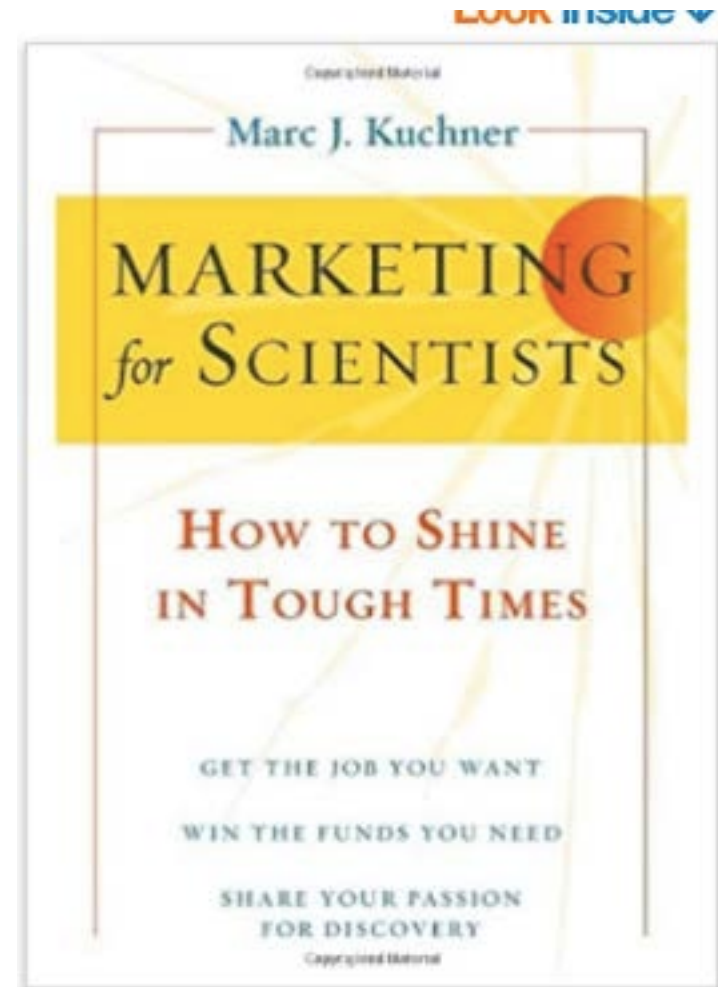# Advice for Young Scientists on Fruitful Membership in the Scientific Community

By Emmanuel Boss

- Brand – reputation.

- Conduct: Be kind and nice. People notice.

- Share your results, ideas, instruments and data.

- Work hard. People notice.

- Follow your heart.

Marc J. Kuchner

MARKETING for SCIENTISTS

HOW TO SHINE IN TOUGH TIMES

GET THE JOB YOU WANT

WIN THE FUNDS YOU NEED

SHARE YOUR PASSION FOR DISCOVERY

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. It is hard to build and easy to loose.

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 money (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).

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.

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, your are happy. People are attracted to happy people.

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

Data

"Dealing" with data that does not fit your model.

Beware of hidden bias. We tend to treat data that fits our hypothesis differently from those that does not.

Data is 'sacred'. You do not remove data unless you are 110% convinced it is wrong and that you performed the same tests on ALL the data.

Use robust techniques to allow you to use all the data w/o it affecting your regression model too much (e.g. use absolute value rather the leasts-squares).

Output

Papers – An extremely important product of our work.

When should you decide the content is sufficient?

What journal should you send your paper to?

Interaction with reviewers – your best friend! The last to see your work before it goes public. It is a collaboration.

Papers – not the only product! (in our field: courses, codes, protocols, instruments, Apps are all appreciated).

Other important topics

Advisor – student relationship.

The tyranny of the numbers (h-factor, journal impact factors, etc').

The need to fight for *diversity* in:
- Experiences – backgrounds, cultures.
- Approaches – lab, field, theory. Top-down vs. bottom up. Empirical vs. theoretical.
- Single vs. multi-authors.
- Reviews vs. original work.
- Large output vs. low output.
- Variety of contributions.

Advise from Peter Franks

1. Be a good person. You never know how people you interact with might become important to you later in life. Treat everyone with respect, and be open to learning from them.

2. Learn to write well. This will facilitate every aspect of your science.

3. Figure out what you want your legacy to be. For me, it's the people (especially the students) with whom I interact. For others, it will be their scientific papers. Use this to help focus your energies and your limited time.

4. Recognize that life has ups and downs: we all lose our mojo at some point(s). This is normal, and you will get through it. Persist, and each day when you wake up, have a plan for one thing that will contribute to a paper.

5. Be a mentor and teacher. You learn a lot about yourself and the world by helping other people learn about themselves and the world.