

Spring, 2008

**SPLH 982/PSYCH 982:
Issues in Scientific Conduct**

Susan Kemper and Mabel Rice

Tuesdays, 1:00 – 3:50, 1051 Dole

It is no longer sufficient to be well-grounded in theory and research in order to succeed in the academic marketplace. You must also be a research entrepreneur, an accountant, a publicist, an editor, an artist, and an ethicist. You must be able to advocate for science and higher education, juggle competing demands, train and monitor assistants, and protect your rights and the rights of others. You must be advocate for academic freedom, protect the integrity of science, and monitor research misconduct. None of the knowledge and skill you need to succeed are part of the traditional curriculum in the behavioral sciences. We have developed this seminar on ***Issues in Scientific Conduct*** to address the challenges facing behavioral scientists who are just entering the academic profession. Our selection of topics is based on recent reviews by professional panels, as well as our accumulated experiences and our sense of everything we didn't learn in graduate school.

Grading:

Class Participation	20%		
Manuscript Review	20%	due Feb. 19	(post by 10 pm 18 th)
NIH Application, IRB, consent statement	20%	due Mar. 11	(post by 10 pm 10 th)
Blue Forms	20%	due Apr. 8	(post by 10 pm 8 th)
Ethical Scenarios	20%	due May 6	(post by 10 pm 6 th)

Readings:

Copies of Valians' *Why so Slow* and Goodman's *Intuition* have been ordered through KU Bookstore.

Most readings are on Ereserve through the KU Library website.
The password is INTEGRITY.

Supplemental readings listed in the Appendix are available in a file cabinet in 3031 DHDC.

There's also a BLACKBOARD course site where various documents have been posted. Most of the urls and links are also posted on BLACKBOARD so you should be able to access these sites from BLACKBOARD. You should find it listed under MY COURSES when you log on to BLACKBOARD (using your KUID and password).

You will be expected to upload each assignment THE NIGHT BEFORE IT IS DUE (by 10 pm the night before class) to BLACKBOARD using the Digital Dropbox feature. You should then send the assignment to the entire class roster to facilitate in-class discussions. Individual class members may print out assignments for discussion and we should also be able to examine assignments in-class over the internet. Please provide a hardcopy of each assignment for Profs. Rice and Kemper.

Jan. 22 Introduction to the Seminar**Jan. 29 The Past, Present, & Future of Universities**

from Franklyn, C. A. H. (1970): *Academical dress: From the middle ages to the present day*. Lewes, Sussex, England: W. E. Baxter. (book on Watson Library course reserve)

Chapter 1: Origin of Academic Dress

Chapter 2: University Degrees and Ceremonies

pp. 17 – 20: Hood and Tippet

p. 160: Chart to show the evolution of caps

p. 215- General comments on robes and gowns

p. 216: American usage

Chapter 14: Memoranda

Gumpport, P. J.. & Snyderman, S. K. (2002). The formal organization of knowledge. *The Journal of Higher Education*, 73, 375-408.

Merrill Advanced Study Center (2003): readings from the policy series White Paper #107 “Recruiting and Training Future Scientists: How Policy Shapes the Mission of Graduate Education,”
Available at <http://merrill.ku.edu/publications/2003whitepaper/contents.html>

D. Stewart: Policy issues and institutional responses

M. Crago: How policy shapes the mission of graduate education

M. Crago: Good news, bad news: graduate studies and research in the Canadian context

Byrne, R. (2005). Higher Education 2015: How will the future shake out? *Chronicle of Higher Education* Nov. 25, p. A9-A19

Fogg, P. (2007). A new standard for measuring doctoral programs. *Chronicle of Higher Education*, Jan. 12, A8-A13.

Feb. 5 Choosing the Behavioral Sciences as a Career

Sternberg, R. J (1994): Psychology: The Good, the Bad, and the Ugly (As Viewed from the Planet Remus). *The General Psychologist*, 30 (3), 73 – 79.

Sternberg, R. J. (1997): What Do Students Still Most Need to Learn about Research in Psychology. *APS Observer*, Sept., p. 14.

Merrill Advanced Study Center (2003): readings from the policy series White Paper #107, “Recruiting and Training Future Scientists: How Policy Shapes the Mission of Graduate Education,”
Wilcox, K. (2003): Victim of success: a disciplinary case study.
Available at <http://merrill.ku.edu/publications/2003whitepaper/contents.html>

Bryant, R. A., & Marks, A. (2005). Go ahead, Hagggle. *Chronicle of Higher Education*, Nov. 11.

Conrad, C. (2005). The womanly art of negotiation. *Chronicle of Higher Education Careers*, July 22.

Dowdall, J. (2005). When candidates misbehave. *Chronicle of Higher Education Careers*, June 17.

Newberg, H. (2005). The woman physicist's guide to speaking. *Physics Today*, Feb. 2005, 54.

Feb. 12 Entering the Scientific Community: Publishing, Impact, Intellectual Property

Harlow, H. F. (1962): Fundamental Principles for Preparing Psychology Journal Articles. *Journal of Comparative and Physiological Psychology*, 55 (6), 893 –896.

Sternberg, R. J. (2001): Where was it published? *American Psychological Society*, 14 (8), 13 – 14.

Murray, B. (1998): The authorship dilemma: who gets credit for what? *APA monitor*, 29(12), pp. 1, 31.

Costa, M., Gatz, M.: Determination of authorship credit in published dissertations. *Psychological Science*, 3, pp. 352 – 357.

Jensen, M. (2007). The new metrics of scholarly authority. *Chronicle of Higher Education*, June 15, B6 – 8.

Diener, E., (2006). Introduction to the special section: Professional issues in psychological science. *APS Observer*, 1, 312-315.

Joy, S. (2006). What should I be doing, and where are they doing it? *APS Observer*, 1, 346-363.

Zacks J. M., & Maley, C. J. (2007). What's hot in psychology? *APS Observer*, 20, 23-27.

Byrnes, J. P. (2007). Publishing trends of psychology faculty during their pretenure years. *Psychological Science*, 18, 283-286.

Roediger, H. L. (2006). The *h* index in science: A new measure of scholarly contribution. *APS Observer*, 19, 37-40

Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National Academic of Sciences*, 103, 16569-16572.

Wasley, P. (2007). Faculty-productivity index offers surprises. *Chronicle of Higher Education*, Nov. 16, A10 – A12.

Also visit WWW.SCOPUS.com

Fyffe, R. & Walter, S. (2004). *The Digital Difference: Responsible conduct of research in a networked world*. University of Kansas.

KU's Intellectual Property Policy at http://www.provost.ku.edu/policy/intellectual_property_policy

KU's Policy on Access to Scholarly Information at http://www.provost.ku.edu/policy/scholarly_information/scholarly_resolution.htm

And take a look at KU ScholarWorks at <http://kuscholarworks.ku.edu>

Feb. 19: Peer Review

You are to prepare a review of the manuscript “Age differences in veridical and reconstructive recall of syntactically and randomly segmented speech” which was submitted to the *Journal of Gerontology: Psychological Sciences*. It will be posted to the BLACKBOARD website.

You should post your review to BLACKBOARD to all members of the seminar for critique and discussion. Provide hardcopies for Profs. Rice and Kemper.

After the seminar, the actual reviews of the manuscript will be posted along with the authors’ response, the revised manuscript, and second round of reviews, and the actual publication.

You prepare your reviews following the guidelines for reviewing of your favorite professional journal. Typically journals publish instructions for authors and for reviewers on-line. You should locate and print out the instructions for reviewers for your favorite journal and bring copies to distribute in class.

Nickerson, R. S. (2005). What authors want from journal reviewers and editors. *American Psychologist*, Sept., 661-662.

Roediger, H. L. (2007). Twelve tips for reviewers. *APS Observer*, 20, 41-43.

Feb. 26 Grantsmanship, Collaboration, Data Sharing, Data Management

Cataldo, M. F. (????): How Not to Get a Research Grant. *EHAB Bulletin*, 9(2), pp. 25 – 27.

Achenbaum, W. A. (1995): *Crossing Frontiers: Gerontology emerges as a Science*. Cambridge: Cambridge University Press.

Chapter 5: Risk taking in the modern research university.

1. NIH overview

Start with Peggy McCardle’s powerpoint on NIH funding posted to the BLACKBOARD course site

Tour NIH institutes and determine which one might be interested in your topic
<http://www.nih.gov/icd/index.html>

Try search for some people or topics using the CRISP database at
<http://crisp.cit.nih.gov/>

Tour through the study sections and try to find at least 2 that would be appropriate for your topic,
<http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescription/>

then identify the current members of the study section

<http://cms.csr.nih.gov/PeerReviewMeetings/StudySectionRosters.htm>

2. check out the Peer Review Process
http://grants1.nih.gov/grants/peer_review_process.htm

3. Review Grant Applications Basics
http://grants1.nih.gov/grants/grant_basics.htm

and the Helpful tips
http://grants1.nih.gov/grants/planning_application.htm
http://grants1.nih.gov/grants/writing_application.htm

4. Get the forms
the paper forms are available at
<http://grants.nih.gov/grants/funding/phs398/phs398.html>

but electronic submission is now required using the eforms at
<http://grants.nih.gov/grants/funding/424/index.htm>

We will view the NIH Grant Review Process video at
<http://cms.csr.nih.gov/ResourcesforApplicants/InsidetheNIHGrantReviewProcessVideo.htm>

Mar. 4 Discussion of Grant Writing

Paul Diedrich from LSI will be here to offer advice and guidance on developing budgets and filling out the forms for your March 11 assignment.

Jill Shaddy from the BNCD will be here to offer advice and guidance on developing Human Subjects sections and IRP/HIPPA issues

Mar. 11: Grant Writing 101

1. You are to prepare a draft NIH research application using the electronic PHS 398 that correspond to the following sections:

- Face page
- Performance Sites
- Project Information
- Bio Sketch for PI.
- Budgets for year 1- 3 and cumulative budget
- Human Subjects

2. You must also complete training in the responsible conduct of science using the tutorial at the KU Center for Research websites:

http://www.rcr.ku.edu/hscl/hsp_tutorial/000.shtml
http://www.rcr.ku.edu/hscl/hipaa_tutorial/000.shtml

3. and you must prepare a request for approval of your proposed research by the Human Subjects

Committee- Lawrence, following the guidelines and procedures found at http://www.rcr.ku.edu/hsc/hscl_handbook/app_b.shtml

You should post your application to the BLACKBOARD website for all members of the seminar to review. Bundle your sections together into a common document (rather than the individual eforms). Provide hardcopies for Profs. Rice and Kemper.

Here’s the Table of Contents for an esubmission; the parts you are to complete are indicated; the parts you do not need to complete (the actual research plan) are grayed out. We will provide some additional guidelines in class.

**424 R&R and PHS-398 Specific
Table of Contents**

	<i>Page Numbers</i>
SF 424 R&R Face Page	1
Table of Contents	3
Research & Related Project/Performance Site Location(s)	_____
Additional Locations	_____
Research & Related Other Project Information	_____
Project Summary/Abstract (Description)	_____
Public Health Relevance Statement	_____
Facilities & Other Resources	_____
Equipment	_____
Other Attachments	_____
Research & Related Senior/Key Person	_____
Biographical Sketches for each listed Senior/Key Person	_____
Current and Pending Support for each listed Senior/Key Person	_____
Additional Senior/Key Person Profiles	_____
Additional Biographical Sketches	_____
Additional Current and Pending Support	_____
Research & Related Budget – Year 1	_____
Research & Related Budget – Year 2	_____
Research & Related Budget – Year 3	_____
Research & Related Budget – Year 4	_____
Research & Related Budget – Year 5	_____
Research & Related Budget – Cumulative Budget	_____
Research & Related Consortium Budget	_____
SBIR/STTR Information	_____
Research & Development Outside the U.S.	_____
Commercialization Plan	_____
Prior SBIR Phase II Awards	_____
PHS 398 Specific Cover Page Supplement	_____
PHS 398 Specific Modular Budget	_____
Personnel Justification	_____
Consortium Justification	_____
Additional Narrative Justification	_____
PHS 398 Specific Research Plan	_____
Introduction to Application	_____
Specific Aims	_____
Background and Significance	_____
Preliminary Studies/Progress Report	_____
Research Design and Methods	_____
Inclusion Enrollment Report	_____
Progress Report Publication List	_____
Human Subjects Sections	_____
Protection of Human Subjects (Includes Data & Safety Monitoring Plan)	_____
Inclusion of Women and Minorities	_____
Targeted/Planned Enrollment Table	_____
Inclusion of Children	_____
Vertebrate Animals	_____
Select Agent Research	_____
Multiple PI Leadership Plan	_____
Bibliography & References Cited	_____
Consortium/Contractual Arrangements	_____
Resource Sharing Plan (Data Sharing and Model Organism Sharing)	_____
Letters of Support	_____

PHS 398 Checklist	_____
PHS 398 Specific Assurances/Certification Explanation	_____
Appendix	_____
Number of Attachments in Appendix	_____

Mar. 18 Spring Break

Mar. 25 Tenure and Academic Freedom

Ceci, S. J., Williams, W. M., & Mueller-Johnson, K. (2006). Is tenure justified? An experimental study of faculty beliefs about tenure, promotion, and academic freedom. *Behavioral and Brain Sciences*, 29, 553-594.

Apr. 1 Diversity

Valian, V. (1998) *Why so Slow?* Cambridge, MA: MIT Press.
 Chapter 1: Gender Schemas at Work
 Chapter 11: Women in Academia
 Chapter 12: Professional Performance and Human Values

Williams, W. M. & Ceci, S. J. & (2007). Introduction: Striving for perspective in the debate on women in science. In Ceci, S. J. & Williams, W. M. (Eds.). *Why aren't more women in science?* Washington, DC: APA.

Apr. 8 Gaining Tenure

You are to complete Form AA-4: Promotion and Tenure Recommendation ("The Blue Form") as if you were standing for promotion and tenure at the University of Kansas. The forms and guidelines for filling them out are available at:

http://www.provost.ku.edu/policy/faculty/docs/pt_guidelines.pdf

http://www.provost.ku.edu/policy/faculty/docs/pt_blueform.doc

You should post your T&P forms to the BLACKBOARD website for all members of the seminar to review. Be sure to allow sufficient time for dealing with the formatting! Provide hardcopies for Profs. Rice and Kemper.

Apr. 15 Scientific Integrity: Cases Studies of Misconduct

Rmyer, R. (1992): Annals of Science: A Silent Childhood, Parts 1 and 2. *The New Yorker*, ???.

plus video to be shown in class: *The Secrets of the Wild Child*

Annet, M. M. (2001): Article Alleges 1939 Study Taught Children to Stutter. *ASHA Leader*, 6(13), p. 1.

Yairi, E., Ambrose, N. (2001): The Tudor Experiment and Wendell Johnson: Science and Ethics Reexamined. *ASHA Leader*, 6(13), p. 17.

Dyer, J. (2001): Officials apologize for tests of stuttering. *The Mercury News*, retrieved from <http://www.mercurycenter.com> on Jun 18, 2001.

Dyer, J. (2001): An experiment leaves a lifetime of anguish. *The Mercury News*, retrieved from <http://www.mercurycenter.com> on Jun 18, 2001.

Dyer, J. (2001): Ethics and Orphans: The 'Monster Study.' *The Mercury News*, retrieved from <http://www.mercurycenter.com> on Jun 18, 2001.

Associated Press (2003): Orphans sue the 'Monster Study.' *MSNBC News*, retrieved from <http://www.msnbc.com> on Aug 7, 2003.

Apr. 22 Scientific Integrity: Misconduct, Science, and Public Policy

Nisbet, M. C. & Mooney, C. (2007). Framing Science. *Science*, 316, p. 56.

Kavanagh, E. (Ed.) (2007). Letters. *Science*, 317, 1168-1170.
Letters Holland, Pleasant, Quatrano, Gerst, and Response by Nisbet and Mooney

Taubes, G. (2007). Do we really know what makes us healthy? *The New York Times Magazine*, Sept. 16.

Rosen, J. (2007). The Brain on the Stand. *The New York Times Magazine*, March 11.

Newcombe, N. S. (2007). The truth about the mommy wars. *The Chronicle of Higher Education*, Oct. 19, B20.

Martinson, B. C., Anderson, M. S., de Vries, R. (2005). Scientists behaving badly. *Nature*, 435, 737-738.

Monastersky, R. (2005). Scientific misbehavior is rampant, study of 3,000 researchers finds. *Chronicle of Higher Education*, 51, A11.

Goldberg, C., & Allen, S. (2006). Researcher admits fraud in grant data. *The Boston Globe*: March 18, 2005.

Kintisch, E. (2005). Researcher faces prison for fraud in NIH grant application and papers. *Science*, 5716, p. 1851.

NIH response at
<http://www.nih.gov/news/granteemisconduct.htm>

April 29 Scientific Integrity: Misconduct and Ethical Standards

Annas, G. J., Grodin, M. A. (1992): *The Nazi Doctors and the Nuremberg Code*. New York: Oxford University Press.
Chap. 10: The Influence of the Nuremberg Code

Review the CSE's White Paper on Promoting Integrity in Scientific Journal Publications at
http://www.councilscienceeditors.org/editorial_policies/white_paper.cfm

Rosenthal, R. (1994): Science and Ethics in Conducting, Analyzing, and Reporting Psychological Research. *Psychological Science*, 5(3), pp. 127 – 133.

Saxe, L. (1996): Scientific Integrity: We Have Met the Enemy and It Is Us. *APS Observer*, 20, pp. 16-20.

Younger, J. S. (1998): The Scientific Misconduct Process. *JAMA*, 279, pp. 62 – 64.

The Biomedical Investigator's Handbook for Researchers Using Animal Models, Chapter 6 (1987).
Foundation of Biomedical Research.

May 6 Scientific Integrity: Misconduct and Ethical Issues

You should develop 5 scenarios that raise ethical issues involved in the conduct of science. You might model your scenarios after those developed by the Online Ethics Center for Engineering and Science at Case Western Reserve University (there is a link on the BLACKBOARD website).

You should post your 5 scenarios to the BLACKBOARD website and distribute to all members of the seminar for reaction and evaluation. Provide hardcopies for Profs. Rice and Kemper.

To inspire you, we recommend:

Goodman, A. (2006). *Intuition*. New York: Dial Press.

APPENDIX: supplemental readings available in file cabinet in Child Language Suite, 3031 DHDC

1. Academic Freedom

A continuing controversy:

Tell, D. (2001): Slamming Sami! Retrieved from <http://theweeklystandard.com>, Oct 03.

Walsh, S. (2003): U. of South Florida violated professor's academic rights, report says. *Chronicle of Higher Education*, May 30, p. A13.

AAUP report at <http://www.aaup.org/Com-a/Institutions/archives/2003/USF.htm>

New York Times Sunday January 29, 2006 Climate expert says NASA tried to silence him. (reporter: Andrew C. Revkin)

A new controversy:

Hemmenway, R. (2005). Evolution Statement.

Leshner, A. (2005). Redefining Science. *Science*, 309, p. 221.

Hoeflich, M. (2005). Academic freedom at stake. *Lawrence Journal World*, Nov. 30

Tankard, F. (2005). E-mail angers "fundies." *University Daily Kansan*, Nov. 30.

Klepper, D. & Bauer, L. (2005) KU pulls intelligent design course. *KC Star*, Dec 2, 2005

Maines, S. (2005) Intelligent design course canceled. *Lawrence Journal World*, Dec 2, 2005

Klepper, D. (2005) Campus autonomy flunking slew of political tests. *KC Star*, Dec 3, 2005

Rothschild, S. & Maines, S. KU could face heat in Topeka, *Lawrence Journal World*, Dec 3, 2005

Maines, S. K-State, others tackling intelligent design in classroom. *Lawrence Journal World*, Dec 4, 2005

Leshner, A. (2005) The Current Context for Science, Society and Public Policy. Merrill Advanced Studies Center, 109, www.merrill.ku.edu.

2. Diversity

APA: Surviving and thriving in academia

APA: Characteristics of Graduate Departments in Psychology

Young Women Seeking Tenure May Want to Consider Waiting a While. A Long While. *Chronicle of Higher Education*.

Science (1993): Task Force: Level the Playing Field. *Science*, 260, May 14.

Holloway, M. (???): A Lab of Her Own. *Scientific American*, ???.

Crease, R. P. (1992): Canadian Chemist Takes on Working Women. *Science*, ???.

Crease, R. P. (1993): Fallout from Paper on Working Mothers. *Science*, 259, Mar 12, pp. 1530 – 1531.

Etzkowitz, H., Kemelgor, C., Neuschatz, M., Uzzi, B., Alonzo, J. (1994): The Paradox of Critical Mass of Women in Science. *Science*, 266, Oct 7, pp. 51 – 52.

Tilly, L. A. (1996): Historic Disparities. *Science*, Mar 29, pp. 1814 – 1815.

Roush, W. (1996): No Women Chemists at Women's College. *Science*, 272, Apr 5, p. 24.

Science (1996): World Women in Science. Vol. 272, May 17, p. 957.

Tilghman, S. M. (???): Science Vs. the Female Scientist. *Chronicle of Higher Education*.

Koertge, N. (1994): Are Feminists Alienating Women from the sciences? *Chronicle of Higher Education*, Sep 14, p. A80.

Weilepp, A. E. (1992): Female Mentors in Short Supply. *JAMA*, 267, pp. 739 – 743.

Sandler, B. R. (???): Success and Survival Strategies for Women Faculty Members. Association of American Colleges.

Yentsch, C. M., Sindermann, C. J. (1992): *The Woman Scientist*. New York: Planum Press.

- Goldberg, B. (1994): A Few Good Men. *ASHA*, November, pp. 39 – 52.
- Magner, D. (1995): Men on the Firing Line. *Chronicle of Higher Education*, Oct 20, pp. A17 – A19.
- Magner, D. (???): The New Generation. *Chronicle of Higher Education*, ???.
- Wilson, R. (???): A Cornell Plan for a Workshop on Gender Angers Women. *Chronicle of Higher Education*, xxx.
- Whole issue of *The Monthly Forum on Women in Higher Education*, Dec 1995, specially pp 10 -11: Maternity Leave and pp. 23- 27: The Gender pay gap
- Lubinski, Benbow, Shea, Eftekhari-Sanjani, Halvorson (2001): Men and women at promise for scientific excellence. *Psychological Science*, 12, 309 – 317.
- Kohout, J., Williams, S. (1999): Far more psychology degrees are going to women. *APA Monitor*, November, p. 10.
- Hagmann, M. (1999): EU confronts the gender gap. *Science*, 286, Nov 26, p. 1659.
- Lawler, A. (1999): Tenured women battle to make it less lonely at the top. *Science*, Nov 12, pp. 1272 – 1278.
- Lawler, A. (2000): Silent no longer: 'Model minority' mobilizes. *Science*, Nov 10, pp. 1072 –1077.
- Cullotta, E. (Ed.) (1996): Maintaining Diversity in Science. *Science*, 264, Mar 29, pp. 1901 – 1905.
- Malcom, S. M. (1999): Fault Lines. *Science*, May 21, p 1271.
- Mervis, J. (1998). Wanted: A Better Way to Boost Numbers of Minority Ph.D.s. *Science*, 281, Aug 28, pp. 1268 – 1270.
- Williams, J. C. (2004). Singing the baby blues. *Chronicle of Higher Education*, Apr. 23.
- Wilson, R. (2005). Family Science. *Chronicle of Higher Education*, July 22.

3. Scientific Integrity and Misconduct

- How Young Korean Researchers helped unearth a scandal. *Science*, Jan 6 2006 (311) pp 22-23
 ...And how the problems eluded peer reviewers and editors *Science*, Jan 6 2006 (23-25)
- Normile, Vogel, & Couzin, South Korean Team's Remaining Human Stem Cell Claim Demolished. *Science*, 311 (Jan 13, 2006), pp 156-157
- Shelly, B. (2002): Fixated on minor grudges. *KansasCity.com*, retrieved from <http://www.kansascity.com> on Apr 12, 2002.
 and following coverage
- Toobin, J. (2003): Speechless. *The New Yorker*, Jan 27, pp. 32 – 39.
- The Boston Globe*: Researcher admits fraud in grant data. March 18, 2005.
- Science*. Researcher faces prison for fraud in NIH grant application and papers, March 25, 2005.
- Woodward, J., Goodstein, D. (1996): Conduct, Misconduct, and the Structure of Science. *American Scientist*, 84, pp. 479 – 489.
- Roberts, L. (1991): Misconduct: Caltech's Trial by Fire. *Science*, 253, Sep 20, pp. 1344 – 1347.
- Taubes, G. (1995): Plagiarism Suit Wins. *Science*, 268, May 26, p. 1125.
- Marshall, E. (1995): Suit Alleges Misuse of Peer Review. *Science*, 270, Dec 22, pp. 1912 – 1914.
- Marshall, E. (1996): Fraud Strikes Top Genome Lab. *Science*, 274, Nov 8, pp. 908 – 910.
- Marshall, E. (1997): Is Data Hoarding Slowing the Assault on Pathogens? *Science*, 275, Feb 7, pp. 777 – 781.
- Agnew, B. (1996): Universities Attack False Claims Verdict. *Journal of NIH Research*, 8, June, pp. 27 – 28.
- Agnew, B. (1997): False Claims: Alabama Wins but Stakes Soar in Minnesota Case. *Journal of NIH Research*, 9, March, pp. 30 – 31.
- Wilkins, E. (???): Gynecologist Struck off for Research Fraud. *London Times*, ???.
- Hawkes, N. (???): Lying Your Way to Medicine's Glittering Prizes. *London Times*, ???.
- Marshall, E. (1999): Two Former Grad Students Sue. *Science*, 284, Apr 23, pp. 562 – 563.
- Marshall, E. (1999): Shutdown of Research at Duke. *Science*, 284, May 21, p. 1246.

- Eichenwald, K., Kolata, G. (1999): Drug Trials Hide Conflicts for Doctors. *The New York Times*, May 16, pp. 1, 28.
- Lawrence Journal-World (???): Researchers accused of swindling millions from Medical school. ???.
- Hilts, P. J. (1997): University forced to pay \$1.6 million to researcher. *The New York Times*, Aug 10.
- Marshall, E. (1997): A bitter battle over insulin gene. *Science*, 277, Aug 22, pp. 1028 – 1030.
- Barinaga, M. (1997): UCSF case raises questions about grant idea ownership. *Science*, 277, Sep 27, pp. 1430 – 1431.
- Pennisi, E. (1997): Haeckel's embryos: Fraud rediscovered. *Science*, 277, Sep 5, 1997.
- Friedly, J. (1997): ORI's self-assessment: a batting average of .920? *Science*, 275, Feb 28, p. 1255.
- Hall, S. S. (1998): Lethal chemistry at Harvard. *The New York Times Magazine*, Nov 29, pp. 121 – 128.
- Mann, C. C. (2000): Misconduct alleged in Yanomamo studies. *Science*, 289, Sep 29, pp. 2251 – 2252.
- Marshall, E. (2000): How prevalent is fraud? *Science*, 290, Dec 1, pp. 1662 – 1663.
- Marshall, E. (1999): Misconduct case that won't go away. *Science*, 286, Nov 5, pp. 1076 – 1077.
- Jayson, S. (2001): Professor quits amid ethics charges. *Austin American Statesman*, retrieved from <http://www.austin360.com> on Jul 13, 2001.
- Marshall, E. (2000): Patent suit pits postdoc against former mentor. *Science*, 287, Mar 31, pp. 2399 – 2400.
- Marshall, E. (2001): Procedures faulted in fatal asthma Trial. *Science*, 293, Jul 20, pp. 405 – 406.
- Jacobson, J. (2005). MIT fires *biology professor who admitted faking data*. *Chronicle of Higher Education*, Nov. 11.
- Science (2005): Tenured UCLA professor under fire. *Science*, 308, 37.