Are our research and development livestock facilities far from particle accelerators?

In Science, very generally, one of the main areas for progress is the exchange of methods and techniques among laboratories working in the same area. This allows, firstly, to better understand the means and ways the results were obtained and what could be wrong or imprecise in the measurements performed. Secondly, it provides the possibility to improve the methods by a continuous progress towards better repeatability, better sensitivity and lower costs. Such exchanges then improve the quality of the research and accelerate its speed. This is especially important in some disciplines, for example nuclear physics, which, because of the cost of the machines, absolutely excludes working outside of a common system involving different countries. Working on a single machine such as the particle accelerator example, requires that scientists share methods and techniques. This does not impair the discoveries done by different research groups, who are often in competition, but probably accelerates scientific progress.

In the life sciences, the situation is a little bit different and sharing methods strongly depends on the scientific discipline. In molecular biology, where every research laboratory owns its own methods and techniques, the exchange is generally done either after publication of the results in scientific journals, or in common projects such as those supported by the EU or any other national or international funding organization. With the COVID-19 crisis we have learned how important it was that the scientific community exchanges information about techniques and methods of approaches to correctly identify the virus, to better know how it was working to infect the host and to develop new vaccination techniques to be able to protect the public.

When approaching animal physiology sensu lato in live animals, I have the feeling that the situation is intermediate between nuclear physics and molecular biology: some labs have their own organization and can develop methods and techniques in live animals without strong collaborations with other laboratories. But, every year this type of experiment has become more complicated for both technical and administrative reasons and every year they are more expensive. These realities of science promote a high interest in widely sharing experimental advances. Moreover, as animals share a majority of the genes controlling basic physiological mechanisms, the exploration of basic functions of physiology such as nutrition, muscle development, milk production, reproduction or even behaviour, does not differ very much between Asia and America or between Europe and Africa.
Editorial (continues)

As we all know, the larger sized farm animal species are very expensive to maintain in experimental conditions and sharing the different methods and techniques to explore their different functions such as nutrition especially rumination, reproduction, metabolism, behaviour, health and milk production is highly interesting for economic reasons. This is particularly true when we know that funding animal science research is at risk of being reduced in the future, due to public perception of animal production and to the inflated environmental impact that livestock are supposed to play. Thus, it is clearly in our common interest to widely share the research tools that were developed in the different continents to explore livestock physiology and behaviour. This would be more economical and more efficient in the modern World where money and time are so scarce! Such exchanges are also able to strongly accelerate the speed of the discoveries and of innovations while also reducing the experimental impact on animals regarding ethics. We can take many examples to illustrate this observation, but the one which is my favourite at the moment is the fight against enteric Methane (CH4) emission from livestock, especially in the bovine species. While a group from the US successfully focus on the calculations of the real importance of CH4 in the general process of global warming, a European team produces highly interesting results to genetically select cows against CH4 emission, an Australian group identifies an alga from the coral reef barrier which drastically reduce CH4 emissions when fed to cattle and a Colombian group proposes attractive agro-sylvopastoral systems where Carbon source/sink equilibrium is in favour of livestock.

The reasons for this acceleration comes firstly from the increase in exchanges between scientists as in all research projects, which means criticisms of experimental design a priori, cross-participations to experiments conducted by other groups and analyses of the results. It comes secondly from the fact that young scientists, generally MS and PhD students, are involved in such exciting projects, providing them the possibility to inject « new blood » into the system. Thirdly, innovation is also boosted by the multi-disciplinary questions which are raised by these projects and for the future of livestock systems, how to reduce the environmental impact of their production while continuing to get products of high quality for consumers? I know that our research and extension systems for livestock are far from a particle accelerator but we may employ some of the lessons learned from the research done in nuclear physics to share methods and techniques to explore livestock physiology!

Philippe Chemineau
WAAP President
@ChemineauPh
https//www.waap.it/

From WAAP Members

American Dairy Science Association® (ADSA®)

2021 ADSA Annual meeting

The 2021 Annual Meeting of the American Dairy Science Association® (ADSA®) was planned as ADSA’s first hybrid annual meeting. That meant that while we planned to meet in person in Louisville, we would also have a robust virtual program available for those who could not join in person. It would have been a co-located meeting: a meeting in the same physical location as the American Society of Animal Science (ASAS) with an overlap day of shared programming.

Recently, the ADSA Board decided to hold the annual meeting virtually due to the COVID
situation, keeping the same dates, July 11 to 14.

For more information visit the 2021 ADSA Annual Meeting website regularly as it will be updated frequently as new information becomes available.

ADSA Virtual Annual Meeting 2020 by NUMBERS

• 99.7% of survey respondents that attended the ADSA 2020 Virtual Annual Meeting said they would recommend the ADSA Annual Meeting to a colleague

• 91.6% of survey respondents said that they left the conference with at least one new idea that they intend to use in their work

59 countries were represented at the meeting; 2,347 total attendees; more than half were student attendees

40th ADSA Discover Conference on NASEM Nutrient Requirements of Dairy Cattle

The 40th ADSA Discover Conference: NASEM Nutrient Requirements of Dairy Cattle will now be held as a hybrid conference August 30-September 2, 2021. Continued COVID-19 related travel and gathering uncertainties coupled with delays with the NASEM publication brought us to this decision. Registration options include in-person participation at the Eaglewood Resort & Spa in Itasca, IL, virtual participation, and a non-participation option that gives registrants access to the conference recordings. For complete registration details, visit our website.

The National Academies of Sciences, Engineering, and Medicine (NASEM, previously known as NRC) anticipates the 2021 release of the eighth revised edition of “Nutrient Requirements of Dairy Cattle”.

Conference Topics:
- Feed Intake, Fats, Carbohydrates, and Energy
- Proteins and Amino Acids
- Minerals, Vitamins, and Water
- Dry Cows, Calves, and Replacement Heifers
- Using the Model
- Application of the New Requirements

41st Discover Conference: “Health Management of Calves: From Intrauterine Life to Successful Weaning”

The 41ST ADSA Discover Conference will be a hybrid conference with the in-person meeting being held October 25-28, 2021. Registration options include in-person participation at the Eaglewood Resort & Spa in Itasca, IL, virtual participation, and a non-participation option that gives registrants access to the conference recordings. For complete registration details, visit our website.

The conference will explore the many changes in dairy calf management practices, and research conducted over the last decade. Conference Sessions include:

• Fetal Development and Early Life
• Calf Health
• Pre-Weaning Nutrition
• Transition to the Ruminant Calf
• Animal Welfare and Ethics

A poster session will be included to allow participants to share and discuss research findings. Further details are posted on the meeting site. Registration to either discover conference includes 90 days of free access to ADSA’s Searchable Proceedings of Animal Conferences (S-PAC) and the opportunity to subscribe at ADSA member rates.
**JDS Communications**

The new journal from the American Dairy Science Association®. JDS Communications offers a different publication option for dairy scientists. The first two editions have been published. Editor in chief Matthew Lucy: “We are interested in high-quality research studies that are focused, hypothesis-driven, and designed to answer a specific question on the production or processing of milk or milk products intended for human consumption. We aim for rapid turnaround and a short time to publication. In addition to short research articles, we encourage submission of mini reviews — unsolicited, concise review papers”. The journal will be online only, with all papers published under a Gold open access license.

JDS Communications is specifically designed for today’s authors who have limited time and a need to publish their focused, high-impact research. Articles will have a strict limit of 5 published pages and will also require a graphical abstract that includes highlights and a brief summary of the work. The initial editorial team will consist of Matthew Lucy (EIC and Physiology section editor) and four additional section editors: MaryAnne Drake (North Carolina State) leads Dairy Foods; Pam Ruegg (Michigan State) leads Health, Behavior and Well-being; Jennie Pryce (La Trobe University) leads Genetics; and John Roche (NZ Ministry for Primary Industries) leads Nutrition and Farm Systems.

**American Society of Animal Science (ASAS)**

**2021 ASAS-CSAS-SSASAS Annual Meeting and Trade Show, Call for late-breaking abstracts**

Late-Breaking abstract submission is available for the 2021 ASAS-CSAS-SSASAS Annual Meeting and Trade Show! The submission deadline is May 25, 2021 at 3:00 PM CDT.

Note: Submission category is Late-Breaking. All accepted Late-Breaking abstracts will be scheduled as an oral or poster presentation.

In-person: Do to the ease on facility capacity limits in Louisville and the Kentucky International Convention Center, we are committed to having an in-person meeting this July. Between the speed of vaccinations increasing and the careful ease on group limits in Louisville, we are anticipating a great, robust and safe in-person meeting. Of course, for individuals unable to travel, we will have virtual presentation options.

Abstracts: As a reminder, ASAS will allow individuals to submit abstracts that are earmarked for meetings that have been or might be cancelled because of COVID-19 and is suspending the policy that does not allow submission of abstracts that were submitted, accepted or presented at other meetings. This includes abstracts presented virtually at the 2020 ASAS-CSAS-WSASAS Annual Meeting. You can resubmit your abstract to the 2021 meeting which will give you the opportunity to present in person. Visit the meeting website for information on abstract submission.

**Canadian Society Animal Science (CSAS)**

**News from the Canadian Society of Animal Science**

Despite this unprecedented Covid-19 pandemic, animal scientists in Canada and around the world are working diligently to maintain high quality animal research. The Canadian Society of Animal Science is pleased to introduce two symposia that are being organized in collaboration with the American Society of Animal Science for the 2021 ASAS-CSAS-SSASAS Annual Meeting & Trade Show that will be held in Louisville, Kentucky, USA, July 14-18. Symposium 1: Prospects for Exploiting Epigenetic Effects in Livestock Production and Symposium 2: Livestock resilience and climate change (see details below). In addition, the CSAS in working on the November issue of Animal Frontiers, showcasing more than 10 articles giving an insight on how epigenetics will impact livestock production in the future with contributions from authors that will provide a global perspective.
We hope these events and publications will contribute to the scientific community and animal production stakeholders.

Best wishes,
Flavio S. Schenkel (President), on behalf of the Canadian Society of Animal Science Executive

Oncoming CSAS Symposia

Symposium 1: Perspectives for exploiting epigenetic effects in livestock production
Description: Epigenetics is currently an expanding area of research in livestock genetics and breeding, which started to be translated to practical applications in breeding and animal management and nutrition. This symposium will discuss the prospects for exploiting epigenetic effects to improve livestock production. See the list of speakers here.

Symposium 2: Livestock resilience and climate change
Description: Global climate change will affect livestock production while the demand for livestock products is expected to increase by mid of the 21st century. A look into the interaction of livestock resilience and climate change will be discussed in this Symposium. See the list of speakers here.

European Federation of Animal Science (EAAP)

Jaap van Milgen received the prestigious Leroy Award for the year 2021

The EAAP Council and Scientific Committee assigned the 2021 Leroy Fellowship Award to Jaap van Milgen, a Dutch origin scientist working in Rennes (France) at INRAE. The Leroy Award, the most important animal science award in the European animal science network, was given this year to Jaap for his outstanding scientific contribution to Animal Production over a sustained period and for the emphasis on internationally recognized work. Jaap van Milgen dedicated most of his research efforts on swine nutrition but, in his long career, he has had the opportunity to efficiently do research in other fields, always within the animal science.

EAAP Webinar on “How to improve animal behaviour through breeding”

The EAAP Webinar series keeps going on a monthly bases. The third Webinar will be held on Tuesday, May 11th, at 13:00-15:00 Central European Time. With the third Webinar, EAAP intends to enlighten about the domestication and behaviour in chickens with a lecture offered by Per Jensen, Linköping University (Sweden), and on the impact of breeding on poultry behaviour with a special focus on measuring behaviour and improving activity and feather pecking by Esther Ellen, Wageningen University and Research (the Netherlands). The last presentation will be related to breeding for pig behaviour to improve their health and welfare through the narration of Laurianne Canario, INRAE (France). The chair of the webinar will be Erling Strandberg, President of the EAAP Genetic Commission. For more information and registration visit the dedicated webpage. Participation to this 3rd webinar is free and for every interested scientist but its audio and video record will be further available only to EAAP individual members through the EAAP restricted area. More details on upcoming EAAP webinars
and speakers will be soon available at our website. Please stay tuned and follow our socials and website to have updated information.

**The 2021 EAAP Annual Meeting will be held in Davos**

Last year annual meeting was held virtually because of the pandemic. For 2021 we planned to meet again in the beautiful Alpine location of Davos (Switzerland). The Local Swiss organizers are preparing a well-organized meeting for those who will come in Davos, including specific plan to care about the COVID pandemic. Furthermore, there will be the opportunity to participate virtually to more than 20 selected scientific sessions. We are fully optimistic that the meeting will be hybrid, with a large group of participants going to Davos. The Swiss organizers guarantee full refund of registration fee in case will be necessary to cancel the physical meeting. For more information and to register please visit the specific website.

**Participate to the EAAP Young Scientists Award!**

EAAP will grant to early career researchers the “EAAP Young Scientists Award”. **All scientists who are born after 1st September 1983 can participate.** The candidates should be EAAP individual members (if you are not individual member, you can still apply, please see how at EAAP website) and should have demonstrated outstanding research performance with the European dimension and perspective. The awardee will be recognized and will receive a plate in Davos (Switzerland). He/she will be invited to present a paper at the following Annual Meeting in Porto 2022 where will be offered a free registration.

Nominations must be submitted to the EAAP office (eaap@eaap.org) by 15th May 2021. For the necessary information about the documents to provide, please visit the EAAP webpage.

**EAAP 2021 - Distinguished Service Award Winners**

We are very proud to announce the winners of the EAAP Distinguished Service Award (DSA): Joanne Conington, Sipke Joost Hiemstra and Matthias Gauly! The DSA is assigned to senior persons in acknowledgement of their outstanding career and service to the livestock sector in general and to EAAP in particular. EAAP wishes to thank them for the great contribution they gave to our organization! Joanne, Sipke and Matthias will be awarded in Davos during next EAAP Annual Meeting.
Latin American Association of Animal Production (ALPA)

What is happening in ALPA?

In ALPA many things are happening quickly. A permanent membership registry was started, where a unique and permanent registration number is assigned. You can do that directly on the ALPA website. Electronic membership payment is also being implemented, to make it easier for each member to make their contribution comfortably, and to help strengthen the association.

A group of partners, which includes several members of the Advisory Council, the Board of Directors and presidents of National Associations are working on the modification of the statutes. It has been intense, fascinating and productive work. How is ALPA envisioned for the future? Another group, also made up of members of the BD and presidents of national associations, are preparing a Strategic Plan for the coming years.

Links have been strengthened with WAAP, EAAP, and BSAS. Now communications are more frequent and more fluid.

Work is being done hard on the consolidation of Thematic Networks and by Species. These are the academic arms of ALPA. Through the networks it is intended that:

a. There is exchange of information and experiences
b. Exchange and mobility of researchers
c. Approval of research methodologies
d. Prioritization of research lines
e. Effective transfer of technologies and knowledge
f. Formulation and execution of high quality and relevant collaborative research projects.

ALPA is very active today!

Malaysian Society of Animal Production (MSAP)

40th Annual Conference 2021

The Malaysian Society of Animal Production announces the 2021 Annual Conference. The conference will be held on August 3rd-4th, the title of the Conference is “Livestock Industries Surviving the Covid-19 Pandemic”. The deadline to send abstracts has been postponed to June 5th. For more info, please read the brochure.

South African Society of Animal Science (SASAS)

52nd SASAS Congress

The 52nd SASAS Congress will take place virtually from 10–12 August 2021 under the theme: “Communication of animal science: Is it reliable? Is it relevant? Is it responsible?” All interested parties are invited to submit abstracts of relevant research results for consideration. Closing date: 30 April 2021. For more information read the attached document.

News from Science

Combatting the fall armyworm in Africa with wasps

In Africa, the invasive fall armyworm (FAW) is becoming a serious concern. It has devastating consequences on maize crops, which the region relies on for food and animal feed. A natural enemy – wasps – may assist in managing this crop-destroying pest. Read the full article on AllAboutFeed.
How to take the lead in your career

At any stage, building leadership skills can help scientists promote their ideas and bring out the best in others. Austin Gray has to wait until May to start running his own laboratory, but he already knows what it’s like to lead. Read the full article on Nature.

Job Offers

Senior Academic Research Scientist Animal Nutrition at SRUC, Edinburgh, United Kingdom

SRUC is looking for a Senior Academic Research Scientist - Animal Nutrition, with emphasis on, but not limited to, Poultry Nutrition. Deadline: 2nd May 2021. For more details and application read the job vacancy.

Professor in Food Production from animal derived foods, based on ley and forage at SLU, Umeå Sweden

The Department of Agricultural Research for Northern Sweden (NJV) in Umeå is looking for a Professor in Food Production from animal derived foods, based on ley and forage. Deadline: 2nd August 2021. For more information and application read the job vacancy.

News from Industry

Ýnsect acquired Protifarm

Ýnsect, the world leader in natural insect protein, has acquired Protifarm, the global leader in mealworm ingredients for human applications. Their joint offering will accelerate manufacturing capabilities with a third production site, as the company moves to deliver on its long-term strategy to offer a natural, healthy and long-term sustainable solution to the accelerating consumption of protein. Following the European Food Safety Authority deeming mealworms safe for human consumption this January, Ýnsect is fast-tracking its impact in the alternative protein sector, by expanding into the market of food ingredients derived from insects. Read the full article on Ýnsect website.

Scotland’s dairy sector rising to the top

Armed with its location, ideal climate, abundance in fresh water, and with top quality milk, the Scottish dairy sector is aiming to rise to the top and boost its economic value. Its plan is outlined in its ‘Rising to the Top 2030’ report. It has set out on a journey to enter a new chapter and boost its economic power further and put in place a plan to increase manufacturing capacity, global market entry and play an even bigger role in facing climate challenges, among other goals. Read the full article on DairyGlobal.
Meetings and Conferences

WAAP invites you to check the validity of the dates for every single event published below and in the Calendar of the website, due to the state of sanitary emergency that World is currently dealing with.

Virtual conference, May 31st – July 5th, 2021
Grazing in future multiscapes

Join Grazing in future multiscapes – a virtual conference online for six virtual workshops, organized by the Lincoln University, that will focus on cultivating a shift towards more sustainable and ethical grazing systems. Detailed information is available on the conference website.

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Virtual meeting, June 7th – 9th 2021
1st Joint meeting EAAP Mountain Livestock Farming & FAO-CIHEAM Mountain Pasture

The Joint Meeting of EAAP Mountain Livestock Farming Working Group & FAO-CIHEAM Mountain Pasture Sub-Network “Mountains are agroecosystems for people” has been postponed due to the COVID-19 outbreak. The meeting will be held virtually from 7th to 9th June 2021. Registration at reduced fees will be possible before 30th April 2021. For more information read the attached document or visit the website.
Virtual meeting, July 11th – 14th 2021

2021 ADSA Annual Meeting

Next ADSA Annual meeting will be held virtually on 11th-14th July, 2021. For more information visit the 2021 ADSA Annual Meeting website regularly as it will be updated frequently as new information becomes available.

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Hybrid meeting, July 14th – 18th 2021

2021 ASAS-CSAS-SSASAS Annual Meeting and Trade Show

The 2021 ASAS-CSAS-SSASAS Annual Meeting & Trade Show will be held July 14-18, 2021 at the Kentucky International Convention Center (KICC) and area hotels. The abstracts submission deadline is May 25. Detailed information is available on the website.

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August 30th – September 3rd 2021 in Davos, Switzerland

72nd EAAP Annual Meeting

EAAP is delighted to invite you to the 72nd Annual Meeting. It will be a hybrid event from August 30th to September 3rd, 2021 in Davos, the highest town in Europe situated in the alpine mountains of Switzerland and home to the World Economic Forum (WEF). Detailed information can be found on EAAP2021 website.

September 30th - October 1st 2021 in Balotesti, Romania


50 years of Research in Biology and Animal Nutrition at IBNA

The Symposium is organised every two years by the National Research and Development Institute for Animal Biology and Nutrition Balotesti. The event will gathers experts and scientists in Biology and Animal Nutritions, both European and worldwide, who will present their most recent research focusing on current scientific trends. More details on Symposium and registration can be found on the Symposium page and in the attached flyer.

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October 21st – 22nd 2021, Paris, France

2nd Amino acid Academy Workshop

The 2nd Amino Acid Academy, organized by EAAP and Ajinomoto Animal Nutrition Europe will take place on the 21st and 22nd October 2021 in Paris, France. The location will be the Grand Amphitheatre of the National Museum of Natural History. Stay tuned for more information in the upcoming weeks and save the date!

More conferences and workshops are available on EAAP website.
The World Animal Science News is the Official WAAP Newsletter. This interesting update about activities of the global animal science community presents information on leading research institutions in the entire world and also informs on developments in the industry sector related to animal science and production. The Newsletter is sent to all WAAP member organizations and to their associates. You are all invited to submit information for the newsletter. Please send information, news, text, photos and logo to waap@waap.it.

WAAP Secretariat is located at the following address: Via G. Tomassetti 3, A/1 - Rome (Italy). Tel.: +39-06-44 20 26 39; E-mail: waap@waap.it

Production staff: Marlène Sciarretta, Philippe Chemineau, Andrea Rosati, Eleonora Azzaro, Federica Motterle.

Graphics design and layout: Gianfilippo Ercolani.