Authorship: What You Need to Know

Herbert Y. Kressel
Editor-in-Chief
Outline

- ICMJE Authorship Criteria
- **Radiology** Processes
- Authorship Definitions
- *Radiology* Authorship Policies
- Honorary and Ghost Authorship
ICMJE - Authorship

To be based only on substantial contributions to each of the following three listed areas:

- Conception, design OR data acquisition OR data analysis, interpretation
- Drafting, critical revision for important intellectual content
- Final approval of the version to be published

Funding acquisition, data collection insufficient
Supervision of research group insufficient
Author Contribution: Radiology Process

- E-mail sent to each author on submission with link to contribution form
- Each author fills out author contribution form
- Revisions not processed until all contribution forms received
- Author contributions for each author are published with article
Dear Dr,

We have received manuscript RAD-12-XXXX, entitled "RADIOLOGY STUDY."

In the January 2004 Editorial published in RADIOLOGY, it was announced that each individual listed as an author on the title page of a submitted manuscript should have met the criteria for authorship as established by the International Committee of Medical Journal Editors (ICMJE). Accordingly, we request that you complete the form we have developed so as to document you have met the ICMJE criteria. A form must be completed by each individual so listed as an author. Any individual who does not meet the three ICMJE criteria should inform us as to his/her willingness to be deleted as an author of the manuscript.

Please submit your Author Contribution Form by clicking the link below:

http://mc.manuscriptcentral.com/rad?URL_MASK=GPKtww32xq6bTjfbPmBd
Screening US in Patients with Mammographically Dense Breasts: Initial Experience with Connecticut Public Act 09-41

### Purpose:
To determine performance and utilization of screening breast ultrasonography (SUS) in women with dense breast tissue who underwent additional screening breast US in the 1st year since implementation of Connecticut Public Act 09-41 requiring radiologists to inform patients with heterogeneously or extremely dense breasts at mammography that they may benefit from such examination.

### Materials and Methods:
Informed consent was waived for this institutional review board-approved, HIPAA-compliant, retrospective review of 143 women with dense breasts at mammography who subsequently underwent handheld screening and whole-breast US from October 1, 2009, through September 30, 2010.

### Results:
- Of 952 screens, 614 (65.0%) were at low risk, 149 (15.9%) were at intermediate-risk, and 97 (10.3%) were at high risk for breast cancer. Of the screening breast US examinations, in 70% (75%), results were classified as Breast Imaging Reporting and Data System (BI-RADS) category 1 or 2, in 19% (21%), the results were classified as BI-RADS category 3, and in 7% (5%), results were classified as BI-RADS category 4. Of 63 aspirations or biopsies recommended and performed in 35 patients, in nine lesions were BI-RADS category 3, and in 54, lesions were BI-RADS category 4. Among 63 aspirations and aspirations, three lesions were malignant (all BI-RADS category 4, diagnosed with biopsy). All three cancers were smaller than 1 cm, were found in postmenopausal patients, and were solid masses. One cancer was found in each group, in 44% (91/207) patients, examination results were false-positives. Overall positive predictive value (PPV) for biopsy or aspirations performed in patients with BI-RADS category 4 masses was 63% (20/32). Over all confidence interval (CI): 1.7%. Overall cancer detection rate was 3.2 cancers per 100 women screened (three of 93; 95% CI: 0.8 cancers per 1000 women screened; 19 cancers per 1000 women screened).

### Conclusion:
Technologist-performed handheld screening breast US offered to women in the general population with dense breasts can aid detection of small mammographically occult breast cancers (cancer detection rate, 0.6-3.0 cancers per 1000 women screened), although the overall PPV is low. *RJH, 2012*
Definitions

- **Author**: fulfills all three ICMJE authorship criteria
- **First Author**: listed first among authors (assumed to have done most of the writing)
- **Corresponding author**: responsible for official correspondence
- **Study Guarantor**: responsible for integrity of the entire study (in industry sponsored research may not be employee or consultant of sponsor)
- **Acknowledgement**: made contributions, does not fulfill ICMJE criteria for authorship (must provide written agreement)
Dual First Authors

- We do not allow “Dual First Authors”
- Responsibility and accountability is unclear
- Hard to verify claim of equal contribution
- Authorship order best decided at the beginning of the study
Changing the Author List

- Once a manuscript is accepted for publication we do not allow changes in the author list.
- If a manuscript is “Under Consideration” we may allow changes if the author changes arise due to additional experiments or analysis requested in decision letter.
- Changes in authorship order – only with agreement of all authors.
- Disagreements about authorship order should be dealt with departmentally, or institutionally.
Areas of Concern

- “Guest” or “Honorary Author” - although listed on byline, may not have met authorship criteria for active participation in the research, manuscript drafting and approval.

- “Ghost Author” – Fulfills authorship criteria but not listed. Commonly associated with guest authorship in industry sponsored manuscripts.
Medical Papers by Ghostwriters Pushed Therapy

By NATASHA SINGER
Published: August 4, 2009

Newly unveiled court documents show that ghostwriters paid by a pharmaceutical company played a major role in producing 26 scientific papers backing the use of hormone replacement therapy in women, suggesting that the level of hidden industry influence on medical literature is broader than previously known.

Steep Drop

Wyeth’s sales of hormone therapies have dropped sharply since a federal study in 2002 found that drugs like Prempro could increase the risk of certain diseases.

The articles, published in medical journals between 1998 and 2005, emphasized the benefits and de-emphasized the risks of taking hormones to protect against maladies like aging skin, heart disease and dementia. That supposed medical consensus benefited Wyeth, the pharmaceutical company that paid a medical communications firm to draft the papers, as sales of its hormone drugs, called Premarin and Prempro, soared to nearly $2 billion in 2001.

But the seeming consensus fell apart in 2002 when a huge federal study on hormone therapy was stopped after researchers found that menopausal women who took certain hormones had an increased risk of invasive breast cancer, heart disease and stroke. A later study found that hormones increased the risk of dementia in older patients.
Guest Authorship and Ghostwriting in Publications Related to Rofecoxib

- Merck employees and medical publishing companies prepare manuscripts
- Recruit externally academically affiliated investigators typically for first or second authorship
- 22/24 (92%) clinical trials articles noted sponsorship
- Only 36/72 (50%) Review articles disclosed support

JAMA 2008;299:1800-1812
Background

- In 1980’s it was noted that as the number of authors per research paper had increased, listed authors may not have made important contributions to the manuscript.

- Slone (AJR 1996:167;571)
  - Undeserving authors increased from 9% in articles with 3 authors to 30% in those with 6 or more authors.
Honorary Authorship in Radiologic Research Articles: Assessment of Frequency and Associated Factors

Ronald L. Eisenberg, MD, JD
Long Ngo, PhD
Philip M. Boiselle, MD
Alexander A. Bankler, MD

Purpose: To quantify the frequency of perceived honorary authorship in radiologic journals and to identify specific factors that increase its prevalence.

Materials and Methods: This study qualified for exempt status by the institutional review board. An electronic survey was sent to first authors of all original research articles published in Radiology and European Radiology over 3 years. Questions included guidelines used for determining authorship, contributions of coauthors, the perception of honorary authorship, and demographic information. Univariable analysis of sample proportions was performed by using χ² tests. Multivariable logistic regression models were used to assess the independent factors that were associated with the probability of perceiving honorary authorship.
Eisenberg et. al,

- Surveyed first authors of articles published in *Radiology* and European Radiology over a 3 year period (392 respondents)
- 26% believed one or more authors listed did not meet ICMJE criteria
- Lower academic rank, fewer published manuscripts, and “working in environment where senior staff were automatically listed” were associated factors
More common in Europe & Asia?

- Eisenberg et. al., (Radiol:2011;259:479)
  18.8% in Radiology
  33.3% in European Radiology

- Hwang et. al., (Radiol:2003;226:16)
  22% in North America
  43% non North American submissions
Factors Associated with Perception of Honorary Authorship

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<th>Factor</th>
<th>Perception of Honorary Authorship (%)</th>
<th>$P$ Value</th>
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</table>
| Respondent is aware of the general issue of honorary authorship | Yes: 27.2 (75/276)  
No: 23.3 (27/116) | .422 |
| Respondent reports that department head is automatically listed as an author | Yes: 50 (48/96)  
No: 17.8 (51/287) | <.001 |
| Respondent reports that at least one coauthor performed only statistical analyses | Yes: 24 (20/83)  
No: 26.5 (82/309) | .653 |
Factors Associated with Perception of Honorary Authorship

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<th>Factor</th>
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<td>Respondent reports that department head is</td>
<td>3.76</td>
<td>&lt;.001</td>
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<td>is automatically listed as an author</td>
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<td>Academic rank</td>
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<tr>
<td>Fellow or instructor</td>
<td>2.82</td>
<td>&lt;.001</td>
<td>1.53, 5.19</td>
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<td>Assistant professor</td>
<td>0.92</td>
<td>.093</td>
<td>0.43, 1.99</td>
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<tr>
<td>Associate or full professor (reference condition)</td>
<td>1.00</td>
<td>NA</td>
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Reasons for Honorary Authorship

- Complexities of current multi-disciplinary research environment require broader recognition
- Departmental leaders efforts underlie research activities and deserve recognition; their support is need for promotion
- Cultural norm- may be required for ongoing appointment as Chief
Problems with Honorary Authorship

- Exploitative
- Undermines the scientific integrity of the study
- Undermines scientific accountability
- Risks for honorary author e.g. misconduct
- May constitute fraud
“Doctors and scientists who put their names to medical articles they have not written should be charged with professional misconduct and fraud, according to legal experts.”

“A guest author's claim for credit of an article written by someone else constitutes legal fraud, and may give rise to claims that could be pursued in a class action,...” The same offence could also support claims of “fraud on court” when drugs companies rely on ghostwritten articles in court cases.
Legal Remedies for Medical Ghostwriting: Imposing Fraud Liability on Guest Authors of Ghostwritten Articles

Simon Stern¹*, Trudo Lemmens²
1 Faculty of Law, University of Toronto, Toronto, Ontario, Canada, 2 Faculties of Law and Medicine, University of Toronto, Toronto, Ontario, Canada

Introduction

There are persistent concerns about the influence of the pharmaceutical and device industries on the medical literature, and particularly on the reporting of clinical trials, which can include the distortion of the true evidence base of medical interventions and overestimation of the clinical benefit of a drug used to treat patients [1]. An especially problematic issue involves the industry practice of publishing studies prepared by hired medical writers but signed by academic “guest authors” who are invited to add their names without fulfilling authorship criteria. In this case, “guest authorship” recommendations have not yet been widely embraced by the academic institutions, medical journals, and medical licensing organizations that would seem to have the most at stake in curbing this practice. Here, we discuss some of the reasons for this lack of response and suggest that the law may offer a solution, given these other institutions’ failure to impose sanctions.

Concerns about Guest Authorship

Guest authorship is a disturbing violation of academic integrity standards, which help to make a scientific theory or method admissible as evidence, according to the standards set out by the United States Supreme Court in Daubert v. Merrell Dow Pharmaceuticals [17]. By facilitating publication in peer-reviewed journals, guest authorship creates the impression that standards of academic independence and integrity have been satisfied even when they have not, and makes it more likely that the research will be treated as legally admissible even when this is inappropriate.

Publications on which academics appear as guest authors also give credibility to these authors in the legal setting. These articles are sometimes used to establish an
Where Is the Honor in Honorary Authorship?¹

The Merriam-Webster online dictionary (1) defines author as “one that originates or creates.” It is an active term. In biomedical research, authorship most commonly involves the creation of new knowledge. The process of scientific authorship is exciting and rewarding. The thrill of new discovery and the resultant recognition by one’s peers are a heady mix. The rewards of authorship may be considerable and be related to promotions, success in securing research grants, tenure, and employment as a consultant. No wonder scientific authorship is valued and sought after.

¹To describe individuals who, although listed on the byline as authors of an article, have not met authorship criteria for active participation in the research, in manuscript drafting, and in manuscript approval (5,6). In 1996, Slone (4) surveyed the first authors of 275 major articles published in AJR American Journal of Roentgenology in 1992 and 1993. In that survey, the prevalence of what Slone termed undeserved authors averaged 17%, and increased from 9% in articles with three authors to 30% in those with six or more authors. Slone reported that manuscripts with undeserved authors were most likely to in-
A Statement about Authorship from individual Members of the International Society for Strategic Studies in Radiology (IS3R)

….The ICMJE have issued stringent guidelines for appropriate assignment of authorship and other aspects of scientific publications…

The International Society on Strategic Studies in Radiology has unanimously endorsed the statement at their 2011 annual symposium and in addition the following IS3R members have personally underlined their support for the ICMJE criteria for authorship and are determined to ensure that colleagues in their department/institution/working group adhere to them fully.
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What You Always Wanted to Know and Never Asked

Publishing in Radiology: