorney for the European Patent Office in Munich. She also

coordinates the expert group on nanomaterials in agri/food/feed products that developed the Scientific Guidance for risk assessment, and she chairs the Nano Network with EU Member States delegates.

Tad Sonstegard is currently Chief Executive Officer of Acceligen, a wholly owned subsidiary of Recombinetics, where he leads both business and research efforts dedicated to food animal improvement through precision breeding. The main focus is deployment of traits through gene editing that fill gaps for sustainable production and animal well-being that animal breeding cannot address. Previous to 2015, he led a livestock genomics research program at the USDA, ARS Beltsville that delivered many applications in germplasm conservation and genetic improvement for livestock, including the first commercially successful, ag-based SNP tool. He also identified causative variation affecting fertility and thermo-tolerance in cattle and has led consortia to generate genome assemblies of water buffalo, goat, Zebu cattle, and an expression atlas of cattle. Dr. Sonstegard received his undergraduate degree from Iowa State University and his Ph.D. from the University of Minnesota. His has published 220 peer-reviewed articles and has received award recognition for his work in genomic research for livestock genetic improvement.

Tim Strabala is the Principal Scientist of the New Organisms team at the New Zealand Environmental Protection Authority, providing regulatory advice to decision makers and parliament on new organisms, genetic modification and advanced biotechnologies. He holds a Ph.D. in biochemistry from the University of Wisconsin-Madison, and prior to joining EPA in 2014, he had a 30-year career in plant molecular biology/biotechnology research and development in both the private and public sectors. As a program leader of a New Zealand government-funded NZ$3.5 M research program, he oversaw the publication of more than 75 peer-reviewed research publications. Personally, he has authored or co-authored more than twenty peer-reviewed papers and invited reviews in journals and monographs, and he is an inventor on two biotechnology-related U.S. patents.

Bhanu Telugu is an Associate Professor at University of Maryland-College Park, and a founding member, President & CSO of RenOVAte Biosciences, Inc. (https://renovatebiosciences.com), a livestock genetic engineering company. The primary research interests of his laboratory and his company are genetic engineering and biotechnology. The laboratory employs genome editing tools such as CRISPRs for site-specific alteration of the genome in large animal models, such as pig, for agricultural and biomedical applications. Specifically, genome-editing tools are employed to alter alleles to facilitate “rational selection” of agricultural traits. The laboratory is actively engaged in developing porcine models of human disease (diabetes, cardiovascular disease and obesity), and developing technologies for transplantation research where pig is a preferred animal model.

Mark Walton was appointed Chief Technology Officer for AquaBounty in August 2019. Prior to taking on that role, he served as Vice-President for R&D and Regulatory Affairs and

Global Director of Regulatory Affairs. Before joining AquaBounty, Dr. Walton held positions as President of ViaGen, a leading animal cloning company, Chief Business Officer for Recombinetics, the company that has developed polled Holstein cattle using TALEN gene editing technology, and Executive Vice-President for Research and Technology at RiceTec, a global hybrid rice seed company. He began his career in agriculture biotechnology in the 1980s and in 1990 started Linkage Genetics, the first DNA testing company to provide molecular marker services to plant and animal breeders. Mark is deeply involved in the on-going discussions between industry and governments on the regulation of genetically engineered livestock and played an active role in obtaining the Cloning Risk Assessment and the Guidance on Regulation of Genetically Engineered Animals from the US Food and Drug Administration. He earned a Ph.D. in Agronomy from the University of Nebraska – Lincoln.