Garth's (Unofficial) Guide to Tenure in 1,826 Easy Steps:

I. Do good science.

1. As my post-doctoral advisor likes to remind people, it takes just about as much effort to advance understanding of an interesting problem as it does an uninteresting problem. Choose the interesting problems.

2. You have to have something to say at meetings and discussions with colleagues, and that requires some sort of preliminary results fairly quickly. These don't necessarily need to be the out-of-the-park homerun results you will hope for later down the road, but having something to say at an early stage will allow you to get your foot into several important doors.

II. Identify the people who need to know who you are, and seek them out.

1. A big part of a successful research program is marketing. You must establish name recognition in a field of science. Right when I started, I made a list of all the big-name people in my field who I felt needed to know who I was, then I found where they were giving invited talks or organizing symposia, and I submitted abstracts to those symposia. Then, while there, I introduced myself after the sessions and invited myself to lunch/dinner to talk shop.

2. When submitting manuscripts, list your harshest critics as suggested reviewers. It will make publication more difficult, but will also result in stronger papers. If you can't convince a journal editor that your work deserves publication in the face of criticism, you will most likely be unable to convince a program officer that your work deserves funding (where the bar is considerably higher) in the face of criticism. Given that many of these same people will also very likely be reviewing your proposals, it is infinitely better to address potential issues at the manuscript level first.

3. The people who will be reviewing your proposals will be basing their evaluations not only on the written document, but also on the overall likelihood of you producing interesting science, which in turn is assessed to a substantial degree from personal interactions and seeing you present your research at meeting. Without those interactions, it is easy for a reviewer to err on the side of believing that you won't be able to pull it off.

4. Invite your critics and competitors as well as your supporters to speak at national meetings and departmental colloquia. Although it is possible to do it either way, it is infinitely easier to find common ground with someone in an informal setting over a dinner discussion than by backing people into scientific corners in no-holds-barred debates in the literature with Comments, and Responses to Comments, etc. It is amazing how useful a phone call or email discussion can be in resolving/clarifying scientific differences.

III. Become the world's leading expert in one area, no matter how small. Avoid the temptation of diversity.

1. This is important. It is easy to get lost in the noise within the scientific community. You have to establish name-recognition in a particular area. Given the effort required to seek out and build relationships with the key players in any particular area, it is extraordinarily difficult to quickly establish positive name recognition within multiple scientific communities. Choose where you want to make a name and plan a research program that can be identified with a particular field.

2. Administer self-discipline. Avoid pursuing avenues of research that are achievable, but may not have legs. It is easy to get side-tracked by new directions that may only lead to three or four papers, but not to a sustainable research program capable of attracting funding.

IV. Submit a grant to just about every new investigator proposal that comes across your desk, no matter how small the funding level.

1. Writing grants forces one to think beyond the scope of a few manuscripts to the scope of a research program. Even unsuccessful proposals are not time wasted – most agencies provide significant feedback that can be used to strengthen subsequent proposals. Many of the young investigator programs provide excellent feedback in the reviews. Such feedback can help to adjust focus and crystallize core fundable directions.

V. Work hard to actively recruit the best and brightest graduate students and post-docs into your group, then actively ensure they are given the tools necessary to be productive and successful.

1. If you don't want a bad apple, don't pick from the barrel – go straight to the tree. Start actively recruiting students into your group just as soon as the offer has been made by the Department. Search through the files and identify the students who have been ranked highly by the graduate admissions committee. Contact them. When they come and visit, follow up with personalized emails or letters. We currently have a ~40% acceptance rate for the offers we make – there is a good chance that several of the people you contact will come here, and they will already be thinking of you as a possibility. This has been by far the most successful strategy I have found: sustained personal contact initiated at an early stage. If you are in a large department such as ours, you will be competing against established investigators in your department for students. If you are in a small department, you will be competing against large departments for students. In any case, you are competing.

2. Create a comfortable and professional work-place environment, where everyone knows what to expect, everybody operates under the same set of rules, and the lines between what is ok and what is not are clearly drawn. The decisions of first-year graduate students will be based in no small part on the stories they hear from more senior graduate students. You want the stories from your group members to be uniformly positive.

3. Sit down regularly one-on-one with every member of your group. I do this roughly twice a year with ½ hr scheduled for each person. In the meetings, we start by making sure we are both on the same page about the long-term goals of the individual beyond their tenure in the group, and what needs to happen before then to be in a position to achieve them. These meetings also create a forum where students can air any concerns they have about the workplace environment or anything else they may need from me to help enable their productivity. This effort chews up the better part of a couple of days, but I wholeheartedly believe it is definitely worth the time investment.

4. Be excited about the science! Exuberance is contagious. A big part of effective lab management is simply being a cheerleader, encouraging and acknowledging successes in the group. In our group, every time a paper is accepted, a student receives an award, or a grant is funded, we crack open a bottle of champagne at group meeting and toast the achievement.

6. Remember that credit is not a conserved property. Be sure to generously recognize the efforts of your graduate student and post-doctoral coworkers in presentations and publications. Similarly, acknowledge and recognize the efforts of collaborators.

7. Laugh! Although this is last on the list, it is probably most important. Love what you do, do what you love, and encourage that mentality in your research group.

8. Don't stop after the degree. Make sure that the people in the group are positioned to succeed in their own aspirations following the completion of their degrees. This involves more than just writing letters of recommendation. It involves active mentoring throughout the entire degree program. Investment of time and effort to mentor will pay off in spades in the long run, both for you and for the people in your group.

VI. Think 10-15 years out.

1. At the tenure decision, it is important to realize that the faculty will be weighing the potential future of your current research trajectory into its decision, and not just the accomplishments to date. Arguably, the best strategy to get tenure is to assume it will happen and decide where you will want to be 5 years beyond that mark at the height of your research program, and strive toward THOSE goals.

2. Think both strategically and tactically. Strategically, I started out my group with the intention of focusing on fundamental issues, playing on what I perceived as a personal strength. This approach came with a cost – the science we were doing wasn't particularly "sexy" to a broader audience. However, it did allow us to become established within the core community as a group of careful scientists. Since the most important letters for tenure and awards came from within that community, this strategy had its merits. At my current stage, the focus is shifting increasingly from fundamental to fundable in order to grow a program that can sustain a greater number of members. This foundation-building approach carries with it a nontrivial element of risk – if the foundation is weak, the building can crumble; if too much effort is spent building the foundation, you may never get off the ground floor. However, in our particular case, the strategy was successful with respect to the tenure process. The key is to always be thinking about these sorts of strategies and revisiting them when designing a research program.

VII. Seek out and listen to all constructive criticism. But don't always follow it.

1. None of us was adequately trained to do this job, and very few of us are even remotely qualified for the demands of the position. Success in graduate and post-doctoral research indicates that you are capable of excelling at independent research in the laboratory. That is a remarkably small element of the actual job description. Your senior colleagues have one important quality that you do not: Experience. Listen to the comments and advice offered by *all* senior colleagues. It can be invaluable. At the end of the day, make your own decision on what you think is the best approach, and don't look back.

VIII. Have a life.

1. When you are old and gray and looking back at the things that have mattered most in your life, what do you think will be included in that list? Happiness is inevitably found in balance. As much as you may enjoy your job, at the end of the day, this is a job. It is not the only job in which you can excel. Keep perspective. Even if the worst outcome possible passes and you are denied tenure, the world will not come to a cataclysmic halt. Life goes on. Make sure that you don't get so caught up in concerns over the tenure process or the job that you postpone or alter important aspects of your personal life. Live a life that will lead to no regrets upon reflection.

IX. The Tenure Tour.

1. You'll find a mixed bag of suggestions when it comes to so-called "tenure tours". I am defining a tenure tour as a series of talks in the year preceding submission of the tenure package, either facilitated by a key individual (i.e., former advisor) or yourself. The reasons for doing one are obvious – you want to present research to a group of people that includes individuals capable of writing supporting letters at the time of your tenure decision. Personally, I never did one. If you've been sufficiently pro-active in seeking these people out (see II.), my feeling is that you shouldn't have to invite yourself to their institutions to give a presentation in the first place. This is admittedly a personal bias – if you find yourself in a situation where a tenure tour would likely improve your chances, by all means do so. The point of this ranting is that you will likely be more successful overall by initiating and sustaining interactions with key people over a longer time-frame rather than relying on a single seminar.

2. When presenting a talk, be sure to tell a story! It is tempting (as I know all too well) to want to include a little bit of everything that you've accomplished to date in a seminar in an attempt to build a stronger case for tenure (for example). Resist this temptation. Tell a single story in the 50 minutes you are provided. It may have multiple chapters, but place a greater emphasis on narration rather than on cataloging accomplishments. Departmental and divisional seminars are not appropriate forums for conveying breadth and depth – that's what topical meetings are for.

X. Misc. other thoughts.

1. Always write your reviews of manuscripts and proposals such that you would feel comfortable signing your name on the bottom. On more than one occasion, I've had colleagues call me up on the phone after receiving the anonymous reviews from the editor to discuss my comments. Anonymity is not guaranteed. If you write constructive by critical comments, you can engage in open discussions with the authors without worrying about what you put in the review.

2. I have been told (by unnamed sources) that there are some distinct advantages to actively fostering a certain degree of incompetence with respect to departmental and university service. Really, this falls under the umbrella of time-management. There is simply not enough time in the day to fulfill all the demands of this job. Consequently, prioritizing is essential. At the end of the day, some of your responsibilities simply matter more than others, and some things will necessarily fall by the wayside. If you go into this process acknowledging this reality, you are more likely to make sure that the things that fall by the wayside are those that truly are lower priority.

3. My friend and colleague Fred Lytle gave me some excellent advice that has served me extraordinarily well over the years. When approaching internal and external political situations, always ask yourself "Is it more important to be right, or to get what I want?".

4. There are 1,826 days in 5 years. Take them one at a time, always with an open mind.

5. Always put the max into retirement! You'