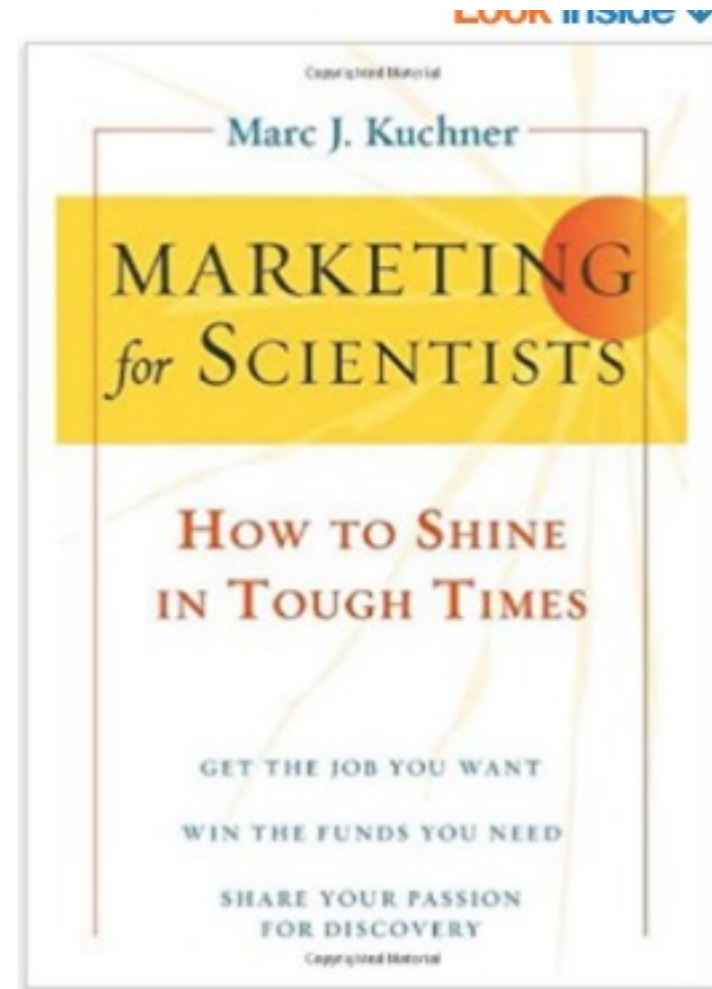


A marketing guide for early career scientists

Emmanuel Boss, UMaine

- Brand – reputation.
- Conduct: Be kind and nice. People notice.
- Share your results, ideas, instruments and data.
- Work hard. People notice.
- Follow your heart.



A book I did not read. Maybe good?

You are your brand

Your good name as a human being is your most important asset. Don't tarnish it.

Your name appears on your work. Make sure it portrays who you are (don't co-author work you are not proud of and that you do not understand).

We are all sometimes wrong and sometimes have typos. Do your utmost to *not* have a reputation of being sloppy as people will assume it is not only in writing.

Don't let financial incentives get the best of you. Your peers will never forget if you sold out for \$\$\$s as a consultant for a cause you know has no merit.

Conduct

Live by your own ideals.

Be happy for other people success. There is room for all.

Be kind, share, help. It will come back to you with dividends.

Don't expect anything and you will only be surprised for the better.

If you can, work on topics/solutions of interest to a wide audience. It will increase the number of people you touch and that are happy to have you.

Conduct (continued)

It is a small community. Whatever you say or do is being noticed.

Don't say anything about anyone you are not willing to say to their face. It is likely to come back and bite you.

Don't pretend/fake/lie. It is hard to remember those...

Learn to say NO. Better to dance well in a few weddings than limp in many.

Give people the benefit of the doubt (until you can't).

Conduct (continued)

If a colleague does something you don't agree with, consider that they are coming from a different place than you. Try to figure it out before judging.

Be frugal with grant funds (but remember not to be penny wise and pound foolish). If you cannot mentally explain to your neighbor an expenditure, you probably shouldn't do it (it is his money your are spending).

Common Scientific Mis-conduct

- Misconduct is often not clear-cut between “major” and “minor”.
- Certain types of “questionable” actions are difficult to judge or avoid.
- Doing Science can be a “messy” business.
- Vigilance and self-awareness are essential.

Common examples:

Taking credit for ideas from others;

Ignoring some data

Altering data slightly

Not reporting poor results

Poor citation of relevant work by others

Rejecting proposals or papers of competitors

“Borrowing” ideas (v. difficult to define / prove)

Exaggeration of significance or quality of work

Poor scientific method

Table 1 | Percentage of scientists who say that they engaged in the behaviour listed within the previous three years (n = 3,247)

Top ten behaviours	All	Mid-career	Early-career
1. Falsifying or 'cooking' research data	0.3	0.2	0.5
2. Ignoring major aspects of human-subject requirements	0.3	0.3	0.4
3. Not properly disclosing involvement in firms whose products are based on one's own research	0.3	0.4	0.3
4. Relationships with students, research subjects or clients that may be interpreted as questionable	1.4	1.3	1.4
5. Using another's ideas without obtaining permission or giving due credit	1.4	1.7	1.0
6. Unauthorized use of confidential information in connection with one's own research	1.7	2.4	0.8 ***
7. Failing to present data that contradict one's own previous research	6.0	6.5	5.3
8. Circumventing certain minor aspects of human-subject requirements	7.6	9.0	6.0 **
9. Overlooking others' use of flawed data or questionable interpretation of data	12.5	12.2	12.8
10. Changing the design, methodology or results of a study in response to pressure from a funding source	15.5	20.6	9.5 ***
Other behaviours			
11. Publishing the same data or results in two or more publications	4.7	5.9	3.4 **
12. Inappropriately assigning authorship credit	10.0	12.3	7.4 ***
13. Withholding details of methodology or results in papers or proposals	10.8	12.4	8.9 **
14. Using inadequate or inappropriate research designs	13.5	14.6	12.2
15. Dropping observations or data points from analyses based on a gut feeling that they were inaccurate	15.3	14.3	16.5
16. Inadequate record keeping related to research projects	27.5	27.7	27.3

Note: significance of χ^2 tests of differences between mid- and early-career scientists are noted by ** ($P < 0.01$) and *** ($P < 0.001$).

From Martinson et al., "Scientists behaving badly", Nature, 2005

Share

Have your work available to all and free of charge (remember your neighbor has paid for it). This should include only materials you feel comfortable about sharing.

Don't worry about copyrights when you do not derive any direct financial profit from sharing.

Google + 1 click should be all it takes to access your work. The likelihood it will be accessed goes down exponentially with the number of clicks.

Sharing = many paper by people doing the work you don't have time for.

Share (Matt Mazloff)

Never let your fear of looking naive or stupid stop you from asking questions. We should always strive to better ourselves .

Never hesitate to call out your peers if you have constructive criticism to offer. They will appreciate the help.

Work hard

You have the privilege to have a job that can be very fun and take you to some of the most amazing places on Earth. You don't want anybody think it was a waste.

No matter how fast you are, you cannot accomplish much w/o working hard.

Remember to take breaks, play and clear your mind. Some ideas do not appear while you stare at a computer screen all day. We are all susceptible to burnout.

Be reactive. Don't let people wait for your response. They will choose to work with those that respond.

Follow your heart

When you do what you love, you will spend much time doing it (did I say work hard?).

When you do what you love, you will learn to do it well.

When you do what you love, it shows.

When you do what you love, you are happy. People are attracted to happy people.

When you do what you love, you will have no regrets if things don't work out.

DEFINING RESEARCH INTEGRITY

The Panel defined *research integrity* as the coherent and consistent application of values and principles essential to encouraging and achieving excellence in the search for, and dissemination of, knowledge. These values include **honesty, fairness, trust, accountability, and openness.**

<i>Honesty</i>	Being straightforward, and free of fraud and deception
<i>Fairness</i>	Being impartial and using sound judgment free of prejudice or favouritism
<i>Trust</i>	Being reliable, as a person or institution, through character and action
<i>Accountability</i>	Being responsible and answerable for one's actions
<i>Openness</i>	Being transparent in process and practice, as characterized by visibility or accessibility of information

A Universal Ethical Code for Scientists? (from the UK)

Rigour

Rigour, honesty and integrity

- Act with skill and care in all scientific work. Maintain up to date skills and assist their development in others.
- Take steps to prevent corrupt practices and professional misconduct. Declare conflicts of interest.
- Be alert to the ways in which research derives from and affects the work of other people, and respect the rights and reputations of others.

Respect

Respect for life, the law and the public good

- Ensure that your work is lawful and justified.
- Minimise and justify any adverse effect your work may have on people, animals and the natural environment.

Responsibility

Responsible communication: listening and informing

- Seek to discuss the issues that science raises for society. Listen to the aspirations and concerns of others.
- Do not knowingly mislead, or allow others to be misled, about scientific matters. Present and review scientific evidence, theory or interpretation honestly and accurately.

Important things I have not yet discussed

Advisor – student relationship.

The tyranny of the numbers (h-factor, journal impact factors, etc'). The need to fight for diversity.

Papers – the most important products of our work.
When should you decide the content is sufficient?
Interaction with reviewers and journals.

Papers – not the only product!