Professor Virginia Walbot
Department of Biology

• INCREASING YOUR VISIBILITY
• GETTING PUBLISHED

GETTING PUBLISHED

Breakthrough, high impact
Solid, important and new in your field
Confirmatory (few citations)
Technique (lots of citations)

Is there more effort for better papers?
Quantifying Publications

- **Impact factor**: average number of citations per article in a journal - measures the reviews & hot articles primarily.
- **Citation tracking**: number of times per year that your article is cited.
- **Citation classic**: paper with >100 citations.
- **Citation "star"**: person with >1000 citations.

When to write? **Today.**

- Prepare “final” figures and legends for group meetings and posters.
- Write up Materials & Methods at least once per month.
- Make an outline of your “goal” manuscript -- use it as a checklist of what’s left to do.
- Write an Introduction as an exercise in your grasp of the literature and what you are doing.

Goal: 50% of manuscript written before you “start” writing!
Tricks to writing effectively

LOGIC IS MORE IMPORTANT INITIALLY THAN PERFECT LANGUAGE.

- First, say it out loud. Practice explaining each figure to an imaginary friend (or real one) several times until you can make a 3-10 min "speech" very comfortably. Focus on what order makes the most sense "in person"? Tape record yourself and then type up your "natural language" explanation into Results and figure legends.
- Second, edit the language. Keep your sentences short. Use the active voice. Eliminate ambiguities by being as specific as possible with definitions and the names of materials.
- Third, correct the grammar and eliminate jargon & abbreviations by using the spelling and grammar checker tools in your word processing program. Don't add ANY junk to your dictionary of acceptable word usage (no abbreviations, no jargon) if you want this tool to work for you.
- Fourth, read your final composition out loud. If you can say it, someone else can read it. If the sentence structure is "strange" you will hear it orally more readily than seeing it on the page.

Decide the merits of your contribution & whether "impact" is crucial

Science or Nature
- Seen by all
  - Hard to condense
  - Quick rejection

PNAS, CELL, top journal in your field
- Seen by most
- Longer paper and longer wait for reviews

Specialty or archival journal
- Seen by specialists
- Long wait for publication
Who should be an author?

1.0 Pub Credit

Number of authors < 0.2 Too many authors

Your resume will be more impressive with a few 2-3 author publications than many 10 author publications.

Consult On Authorship (Google search Stanford web) for more insight on multi-author issues.

Who should be an author?
Stanford “On Authorship” Policy

• *Substantial* contribution to conception of the study.
• *Substantial* work on the project.
• *Substantial* effort in analysis and/or writing (you could move from *et al.* to first author).
• Ability to defend the entire story and all of the methods.
Other countries & other institutions are OFTEN much more liberal about authorship than Stanford.

- If you have collaborators elsewhere, send them the Stanford policy or your lab policy IN ADVANCE. Use the acknowledgments to thank those who provided technical support and materials. ALL published materials must be provided to you without “strings” of authorship. In doubt, contact the Editor of the journal where the work was published.

- Stuck in a huge collaborative mess? Invest your time in the part of the project for which you will be first author.

First meeting with your co-authors if you are a first author or aspire to be one

- Before the meeting. Develop an agenda through e-mail/WIKI, i.e. each person to bring a draft figure or outline of the Introduction, etc. Share your draft materials as examples & ask for comments.
- #1 Discuss who should be an author – everyone must agree to this! (the sooner the better).
- #2 Layout the figures/tables on a blackboard and shuffle them around, discussing how the "logic" of the manuscript compels the order of the figures. People can make comments & notes on the blackboard. Copy all of the ideas into your manuscript notes.
- #3 Make specific writing assignments.
- #4 Set the next meeting time and a date for e-mail/WIKI sharing of writing assignments.
- #5 Distribute a file with the order of figures/tables and notes from the meeting within 24 hours. Don’t procrastinate -- You are setting the example of being a good co-author!!!! Remind everyone of their assignments and deadlines and the time of the next meeting.
Consider a conference call with distant co-authors during the meeting or immediately afterward to share the conclusions of the group directly. Then e-mail them the same materials you e-mail everyone in your own lab.

Keep all co-authors in the loop.

A complex, multi-author manuscript is an ideal opportunity to develop your project management skills ... the exact skill required to manage your own lab. Enlist help from mentors, solicit and accept advice, be prepared for some conflict and don’t take it personally. BRING FOOD to meetings and LAUGH.

Second meeting: Finalizing the Results

- Before the meeting. Collate the contributions. Share the collated draft through e-mail/WIKI at least 24 hours before the meeting.
- #1 Learn to be firm in getting materials from slow writers. If your advisor is the problem, meet to develop a “schedule” of when s/he can review the work of others and then schedule a meeting between the professor and all other co-authors, i.e. the day after meeting #2.
- #2 At the meeting discuss the figures and accompanying text in RESULTS. Correct order? Any key points/controls missing from the text? Are the legends accurate and complete?
- #3 Based on the finalized RESULTS, is anything missing from the Introduction?
- #4 What “new” ideas do authors have for the Discussion?
- #5 Assign writing the abstract, revising the Introduction, writing the Discussion, assembling final M&M, and starting the reference list to specific people.
- #6 Pick a next meeting date and deadline for all of the assigned work – at least 2 days before the meeting so you can collate it.
How long should a manuscript take?

- More authors => more time required.
- Prepared author will save weeks or months. Budget at least 1 week per table or figure, plus a week for Materials & Methods, all things you can do in advance.
- Finish the results before the discussion.
- Now, rewrite the Introduction to be specific for the manuscript you actually wrote.
- Abstract and title are last.

Writing reviews, yes if

- You can define the questions in your field and are seen as an intellectual leader.
- You can recycle material from grant proposals and fellowship applications.
- The “stars” in your field and allied fields read the review (consider sending drafts to them for comments).
Submitting to a journal

- **Local critique:** Ask 2 colleagues with excellent grammar and critical skills to read your text. *Hear tough criticism before submitting.* Recheck the spelling, references, and format (again) before submitting.
- **Cover letter:** Keep it short, state your main findings in terms of answering a key question, and indicate if there is competition in the field.

Responding to reviews

- Be calm.
- Respond **point by point to every item** of each review. Pay special attention to suggestions of the Editor.
- Change MOST minor things suggested by reviewers - don’t waste effort over small points.
- Argue persuasively against changes you think are unwise or are mis-interpretations by the reviewer (or the reviewer wished you had done a different study) but state it as “there is a legitimate difference of scientific opinion about this.” Don’t trash the reviewers.
Congratulations your paper is accepted …

- **Accepted** = not yet in press; you will receive page proofs to correct. Do not state that your article is “in press” at this point.
- **In press** = finalized copy waiting to be published.
- **PDF** Ask if the journal permits distribution of your article. Some journals DO NOT ALLOW YOU TO POST copies of your own article!
- At publication, consider sending a PDF to leaders in the field with a cover note on what in particular should interest them - particularly if you cite their work.

Learn to be a good reviewer

- Help campus friends finalize their manuscripts.
- Ask to help your faculty mentor review a few manuscripts for practice writing reviews (the faculty member must first get permission from the Editor).
- Learn to be helpful and kind but also a critical thinker.
- See my new article #1. Accesses 4858 Comment Are we training pit bulls to review our manuscripts? Virginia Walbot Journal of Biology 8:24 (9 March 2009)
Visibility now as a postdoc

Participate in more activities and know more => better preparation. Get more help with your publications.

Better job interviews and offers. Invitations to write reviews.

More choices and more likely to succeed.

But I don’t have time....

In a 3 year postdoc

if you invest 3 hours per week in career development, you will spend 450 hours

- 1 hour for "visibility" activities
- 2 hours in pre-manuscript writing

If you accept a job that you don’t like, in one year you will work 2000 hours filled with regrets about your fate.
Investments pay dividends

• If you invest in your future and recruit faculty and colleagues to help you, your “team” can accomplish more than you can working alone.
• You will have more choices and feel more confident about the choices you make.

Resume Writing

• Faculty style  Ask two new assistant professors for their resumes and research and teaching plans from their successful applications to Stanford. A group of postdocs could do this and then discuss the “interview process” with the assistant professors.
• Industry style  Go to the web to get examples of resumes of company scientists (lots of bullet points & accomplishments) or ask friends in the private sector for copies.
What is visibility?

- Stanford faculty know your name, your interests, and your future plans.
- Faculty have heard your questions in seminars & discussions.
- You give talks at Stanford outside your own lab.
- People in your field know your name … you are much more than et al.

*Search committees often call people NOT on your list of referees.*

Search committees ask faculty…

- Do you know this person?
- Is the candidate a contributor to the intellectual environment?
- Why is this person outstanding?
- Is this person a great speaker?
- Make sure that as many faculty as possible have a copy of your resume. Don’t ask for a letter, just make a 10 minute appointment and ask faculty to keep you in mind when they hear about positions. Go over your scientific highlights briefly. Update faculty when something great happens (fellowship funded or a paper accepted).
3 things you can do today to increase your visibility

- Introduce yourself to several people here.
- Put your name & the date on protocols you have developed and pass them out to your lab and collaborators (“just in case you need this in writing”).
- Update your resume and make appointments to discuss it with two professors - get advice now on applying for the types of jobs you want.

3 things to do this year to increase your visibility as a colleague

- Volunteer to give a talk in another lab.
- Start a short term “journal” or techniques club and invite the members.
- Make an appointment with a faculty member in another discipline to discuss the applicability of a technique used in that lab for your research.
What if I’ve just arrived at Stanford?

• Visit labs doing work similar to your Ph.D. thesis or former position.
• Volunteer to give your thesis talk to these labs (for practice and to meet more people).
• Make a commitment to invest in your future!

3 things to do this year to increase your visibility as a future faculty member

❖ Mentor a Stanford undergraduate.
❖ With several other postdocs design the syllabuses for 2 courses. Ask a faculty member to critique the plans. Many job applications require a teaching plan - you’ll be able to provide well thought out plans for 2 classes. Remember: you may be asked to teach introductory biology, not just seminars in your own field!
❖ Have yourself coached and filmed by the Center for Teaching & Learning to improve your speaking skills.
3 things to do this year to increase your visibility as a future industry scientist

- Get Stanford business cards and use them!
- Go to product shows on campus and introduce yourself; ask about job openings.
- Call 3 people in industry to arrange informational interviews; give people a copy of your resume and ask to be kept in mind if positions open up... give the approximate date you will be on the job market.

What is an informational interview?

#1 Do this when you are not looking for a job.
  • How did you get your position?
  • What responsibilities do you have?
  • If you could be a postdoc again, how would you prepare for your current position? Most often people will mention mentoring and learning to write-up/finish projects quickly.
  • What are the best and worst aspects of your current job?