Minutes for International Society for Animal Genetics Annual General Business Meeting; 2 December 2020

Opening and welcome by the ISAG President Clare Gill

The updated ISAG constitution stipulates an obligation to hold an Annual General Meeting for the members of the society. This year, an in-person meeting was not possible due to the ongoing pandemic. Instead, we invited all interested members to attend a virtual 2020 Annual General Meeting on December 2, 2020, at 1800 - 1900 h central European time (1700 - 1800 h UTC; 11:00 am - 12:00 pm US central time; 4:00 - 5:00 am in Sydney, Australia). In Sydney, Australia the date was December 3. The meeting was administrated by FASS, and attendees were required to use of the Zoom client and could not be connected to via a web browser. Approximately 70 persons in attendance.

Motion by Max Rothschild to approve general business meeting minutes from July 12, 2019. Motion seconded by Ernie Bailey. All in favor none apposed. Motion passed

Secretary's report – Sofia Mikko

Activities of the IFAG board and ISAG Executive Committee

The IFAG Board (President Clare Gill, Treasurer Christian Looft, and Secretary Sofia Mikko) have had four scheduled web meetings, 4 Oct 2019, 8 Nov 2019, 27 March, and 2 November 2020. The Annual IFAG Board meeting will be held 18 December 2020. The ISAG Executive Committee have had three scheduled web meetings, 10 August, 7 October, and 24 November 2020. Beside these there were numerous email conversations.

2021 conference preparations

The IFAG board have had five meetings with the Local Organizing Committee (LOC) concerning the planning of ISAG2021 Conference in Cape Town, South Africa. The ISAG Executive Committee attended four of these meeting. The topics of these meetings concerned the scientific program, budget and other general questions. An MoU was signed in August 2020.

2023 conference preparations

At the General Business meeting in Leida 2019, Perugia (Italy), Sydney (Australia), Paris-area (France), Grodno (Belarus), and Daejeon (South Korea) presented their preliminary bids to arrange the ISAG conference in 2023. Dr. Emiliano Lasagna, University of Perugia, Italy, and Prof. Jun Heon Lee, Chungnam National University, South Korea handed in their final official bids by July 2020. The Australian group did withdraw their candidacy, and will support the South Korean LOC if they will be chosen to arrange the ISAG 2023 conference. There were no detailed bids from France or Belarus.

Editorial businesses

Linn Groenenveld wants to step down from the Editorial Board, and Catarina Ginja, University of Porto is suggested to succeed her.

A digital publisher's meeting was held, June 3, 2020. Attendees were: IFAG Board, Anke Förster, editor-in-chief Hans Lenstra and representatives from Wiley (Marina Ostankovitch and Anna Linn). Discussions about marketing, Open Access, and APC Pricing. Robert Heath has now replaced Marina Ostankovitch.

The Impact Factor of Animal Genetics is now 2.84.

Interactions with International Committee for Animal Recording (ICAR)

On 18 February 2020, the IFAG Chair Clare Gill, and Executive Secretary Sofia Mikko attended a digital meeting with the International Committee for Animal Recording (ICAR) about collaboration and synchronization of the ICAR accreditation and ISAG CT. The ICAR accreditation is run every year, and the participating laboratories need to be ISAG members, and they need to participate in the ISAG CT. The ISAG comparison test is not a proficiency or accreditation test; but measures the technical ability of participating laboratories and their ability to manage genotypes and solve parentage questions. The intent of the ISAG comparison tests is to help laboratories obtain comparable genotypes that can be shared between laboratories when solving parentage or identity cases. In contrast, ICAR accreditation focuses solely on the genotypes being correct, regardless of whether the laboratory itself has done the genotyping or has sent the sample to a commercial company for genotyping.

For more details on ICAR accreditation and upcoming changes to those procedures, please visit the ICAR website <u>https://www.icar.org/index.php/technical-bodies/working-group/</u> groups/dna-working-group/

Overview of the ISAG membership numbers

The ISAG individual membership numbers have increasing slightly over the period 2010-2020 and represent about 70% of the total number of members. The institutional members now represent about 30% of the total number of members, and have increased around 50% since 2010 (Figure 1 and 2).



Figure 1. The ISAG membership numbers during the time period 2010-2020.



Figure 2. The proportion of individual and institutional ISAG members.

Comparison Test (CT) 2020/2021

The ISAG Standing Committees will offer comparison tests for the period of 2020 to 2021. Online application forms for each test was available on the <u>ISAG website</u>, and the deadline for applications was 15 July, 2020. To participate in comparison tests, laboratories need to be paid Institutional Members of ISAG and must maintain that membership for both years of the comparison test process (2020 AND 2021). A few labs had not yet payed their membership dues by the deadline, causing extra administration for FASS. Submission of applications after the deadline is not an option, but FASS and Executive Secretary did allow some extra applications at an extra cost of USD 100.00. In total there are 521 CT participants performing in total 589 CT:s (491 using STRs, and 124 using SNPs) (Table 1).

For the 2020-2021 CT, ISAG organize the shipping of samples using FedEx as the courier. A standard charge of USD 85.00 (or EUR 80.00) was invoiced for each test to cover the extra costs of processing and shipping samples. Different tests for the same species will incur only one processing and shipping charge. Payment of the processing and shipping costs must be received by ISAG before participation in the test will be accepted or samples shipped.

The deadline to request a second shipment of samples will be 5 January 2021. Laboratories requesting additional samples will be assessed a USD 170 (or EUR 160) processing fee per set of additional samples.

ISAG administrative office (<u>ISAG@assochq.org</u>) helps the participants with any technical problems related to the application forms. For other questions related to the CT procedure, contact the chair of the respective committees or the ISAG secretary at <u>ISAGsecretary@assochq.org</u>.

Comparison Test 2020-2021	Count of labs	STR	SNP
Cat	32	25	16
Cattle	108	97	52
Dog	95	86	27
Donkey	23	23	-
Dromedary	6	6	-
Forensic Genetics	26	26	-
Goat	31	31	-
Horse	104	101	29
Llama/Alpaca	12	12	-
Pig	29	29	-
Pigeon	11	11	-
Sheep	44	44	-
Grand Total	521	491	124

 Table 1. The number of Comparison Tests conducted in the years of 2020-2021.

The number of laboratories participating in the CT is rather constant, although somewhat fluctuating when some CTs are not conducted at every occasion offered by ISAG. Cattle and

horse, have the largest number of participants (around 100), but the dog CT shows a growing interest, with a 50% increase since 2013/2014 to a total of 95 participants in the latest CT. The CT of cat and other species of economic interest sometimes skip one year. This was more common to do when the ISAG conference and the CT switched from even to uneven years (Figure 3).

There are now SNP CTs offered for four species (cattle, horse, dog and cat). The cattle SNP CT has been offered since 2013, and the number of participating laboratories increase for every year. Both dog and cat SNP CTs have been conducted since 2016/2017, while the first equine SNP CT is offered in the present 2020/2021 CT. Before this, there has been a couple of trial rounds for laboratories to adjust their routines and methods from STR to SNP typing.



Figure 3. The number of laboratories participating in the Comparison test for different species, from 2013/2014 to 2020/2021.





Figure 4. The number of Short Tandem Repeat (STR), and Single Nucleotide polymorphism (SNP) Comparison Tests for different species, from 2013/2014 to 2020/2021.

Committees and Duty Laboratories in the 2020-2021 CT Animal Forensic Genetics Committee

Chair: Guillermo Giovambattista (guillermogiovambattista@gmail.com)

The 2020-2021 International Forensic Genetics DNA Typing Comparison Test Duty laboratory information: Eurofins Genomics, Eurofins Medigenomix GmbH, Anzinger Str. 7a, 85560 Ebersberg Germany

Applied Genetics of Companion Animals Committee Committee chair: Leslie Lyons (<u>lyonsla@missouri.edu</u>)

The 2020-2021 International Cat (Felis catus) STR and SNP DNA Typing Comparison Test Option to choose STR only, SNP only, or both STR and SNP tests on a single application form. Duty laboratory information: University of California, Davis Veterinary Genetics Lab Old Davis Rd Davis, CA 95616

The 2020-2021 International Dog (Canis lupus familiaris) STR and SNP DNA Typing Comparison Test Option to choose STR only, SNP only, or both STR and SNP tests on a single application form.



Duty laboratory information: LABOKLIN Steubenstraße 4 Bad Kissingen 97688 Germany

Applied Genetics in Sheep and Goats Committee Committee chair: Meng-Hua Li (menghua.li@ioz.ac.cn)

The 2020-2021 International Sheep (Ovis aries) STR DNA Typing Comparison Tests Duty laboratory information: National Research Institute of Animal Production Laboratory of Molecular Genetics Krakowska 1 Balice, Malopolska 32-083 Poland

The 2020-2021 International Goat (Capra hircus) STR DNA Typing Comparison Tests Duty laboratory information: Laboratorio de Genética Bioquímica (LAGENBIO) Universidad de Zaragoza 177 C/Miguel Servet Zaragoza 50013 Spain

Cattle Molecular Markers and Parentage Testing Committee Committee chair: Jiansheng Qiu (jqiu@neogen.com)

The 2020-2021 International Bovine (Bos taurus) STR and SNP DNA Typing Comparison Tests Option to choose STR only, SNP only, or both STR and SNP tests on a single application form. Duty laboratory information: Department of Agricultural, Food and Environmental Sciences University of Perugia Borgo xx Giugno, 74 06121 PERUGIA PG Italy

Equine Genetics and Thoroughbred Parentage Testing Standardization Committee **Committee chair: Marcela Martinez (mmartinez@sra.org.ar)**

The 2020-2021 International Horse (Equus caballus) STR and SNP DNA Typing Comparison Tests Duty laboratory information: University of California, Davis Veterinary Genetics Lab 1 Shields Ave. Davis, CA 95616



The 2020-2021 International Donkey (Equus asinus) STR DNA Typing Comparison Test Duty laboratory information: University of Ljubljana, Biotechnical Faculty Jamnikarjeva 101 Ljubljana 01000 Slovenia

Applied Genetics and Genomics in Other Species of Economic Interest Committee Committee chair: Leanne van de Goor (<u>lgo@vhladmin.nl</u>)

The 2020-2021 International Llama/Alpaca (Lama glama/Vicugna pacos) STR DNA Typing Comparison Test Duty laboratory information: University of California, Davis Veterinary Genetics Lab 1 Shields Ave. Davis, CA 95616

The 2020-2021 International Pig (Sus scrofa domesticus) STR DNA Typing Comparison Test Duty laboratory information: University of California, Davis Veterinary Genetics Lab 1 Shields Ave. Davis, CA 95616

The 2020-2021 International Pigeon (Columba livia) STR DNA Typing Comparison Test Duty laboratory information: National Research Institute of Animal Production Laboratory of Molecular Genetics Krakowska 1 Balice, Malopolska 32-083 Poland

The 2020-2021 International Dromedary (Camelus dromedarius) STR DNA Typing Comparison Test Duty laboratory information: Qatar Genetic Lab (QGL) Qatar

Treasurer's report – Christian Looft

ISAG Balance sheet as at December 31 2019, after allocation of results

Certified by Schuiteman Accountants, Netherlands

	December	December 31, 2019		December 31, 2018	
	E	e	€	€	
ASSETS					
CURRENT ASSETS					
Other receivables					
Other receivables		110,281		158,041	
Securities		517,450		359,141	
Cash and cash equivalents		32,167		66,279	
TOTAL ASSETS		659,898	_	583,461	
EQUITY AND LIABILITIES					
EQUITY					
Appropriated research reserve	60,000		60,000		
Other reserves Appropriated fund Dr. Voshiko Suzuki	523,793		416,583		
Award	1,876		3,876		
		585,669		480,459	
CURRENT LIABILITIES					
Other liabilities	-		7,625		
Other accruals	74,229	_	95,377		
		74,229		103,002	
TOTAL LIABILITIES		659,898		583,461	

ISAG profit and loss account			
INCOME	2017	2018	2019
membership	95.902	92.340	91.305
Individuals			
Institutionals			
Gift from Found	0	4000	16.000
Net result investments	22.423	-25.787	52.240
TOTAL	118.325	70.553	159.545
EXPENSES			
Executive Committee	35.307	10.563	7.968
FASS	24.135	17.471	19.287
Audit costs	7.697	5.787	5.340
Insurance	637	589	647
Accounting costs		3.682	4.834
Suzuki Award	2000		2.000
Poster awards			2.000
Notary charges	1.224	1.820	0
Keynote Workshops	12.094		11.591
miscellaneous		159	668
TOTAL	83.094	40.071	54.335
Profit	35.231	30.482	105.210

ISAG forecast 2020

			Forecast		
INCOME	2017	2018	2019	2020	
membership	95.902	92.340	91.305	92.000	
Individuals					
Institutionals					
Gift from Found	0	4000	16.000	32.000	
Net result investments	22.423	-25.787	52.240	0	
TOTAL	118.325	70. 553	159.545	124.000	
EXPENSES					
Executive Committee	35.307	10.563	7.968	5.000	
FASS	24.135	17.471	19.287	20.000	
Audit costs	7.697	5.787	5.340	6.000	
Insurance	637	589	647	600	
Accounting costs		3.682	4.834	4.000	
Suzuki Award	2000		2.000		
Poster awards			2.000		
Notary charges	1.224	1.820	0		
Keynote Workshops	12.094		11.591		
miscellaneous		159	668	500	
TOTAL	83.094	40.071	54.335	36.100	
Profit	35.231	30.482	105.210	87.900	

ISAG portfolio performance



Remarks from the Treasurer concerning financial situation of ISAG:

- Excellent financial result of the Lleida-conference
- Support our journal!!!!
- Membership fees will remain the same
- Motivate young scientists to become an ISAG-member!
- The financial situation is excellent

Motion by Chris Tuggle that the Society is granting discharge to the Treasurer and Financial Administrator. Motion seconded by Tosso Leeb. 57 votes in favor out of 67 litigable votes none apposed. Motion passed.



Editor's report – Hans Lenstra

Journal Statistics

Summary of first submission statistics by manuscript category from January 1 to December 31, 2019.

Category/year	2015	2016	2017	2018	2019
Full Paper	255	237	216	205	248
Short Communication	82	108	78	105	87
Brief Note	30	41	49	42	33
Minireviews	1	5	11	11	11
Total	368	391	348	363	379

There has been a steady increase in the number of submissions since the last three years.



Processing time

The average time from submission to final decision in 2019 was for original submissions 24.3 days, which include the 154 immediate rejections and 115 decisions on acceptance, which are usually fast. For major and minor revisions, reject & resubmit decision, most of which are on the basis of reviewers' reports. the average is 35.5 days. Processing times depend on reviewers and editors, but can be influenced to some extent by reminders from the Editor-in-Chief.

Acceptance ratio

We have maintained our criteria for assigning manuscripts which resulted in a rejection rate close to the recommended 70%.





Submissions and acceptance by country (2019)

The majority of submitted manuscripts originates from Asian countries, but the majority of accepted manuscripts are from non-Asian countries.

	Ν	%	Accepted	Revised	Rejected	%
All	379		115	12	252	66
China	163	43	23	6	134	82
Korea	6	1.6	3	0	3	50
Japan	6	1.6	3	0	3	50
Australia	7	1.8	6	0	1	14
India	19	5	1	0	18	95
USA	31	8.2	19	2	10	32
Germany	11	2.9	6	0	5	45
Switzerland	14	3.7	13	1	0	0
Spain	9	2.4	6	1	2	22
Italy	13	3.4	8	0	5	38
Poland	5	1.3	2	0	3	60
Brazil	15	4	6	1	8	53
Iran	23	6.1	1	0	22	96

Editorial work

The Chief Editor take decisions on acceptance or revision for most of the Brief Notes (33), which normally are not sent out for peer review and most of the minireviews and normal manuscripts in his own area of expertise. Occasionally, I request major changes to be made (such as a condensation to a Short Communication, improvements in presentation or submission of data to a repository, see below) before starting the peer review process. The workload per editor did not change substantially

New editors

Tad Sonstegard, who handled most of the cattle papers, stepped down as Associate Editor in June and has been succeeded by Yuri Utsunomiya. Linn Groenenveld stepped down from the Editorial Board in May 2020, and was succeeded by Catarina Ginja, University of Porto.

Manuscript processing

Since 2014 the manuscript processing has been streamlined:

- Reviewers' comments are included automatically in the decision letters.
- The authors guidelines have been updated.
- Hard copies are not printed anymore and authors are free to use color figures.
- The plagiarism check is carried out automatically.
- Decision letters have been edited.
- Reviewers are notified of the decision on manuscripts they have reviewed and also receive the comments of other reviewers.
- The correction of proofs is now done in HTML format.
- As most journals with high impact scores, we require full availability of dataset in public repositories. Voluntary compliance is now becoming normal. We allow an adapted procedure for (1) datasets managed by consortium, and (2) datasets that are commercially sensitive.
- The Editor-in-Chief now can recommend Rejected manuscripts to be referred to other Wiley journals together with the reviewers' reports if the reviewers have given permission. Likewise, we may receive submissions rejected by other journals without any obligation not to reject them.
- Wiley now adopts the Free Format submissions, which does no longer require a prescribed formatting of the references.

Last year we mentioned the option to forward letters thanking reviewers for submission of their review to Publons as done by several other journals.

No major ethical issues have occured.

Editorial policy

There were no major changes is Editorial Policy and we maintained a stringent selection of manuscripts to be sent out for peer review.

• **Full papers are required to report a scientific advance** rather than promising future benefits.

- Papers that are essentially technical are normally published as Brief Notes; reports on DNA sequences or polymorphisms without explicit genetic relevance have been banished already some time ago.
- **Microsatellites** as markers for 'new' species are not encouraged and not accepted anymore for species for which genome-wide SNP panels are available.
- **Diversity studies** have to be a broader than local scope and be more than a report of molecular diversity statistics.
- **Papers about gene expression should have a genetic or genomic component**, such as the effect of a mutation, a comparison of breeds or genome-wide studies or the study of genes directly implicated in traits relevant for breeding.
- **Papers about gene expression** should have per condition 3 samples (2 biological replicates), which should be analyzed separately. We now reject papers in which these replicates have widely different DEGs (differentially expressed genes)
- Single-gene association studies are now rarely published as full papers and often as Brief Notes; most studies done in a single population are rejected because the effect of stratification (population subdivision, variable kinship) had not been excluded. We do not favor manuscripts that study only associations to silent polymorphisms and/or report marginal allele effect sizes.
- **Genome-wide association** studies without follow-up studies on candidate genes or other scientifically interesting observations are published only as Short Communications.
- **New causative mutations** are our core business but those on known causative genes most often in coat color genes- are published as Brief Notes.

There is no longer a page budget as mentioned in the current contract, so it would not be necessary to adapt the stringency for the number of submissions to grow. However, if by the Transformational Agreements and or by market-conform Article Publication Charges receive more high-impact manuscripts, we may choose to select more stringently.

Special issues and manuscripts

Since 2015 the Editor selected one or two articles per issue for highlighting by Wiley via social media; these papers have free access. We propose to give free access to up to 20% of the papers (3 or 4 per issue), selecting those papers that we expect to have a high potential to become cited.

We will explore the option to combine papers on a common theme in a virtual issue. This idea is already being put in practice with our species accounts (see below) and may be extended to advances in the genetics of a species. There were no proposals for special issues, but are still exploring possibilities. Invitation of minireviews, have since August 2014, resulted in more than 20 reviews.

We keep pursuing multi-authored species accounts (per species, a brief account as supported by molecular data). We have a common setup in order to facilitate comparison of different species and encourage interaction of the separate species-oriented research fields:

1) Domestication



- 2) Dispersal
- 3) Purpose, main types and breeds
- 4) Investigated traits (exterior, disease, performance)
- 5) Molecular Resources

The setup was modified for aquatic species:

- 1) Biological background (for livestock this includes the wild ancestor, time and place of domestication).
- 2) Domestication (if applicable), geography (natural distribution area and areas for aquaculture), economic and/or cultural importance.
- 3) Differentiation and variation with main topics strongly depending on the species:
- a) Genetic constitution (degree and pattern of diversity: subspecies, effect of domestication, main types, major populations, population genetic studies)
- b) Phenotypes of interest for farming or otherwise (appearance, adaptation, production, diseases), with or without identified causative mutation, quantitative genetics, QTL.
- c) Transgenic variants (if applicable), either for academic purposes or for aquaculture.
- 4) Current molecular resources (WGS, chip arrays, transcriptomes, etc.) and perspectives.

Impact factor and perspectives of Open Access



For several years the impact factor decreased to a bottom level of 1.8, but has now recovered to 2.84.

We have the following advantages compared to most other journals in our field:

• Animal Genetics is a journal of a learned society, the ISAG. The ISAG conferences creates social networks that considerably stimulate the recruitment of suitable editors and reviewers.



- We select papers on the basis of consistent criteria. We are not tempted to accept a paper in order to earn the publication fee. Therefore, it is essential that, even if we become an open-access journal, that we maintain the quality of our submissions.
- We impose and, unlike several other journals also enforce, mandatory data availability.
- Unlike common open-access journals, we carry out professional and thorough linguistic and technical editing.

Compared with other comparable journals, a relatively large part of our papers are from China and other countries where the academic development is of relatively recent origin.

The journal is not available as open access (OA), and this may affect our impact factor, but also precludes the submission of the output from projects for which the funders prescribe publication in open access as mandatory (EU projects, national funding). As a hybrid journal, Animal Genetics offers OA publication against payment of the Article Processing Charge (APC), which is quite high compared to full OA journals. The cOAlition S consortium, which strongly advocates complete OA, did not accept publication in hybrid journals as valid alternative to OA journals.

During the ISAG conference in Lleida 2019, the Editors and Editorial Board expressed their preference for the transition to OA, so-called 'flip', although we could expect an income reduction of approx. 50%. Since then, there have been a few developments:

- Several countries (Austria, Germany, Hungary Netherlands, Norway, UK) made so-called transformative agreements (also: read and publish agreements) with Wiley (and other publishers), by which all scientist working on university and government can publish with OA in all Wiley journals without additional charge. There are still uncertainties about what will happen if after three years the agreements expires, and about the status of hybrid journals.
- It is also not clear if and how fast the transformative agreements will reach a worldwide coverage. At present, the countries having these agreements account for 10% of our submissions, (but certainly for a larger part of our impact). So, the transformative agreements may increase the quality and accessibility of our manuscripts, but only marginally.
- <u>Dr.</u>Robert Kiley, head of Welcome Open Research, informed that OA publication in hybrid journals via the transformative agreements is now fully cOAlition S compatible and will be accepted by funders. They may also accept OA publications in hybrid journals from countries without transformative agreement.

Other considerations:

- If a large part of our papers will have OA, the revenues will decrease. APCs are roughly 50% of the subscription income per paper. So, if half of the papers will have OA (and this is more than we may expect), we keep 75% of our revenues.
- It is normal that 'learned societies' as the ISAG offer their members a reduction of the APC. If this reduction is more than the ISAG membership fee, the number of our members may grow.



• Many authors will not be able to pay the APC. Therefore, a flip to complete OA may make Animal Genetics inaccessible to many of our members. Because of the particularly diverse origin of or papers (see above), this applies especially to Animal Genetics.

We may take all these and other considerations into account in our coming discussions with Wiley and in our communications to our ISAG members.

2021 Conference

The ISAG President announced that the ISAG2021 Conference originally scheduled on site in Cape Town, South Africa has been cancelled, but will instead be run as a virtual conference. The dates will be the same as previously announced; 25-30 July 2021.

The scientific program will partly be rescheduled, and the workshop chairs will need to finalize the program. The virtual ISAG conference in 2021 will be free of charge for ISAG members holding a valid membership for 2020-2021 or 2021-2022.

The Local Organizing Committee in Cape Town was asked if they are still interested in organizing the ISAG conference in 2023. Also the other interested bidders for 2023 (South Korea, and Italy) have been asked about their interest. The ISAG Executive Committee will take a decision on this in 2021.

Other business

Leslie Lyons is a concerned about the pressure from commercial companies in the Workshop Committees. They may have a conflict of interest. This issue should be discussed at the next Workshop Chair meeting.

Closing