



# ISAG

## CONFERENCE 2014, Xi'an, China

<b>Publishing in <i>Animal Genetics</i></b>
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STANDING COMMITTEES / WORKSHOPS

Information will be posted online

**Organised by a standing committee**

**no**

**Date and meeting time: Thursday  
2pm till 4pm**

**Chair, name and contact email:**

**Christopher Moran**

Christopher.Moran@sydney.edu.au

**Agenda / programme attached**

**Number of participants at meeting: 120 +**

**Summary of the meeting** including votes, decisions taken and plans for future conferences

The meeting was chaired by Christopher Moran and co-ordinated by Dr Ning Yang of the Local Organising Committee.

Presentations were made by a panel (in order) of Christopher Moran (outgoing editor in chief), James Kijas (associate editor), Klaus Wimmers (associate editor), Hans Lenstra (incoming editor in chief) and Tad Sonstergaard (incoming associate editor).

The workshop was held in Room 313 of the Conference Centre and was full to capacity. The audience consisted primarily of young scientists; postgraduate students and postdoctoral fellows.

The initial presentation by Emeritus Professor Moran (attached) described *Animal Genetics*, the journal of the International Society of Animal Genetics, including its objectives, publisher (Wiley), forms of publication and basic statistics on manuscript processing time, overall acceptance rates, average impact factor and other relevant statistics, as well as the move to online-only publication from 2015.

Based on experience as EiC, advice was given to scientists wishing to publish in *Animal Genetics*, focusing on experimental design, presentation and structure of manuscripts, compliance with referee's requests for emendations and other issues likely to affect acceptance. A request was made to early career scientists to become engaged as soon as possible in reviewing manuscripts, as peer review underpins scientific publication. The presentation concluded with an introduction of all associate editors and their areas of responsibility, including those not present, Anna Sonesson (aquaculture), Goran Andersson (newly appointed) and John Bastiansen (outgoing associate editor) and finally the incoming editor in chief, Dr Johannes (Hans) Lenstra.

Dr Kijas then gave a presentation focused on advice relevant to his area of responsibility (biodiversity and association studies), pointing out frequent reasons for failure of manuscripts to be accepted eg absence of an hypothesis, inadequate sample sizes. Prof Wimmers followed with a similar presentation, focused on make-or-break issues for manuscripts focused on gene expression studies. These two presentations generated interesting discussion among the panel and audience about “hypothesis testing” studies versus, in the context of genome wide association studies, nextgen sequencing and transcriptomics, “hypothesis generating” studies.

Dr Lenstra then presented his ideas on scientific communication with a firm focus on the “message” of manuscript, inherent in the title, reinforced in the abstract and expounded in the results.

All presentations generated lively discussion, a few complaints (eg why did it take so long for my manuscript to be processed), which were easily addressed, and an overall very positive atmosphere from all those present.

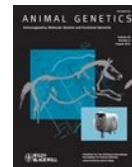
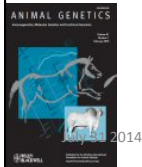
Finally Dr Tad Sonstergaard, incoming associate editor, introduced himself and his research interests.

The workshop concluding at about 4 pm. The advertised program in the conference handbook incorrectly indicated a one hour break between 2.30 pm and 3.30 pm. The workshop ran continuously from 2 pm till about 4 pm.

Presentations attached

# Publishing and participating in *Animal Genetics* – advice for early career scientists

Chris Moran, Editor in Chief



## Structure of this Workshop

- The journal and its objectives
- Quality control
- Peer review
- What can you do to increase your chance of publication?
- Introduction of “Behind-the-scenes” editors
- Introduction of Editors
- Presentations by Associate Editors and Incoming Editor in Chief
- Open discussion

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## The journal and its objectives

- *Animal Genetics* reports frontline research on immunogenetics, molecular genetics and functional genomics of **economically important and domesticated animals\***.
- Publications include the study of variability at gene and protein levels, mapping of genes, traits and QTLs, associations between genes and traits, genetic diversity, and characterization of gene expression and control.
- It is published by **Wiley** on behalf of **Stichting International Foundation for Animal Genetics**
- Most papers are published at no cost to authors (pay to read model), but open access publication is also available to meet funding agency requirements in some countries

\*Not humans, not rats nor mice nor other lab animals, not wildlife species, but includes fish and invertebrates in aquaculture

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## The journal and its objectives

- The page space in the journal is limited, even though it will be **online only** from 2015
- Submitted manuscripts must fit the journal objectives and be of sufficient interest and scientific quality
- We publish 6 issues per year, each of slightly over 100 pages
- We encourage the inclusion of less vital information as online-only supplementary files in order to remain within our page limits

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## The journal and its objectives

- There are three forms of papers:
  1. Full paper ( $\leq 5,000$  words)
  2. Short Communication ( $\leq 1,500$  words)
  3. Brief Report ( $\leq 500$  words)
- Full instructions for the style and formatting of these manuscripts is available at [www.blackwellpublishing.com/age](http://www.blackwellpublishing.com/age)
- Manuscripts are submitted via Animal Genetics-Scholar One at <http://mc.manuscriptcentral.com/angen>

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## Quality control

- All manuscripts are assessed on submission by the Editor-in-Chief (about 350-400 mss per year)
- Any manuscripts lying outside the scope of the journal (eg on wildlife species) or inadequately presented (eg very poor English) are rejected immediately
- All remaining Full Papers and Short Communications are then assigned to the relevant Associate Editors who then send them out for peer review or less commonly “Reject without review”
- Brief Reports are not peer reviewed

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## Quality control

- Following peer review, mss may be:
  1. Accepted without further revision (rarely)
  2. Accepted subject to minor revision
  3. Major revision required before acceptance – generally requiring another round (or two) of review.
  4. Rejected
- Brief Reports receive the same range of recommendations, after assessment by the Editor-in-Chief, sometimes in consultation with an Associate Editor or Editorial Board member

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## Quality control

- How do we know whether the journal is doing well?
  1. The number of manuscripts submitted for consideration (about 350-400 per year ✓) – but could do with more submissions
  2. Citation impact (Impact Factor: 2.584 in 2012; Ranking: 2/54 Agriculture, Dairy & Animal Science; 80/161 Genetics & Heredity ✓) – but would prefer to be 1 in Agriculture, Dairy and Animal Science again and higher in the Genetics and Heredity category
  3. Subscription income ✓ - supports other activities of ISAG

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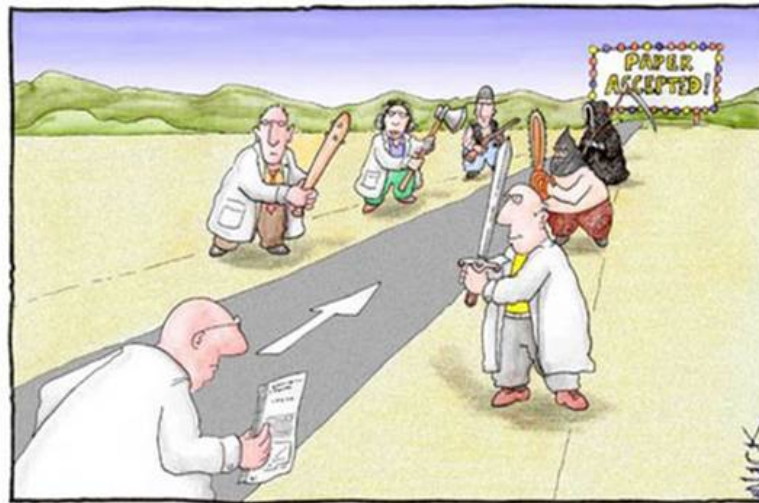
## Peer review

- While we need authors to submit manuscripts, we also depend on reviewers.
- The bottleneck in ms decisions is peer review.
- Finding reviewers and getting reports from them is time consuming.
- Scientific publication as we know it would grind to a halt without the voluntary contribution of time and effort by reviewers.
- *While we would like you to review papers, please feel free to say No if you can't realistically perform the review – saying Yes and then not delivering is much more problematic for us*

## Peer review

- *Animal Genetics* provides a temporary on-line subscription to reviewers.
- I would strongly encourage early career researchers to learn from and assist their supervisors with peer review to help build the skills and confidence to be effective reviewers.
- *Animal Genetics* maintains a database of reviewers and I would encourage you to put your name forward as reviewers to the Animal Genetics-ScholarOne site.

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Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

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## Peer Review

- Don't think of peer review as a confrontational process
- I haven't seen a manuscript yet which has not been improved by peer review, resulting from suggestions for more appropriate analyses, refined interpretation and/or more polished presentation
- Some reviewers will spend hours correcting grammar and structure and providing suggestions for better ways to present results – they are your unpaid friends
- Even rejection can be a blessing in disguise if it prevents you from publishing embarrassing errors

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## What can you do to increase your chance of publication?

- Pre-submission
- Submission and Peer-Review
- Revision
- Publication

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## Pre-submission: Research your Research

- Is *Animal Genetics* the right journal?
- What are the Aims and Scopes of your ms?
- What do the Author Guidelines say?

Contact the Editor-in-Chief on questions of appropriateness. Email an abstract or a brief description of the proposed ms.

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## Pre-submission: Present your Research

- Draft and redraft your ms.
- Get friends and colleagues, including non-specialists, to read and edit the drafts.
- Does the manuscript describe the methods well enough to enable replication of the work?  
Remember some details can be included as supplementary material
- Does the work have clearly stated objectives and have you succeeded in meeting those objectives?

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## Pre-submission: Present your Research

- Check a recent issue for correct formatting.
- Use tables and figures to more effectively present your results.
- Check your reference list and in-text citations to ensure they match and are formatted correctly.
- If English is not your native language, please get a fluent, preferably native, English speaker to proof read the manuscript. Manuscripts with very poor English will be returned to the authors for revision without review, otherwise it would be unfair on our volunteer reviewers.
- If English language is a major problem, you should use a professional editing service. See Author Guidelines page on the Animal Genetics website for details on getting help with English language editing

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## Submission and Peer-Review

- Your manuscript will be converted to a pdf file within ManuscriptCentral. Make sure that you use the correct file formats so this can happen. Supplementary material can be submitted separately.
- Ensure that you use the appropriate nomenclature for genes, SNPs etc
- Lodge raw data where necessary in appropriate databases eg sequences in GenBank and provide accession codes. The copy/technical editors will check these

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## Submission and Peer-Review

- Include all necessary permissions including ethics approvals
- Provide correct email addresses for all authors. If registering author details in ManuscriptCentral, ensure details are correct and that you are not creating duplicate entries
- Please suggest some reviewers and notify us of anyone whom you don't wish to review the ms

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## Editor-in-Chief's Initial Assessment

- Is the English good (enough)?
- Is the paper appropriate (relevant) for *Animal Genetics*?
- Has the correct format been used? (references, titles, etc.)

The paper could be rejected immediately or it could be assigned to an associate editor.

As EiC, I reject about 90% of the papers on which I make a final decision – these do not reach peer review

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## Revisions

- Respond promptly to revision requests and queries.
- Do not ignore or dismiss comments from the editor and reviewers. At best it will cause delay; at worst, rejection. Discuss and rebut requests, if you do not implement them.
- Remember always that the editor and the reviewers are trying to help, so don't take the comments personally.

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## Acceptance and Publication

- It is not all over when you get the acceptance email!
- You may be contacted to provide higher resolution image files.
- Ensure that all contact information is updated if necessary.
- The Copy/Technical Editor will check the English, check all accession codes eg Genbank; completeness and formatting of the reference list, after which you will receive proofs including suggested changes or problems.
- Respond promptly and carefully to proofs. Ideally this is a two person job – one reading the manuscript, the other the proofs.
- Check tables and figures for accuracy and formatting
- Check that URLs are still functional
- Note that pure open access journals do not normally provide copy editing and proofs

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- Helpful websites:

Author Guidelines on the Animal Genetics website

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1365-2052](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2052)

English language writing on the Animal Genetics website

[http://authorservices.wiley.com/bauthor/english\\_language.asp](http://authorservices.wiley.com/bauthor/english_language.asp)

Author Services on the Wiley-Blackwell Publishing website

<http://authorservices.wiley.com/bauthor/>

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## “Behind the Scenes” Editors

- Senior Journal Publishing Manager, Rosie Trice, recently replaced by David Hewes
- Based in Oxford ([dhewes@wiley.com](mailto:dhewes@wiley.com))
- Production Editor, Sue Tok, just replaced by Jeanette Belgica ([jbelgica@wiley.com](mailto:jbelgica@wiley.com))
- Copy Editor/Technical Editor, Denise Rothschild ([djroths@iastate.edu](mailto:djroths@iastate.edu))
- Copy edits accepted mss and generates proofs

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## Editor-in-Chief

- Chris Moran, Emeritus Professor of Animal Genetics, Faculty of Veterinary Science, University of Sydney ([Christopher.Moran@sydney.edu.au](mailto:Christopher.Moran@sydney.edu.au))
- Oversee the operation of the journal, report to the ISAG Executive
- Assess all mss, assign mss to Associate Editors, review all decisions, deal with all Brief Reports
- Liaise with Associate Editors, Production Editor and Managing Editor

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## Associate Editor - Quantitative

- Deals with all QTL mapping, candidate gene, genome wide association and other quantitative manuscripts
- Until recently this position was filled by John Bastiaansen.
- The new EiC is seeking a person to fill this position

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## Associate Editor – Aquaculture

- Dr Anna Sonesson, Nofima, Ås, Norway ([anna.sonesson@nofima.no](mailto:anna.sonesson@nofima.no))
- Deals with all QTL mapping, candidate gene, genome wide association and other quantitative manuscripts focused on aquaculture

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## Associate Editor - Biodiversity

- Dr James Kijas, Principal Research Scientist, CSIRO Livestock Industries, Brisbane, Australia ([James.Kijas@csiro.au](mailto:James.Kijas@csiro.au))
- Deals with biodiversity, population structure, and parentage manuscripts

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## Associate Editor – Gene Expression

- Professor Klaus Wimmers, Leibniz Institute for Farm Animal Biology (FBN), Institute for Genome Biology, Dummerstorf, Germany ([wimmers@fbn-dummerstorf.de](mailto:wimmers@fbn-dummerstorf.de))
- Deals with manuscripts involving microarrays, qRT-PCR, transcriptome and other forms of gene expression analysis

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## Associate Editor – Gene discovery

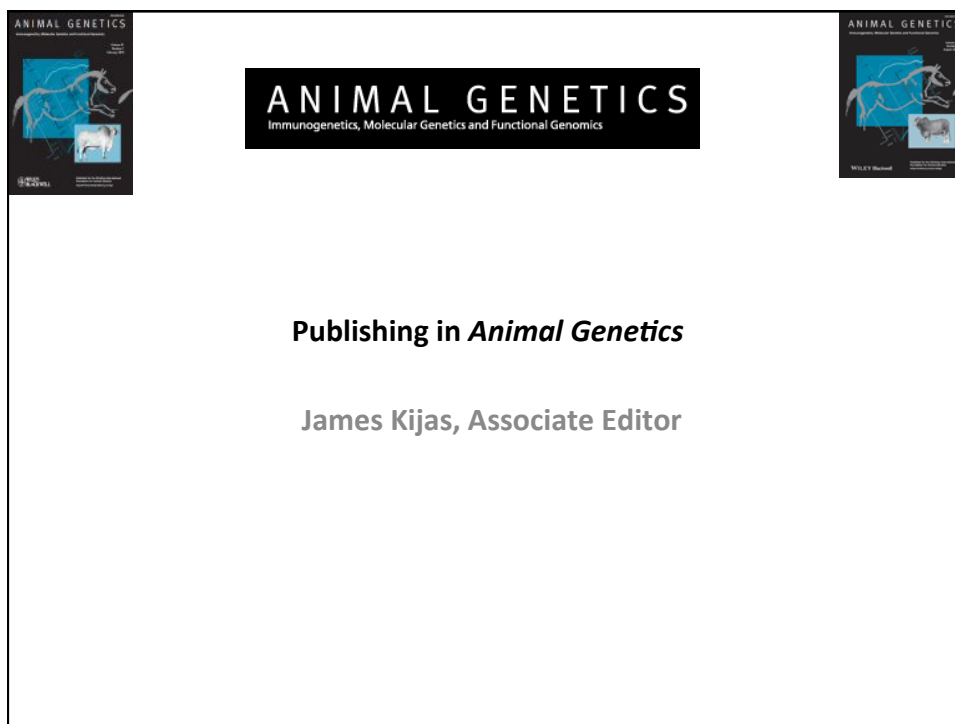
- Professor Göran Andersson, Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden ([goran.andersson@slu.se](mailto:goran.andersson@slu.se))
- Appointed in May 2014
- Deals with manuscripts on gene discovery using genomic techniques

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## New Editor in Chief

- Dr. Johannes (Hans) Lenstra, Faculty of Veterinary Medicine, Utrecht University Yalelaan 104, 3584CM Utrecht, Netherlands ([J.A.Lenstra@uu.nl](mailto:J.A.Lenstra@uu.nl))
- From August 1 2014

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### The types of manuscripts I deal with:

- **Genetic Diversity**
  - levels of genetic diversity within populations
  - relationship between populations (breeds)
  - genetic origin of breeds
- **Pigmentation Genetics**
  - genes which underpin coat colour
- **Parentage**
  - marker development and testing
- **GWAS and CNV**
  - association studies (as backup AE)
  - copy number variant surveys

## Study Design

*Good manuscript preparation often won't fix a bad study*

- **test a hypothesis.** Genetic surveys have much less interest.
- select animals which are of interest, can test the hypothesis.
- ensure the resources being used are sufficient.
  - the animals tested per population (<20?)
  - the markers used to measure diversity (<10 microsatellites?)
- QC during genotyping
  - technical replicates, blind duplicate allele calling, inclusion of trios

## Analysis

- perform analysis for a clear reason
  - if it doesn't contribute to the conclusions, don't include it
- test diversity levels against other populations
  - ISAG / FAO microsatellites are good
  - merge with existing data to provide genetic context
- if generating phylogenies:
  - clearly state what distance metric was used and how
  - bootstrap the tree for robustness and include node values

## Manuscript Preparation

- Introduction:
  - assume some knowledge within the readership
  - must include reference to other key studies, even if overlapping
- Results:
  - use paragraph headings to guide the reader
  - some interpretation of results is good
  - highly descriptive material can be moved into a table
  - use the option of Supplementary Material

## Manuscript Preparation (Cont.)

- Discussion:
  - provide interpretation of the key results
  - don't simply restate the results
  - relate the findings to other studies which are relevant

### Things which will decrease your chances...

1. Recycling data
  - if the genotypes have been published previously:
  - essential to state how the current submission novel and new
2. Producing a Manuscript Over the Word Limit
  - ensure the length represents the weight of new findings
3. Genotyping them because they were there..
  - we prefer hypothesis driven science

	<u>Good Manuscript</u>	<u>Poor Manuscript</u>
Interest	Results are broadly relevant	Narrow focus
Mission	A question is being addressed	Survey of diversity, unlinked to any clear purpose
Introduction	Assumes knowledge in readership References past studies	Define PCR
Animals	Multiple populations, sampled to address the hypothesis	One breed from one country
Data	Data from > 1 marker type Microsatellites OK, but with allele standardisation, genotyping error estimates.	< 12 microsatellites

	<u>Good Manuscript</u>	<u>Poor Manuscript</u>
Data	Summary tables and figures Use of supplementary files	Large seq. alignments Long lists of marker data
Analysis	Diversity into a broader context Analysis answers a question	Formulaic reporting from diversity software
Tree Analysis	Topology supported by bootstrap analysis	Unsupported trees
Discussion	Highlights key findings Interprets the results Links back to the purpose	Repeats the introduction Fails to build on the results Few conclusions
Presentation	Length proportional to novelty (Short Comms can be the best!)	Long given weight of new data



Once you get an editorial decision:

- \* Editors are scientists too. We get our papers rejected like anyone else.
- \* Generally, implementing the reviewers suggestions moves the manuscript forward
- \* Electing not to implement a reviewer's suggestion is OK, if you have a good reason
- \* Electing to ignore a reviewer's suggestion is generally not OK
- \* Electing to ignore an editor's suggestion is going to move the manuscript backwards

Good luck!







# ANIMAL GENETICS

Immunogenetics, Molecular Genetics and Functional Genomics

## Publishing in *Animal Genetics*

Klaus Wimmers

**gene expression:**

holistic studies: transcriptomics, microarrays, mRNA-seq

candidate genes: real time PCR, quantitative gene expression etc.

**association analyses and functional studies**

### Material and Methods/Study Design

- Clear description
  - Number of animals per group; number of biological and technical replicates
  - Breed comparisons?!
  - Genetic aspects; implications for animal breeding
  - Factors considered in the statistical analysis; software used is relevant but not sufficient
  - Assay protocols: concentration and volume: 200µM dNTPs, 200pmol/µl

## Manuscript Preparation

- Introduction:
  - assume some knowledge within the readership
  - **clear objectives**
  - hypothesis-driven vs. hypothesis generating
- Results:
  - use paragraph headings to guide the reader
  - some interpretation of results is good
  - highly descriptive material can be moved into a table
  - use the option of Supplementary Material

## Manuscript Preparation (Cont.)

- Discussion:
  - provide interpretation of the key results
  - don't simply restate the results
  - relate the findings to other studies which are relevant
  - **clear statement on findings, conclusions, new hypothesis**

	<u>Good Manuscript</u>	<u>Poor Manuscript</u>
Interest	results are broadly relevant	Narrow focus
Mission	addresses aspects of genetics and breeding	just response to treatment
Introduction	Assumes knowledge in readership References past studies	Define PCR
Animals	well defined 'balanced' groups	confounding of genetic and environment
Data	quality control, multiple testing considered	bad array or NGS reads

	<u>Good Manuscript</u>	<u>Poor Manuscript</u>
Data	GEO submission, supplemental tables	just summarized data, means
Analysis	consider all relevant factors	just t-tests
Discussion	Highlights key findings Interprets the results Links back to the purpose	Repeats the introduction Fails to build on the results Few conclusions
Presentation	Length proportional to novelty (Short Comms can be the best!)	Long given weight of new data

Once you get an editorial decision:

- \* Editors are scientists too. We get our papers rejected like anyone else.
- \* Generally, implementing the reviewers suggestions moves the manuscript forward
- \* Electing not to implement a reviewer's suggestion is OK, if you have a good reason
- \* Electing to ignore a reviewer's suggestion is generally not OK
- \* Electing to ignore an editor's suggestion is going to move the manuscript backwards
- \* Prepare a clear response to reviewers; mark changes made to the manuscript**

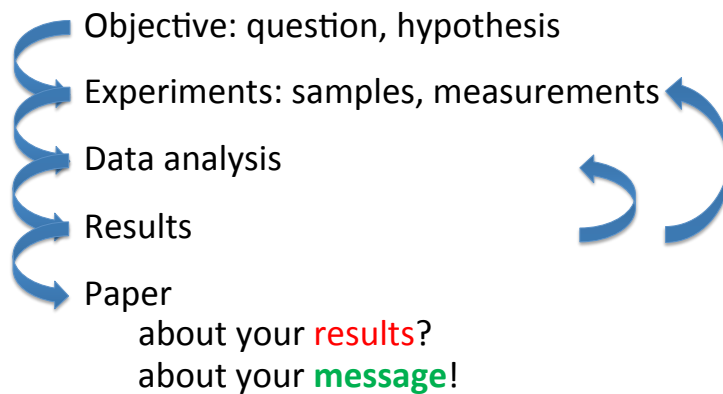
Johannes A. (Hans) Lenstra, New editor in chief



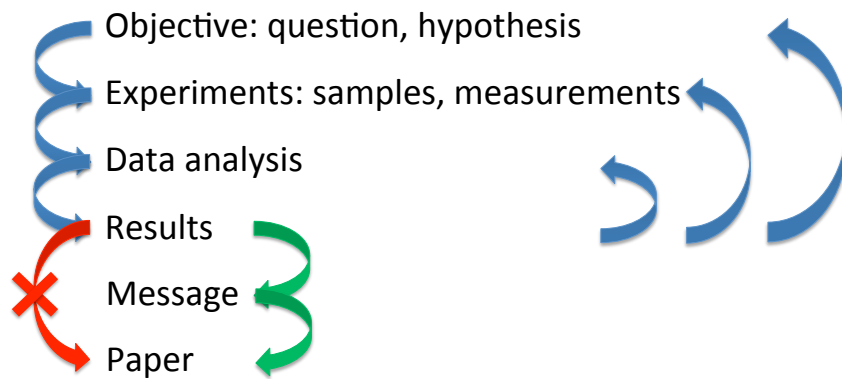
Universiteit Utrecht

## A manuscript, a message

## Scientist at work

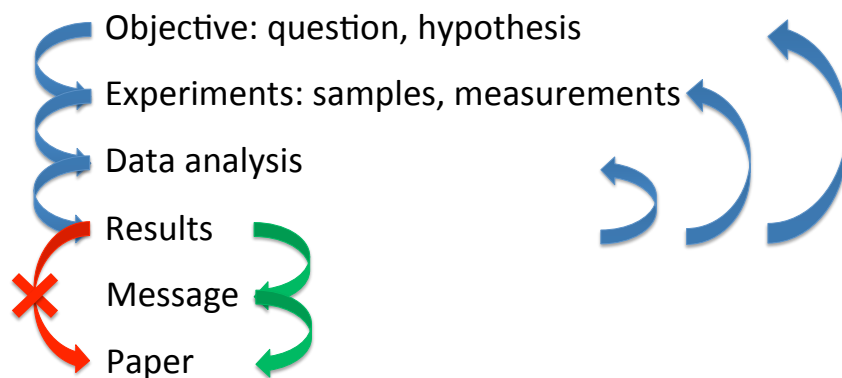


## Scientist at work



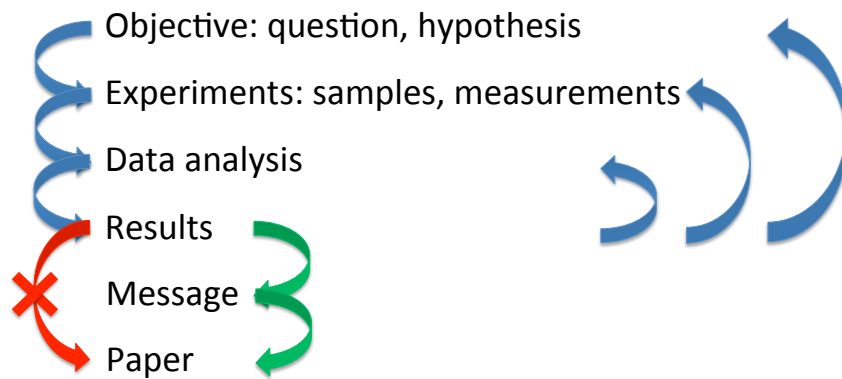
- Original question or hypothesis may blind you!  
What is the **message** the results try to tell you?  
*It might even agree with your objective!*

## Scientist at work



- No overinterpretation!
- Make most of it, but:  
*Publish now what you have now*  
*Better now a paper than dreaming forever*

## Scientist at work



- **Never walk alone:** invite feedback  
*Your colleagues are nasty, but useful.  
They even may be right!*

## Your manuscript

- Title
  - Abstract
  - Introduction
  - Materials  
& Methods
  - Results  
Figures  
Tables
  - Discussion
- *This is how you write it, but not how we read it!*



## Your manuscript

- Title Clear, well sounding **message**  
but do not **shout, impress, seduce**
- Abstract
- Introduction
- Materials  
& Methods
- Results  
Figures  
Tables
- Discussion
  - *You have only one title. Use it!*

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story:** background, approach,  
results, **same message**  
in different words  
**no speculations**
- Introduction
- Materials  
& Methods Tip: start with it, forcing you  
to define the message
- Results  
Figures  
Tables Title; Abstract; what's next?
- Discussion
  - The abstract summarizes the paper?*
  - The abstract explains the title!*

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story:** background, approach, results, **same message**
- Introduction in different words, **no speculations**
- Materials & Methods
- Results  
Figures  
Tables **Self explaining** as in your slides
  - Explain labels within the figure
  - Tables: only essential data
  - Directly linked to **message**
  - Supporting info: supplementary
- Discussion

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story:** background, approach, results, **same message**
- Introduction in different words, **no speculations**
- Materials & Methods
- Results  
Figures  
Tables **Self explaining:** work on it
  - *One clear figure tells more than 1000 words*
  - *At this point the Editor has his opinion about the paper*
- Discussion

## Your manuscript

- Title            **Clear**, well sounding **message**
- Abstract       **Clear story: same message**
- Introduction   **Background**, from general to specific  
                    **However, - -** : unknown territory
- Materials & Methods   **We**: approach, outcome: **same message**  
                                    *If they have read it 3 times,*  
                                    *they believe it!*
- Results  
  Figures            **Self explaining**  
  Tables
- Discussion

## Your manuscript

- Title            Clear, well sounding **message**
- Abstract       **Clear story: same message**
- Introduction   **Background**, from general to specific  
                    **However, - -** : unknown territory
- Materials & Methods   **We**: approach, outcome: **same message**  
                                    ➤ Let your words count!
- Results  
  Figures            **Self explaining**  
  Tables
- Discussion

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story: same message**
- Introduction **Background > > message**
- Materials & Methods Sample info!  
No established methods
- Results  
Figures **Self explaining**  
Tables
- Discussion
  - *Reviewers have to read everything. Poor guys!*

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story: same message,**
- Introduction **Background > > message**
- Materials & Methods Sample info!  
No established methods
- Results **Self explaining**
- Discussion Sum up/evaluate/ <-> literature/  
conclude: connect with **message**  
Implications/perspectives/speculations
  - *If you still need Conclusions, it is now too late*

## Your manuscript

- Title Clear, well sounding **message**
- Abstract **Clear story: same message,**
- Introduction **Background > > message**
- Materials & Methods Sample info!  
No established methods
- Results ➤ Let your words count
- Discussion ➤ Sort your thoughts, build your case  
➤ Informative section headings  
➤ Logical transitions, new subject in new paragraph  
➤ *Finished? You are only half-way!*

## Finalizing

- **Never** send out without thorough internal review.  
*The better is the enemy of the good*
- Let your nasty colleagues look at results, analysis, presentation, **language**  
*Better your ego hurt than your paper rejected*  
*We do not blame you because of your English.*  
*We **hate** you if you send it in!*

### How to criticize?

#### **Never shout!**

*The introduction is lousy!* = Change a few commas

#### **Mention first the positive side:**

*You make a few good points, but you have to present it in a different way* = It's a mess. Clear it!

## Rejected

- Heavy criticism may betray irritation because of a bad presentation.
- Revise before submitting at another journal. You may get the same reviewer again

## Revision

- The reviewers are your best friends! He/she is more often right than your colleagues!
- Just be reasonable. Make the life of the Editor easy
- Always change something, if not the argument, then the explanation

*Sometimes, scientists resemble real people*