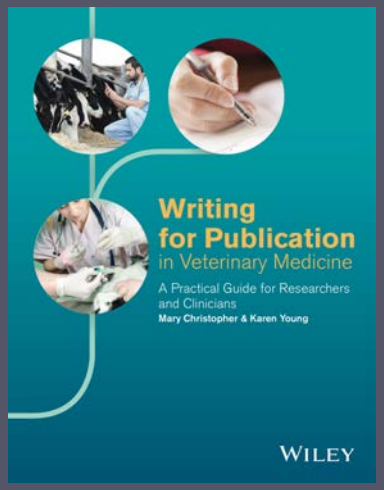
Writing for Publication in Veterinary Medicine: Keys to Success



Mary M. Christopher, DVM, PhD
University of California-Davis

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University of Wisconsin-Madison

FREE at http://www.wiley.com/legacy/wileyblackwell/gmspdfs/VETWritingforPub/#/1/

10 Keys to Success

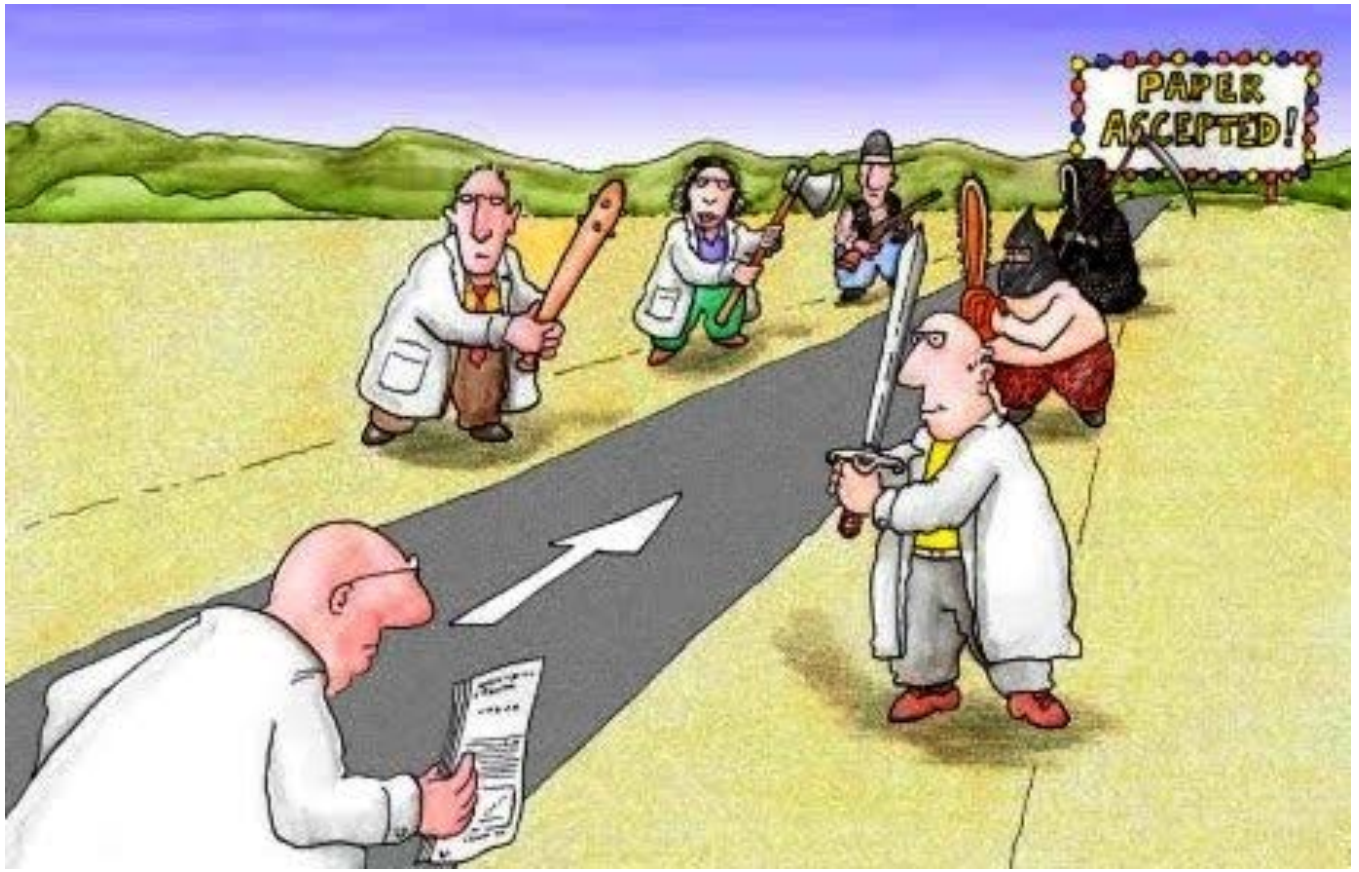
1. Stay on message
2. Select the right journal
3. Read and follow the author guidelines
4. Define the research question and its importance
5. Describe your strategy
6. Describe the outcomes
7. Indicate the implications and value of your work
8. Edit yourself
9. Get feedback
10. Conduct and report your study ethically

Peer review: purpose

- Improve scientific publications
  Input from expert external reviewer

- Contribute to the learning process for scientific writing

Peer review: purpose



Peer review

Journal processes

- Internal review by editors and editorial staff
  Topic and article type are within scope.

  Author Guidelines, including formatting, length/word count, and adherence to ethical care and use of animals, are followed.

  Scientific quality merits external review.

Peer review

Journal processes

- External review by experts
  Typically 2-3 reviewers with different perspectives; if reviews are disparate, arbiter review often obtained

  Single-blinded (reviewers know identify of authors), double-blinded (neither reviewers nor authors know the others' identity), not blinded

Peer review

Journal processes

- External review by experts

  Aspects evaluated
  - Scientific quality, study design, quality of data (including figures and tables), validity of conclusions, citation of appropriate literature
  - Importance/originality/interest to readership
  - Clarity of writing

Peer review

Journal processes

- Confidentiality
- Preferred/non-preferred reviewers
- Decision by editor with input from external reviewers, subeditors
  Timing: usually 4-6 weeks
  OK to inquire if > 6-8 weeks

Peer review

Journal processes

Peer review

Journal processes

- Decision by editor
  - Accept (outright acceptance rare)
  - Minor revision
  - Major revision
  - Reject

Peer review

Advantages to reviewer

Learn to:

- Read a manuscript carefully
  identifying main message and supporting evidence
- Evaluate a manuscript as you read for
  organization, clarity, precision, persuasion
- Improve your own writing by
  recognizing strengths and weaknesses of someone else's manuscript

Learn new stuff!

Peer review

As a mentoring tool

- Mentor trainee by reading manuscript before submission, providing comments
- Mentor trainee in writing:
  peer review mirrors scientific writing
- Guide trainee in critical review of a manuscript

Key elements of peer review

- Include both response-centered and advice-centered comments
- Prioritize your comments: focus on the major points
- Be professional and constructive

Examples

- Response-centered
  - These findings are important for neonatal medicine.
  - The objectives of the study are not clear.
  - Of primary concern is the small sample size.
- Advice-centered
  - The authors should state their hypothesis.
  - The discussion regarding liver function is speculative and should be deleted.

The Werewolf Journal
Manuscript Review Form

MANUSCRIPT NO: 1890
TITLE: Biochemical parameters in neonatal werewolf cubs (*Lycanthrope* sp.)
AUTHORS: I.M. Investigator, et al.

	Yes	Unsure	No
The study is important			
Sufficient new information			
Tables and figures are necessary and appropriate			
Statistical analysis is appropriate			
Appropriate for the journal's readers			

Recommendation:

_____Accept as is _____Minor revisions
_____Major revisions _____Reject

CONFIDENTIAL COMMENTS FOR THE EDITOR:

This study provides important new physiologic data of interest to readers. With substantive revision to address study design and animal selection and sampling details, I believe the study merits publication.

COMMENTS FOR THE AUTHORS

COMMENTS FOR THE AUTHORS:

General comments:
(What they did) The authors have determined glucose and protein values in neonatal werewolves between birth and weaning and evaluated age-related differences over time and between neonates and adults. (*The positives)* These findings update and expand previous work in this area and have important diagnostic implications for neonatal werewolf medicine. *(The negatives)* Of concern is the small size and limited diversity of the population evaluated. In addition, important details need to be clarified in methods. *(The directive)* With the addition of a hypothesis and added methodological detail, the validity of the study design and results can be better assessed.

Major comments: *Organize by manuscript section or by importance*

1. The study lacks a hypothesis, which is important for determining whether study design is appropriate.
2. Methods: Inclusion and exclusion criteria must be clearly defined. How was it determined that the werewolves were healthy?

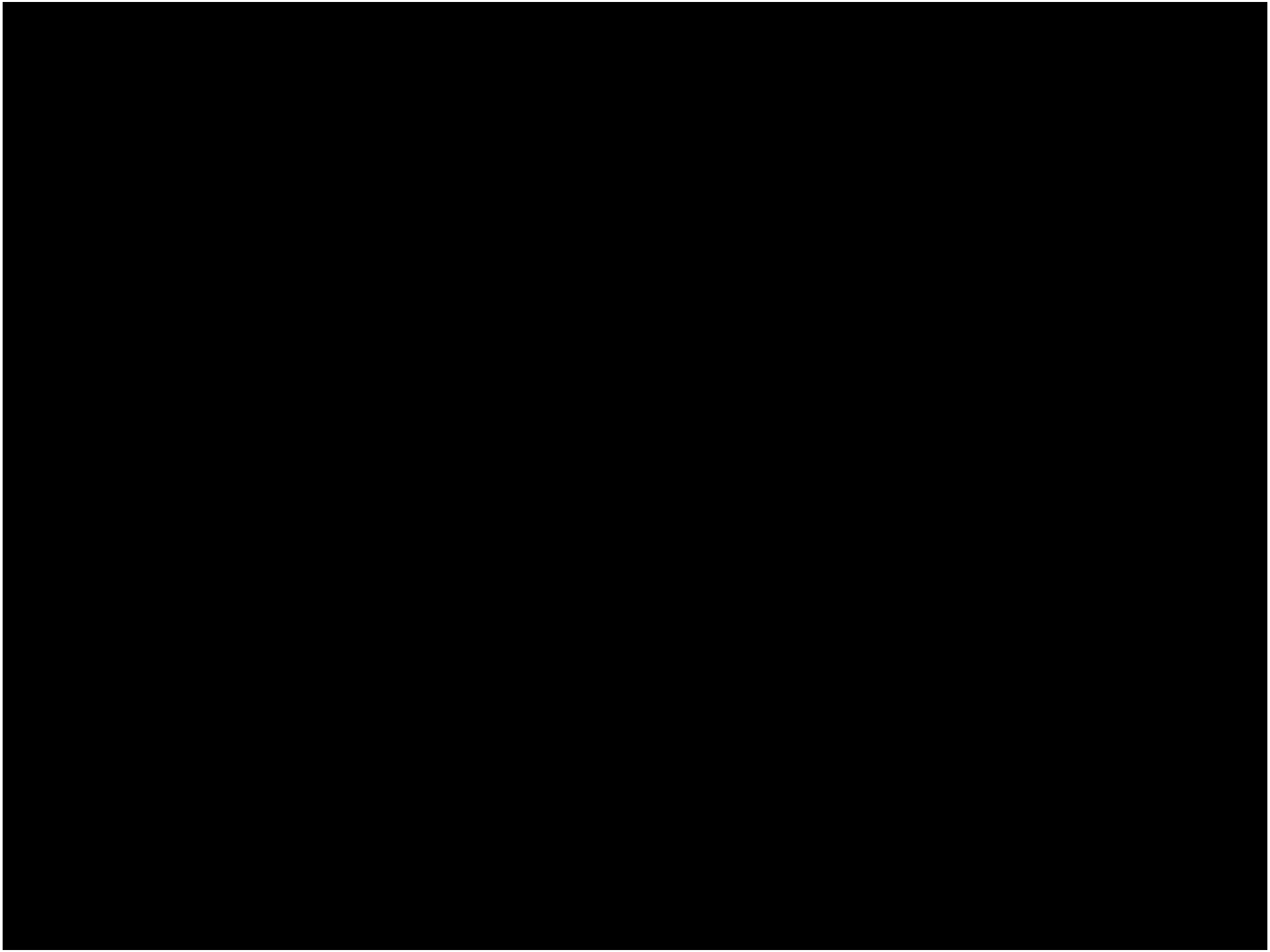
Minor comments: *Not needed if serious major flaws are identified*

1. Page 2, line 5: What was the source of the shewolves and where were they housed?
2. The authors are referred to Carlson et al (*Werewolf J* 1995;77:7) for a good discussion on prioritizing laboratory tests for neonates.
3. A few spelling and typographical errors are noted throughout the manuscript.

Peer review in action

- Read the draft manuscript, making notes as you read
- Then, write out the following:
  - 1-2 things that are especially strong
  - 1-2 things that are weak or problematic
  - 1-2 recommendations or specific advice

- Focus on the most important points



Responding to peer review

Initial response: feel discouraged (natural)

- Stay calm and objective

Put reviews away and read later – 2 or 3 times

Responding to peer review

Initial response: feel discouraged (natural)

Stay calm and objective

Put reviews away and read later – 2 or 3 times

Then respond: politely
completely
with evidence

Responding to peer review

Carefully consider each recommendation (some are easy!)

- Create a separate response file
  - List every recommendation made by each reviewer and editor
    ignoring some recommendations interpreted as carelessness or arrogance
  - Be positive and polite
    thoughtful, serious responses viewed positively.

- After each recommendation
  - Enter your response and indicate specific changes
    can use a table

Responding to peer review

Just as clarity is important in your scientific writing, it is important in your responses.

Responding to peer review

- In general, make all recommended changes
  - If you strongly disagree with a recommendation, be constructive, don't dismiss reviewer's comment.
- Conflicting recommendations
  - Editor should provide guidance
- Track/highlight changes in your revised manuscript (required by some journals)
  - If highlighting distracting, indicate in your separate response file the line numbers in the manuscript where changes made

Responding to peer review

- Major revisions
  - May be sent for additional external review
  - Reviewers may be different
- Adhere to time limits
  - Otherwise ask for extension

Responding

- Rejection
  - Happens to all of us!
  - Why was the manuscript rejected?
    - Out of scope: try more appropriate journal (read Author Guidelines for that journal!)
    - Poor scientific quality or writing

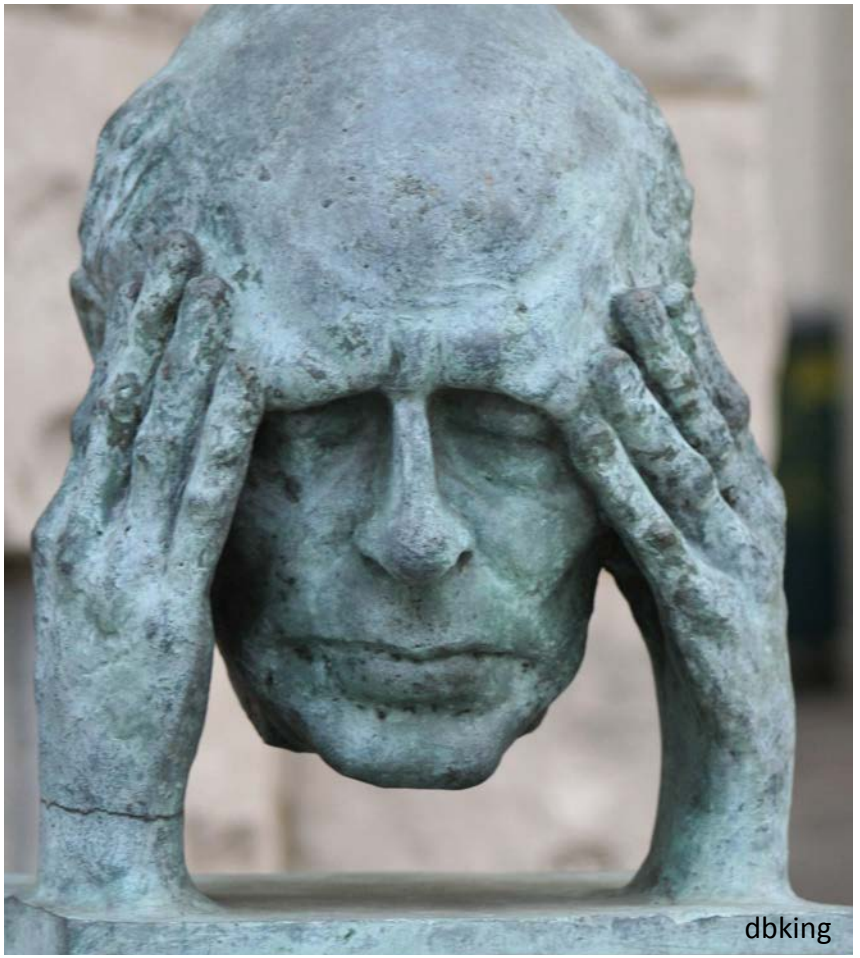
      Can you address the weaknesses?
    - Lack of importance or novel findings

      Can you address weaknesses?
  - Appeal decision: if strong justification

The scientific enterprise is built on a foundation of trust

Ethical misconduct

- Honest errors
- Errors through negligence
- Purposeful deception



Publication ethics

- Protection of human and animal subjects
- Falsification of data and images
- Conflicts of interest
- Authorship
- Privacy and confidentiality
- Plagiarism
- Duplicate publication

Publication ethics

- Protection of human and animal subjects
- Falsification of data and images
- Conflicts of interest
- Authorship
- Privacy and confidentiality
- Plagiarism
- Duplicate publication

Scenario 1

…a professor from Dr X's home institution has been added as an author. You tell Dr. X this is guest authorship and is not acceptable. Dr. X replies that this is normal practice for his department and that he cannot return to his country until he has published a paper in a peer-reviewed journal that includes the professor's name. What can you do?

Authorship is about:

CREDIT

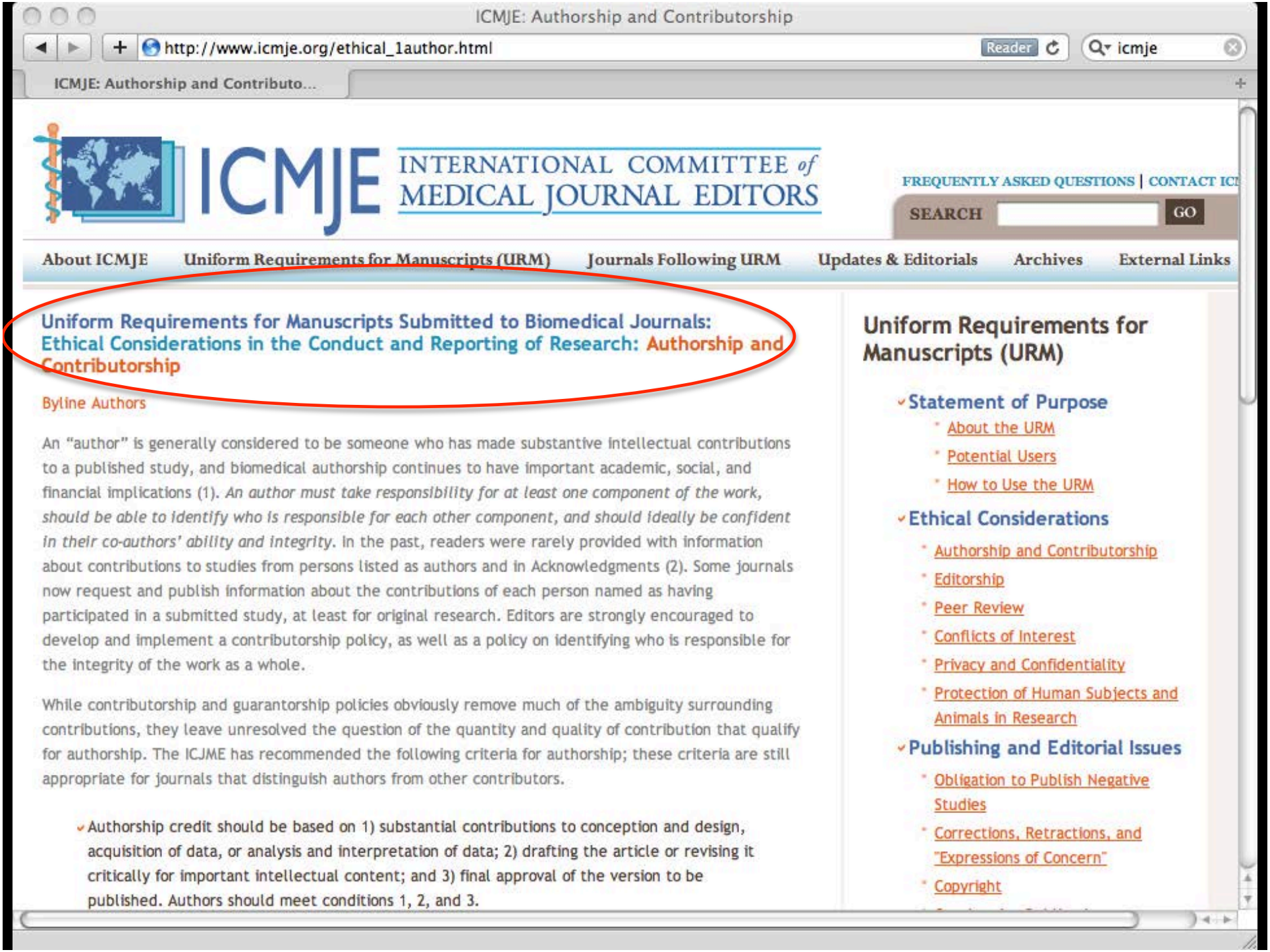
(for the new knowledge)

ACCOUNTABILITY

(for its accuracy and truth)

Authorship

- Begins when planning a study
  - Who is taking the lead? Who is collaborating?
- Decide on authorship when writing the manuscript
- Re-evaluate authorship after writing the manuscript
- No single formula works in all situations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Byline Authors
An "author" is generally considered to be someone who has made substantive intellectual contributions to a published study, and biomedical authorship continues to have important academic, social, and financial implications (1). An author must take responsibility for at least one component of the work, should be able to identify who is responsible for each other component, and should ideally be confident in their co-authors' ability and integrity. In the past, readers were rarely provided with information about contributions to studies from persons listed as authors and in Acknowledgments (2). Some journals now request and publish information about the contributions of each person named as having participated in a submitted study, at least for original research. Editors are strongly encouraged to develop and implement a contributorship policy, as well as a policy on identifying who is responsible for the integrity of the work as a whole.
While contributorship and guarantorship policies obviously remove much of the ambiguity surrounding contributions, they leave unresolved the question of the quantity and quality of contribution that qualify for authorship. The ICJME has recommended the following criteria for authorship; these criteria are still appropriate for journals that distinguish authors from other contributors.
Authorship credit should be based on 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3.
Uniform Requirements for Manuscripts (URM)
Statement of Purpose
About the URM
Potential Users
How to Use the URM
Ethical Considerations
Authorship and Contributorship
Editorship
Peer Review
Conflicts of Interest
Privacy and Confidentiality
Protection of Human Subjects and Animals in Research
Publishing and Editorial Issues
Obligation to Publish Negative Studies
Corrections, Retractions, and "Expressions of Concern"
Copyright

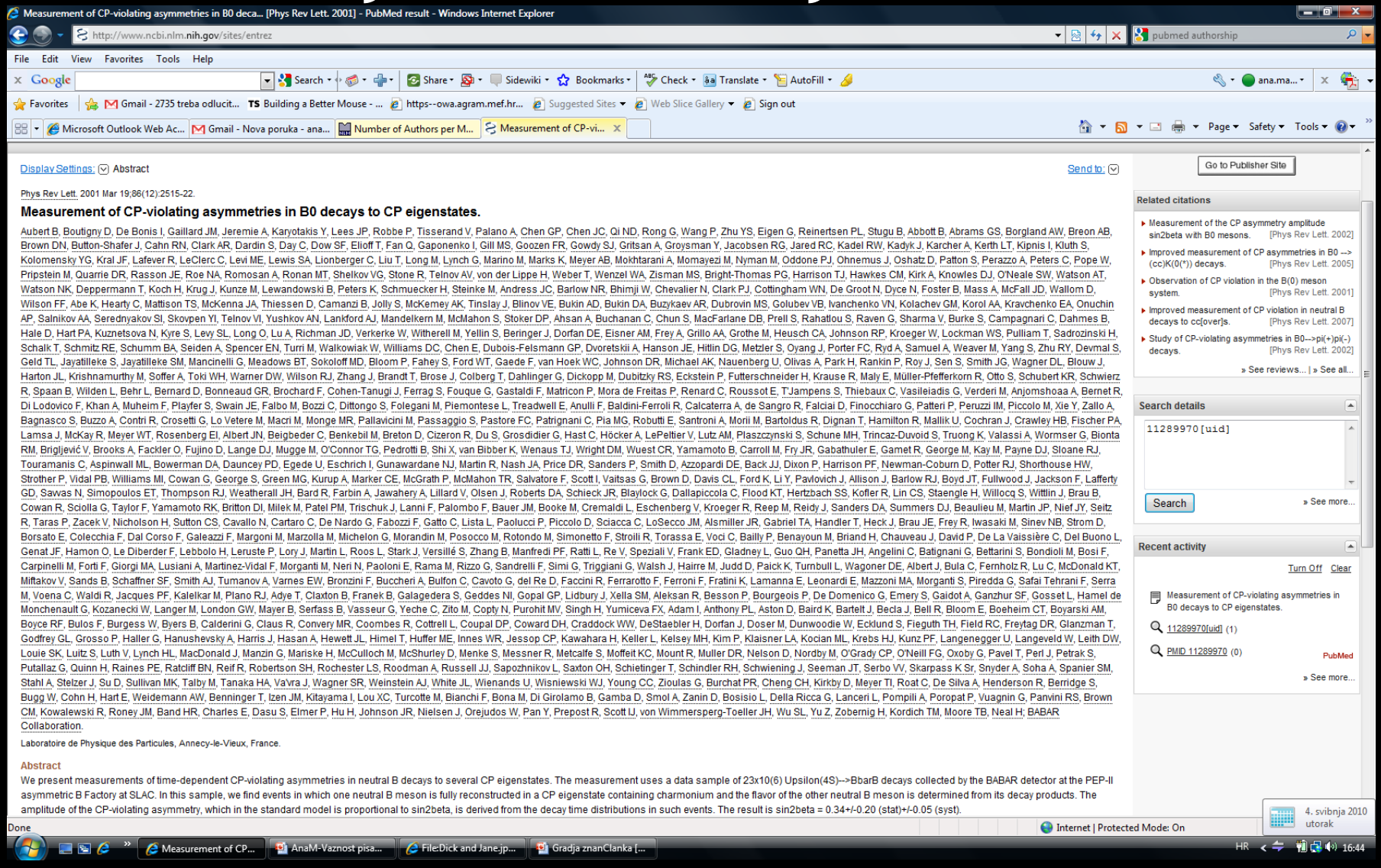
Who should be an author?

- Someone who has made substantive intellectual contributions to study concept or design, data acquisition or analysis, or data interpretation, and who takes responsibility for at least part of the work
  - ALL authors have a role in drafting, editing, and approving the final manuscript
  - ALL authors should be familiar with the content and be able to defend the work

Who should be an author?

- It's not sufficient to…
  - Supervise the lab where the work was done
  - Be the head of the department
  - Provide or acquire the funding
- It is not appropriate to…
  - Reward your friends
  - Bestow "honorary" or "guest" authorship
  - Have a paper "ghost-authored"

How many is too many authors?



Author order

- Explicit guidelines are lacking
  - 1st –the person primarily responsible for doing the study and writing the manuscript
  - 2nd – contributed “next most” or a mentor
  - Last – usually a “senior author” or a mentor
  - Others –decreasing contribution or alphabetical
- Author order is interpreted differently by different institutions and individuals

NATURE | ARTICLE

previous abstract next abstract

Origin of the human malaria parasite *Plasmodium falciparum* in gorillas

Weimin Liu, Yingying Li, Gerald H. Learn, Rebecca S. Rudicell, Joel D. Robertson, Brandon F. Keele, Jean-Bosco N. Ndjango, Crickette M. Sanz, David B. Morgan, Sabrina Locatelli, Mary K. Gonder, Philip J. Kranzusch, Peter D. Walsh, Eric Delaporte, Eitel Mpoudi-Ngole, Alexander V. Georgiev, Martin N. Muller, George M. Shaw, Martine Peeters, Paul M. Sharp, Julian C. Rayner & Beatrice H. Hahn

Affiliations Contributions Corresponding author

Nature **467**, 420–425 (23 September 2010) | doi:10.1038/nature09442
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Contributions

All authors contributed to the acquisition, analysis and interpretation of the data; W.L., M.P., J.C.R., P.M.S. and B.H.H. initiated and designed the study; W.L., Y.L. and J.D.R. performed non-invasive *Plasmodium* testing and SGA analyses; B.F.K, R.S.R and J.D.R. performed microsatellite analyses; P.M.S. calculated *Plasmodium* prevalence rates; G.H.L. and P.M.S performed phylogenetic analyses; J.-B.N.N., C.M.S., D.B.M., S.L., M.K.G., P.J.K., P.D.W., E.D., E.M.-N., A.V.G. and M.N.M. conducted and supervised all fieldwork; and W.L., G.M.S., M.P., P.M.S., J.C.R. and B.H.H. coordinated the contributions of all authors and wrote the paper.

Competing financial interests

The authors declare no competing financial interests.

Corresponding author

Correspondence to: Beatrice H. Hahn

SGA-derived Plasmodium nucleotide sequences have been deposited in GenBank under accession numbers HM234976–HM235117 and HM237301 (cytb), HM235118–HM235143 (ldh), HM235144–HM235170 (clpC), HM235171–HM235268 (mtDNA-3.3 kb) and HM235269–HM235404 (mtDNA-3.4 kb) (also see Supplementary Table 6).

Supplementary information

Abstract • Accession codes • Author information • Supplementary information • Comments

PLoS Pathogens: A New Model to Produce Infectious Hepatitis C Virus without the Replication Requirement

http://www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1001333

PLoS Pathogens: A New Model to ...

Acknowledgments Top

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Author Contributions Top

Conceived and designed the experiments: EAB BS. Performed the experiments: MT BS. Analyzed the data: MT EAB BS. Contributed reagents/materials/analysis tools: MT BS. Wrote the paper: EAB BS. Contributed to ideas and writing the manuscript: MT. Suggested ideas and experiments, discussed the data, and contributed extensively to writing the manuscript: EAB.

Contributions that do not warrant authorship can be listed in Acknowledgments

- Provided reagents
- Purely technical work
- Support from a department chair
- Assistance in writing or editing the manuscript

Scenario 2

A colleague tells you about a new cell-culture technique that could be useful in your own research. When you ask for more details, you discover that your colleague read about the technique in a paper she is reviewing for a journal. What can you do to get your hands on this new technique?

Privacy and confidentiality

- Manuscripts are “privileged communication”
- Editors must not disclose information, reviews, or decisions about manuscripts to anyone except authors and reviewers
- Reviewers:
  - Must not publicly discuss the author’s work before publication
  - Must not make copies or share with others
  - Must not contact authors

Scenario 3

…As she began to read, she thought the wording sounded familiar; when she looked at the figures, she was stunned... Is this a case of plagiarism? What can this researcher do?

Plagiarism

- Using or copying someone else's words or data as though they were your own
  - All or part of a paper
  - Paragraphs, sentences, figures, data, etc.
  - Print or online
  - Inadequate attribution

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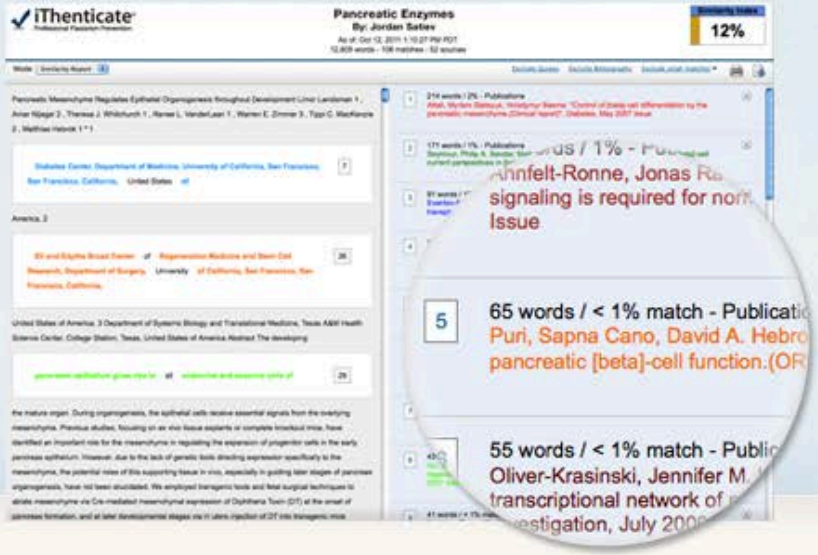
Organizations
GET A QUOTE



VIEW A DEMO

Researchers, Editors & Companies
TRUST ITHENTICATE

Protect your reputation
Avoid costly retractions
Prevent copyright infringement

How to Avoid Plagiarism
FREE PAPERS & REPORTS

Self-Plagiarism »
Pressure to Publish »
Costs of Research Misconduct »

More Papers & Resources »

Duplicate (redundant) publication

- Using your own work in more than one publication
- Partial or full overlap
  - Text, figures, tables, data, samples, cases
- In print or electronic media
- Not acknowledged or disclosed

Lymph Node Aspirate from a 4-Month-Old Mastiff with Weight Loss, Lymphadenopathy, and Pyrexia

What Is Your Diagnosis?

Case Presentation

A 4-month-old, 19.5 kg male English Mastiff dog was referred to

for investigation of weight loss, diarrhea, and lymphadenopathy. In the 2 weeks prior to referral, the dog had been inappetant, defecated loose "cow patty" stools, and lost 0.7 kg body weight. The dog had been treated with antibiotics (enrofloxacin [5 mg/kg SC q 12 hours for 5 days] followed by trimethoprim sulfa [24 mg/kg PO q 12 hours for 5 days] followed by chloramphenicol [50 mg/kg PO q 6 hours for 2 days]) without response. The dog had been given prednisone immediately prior to presentation (1 mg/kg PO q 12 hours for 3 days followed by 1 mg/kg PO q 24 hours for 3 days). The dog had been vaccinated for canine distemper, adenovirus, parainfluenza, and parvovirus. A fecal flotation was negative for parasites. The dog was seronegative for antibodies to *Ehrlichia canis*.

Physical examination revealed a depressed, lethargic, thin dog with mild generalized lymphadenopathy and pyrexia (39.9°C). Results of a CBC indicated moderate, normocytic, normochromic, nonregenerative anemia (HCT 0.27 L/L; reference interval 0.38-0.57 L/L) with mild lymphopenia (0.7×10^9/L; reference interval 0.8-5.6×10^9/L). Results of a biochemical profile indicated moderate hypoalbuminemia (19 g/L; reference interval 23-39 g/L) and increased serum alkaline phosphatase activity (806 U/L; reference interval 20-157 U/L). Urine was hyposthenuric (specific gravity 1.005). Thoracic radiographs demonstrated sternal lymph node enlargement. Abdominal radiographs revealed hepatomegaly and signs suggestive of inguinal lymphadenopathy. Serosal detail was decreased due to lack of intraabdominal fat. Fine needle aspirates were obtained from the enlarged prescapular and popliteal lymph nodes (Figure 1).

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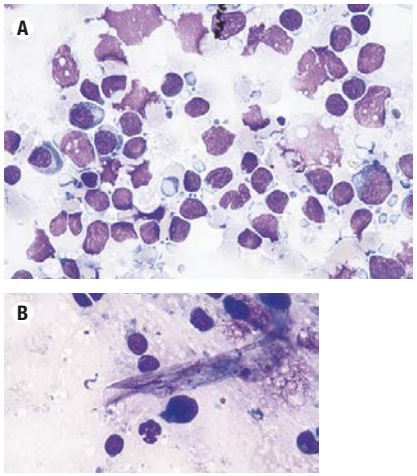

Figure 1. Lymph node aspirate from a dog. Wright-Giemsa, X250.

Prevalence of American trypanosomiasis (Chagas disease) among dogs

Objective—To determine the prevalence of *Trypanosoma cruzi* infection among dogs

Design—Cross-sectional study.

Animals—301 owned or impounded dogs related by ownership or general geographic location to 3 dogs determined to have trypanosomiasis.

Procedures—Blood samples were obtained from dogs between November 1996 and September 1997. Infection status was determined by use of a radioimmunoprecipitation assay. Second blood samples were obtained from some of the seropositive dogs for study by hemoculture and polymerase chain reaction (PCR) assay. Sites where infected dogs were found were inspected for triatomine insects, and light traps were used for vector trapping.

Results—11(3.6%) dogs were seropositive for *T cruzi* infection. Ten of the 11 were owned rural hunting dogs. Protozoal organisms isolated from the blood of 1 seropositive dog were identified as *T cruzi* by PCR testing. Only 1 adult *Triatoma sanguisuga* was captured in a light trap at a site near infected dogs; this insect was not infected.

Conclusions and Clinical Relevance—Our findings suggest that *T cruzi* is enzootic in
Measures that would reduce the risk of dogs acquiring *T cruzi* infection are unlikely to be acceptable to their owners, and no effective drugs are available for treatment. The presence of *T cruzi*-infected dogs poses a threat of transmission to persons at risk of exposure to contaminated blood. Veterinarians who practice in the southern United States should be cognizant of this blood borne zoonosis and educate all personnel about appropriate precautions. (*J Am Vet Med Assoc* 2000;217:1853–1857)

Trypanosoma cruzi is the protozoan hemoflagellate that causes American trypanosomiasis (Chagas disease). This parasite, which is found only in the Americas, is transmitted among its mammalian hosts by insect vectors (Family Reduviidae, Subfamily Triatominae). It can also be transmitted congenitally, through contaminated blood transfusions, or by contamination of mucous membranes or breaks in the skin with blood, insect excreta, or tissues containing infective parasites.[1-3] Infection with *T cruzi* is life-long, and chronic infection is characterized by detectable concentrations of specific antibodies and low concentrations of circulating parasites. In contrast to many other protozoan parasites, *T cruzi* has little host specificity, as it has been isolated from more than 100 mammalian species and dozens of insect vector species. Chagas disease is a zoonosis, and an estimated 16 to 18 million people are infected in Latin America.[4] It is enzootic throughout much of Latin America where raccoons, opossums, armadillos, and rodents are commonly infected, as are domestic animals such as dogs and cats. The sylvatic cycle is known to exist in the southern and southwestern United States where several cases of *T cruzi*-infected dogs have been reported.[1,5-9]

Our interest in studying *T cruzi* infection in dogs in was prompted by a veterinarian's exposure to the parasite through an accidental needle stick involving blood and lymph tissue from an infected dog. Subsequent to that event, 2 additional canine cases were identified. Given the highly infectious nature of the parasite and the potential risk of transmission to veterinarians and others who may be exposed to blood from animals infected with *T cruzi*, we conducted a serologic and parasitologic study to estimate the prevalence of *T cruzi* among domestic dogs in Oklahoma.

Materials and Methods

Identification of the index case—A 4-month-old 19.5-kg (lb) male English Mastiff was referred to

for investigation of weight loss, diarrhea, and lymphadenopathy. Numerous extracellular organisms with morphology consistent with that of *T cruzi* were seen cytologically in lymph node aspirates; the *T cruzi* antibody titer, determined by use of an indirect fluorescent assay, was high (1:512; animals with titer > 1:32 are considered seropositive); and culture of lymph node aspirates yielded *T cruzi*.

Serologic survey—A brief report describing the index case was published in a statewide veterinary newsletter in November 1996 to increase awareness of canine trypanosomiasis. In response to this article, 2 additional recent cases of *T cruzi* infection involving dogs were reported by veterinarians in . Blood samples were collected from all dogs living on the same premises as the index case and these two additional infected dogs. Between November 1996 and September 1997, a serologic survey of dogs residing in the same counties eastern as these 3 infected dogs was conducted.

Lymph Node Aspirate from a 4-Month-Old Mastiff with Weight Loss, Lymphadenopathy, and Pyrexia

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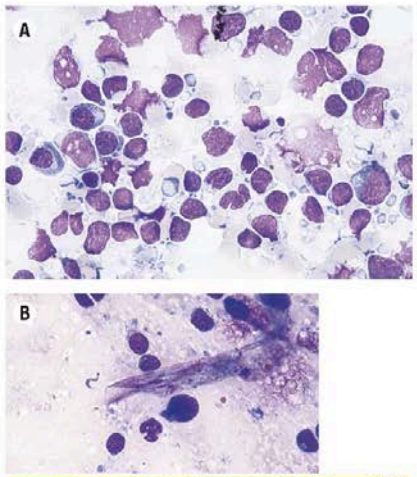


Figure 1. Lymph node aspirate from a dog. Wright-Giemsa, X250.

Cytologic Interpretation

Lymph node smears were cellular and consisted primarily of small mature lymphocytes with scattered prolymphocytes and lymphoblasts. Plasma cells and macrophages were moderately increased in number (Figure 1A). Numerous extracellular organisms, 15-20 µm in length, also were observed (Figure 1B). The organisms were fusiform, with one blunted end and one elongated, extremely thin, tapered end. They had a centrally placed, ovoid nucleus, and a large, dark-staining kinetoplast near the blunted end (Figure 2). In some organisms, an undulating membrane could be seen extending from the body along the long axis of the organism. The organisms were consistent with *Trypanosoma cruzi*, and a diagnosis of trypanosomiasis was made. The diagnosis of trypanosomiasis was confirmed by indirect fluorescent antibody test (patient titer 1:512; diagnostic titer >1:32) and cell culture isolation of *T. cruzi* from lymph node aspirates.

Blood samples were obtained from dogs impounded in city animal shelters, dogs known to the owners of the infected dogs, and dogs examined at participating veterinary clinics. All blood samples were collected into tubes containing EDTA (final concentration, 10 mM) to prevent coagulation.

Blood samples were tested for specific antibodies to *T cruzi*, using a **radioimmunoprecipitation assay (RIPA)** described in an earlier report[10] and subsequently used to test for *T cruzi* infection in dogs.[1] Briefly, blood samples were centrifuged, and plasma was obtained. For each sample, 10 µl of plasma was mixed with a volume of ^{125}I-labeled *T cruzi* (Tulahuén strain) epimastigote lysate containing 500,000 counts/min. Antigen-antibody complexes were removed from this mixture by addition of protein A-Sepharose. Samples were boiled briefly, and the immunoprecipitated ^{125}I-labeled antigens were separated by polyacrylamide gel electrophoresis and detected by autoradiography. The presence of 72- and 90-kd bands on the resulting electrophoretograms was considered a positive result.

Isolation of *T cruzi* from blood samples—Additional blood samples were collected from some dogs seropositive for *T cruzi* antibodies. Samples were anticoagulated with EDTA and centrifuged. The pelleted cells were washed twice in liver-digested neutralized tryptose medium containing 10% fetal calf serum, 100 µg of penicillin/ml, and 100 µg of streptomycin/ml (LDNT+). Cells were then suspended in a 1:1 ratio in LDNT+, and aliquots (7 ml) were placed in 25-cm^2 flasks for incubation at 26 C. Cultures were examined intermittently in an inverted microscope for 120 days.

Insect collection—Two sites where infected dogs were found were inspected for triatomine insects. Two ultraviolet light traps were operated at a Nowata county site for 1 night and at a LeFlore county site for 2 nights. In addition, 6 CO_2-baited pitfall traps were operated at the LeFlore county site for 1 night. Potential triatomine habitats surrounding doghouses and pens at both of these locations were thoroughly inspected.

Identification of protozoal isolates—A **polymerase chain reaction (PCR)** assay was used to determine whether any captured triatomine insects were infected with *T cruzi* and provide positive identification of protozoal organisms isolated from infected dogs. For isolation of DNA from triatomine insects, abdominal contents were removed by dissection and mashed with an applicator stick in a microcentrifuge tube after addition of a small volume of phosphate-buffered saline solution. The DNA was extracted from a 100-µl aliquot of this material from each insect. Five volumes of lysis buffer (10 mM Tris hydrochloride [pH 7.6], 10 mM EDTA, 0.1M NaCl, 0.5% sodium dodecyl sulfate, and 300 µg of proteinase K/ml) were added to each sample, and the resulting mixture was incubated for 2 hours at 55 C. Samples were heated to 95 C for 10 minutes to inactivate the proteinase K and then extracted twice with a mixture of phenol, chloroform, and isoamyl alcohol (25:24:1). Nucleic acids were precipitated by addition of one-tenth volume of 3 *M* sodium acetate (pH 5.5), 20 µg of glycogen, and 2 volumes of ethanol. After centrifugation in a microcentrifuge for 15 minutes, the pellet was rinsed with 70% ethanol, air dried, and suspended in 100 µl of water. To confirm identification of protozoal organisms isolated from infected dogs, DNA was extracted from 100 µl blood samples, using an analogous procedure.

Polymerase chain reaction assays were performed with the TCZ1 and TCZ2 primer pair, which amplify a 188-base pair nuclear repetitive sequence that is specific for *T cruzi*. The conditions for the assay were similar to those described previously.[1,11-13] Positive controls consisting of samples in which *T cruzi* DNA was used as a template were included in each run of the assay, along with samples consisting of DNA extracted from uninfected insect excreta and dog blood, when appropriate, and standard reaction mixture negative controls. To avoid false-positive reactions attributable to contamination of reaction mixtures with 188-base pair amplicons from earlier runs, the PCR portion of the assay was performed in 1 section of the laboratory and, after amplification, tubes were opened, and electrophoresis was performed in a different area. Reagents and equipment used in the second area were never used subsequently in the first. In addition, tubes containing all reagents except template DNA were included in each assay run for the purpose of detecting contamination of reagents with amplifiable *T cruzi* DNA sequences.

To test for the specificity of the PCR assay, a second PCR assay was performed. In this second assay, oligonucleotides TCZ3 and TCZ4, which amplify a 149-nucleotide internal segment of the nuclear repetitive sequence, were used as primers, and an aliquot of the reaction mixture from the first assay that contained the 188-base pair product was used as a template.[14]

Results

Description of the index case—The index case was a 4-month-old 19.5-kg (43-lb) male English Mastiff examined because of weight loss, diarrhea, and lymphadenopathy. In the 2 weeks prior to examination at the veterinary teaching hospital, the dog had been anorectic, defecated loose (cow-patty consistency) feces, and had lost 0.7 kg (1.5 lb). The dog had been treated with antibiotics without response and had been given prednisone (1 mg/kg [0.45 mg/lb] of body weight, PO, q 12 h, for 3 days, then 1 mg/kg, PO, q 24 h, for 3 days) by the referring veterinarian. The dog had been whelped and raised in northeastern [illegible]. All routine vaccinations were current, and results of a fecal analysis for parasites were negative. The dog was seronegative for antibodies against *Ehrlichia canis*.

On physical examination, the dog was lethargic and thin and had mild generalized lymphadenopathy and pyrexia (rectal temperature, 39.9 C [103.8 F]). Moderate anemia (Hct, 0.27; reference range, 0.38 to 0.57), mild lymphopenia (0.7×10^9/L; reference range, 0.8 to 5.6×10^9/L), hypoalbuminemia (19 g/L; reference range, 23 to 39 g/L), and high alkaline phosphatase activity (806 U/L; reference range, 20 to 157 U/L) were detected. Results of other serum biochemical tests were normal. Urinalysis revealed hyposthenuria (specific gravity, 1.005). On thoracic radiographs, the cardiac silhouette was normal, but the sternal lymph nodes appeared larger than normal. Hepatomegaly, inguinal lymphadenopathy, and decreased serosal detail secondary to a lack of intraabdominal fat were seen on abdominal radiographs.

Fine-needle aspirates were obtained from enlarged prescapular and popliteal lymph nodes. The smears were cellular and consisted primarily of small mature lymphocytes with scattered prolymphocytes and lymphoblasts. The numbers of plasma cells and macrophages were moderately increased. Numerous extracellular organisms morphologically consistent with *T cruzi* were also seen (**Fig 1**). The *T cruzi* antibody titer, determined by use of an indirect fluorescent antibody assay, was high (1:512), and *T cruzi* organisms were isolated from lymph node aspirates.

Lymph Node Aspirate from a 4-Month-Old Mastiff with Weight Loss, Lymphadenopathy, and Pyrexia

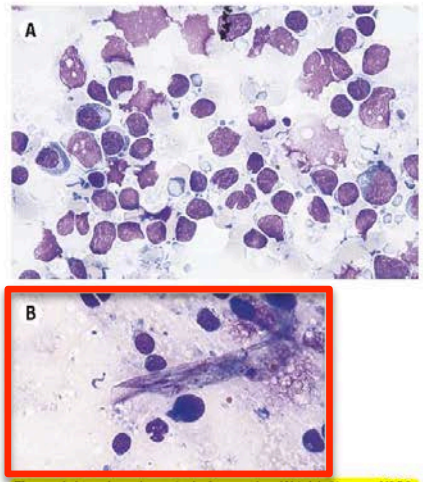
What Is Your Diagnosis?

Case Presentation

A 4-month-old, 19.5 kg male English Mastiff dog was referred to [redacted] for investigation of weight loss, diarrhea, and lymphadenopathy. In the 2 weeks prior to referral, the dog had been inappetant, defecated loose "cow patty" stools, and lost 0.7 kg body weight. The dog had been treated with antibiotics (enrofloxacin [5 mg/kg SC q 12 hours for 5 days] followed by trimethoprim sulfa [24 mg/kg PO q 12 hours for 5 days] followed by chloramphenicol [50 mg/kg PO q 6 hours for 2 days]) without response. The dog had been given prednisone immediately prior to presentation (1 mg/kg PO q 12 hours for 3 days followed by 1 mg/kg PO q 24 hours for 3 days). The dog had been vaccinated for canine distemper, adenovirus, parainfluenza, and parvovirus. A fecal flotation was negative for parasites. The dog was seronegative for antibodies to *Ehrlichia canis*.

Physical examination revealed a depressed, lethargic, thin dog with mild generalized lymphadenopathy and pyrexia (39.9°C). Results of a CBC indicated moderate, normocytic, normochromic, nonregenerative anemia (HCT 0.27 L/L; reference interval 0.38-0.57 L/L) with mild lymphopenia (0.7×10^9/L; reference interval $0.8\text{-}5.6\times10^9$/L). Results of a biochemical profile indicated moderate hypoalbuminemia (19 g/L; reference interval 23-39 g/L) and increased serum alkaline phosphatase activity (806 U/L; reference interval 20-157 U/L). Urine was hyposthenuric (specific gravity 1.005). Thoracic radiographs demonstrated sternal lymph node enlargement. Abdominal radiographs revealed hepatomegaly and signs suggestive of inguinal lymphadenopathy. Serosal detail was decreased due to lack of intraabdominal fat. Fine needle aspirates were obtained from the enlarged prescapular and popliteal lymph nodes (Figure 1).

(Continued on next page)



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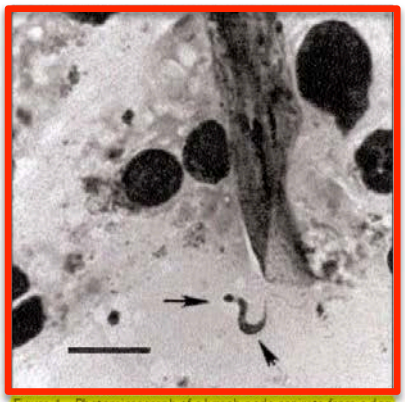


Figure 1—Photomicrograph of a lymph node aspirate from a dog with trypanosomiasis. Notice the protozoal organism in which a nucleus (short arrow) and kinetoplast (long arrow) are evident. kinetoplasts are found only in organisms belonging to the order Kinetoplastida. Giemsa stain; bar = 10 µm. Courtesy of JH Meinkoth, Oklahoma State University Clinical Pathology Teaching Files.

Treatment with nifurtimox[a] (120 mg, PO, q 8 h, for 180 days) and prednisone (10 mg, PO, q 12 h) was started, and the dog was discharged to home care. Clinical improvement, as evidenced by weight gain, resolution of the lymphadenopathy, and normalization of thoracic radiographic findings, was apparent during the 6-month course of treatment. Eleven months after treatment with nifurtimox was initiated, however, echocardiography revealed mild right-sided dilated cardiomyopathy with diminished contractility and borderline function of the interventricular septum. Although no organisms were seen on lymph node aspirates, culture of blood samples obtained at that time yielded *T cruzi*.

Serologic survey—Blood samples were obtained from 304 dogs, including the index case and the 2 additional dogs recently identified as having been infected with *T cruzi*. One hundred eight (35.5%) of the 304 were stray (n = 99) or owned (9) dogs that lived in northeastern Oklahoma within a 1-county radius of Nowata county, where the index case resided. The remaining 196 (64.5%) dogs resided in LeFlore or Pittsburg counties in east-central Oklahoma. Of these, 82 were impounded dogs, and 114 were privately owned dogs. Overall, 161 of the 304 (53%) dogs were female. Ninety-four (30.9%) of the dogs were of mixed breeding, 39 (12.8%) were coonhounds, and 25 (8.2%) were Labrador Retrievers .

Eleven of the 304 (3.6%) dogs had clear serologic evidence of infection with *T cruzi* by RIPA (Fig 2). All but 1 of the seropositive dogs were privately owned. Four of the seropositive dogs were Mastiffs, 6 were coonhounds, and 1 was of mixed breeding. All 4 seropositive Mastiffs originated from a single breeder

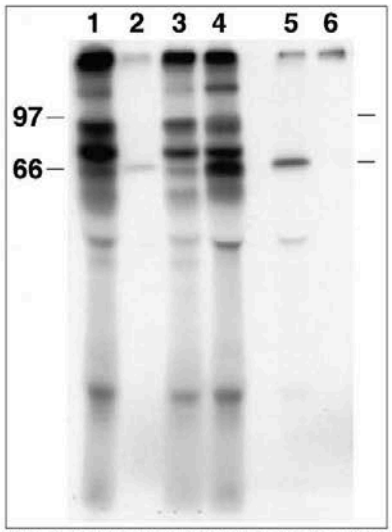


Figure 2—Electrophoretogram obtained by use of a radioimmunoprecipitation assay for antibodies that bind to ^{125}I-labeled *Trypanosoma cruzi* surface antigens in blood samples from dogs and humans. Lane 1 = Human patient from El Salvador infected with *T cruzi* (positive control). Lane 2 = Uninfected human patient (negative control). Lanes 3 and 4 = Dogs seropositive for *T cruzi* infection. Lanes 5 and 6 = Dogs seronegative for *T cruzi* infection. The 72- and 90-kilodalton bands in lanes 1, 3, and 4 are considered indicative of *T cruzi* infection. Numbers on the left indicate molecular weights.

in Nowata county. Four seropositive coonhounds lived in LeFlore county, and 2 seropositive coonhounds and the seropositive mixed-breed dog were from Pittsburg county. At least 6 of the seropositive dogs had clinical signs compatible with *T cruzi* infection.

Isolation of *T cruzi* from blood samples—Blood samples from 4 of the 11 seropositive dogs were submitted for protozoal culture. One was positive after 15 days, whereas the others remained negative through 120 days of observation. The protozoal organisms that were isolated had typical *T cruzi* morphology and transformed to approximately 50% culture-derived metacyclic trypomastigotes when passed into LDNT+ medium and allowed to reach stationary phase. This phenomenon is characteristic of *T cruzi*, especially *T cruzi* isolates recently obtained from natural sources. Parasites from the latter culture were inoculated into flasks containing human renal adenocarcinoma cells, and large numbers of extracellular trypomastigotes and intracellular amastigotes morphologically consistent with *T cruzi* were subsequently observed.

Insect collection—One adult female *Triatoma sanguisuga* was captured in a light trap operated at the

A case of three camels (joints)

- Cytologic analysis of synovial fluid in clinically normal tarsal joints of young camels (Camelus dromedarius). *Vet Clin Pathol*. 2006
- Physical, biochemical and cytological analysis of synovial fluid of radiocarpal joint of clinically normal young camels (Camelus dromedarius). *J Camel Practice and Research* 2006
- Synovial fluid cell counts and total protein concentration in clinically normal fetlock joints of young dromedarian camels. *J Vet Med A Physiol Pathol Clin Med*. 2006

Scenario 4

…a colleague published his research findings in Serbian… He is now planning to submit an English version of the same study and asks your advice as to the best international journal. What do you recommend?

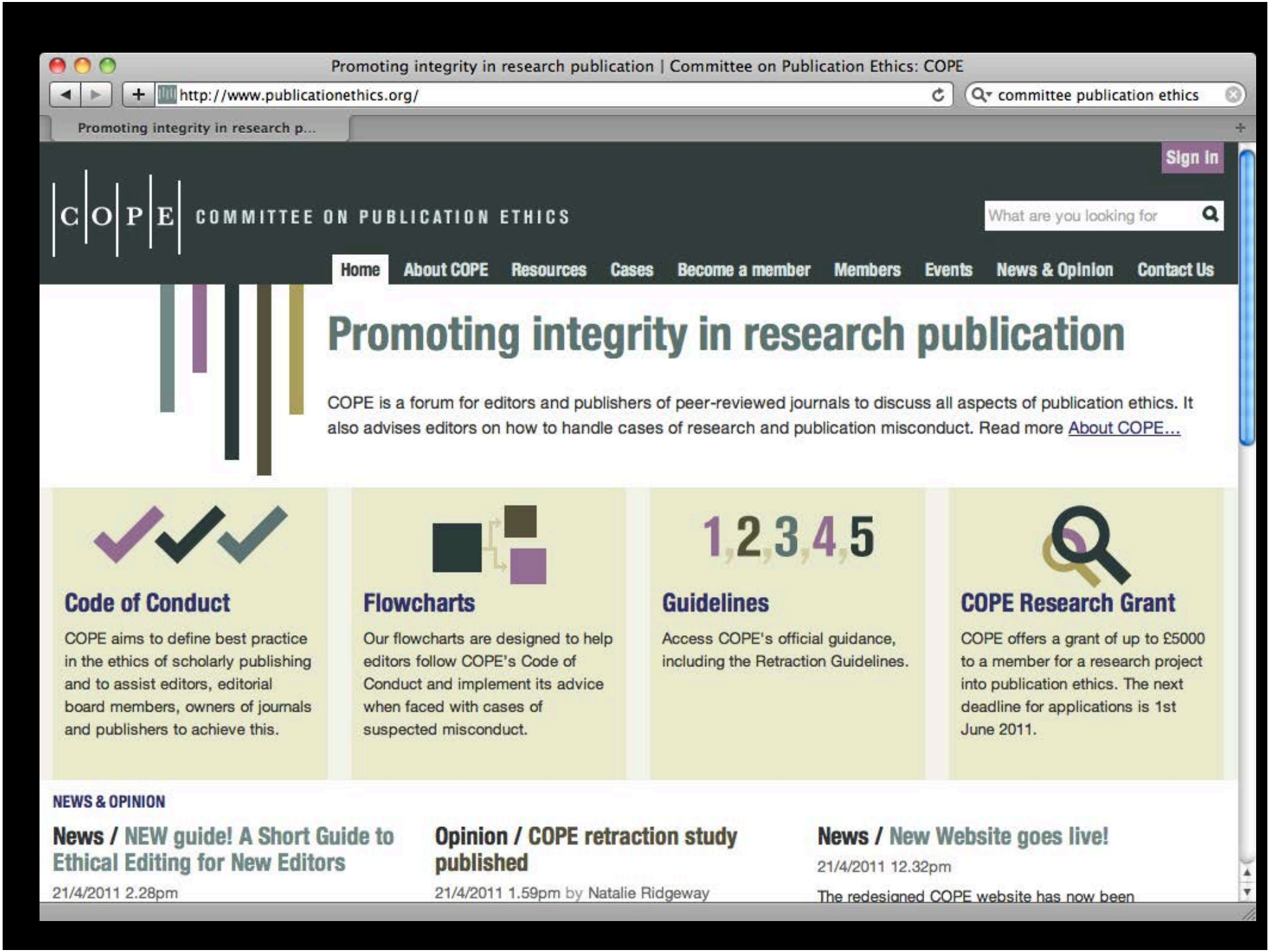
Standard journal editorial policies

- The submitted work is original
- The manuscript is not under consideration by another journal
- Information in the manuscript has not been previously published except in abstract form (proceedings might be acceptable)
- Language: reprinting is acceptable if both editors agree and the original version is cited/attributed in the translated version

PUBLICATION:

new knowledge,
for the first time

and only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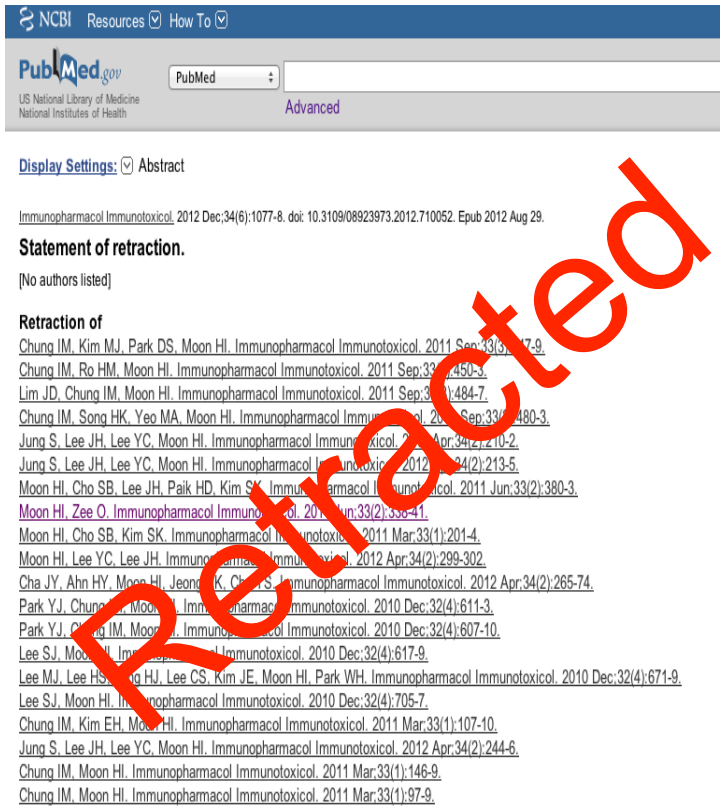
21/4/2011 1.59pm by Natalie Ridgeway
News / New Website goes live!
21/4/2011 12.32pm
The redesigned COPE website has now been

Suggested reviewers

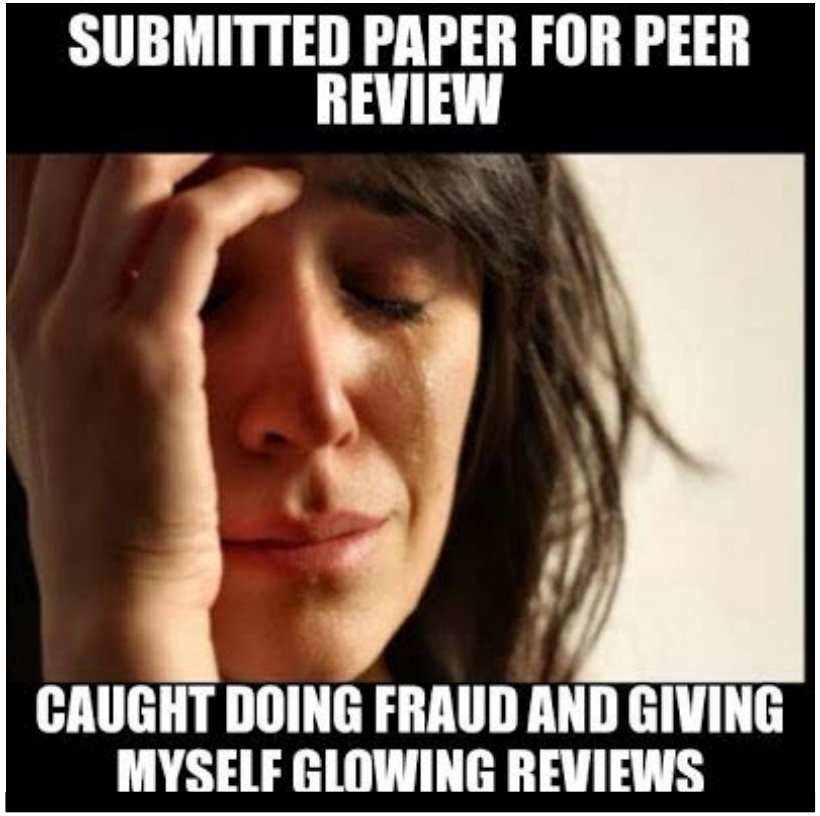
The Editor-in-Chief of *Journal of Enzyme Inhibition and Medicinal Chemistry* received positive reviews for a submitted manuscript and published the article. That article – and 34 others by the same author published in another journal – have since been retracted. The editor of *Immunopharmacology and Immunotoxicology* resigned in the wake of these retractions.



The problem?

Data were falsified **and** the author was reviewing his own papers!

He had suggested false reviewers with gmail and yahoo email addresses – and all the emails tracked back to him. He then submitted glowing reviews.



The tip-off?

The reviews were returned within 24 hours!

The lesson?

Rigorous peer review, including reviewer selection, is important in maintaining the credibility of scientific journals.

10 Keys to Success

1. Stay on message
2. Select the right journal
3. Read and follow the author guidelines
4. Define the research question and its importance
5. Describe your strategy
6. Describe the outcomes
7. Indicate the implications and value of your work
8. Edit yourself
9. Get feedback
10. Conduct and report your study ethically