



SUMMARY

Dear members and friends of ISAH,

please find the actual ISAH mid-year e-Newsletter. It keeps record of activities of ISAH and informs members about recent developments in the Society and on interesting topics in various fields of Animal Hygiene and beyond.

The main topics of today are:

- Editorial letter from President,
- latest news from the Executive Board,
- important activities of EB members,
- announcements of interesting congresses and meetings,
- **ISAH congress in 2022, from 2nd to 6th of October.**

We also take the opportunity to ask you kindly for checking the status of your membership fee. Gentle reminders with invoices for missing fees will be sent out over summer. Please look on page 19-20 for details how to pay the membership fee.

Forthcoming events and publications related to the Society are presented at the end of this issue; please visit the associated pages (21-24).

Don't miss the unique opportunity to meet the ISAH circle of influence in 2022.

The 20th ISAH congress will be held in Pattaya, Thailand from 2nd to 6th of October, 2022.

SAVE THE DATE !!!

Enjoy reading the Newsletter of our Society!
Stay healthy with the goddess Hygiea.

Dr Christelle Fablet
General Secretary of ISAH



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EDITORIAL

By the President

- *Editorial*

Dear members of ISAH, colleagues and friends,

- *News from the Society*

This is the third Newsletter, which I start with reference to the COVID-19 pandemic. One and half years ago we were still far away from a real understanding what consequences a virus pandemic can have for individual people, world economy and societies. The disruption is huge. Globally as of 7th June 2021, there have been 183,560,151 confirmed cases of COVID-19 reported to WHO, resulting in 3,978,581 deaths and innumerable diseased people, who survived with more or less severe acute and long-term consequences of the infection. In comparison, in total 2,988,941,529 vaccine doses have been administered demonstrating the scarcity of vaccines that affects developing countries in particular.

- *Publications*

The positive message is that never in history before vaccines against a deadly infectious disease were developed und licensed in such a short time period. On the other hand, it will require another 1 to 2 years and enormous efforts to be able to vaccinate all nearly 8 billion humans worldwide. A permanent thread is the large flexibility of Sars-Cov-2. In many places around the world, new mutants and variations appear which have a high potential to jeopardise the effectivity of the actually produced vaccines.

- *Forthcoming events*

An important consequence of this unstable situation is the cognition that we have to re-thing more careful our health maintaining and disease preventing measures. In future – I am convinced – a deeper understanding of aetiology and the cause and origin of infectious diseases need much more attention. This applies for human as well as for veterinary medicine.

The current health crisis shows, like in a magnifying burning glass, the importance of the understanding of the triad of humans, animals and the environment for the future of mankind. 75 % of all new emerging infectious diseases of humans originate from animals. This means we have to intensify



research in the interrelationships between man, animal and nature. We have to establish early warning systems for infectious diseases around the world, and, last not least, put hygienic measures in place for prevention, which should contain permanent as well as fast reaction strategies. A very important part of such a strategy is sharing knowledge and educating skilled staff in the field of human and animal hygiene.

ISAH continues his mission along this strategy by cooperating with OIE, organizing teaching platforms on congresses and webinars for students and former education courses for personal and high level exchange of ideas and technologies. Recent examples are the two Webinars on Covid-19 and African Swine Fever in May this year (see also in this Newsletter) with high level experts from Europe and East Asia and an attendance of more than 600 participants from 40 countries worldwide. The 20th ISAH Congress from 2nd to 6th October 2022 in Pattaya, Thailand (see organizational agenda in this Newsletter) will focus on the burning questions in science and practice how to prevent spread of infectious diseases among animal and human populations. Further, main topics will cover how to improve the production and well-being of food delivering animals in modern and alternative farming systems taking in account the 17 sustainability goals of the United Nations.

With very best regards

Professor Dr. med. vet. Dr. h. c. mult. Jörg Hartung
President of ISAH



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News from the Society

Some activities of ISAH in recent months

ISAH webinars on African swine fever & COVID-19



INTERNATIONALE GESELLSCHAFT
FÜR TIERHYGIENE

SOCIEDADE INTERNACIONAL
DE HIGIENE Y PRODUCCION ANIMAL

МЕЖДУНАРОДНОЕ ОБЩЕСТВО
ПО ЗООГИГИЕНЕ

SOCIÉTÉ INTERNATIONALE
POUR L'HYGIÈNE ANIMALE

SOCIEDADE INTERNACIONAL
DE HIGIENE ANIMAL

国际畜禽保健协会

International Society for Animal Hygiene (ISAH)

Invites for free webinars on

Asia & Europe face the same challenges in:

1. **African Swine Fever** – Present state, spread & prevention
2. **COVID-19** – Hygiene & strategies to prevent future epidemics

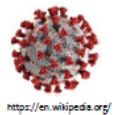


18th & 19th May, 2021

9:00 am – 11:05 am CEDT | 2:00 pm – 4:05 pm ICT

Registration required at www.isah-soc.org.

No conference fee. Limited number of participants.



Short report & abstracts of these webinars

This year's **ISAH webinars** took place on 18 and 19 May 2021.

The first webinar on 18 May 2021 dealt with **African Swine Fever**, the webinar on 19 May 2021 with **COVID-19**. Leading international experts from Europe and Thailand gave a very informative overview from the perspective of veterinary and human medicine as well as from Europe and Asia.

The webinars were attended by more than 600 participants from more than 40 countries, including many developing and emerging countries. The feedback was overwhelmingly positive and many expressed a "please repeat soon".

Altogether, this format has proven to be very successful and ISAH webinars are planned therefore also in the future for focused topics of great interest, especially in the years between the bi-annual ISAH Congresses.

We hope to meet with choice of actual topics and early advertisement of the webinars the intentions of many scientists and the interest of our ISAH members, in particular.

Abstracts

Introduction and Chair - *The Roots and Spirit of Animal Hygiene*



Jörg Hartung, Professor Dr. Dr. h.c.
University of Veterinary Medicine Hannover,
GERMANY. President of ISAH.

The term “hygiene” and consequently “animal hygiene” goes back to Greek mythology and the early roots of European civilisation. In ancient Greece, the word “*hygieia* = hygiene” covered all measures necessary to keep a person healthy. Because of this outstanding importance preventing diseases, *Hygieia* became the rank of a goddess in Greek medicine.

According to the mythical history was her father Asklepios, the surgeon and her mother Epione, the fostering goddess who cared about sick people. However, both recognised soon, that neither his skills to heal nor her abilities to care for sick people were able to avoid disease and suffering of their patients, and (according to the myths of ancient history) they engendered her child “*Hygieia*”. She should prevent the initiation of diseases and all forms of suffering by creating a healthy, clean, harmonious and stress-free living environment.

These preventive principles are still valid and form the core of scientific research and practical execution of modern hygiene and animal hygiene. Animal hygiene protects health and well-being of a single animal as well as a herd by providing animal-suited keeping and feeding systems. Hygiene

measures hinder infectious agents to invade farms from outside and they can stop or reduce the spread of infectious agents within a herd. At the same time, hygiene thinking promotes well-being by gentle and caring handling of animals and regards behavioural needs, which strengthen the animal's immune system and raise resistance.

This comprehensive health care helps to reduce application of drugs to the absolute necessary minimum. Not least, the European Union adopted the precautionary principle as core of its Animal Health Strategy entitled "**Prevention is better than cure**". The further development of the principles of animal hygiene such as precaution, prevention, bio-security, disinfection, health care and animal protection will benefit all domestic animals, food-producing animals as well as pets, horses and others.

Understanding the origin and spread of infectious diseases and applying preventing measures will protect animals and people from zoonotic diseases and help to secure the supply of products of animal origin.

For more join the International Society for Animal Hygiene - ISAH-soc.org.

Greeting Address - *Animal Disease Control Policy in Thailand*



Sorravis Thaneto, Dr.
Director General, Department of Livestock
Development, Ministry of Agricultural and
Cooperatives, Bangkok, THAILAND



Chaiwat Yothakol, Dr.
Deputy Director Department of Livestock
Development, Ministry of Agricultural and
Cooperatives, Bangkok, THAILAND

The Department of Livestock Development (DLD), Ministry of Agriculture and Cooperatives, is a National Veterinary Authority of Thailand. The DLD is responsible for animal health and food safety, animal production and



livestock extension, veterinary public health, animal welfare, environmental impact, and international animal health matters including import-export animal disease control and prevention, disease reporting, health certification and monitoring of animal farms and slaughterhouses.

DLD works to prevent, control and eradicate both exotic and endemic notifiable diseases, to minimize the economic impact of such diseases, and to guarantee the safety of the food chain. DLD works with stakeholders to drive down risks related to animal health. There are three major components of DLD's disease control mission presented as below.

DLD Functional and Animal Epidemics Act B.E. 2558 (2015). The DLD includes officers from central, regional, provincial, and district levels who provide services on animal health controls and veterinary public health controls and undertake disease surveillance program in the country. Apart from DLD officers, Subdistrict Livestock Assistants and livestock volunteers (or community animal health workers) also provide support in relevant to basic animal health activities in cooperation with local administrative authorities in sub-district and village level. DLD manages and monitors the Livestock health and quality of Livestock product. The important law for prevention and control of livestock diseases is Animal Epidemic Act B.E. 2015, which stipulates notifiable animal diseases in Thailand. The Act assigns responsibilities of livestock owners and DLD officers as well as the processes of disease prevention and control. One hundred and thirty six notifiable diseases were specified in the Act, which they were classified into three groups namely; zoonosis, non-zoonosis and exotic. Avian influenza, Rabies and exotic diseases were prioritized as major diseases, which the contingency and preparedness plan as well as resources have been fully provided.

Surveillance, Reporting System and Disease Control; under the Animal Epidemic Act B.E.2015, there are seventy nine animal species including livestock, wildlife, aquatic, and bee, involved in the Act. The DLD is directly responsible for disease prevention and control of those diseases by cooperation with relevant agencies including Department of Disease Control, Department of Fisheries, Department of National Parks, Wildlife and Plant Conservation and veterinary laboratory diagnostic services. The surveillance



and reporting systems have been conducted via web-based reporting systems, providing timely essential information of the animal health status for related users as well as for our trading partners. This results in preventing disease spread and minimizing the economic impact for both Thailand and the global market.

Control of Highly pathogenic avian influenza (HPAI) virus of the H5N1 subtype is an example of the successful mission implemented by the Thai government. It was firstly confirmed in poultry in Thailand in January, 2004, which the control measures such as culling poultry flocks, restricting poultry movement, improving hygiene, and other, were strictly implemented. The disease has been under control since 2008. Moreover, its platform has been applied for controlling other animal diseases in particular African swine fever (ASF). ASF is a serious viral disease of domestic pigs that poses a major threat to pig production. ASF outbreaks have been reported in more than thirty countries worldwide, such as those in Europe, Asia, Africa, and Oceania. The disease has been spreading rapidly in several countries in Southeast Asia, except Thailand. DLD has issued measures against the disease in several areas, such as an increase in the efficiency of ASF surveillance and disease prevention among swine farms, swine recovery, and communication in risk management. These measures will benefit the country's livestock industry and swine farmers, as well as mitigating possible damage to the local economy.

Domestic and International Collaboration Networking; one of the key successes that the DLD has learnt from HPAI control is a good collaboration network among relevant partners including both domestic and international agencies. The Cooperation and Memorandum of Understanding (MOU) was started with the DLD and the Department of Disease Control, Ministry of Public Health (DDC-MOPH) and also extended the partnership to both domestic and international authorities such as universities, Ministry of Natural Resources and Environment, Ministry of Interior, OIE, FAO, CDC, etc. This allows the relevant partners to pull the resources, share the ideas, and find to solution to the problems together.

In addition, DLD also conducts scientific study, research and experiment in relation to animal production and health; to disseminate information,

knowledge and technology on animal production and health to farmers and other stakeholders and to enforce related animal health and veterinary public health laws.

Webinar on ASF – KEYNOTE SPEAKER - Epidemiology of African Swine Fever (ASF) in Europe



*Franz J. Conraths, Professor Dr.
Vice President of the Friedrich-Loeffler-Institut (FLI),
Federal Research Institute for Animal Health,
GERMANY*

African swine fever (ASF) is a notifiable disease that was originally limited to Africa. Since the 1950s, sporadic introductions into domestic pigs in European countries (Portugal, Spain, France, Italy, Malta, Belgium, the Netherlands) were reported, often caused by swill-feeding, e.g. of food leftovers from international flights. After introduction in Portugal and Spain in 1960, it took more than 30 years to eliminate the disease from the Iberian Peninsula. On the island of Sardinia, ASF has been endemic since 1978.

The first cases of the current ASF epidemic were reported from Georgia in 2007. Subsequently, the disease spread into neighboring countries and reached the Baltic states and Poland in 2014. Further European countries followed. Germany was first affected in September 2020 in an area close to the border with Poland.

Jumps over large distances in the disease spread (e.g. to Belgium and the Czech Republic) clearly show the existing risk of introduction through human activity. The introduction of ASF into Germany probably occurred through wild boar migration across the border between Poland and Germany.

ASF control is based on the culling of affected pig herds, cleaning and disinfection of the holdings, movement and trade restrictions as well as biosafety/biosecurity measures to prevent the spread of the virus though

people, equipment, fomites etc. Preventive measures include the ban of swill-feeding, careful disposal and adequate rendering of leftovers of food products that may contain raw or undercooked pork or wild boar meat, cleaning and disinfection of equipment that may be contaminated with blood, tissue, secretions or excretions of potentially infected pigs or wild boar. In Europe, there is no vaccine available to protect pigs against ASF or to control the disease in affected populations.

The current epidemic of ASF genotype II in Europe and Asia causes massive economic losses, also due to trade restrictions that are regularly imposed against affected countries to prevent the further spread of ASF. These trade restrictions apply regardless of the occurrence of ASF in domestic pigs or wild boar in an affected country.

Webinar on ASF – KEYNOTE SPEAKER - ASF Risk-based surveillance for the pork production chain



*Suphachai Nuanualsuwan, Dr.
Faculty of Veterinary Science Chulalongkorn
University, THAILAND*

According to OIE, import risk analysis was recommended to importing countries as an objective and defensible means to systematically assess animal disease risk. The risk analysis is composed of hazard identification, risk assessment, risk management and risk communication. The main idea of risk assessment is to qualitatively or quantitatively evaluate the risks associated with a hazard. In this case, hazard is the African swine fever virus (ASFv) infecting animals or contaminating animal products, animal genetic material, feedstuffs, biological products and pathological material.

The release assessment as the first step of risk assessment is to determine the likelihood of introducing hazard (ASFv) into the importing countries through all possible entry pathways annually. Then, the exposure assessment

is the next step where animals or hosts in the importing country are exposed to ASFv through all possible exposure pathways annually. These two steps of risk assessment play an important active surveillance to early detect ASFv in the pork production chain.

The surveillance system when applied to the entry and exposure pathways in the context of risk assessment could be categorized as importing and domestic surveillances, respectively. The importing surveillance was assigned to all possible entry pathways such as lived pig, pork & its products, inanimate (fomite), feed & ingredient, and biologics. The domestic surveillance was designated to all possible exposure pathways either directly or indirectly to the live pig across the pork production chain from production, collection, transport, slaughter, processing, wholesale, retail, to consumer.

Either known and unknown ASFv prevalences in each individual entry and exposure pathways proportionately require the sample sizes to define the ASFv-free circumstance of a country.

Webinar on ASF – KEYNOTE SPEAKER - The future of the pig industry after the ASF introduction into Asia



*Roongroje Thanawongnuwech, Professor Dr.
Dean Faculty of Veterinary Science, Chulalongkorn
University, Bangkok, THAILAND*

The spread of ASF across China and other Asian countries have resulted in the huge loss of global pig populations and sustainability of the global food supply chain. Rapid diagnosis is of important for prevention and control.

Most vulnerable and affected segment would be small and medium holders. **Transformation of the pig industry to large-scale farms**, together

with better standardized production systems and biosecurity, would facilitate future survival of the industry and could contribute substantially to the food security.

During the **pork shortage**, a looming food crisis changed **protein consumption behavior** from meat to alternative protein sources such as chicken or fish.

The ASF outbreaks in Asia might render the virus deleterious to the regional and later the global pig industry. Travelers and international trading are the major carriers of this so-called a **human driven disease**, ASF.

Webinar on COVID-19 – KEYNOTE SPEAKER - Role of animals & hygiene in the COVID-19 pandemic



*Gilles Salvat, DVM, Dr.
Managing Director General for Research,
Anses-French Agency for Food Environmental
and occupational health safety, FRANCE*

As SARS-CoV-2 probably emerged from wildlife *Rhinolophus* bats with a possible intermediate mammal host, questions about the possible role of domestic animals as COVID-19 reservoirs and of food as a possible source of transmission early occurred both in public opinion and scientific teams. In order to assess such risks of transmission from human to animal and reverse and on the possible role of food in disease transmission, Anses published and regularly actualized scientific opinions on these topics since the 9th of March, 2020. Regarding the receptivity and sensitivity of animals to SARS-CoV-2 infection, the animal health surveillance platform (www.plateforme-esa.fr) published regularly updated information about what is known on COVID-19 and animals.

Due to their vicinity to humans, primates are receptive and sensitive to SARS-CoV-2. At this date, even if cats and dogs are considered as receptive species, symptoms associated with their infection are generally poor (mild respiratory syndrome, sometimes myocarditis with UK VOC), they are considered as epidemiological dead ends as no transmission to humans have been documented soon.

Regarding breeding wildlife species, infection of fur minks (*Neovison vison*) is of great concern as contaminations of mink flocks in the Netherlands and in Denmark were associated with spillover to humans, passages in mink population selecting variants of SARS-CoV-2 able to escape to immune system and vaccination. Stamping out of mink rearing farms was achieved in those two countries and surveillance system were in place in many european countries.

Many other mustelids like ferrets badger ferrets, are receptive and sensitive to the virus but also rodents like golden hamster (*Mesocricetus auratus*) (ferrets and golden hamster are studied as animal models) or canidae like raccoon dog (*Nyctereutes procyonoides*). Other farming species are not considered as receptive and sensitive to SARS-CoV-2 but comments will be given on experimental studies on these species. Nonetheless, surveillance systems should be implement to provide information about a possible adaptation of SARS-CoV-2 to new reservoir animals following the emergence of adaptative mutation to a variety of ACE2 receptors.

Possible transmission of SARS-CoV-2 via oral route is considered to be unlikely, but the virus could survive many days on food packaging and many months on frozen food. If indirect contamination via this route is possible in theory, it is considered as unlikely. Clusters of human contamination occurring in abattoirs and processing plants all other the world at the beginning of the pandemic were certainly associated with working conditions of the employees. Working close to each other, most of the time without masks, masks being less efficient due to humidity and cold, in a cold and humid atmosphere enhanced survival and spreading of infective virus particles.

Webinar on COVID-19 – KEYNOTE SPEAKER - The bat – human interface of Covid-19



Supaporn Wacharapluesadee, Dr.
Thai Red Cross Emerging Infectious Diseases
- Health Science Centre. WHO Collaborating
Centre for Research and Training on Viral
Zoonoses. King Chulalongkorn Memorial
Hospital. Faculty of Medicine, Chulalongkorn
University, Patumwan, Bangkok, THAILAND

Webinar on COVID-19 – KEYNOTE SPEAKER - Leading the fight against Covid-19



Lothar H. Wieler, Professor Dr. Dr. h.c.
President of the Robert Koch Institute in
Berlin, GERMANY

Thanks to all of the speakers for their very informative and impressive talks & thanks to the numerous participants!



Some activities of ISAH members in recent months



agriculture

an Open Access Journal by MDPI



Animal Hygiene on Farms - Realising Animal Health Prevention

Our ISAH active member, **Prof. Dr. Nicole Kemper** (Institute for Animal Hygiene, University of Veterinary Medicine Hannover, Germany), is the **guest editor** of a **Special Issue of Agriculture (mdpi) on Animal Hygiene**.

This Special Issue aims at showing the broad range and utmost importance of animal hygiene in livestock farming. Papers dealing with all livestock production systems, including aquaculture, can be submitted. Classic (i.e., disinfection, air hygiene) and new approaches (i.e., precision livestock farming and other innovative concepts) are welcome. Economic considerations and potential conflicting goals should also be taken into account. Moreover, studies evaluating potential gaps in animal hygiene and ways to overcome identified shortcomings are of interest, as well as comprehensive review articles.

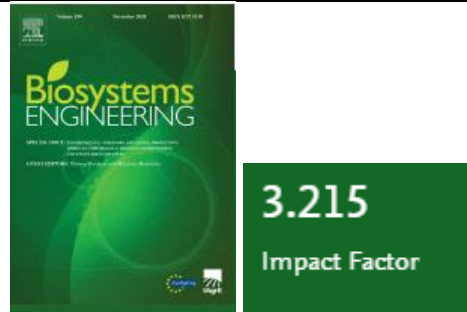
Prof. Dr. Nicole Kemper invites all of you to contribute by submitting your papers, with the aim of summarizing the successes, limitations, and ongoing challenges to realize animal hygiene in farms.

Call for papers is open until November 30, 2021.

Don't miss this unique opportunity to publish your valuable work!!!

More information on:

[https://www.mdpi.com/journal/agriculture/special issues/animal hygiene health](https://www.mdpi.com/journal/agriculture/special%20issues/animal%20hygiene%20health)



Assoc. Prof. Dr. **Thomas Banhazi**, ISAH Country Representative for **Australia**, is the co-editor of a new Biosystems Engineering special issue related to environmental stressors and animal production. This special issue has brought together research related to the assessment, monitoring, modelling, abatement and general management of environmental stressors. The Editors stressed that this issue highly contributes to increase the knowledge needed to reduce the negative impacts of suboptimal environmental conditions on the health, welfare and productivity of livestock animals, making rearing systems even more efficient, welfare friendly and sustainable than before.

Assoc. Prof. Dr. **Thomas Banhazi** managed to publish 5 articles in this special issue.

For more information, please follow the link to the website:

<https://www.sciencedirect.com/journal/biosystems-engineering/vol/199#article-1>

Congratulations to both of them for their editing and publishing activities highlighting the role of animal hygiene!





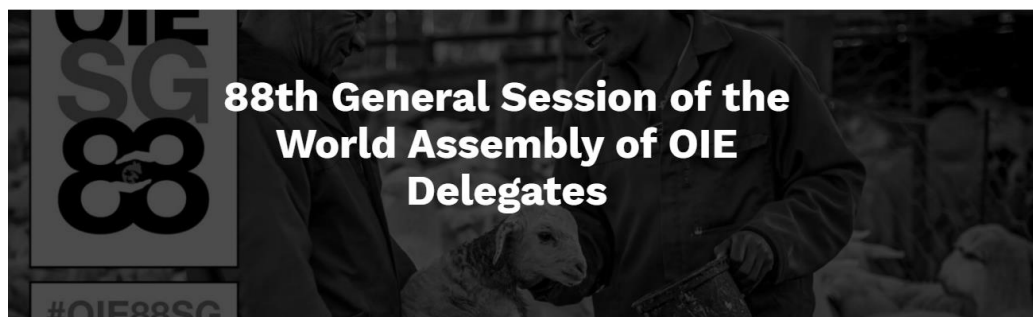
Prof. Dr. Uwe Harry Rösler, member of the ISAH Executive Board and designated president of the Society, was elected **Dean of the Faculty of Veterinary Medicine of Freie Universität Berlin** on 3 June 2021.

At the same time, Uwe Rösler was appointed to the Excellence Council of Freie Universität Berlin for an initial period of 4 years.

Freie Universität Berlin (Free University of Berlin) is one of the best universities in Germany and has been awarded **a university of excellence** several times in a nationwide competition between German universities.

Congratulations to him for these prestigious nominations!

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OIE General session – 2021

The 88th Annual General Session of the World Assembly of National Delegates to the World Organisation for Animal Health (OIE) hold virtually from **24 to 28 May 2021**. ISAH president as well as Prof Uwe Rösler and Prof Annemarie Käsbohrer took part in the online event. The Final Report of the 88th General Session of the World Assembly OIE is available on the official OIE General Session website in English, French and Spanish language: www.oie.int/en/event/88th-general-session-of-the-world-assembly-of-oie-delegates/



Join ISAH & become a member of a community of science & a circle of lifelong friendship



Scientists, veterinary practitioners and other persons with special interest in Animal Hygiene, disease prevention, animal welfare and sustainable animal farming are cordially welcome to become a member of the International Society for Animal Hygiene.

Entering the society is absolute easy! Just send an informal email to the ISAH Secretary (christelle.fablet@anses.fr). After paying the biannual membership fee of 40 Euros for two (2) calendar years you will receive the invoice which entitles you to participate in all ISAH activities at reduced rates and receive the ISAH Newsletter. Alternatively, you can also use our entry form on the Society's web page (www.isah-soc.org) for membership application.

ISAH membership fee is effective from the 1st of January and runs for 24 consecutive months. Members who pay their fee in due time get a discount on the congress fee for the upcoming ISAH congress in that period.

For instance, those having paid the fee in 2021, will have a discount for 2022 ISAH congress!

Membership fee can currently be paid only by money transfer. Alternatives are currently explored and might become available in the future.

Please visit our webpage for more details:

<https://www.isah-soc.org/?Members/Membership-fee>

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Gentle Payment Reminder



As the first half of 2021 has almost passed by now, ISAH's treasurer would kindly like to reach out to you and thank all those members who have paid their membership fee in time at the beginning of the new year!

We are truly grateful for your contribution!

All others who still have to settle their dues we would like to

gently remind to check their balance

and

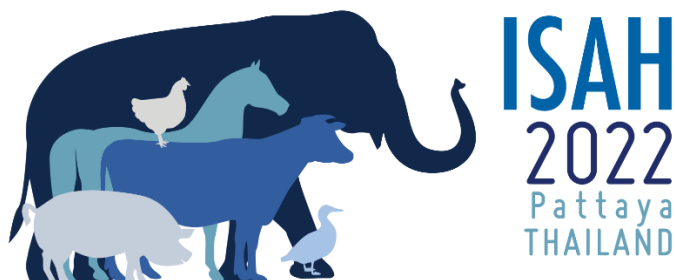
to satisfy their balance as soon as possible!

If your fees are overdue please contact ISAH'S Treasurer for an invoice and pay the amount due.

Thank you!

ISAH's Treasurer wishes you a wonderful summer, relaxing holidays – entirely virus free. Stay healthy and safe and away from any Covid-19!

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XX International Congress on Animal Hygiene 2022

**20th ISAH Congress, Pattaya Thailand – October,
2nd to 6th, 2022**

Save the date!

The next ISAH congress will be held in Pattaya, Thailand, from 2nd to 6th of October, 2022.

A specific homepage for the Congress is in progress and will be launched in the near future. The scientific programme and organisational details will be developed in close cooperation between with the local hosts and the Executive Board of ISAH.

We hope that You will join us and take an active part in all that will be offered. The Congress is a unique opportunity for industry and scientists to meet and acquire new knowledge as well as to exchange experience.





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Of interest from ISAH members

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About animal production & environment

- ▶ Banhazi, T., Hassouna, M. 2020. Special issue: Environmental stressors and animal production. Biosystems Engineering. Vol., 199, p.1-3. <https://www.sciencedirect.com/science/article/pii/S1537511020302415>

About poultry production & animal hygiene

- ▶ Le Bouquin S., Bonifait L., Thépault A., Ledein T., Guillon F., Rouxel S., Souillard R., Chemaly M., 2021. Epidemiological and Bacteriological Investigations Using Whole-Genome Sequencing in a Recurrent Outbreak of Pullorum Disease on a Quail Farm in France. Animals 11, 29.

About pig production & animal hygiene

- ▶ Andraud M., Bougeard S., Chesnoiu T., Rose N., 2021. Spatiotemporal clustering and Random Forest models to identify risk factors of African swine fever outbreak in Romania in 2018-2019. Scientific reports 11, 2098
- ▶ Pol F., Huneau-Salaün A., Gallien S., Ramonet Y., Rose N. 2021. Compressed Brown Algae as a Potential Environmental Enrichment Material in Growing Pigs. Animals, 11, 315.
- ▶ Pol F., Kling-Eveillard F., Champigneulle F., Fresnay E., Ducrocq M., Courboulay V., 2021. Human-animal relationship influences husbandry practices, animal welfare and productivity in pig farming. Animal, 15, 100103.



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Forthcoming events



The 20th congress dedicated to organic farms!

The organic world congress (OWC) is held every 3 years. It is organized by IFOAM – Organics International together with a consortium of leading organic organizations from the organizing country (France in 2021). OWC aims to provide organic and like-minded stakeholders working toward sustainable agriculture, value chains, and consumption with an opportunity to trade knowledge, innovations, and experiences about the organic world.

The congress offers inspiration and momentum to all who take part and is seen as a leading event for the global organic sector. OWC involves thousands of organic farmers, producers, researchers, advocates, and policy experts from around the world.

This year it will be a virtual event. Later, if sanitary conditions improve, we will open a second possibility for registration for in-person participation in Rennes, France, in line with WHO directives and French national health and safety measures.

Stay tuned for more information soon on <https://owc.ifoam.bio/>





www.isah-soc.org

e-news

**International Society
for Animal Hygiene**

N° 008 - 2021



72nd Annual Meeting of the European Federation of Animal Science (EAAP)

For decades, the Annual Meeting has hosted scientists and experts from the field of animal science, not only from Europe but also from other countries around the globe. The EAAP Congress provides insights into the latest research results from many areas of animal science. It is a unique opportunity for scientists and industry to acquire new knowledge and to exchange experience. Carried out through many sessions, plenary meeting, a poster presentation, and discussions about scientific achievements in the European and world livestock production, Annual Meeting gives an opportunity for the application of new ideas in practice. All these preferences make the EAAP one of the largest animal science congresses in the world – approximately 1000 participants from more than 50 countries are expected.

The **2021 Annual Meeting** will be held in Davos from **30th of August to 3rd of September**. **Physical meeting still is the preferred option** with a comprehensive health protection scheme to avoid any health risks. However, to cover all sanitary situations due to COVID-19 restrictions, sessions will be streamed and all posters will be displayed on a virtual platform.

Don't miss this event scheduled in 2021!!!

<https://www.eaap2021.org>



The e-Newsletter is sent to all ISAH Members. You are all invited to submit information for the newsletter. Please send information, news, text, photos and logo to: christelle.fablet@anses.fr and Joerg.Hartung.iR@tiho-hannover.de

Production staff: ISAH Executive Board